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# *Your Reliable Power Partner*

Standard Switching Power Supply Manufacturer



2015  
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## RSP-1600

### 1600W 1U Low Profile Enclosed Type

Page  
14

- 90~264VAC input with PFC
- High power density (25W/inch<sup>3</sup>)
- Adjustable Vo and Io
- Active current sharing up to 9600W
- Built-in remote ON-OFF control and remote sense function
- High efficiency up to 93%
- Dimension: 300 x 85 x 41mm
- 5 years warranty



## EPP-200/400

### 200/400W Industrial Type

Page  
50

- 80~264VAC input with PFC
- No load power consumption <0.5W
- Compact size (4"x2", 5"x3")
- Class I or Class II installations
- Built-in 12V/0.5A auxiliary output
- 3 years warranty



## RPS-30/45/65/ 120/200/400

### 30~400W Medical Type

Page  
36-37

- 80~264VAC input
- No load power consumption <0.1~0.5W
- Compact size (3"x2", 4"x2", 5"x3")
- Class I or Class II installations
- Low leakage current <100~250uA
- Suitable for BF application (2xMOPP)
- 3 years warranty



## GE30

### 30W Interchangeable Industrial Adaptor

Page  
51

- Interchangeable AC plugs
- 90~264VAC input
- No load power consumption <0.075W
- Energy efficiency level VI
- Comply with EISA2007/DoE and EU ErP
- 2 years warranty



## IRM-01/02/03

### 1~3W On Board Encapsulated Type

Page  
46

- 85~264VAC input
- No load power consumption <0.075W
- Miniature size (PCB mounting type and SMD type)
- Comply with EN55022 Class B without any additional components
- Withstand 5G vibration
- 3 years warranty



## SGA12/18/25

### 12~25W Slim Industrial Adaptor

Page  
59

- 90~264VAC input
- No load power consumption <0.075W
- Energy efficiency Level VI
- Comply with EISA2007/DoE, EU ErP
- Ultra slim, model width—  
12W: 27.4mm; 18/25W: 32mm
- 3 years warranty



## EPS-45A/65A/120

### 45~120W Industrial Type

Page  
48-49

- 80~264VAC input
- No load power consumption <0.1~0.3W
- Compact size (3"x2", 4"x2")
- Class I or Class II installations
- 3 years warranty



## RCP-1600

### 1600W 1U Low Profile Rack Power

Page  
70

- 90~264VAC input with PFC
- High power density (25W/inch<sup>3</sup>)
- Adjustable Vo and Io
- Active current sharing up to 24000W
- Built-in remote ON-OFF control and remote sense function
- High efficiency up to 93%
- I<sup>2</sup>C and PMBus protocol
- Dimension: 300 x 85 x 41mm
- 5 years warranty



## ■ Enclosed Switching Power Supply

|                   |                                               |                                |
|-------------------|-----------------------------------------------|--------------------------------|
| <b>G3 Series</b>  | RS-15 / 25 / 35 / 50 / 75 / 100 / 150         | 2~3                            |
|                   | RD-35 / 50 / 65 / 85 / 125                    |                                |
|                   | RID-50 / 65 / 85 / 125, RT-50 / 65 / 85 / 125 |                                |
|                   | RQ-50 / 65 / 85 / 125                         |                                |
| <b>NE Series</b>  | NES-15 / 25 / 35 / 50 / 75 / 100 / 150        | 4~5                            |
|                   | NED-35 / 50 / 75 / 100, NET-35 / 50 / 75      |                                |
|                   | NES-200, NES-350                              |                                |
| <b>SE Series</b>  | SE-100, SE-200, SE-350, SE-450                | 6                              |
|                   | SE-600, SE-1000, SE-1500,                     | 7                              |
| <b>LRS Series</b> | LRS-35, LRS-50, LRS-75, LRS-100               | 8                              |
|                   | LRS-150F, LRS-150, LRS-200, LRS-350           | 9                              |
| <b>PFC Series</b> | SP-75, SP-100, SP-150, SP-200, SP-240         | 10                             |
|                   | SP-320, SP-480, PSP-600, SP-750               | 11                             |
|                   | RSP-75, RSP-100, RSP-150, RSP-200             | 12                             |
|                   | RSP-320, RSP-500, RSP-750                     | 13                             |
|                   | RSP-1000 / 1500 / 1600                        | 14                             |
|                   | RSP-2000 / 2400 / 3000                        | 15                             |
|                   | RST-5000, RST-10000                           | 16                             |
|                   | SPV-150 / 300 / 1500                          | Output Voltage Programmable 17 |
|                   | TP-75, TP-100, QP-100, TP-150,                | 18~19                          |
|                   | QP-150, QP-200, QP-320                        |                                |
|                   | HRP-75, HRP-100, HRP[G]-150, HRP[G]-200       | 20                             |
|                   | HRP[G]-300, HRP[G]-450, HRP[G]-600            | 21                             |
|                   | MSP-100 / 200 / 300 / 450 / 600               | 22                             |
|                   | U-bracket                                     | 23                             |
| <b>DIN Series</b> | MDR-10 / 20 / 40 / 60 / 100                   | 24                             |
|                   | DR-15, DR-30, DR-60, DR-100                   | 25                             |
|                   | DR-45, DR-75, DR-120,                         | 26                             |
|                   | DRP-240, DRP-480, DRP-480S                    |                                |
|                   | DRH-120, DRT-240, DRT-480, DRT-960            | 27                             |
|                   | EDR-75, EDR-120, EDR-150                      | 28                             |
|                   | NDR-75, NDR-120, NDR-240, NDR-480             | 29                             |
|                   | SDR-75 / 120 / 240 / 480[P] / 960             | 30                             |
|                   | WDR-120, WDR-240, WDR-480                     | 31                             |
|                   | TDR-960, DRA-40, DRA-60                       | 32                             |
|                   | DR-RDN20, DR-UPS40                            | 33                             |

## ■ Open Frame Switching Power Supply

|                        |                                                     |    |
|------------------------|-----------------------------------------------------|----|
| <b>Medical Type</b>    | PM-05, PM-10, PM-15, PM-20                          | 34 |
|                        | NFM-05, NFM-10, NFM-15, NFM-20                      | 35 |
|                        | RPS-30/45/65, RPS/D/T-60, RPS-120/200-x[C]          | 36 |
|                        | RPS / D / T-75, RPS[G] / D / T-160,                 | 37 |
|                        | RPS-300 / 400-x[C]                                  |    |
|                        | MPS-30, MPS / D / T-45, MPS / D / T-65              | 38 |
| <b>Industrial Type</b> | MPS / D / T / Q-200                                 | 39 |
|                        | PS-05, PS-15, PS-25, PD-25, PS-35                   | 40 |
|                        | PS-45, PD-45, PT-45, PT-4503 / 6503                 | 41 |
|                        | PS / PD / PT-65, RPD-65[C], RPT-65[C]               | 42 |
|                        | PD-110, PPS-125, PPT-125                            | 43 |
|                        | ASP-150, PPS-200, PID-250[C]                        | 44 |
|                        | LPS-50 / 75 / 100, LPP-100 / 150                    | 45 |
|                        | IRM-01-x[S] / 02-x[S] / 03-x[S] / 05 / 10 / 15 / 20 | 46 |
|                        | IRM-30 / 45 / 60-x[ST]                              | 47 |
|                        | EPS-15, EPS-25/35, EPS-45S, EPS-65S                 | 48 |
|                        | EPS-45 / 65-x[C] / EPS-120, ELP-75-x[C],            | 49 |
|                        | EPP-100 / 150 / 200 / 300 / 400                     | 50 |

## ■ External Switching Power Supply

|                           |                                            |                            |
|---------------------------|--------------------------------------------|----------------------------|
| <b>Industrial Adaptor</b> | GE12 / 18 / 24 / 30                        | Interchangeable AC Plug 51 |
|                           | GS06E/U, GS12E/U, GS05E/U-USB, GS15A/B/E/U | 52                         |
|                           | GS18A/B/E/U, GS25A/B/E/U, GS36E/U          | 53                         |
|                           | GS40A, GS60A, GS90A, GS120A                | 54                         |
|                           | GS160A, GS220A, GS280A                     | 55                         |
|                           | GST18A/B/E/U, GST25A/B/E/U, GST36B/E/U     | 56                         |

|                              |                                       |                              |
|------------------------------|---------------------------------------|------------------------------|
| <b>Industrial Adaptor</b>    | GST40A / 60A / 90A / 120A             | 57                           |
|                              | GST160A / 220A / 280A                 | 58                           |
|                              | SGA12E / U, 18E / U, 25E / U          | 59                           |
|                              | SGA40E / U, SGA60E / U, P25/50        | 60                           |
| <b>Medical Adaptor</b>       | GEM18I                                | Interchangeable AC Plug 2 61 |
|                              | GSM06E / U, GSM18B / E / U,           | Optional DC Plug List 62     |
|                              | GSM25B / E / U, GSM36B / E / U        |                              |
|                              | GSM40A/B, GSM60A/B, GSM90B            | 63                           |
|                              | GSM120B, GSM160B, GSM220B             | 64                           |
| <b>Moistureproof Adaptor</b> | OWA-60E / U, OWA-90E / U              | 65                           |
|                              | OWA-120E / U                          |                              |
| <b>Green Charger</b>         | GC30B/U/E, GC120 / 160 / 220 / 330    | 66                           |
| <b>Charger</b>               | PA-120, PB-120                        | 67                           |
|                              | ESC/P-120/240, PB-230, PB-300/360[P]  | 68                           |
|                              | PB-600/1000, HEP-600C                 | 2/3/8 Stage Charging 69      |
| <b>19" Rack Power</b>        | RCP-1000, RCP-1U                      | 70                           |
|                              | RCP-2000, RKP-1U                      | 71                           |
|                              | RKP-1U-CMU1                           |                              |
| <b>Modular Series</b>        | MP450, MP650, MP1K0                   | 72~73                        |
|                              | MS-75 / 150 / 210 / 300 / 360, MD-100 |                              |

## ■ Specific Purpose Power Supply

|                          |                                                      |    |
|--------------------------|------------------------------------------------------|----|
| <b>LED Sign Panel</b>    | ERP-350, HSN-200/300, NEL-200/300/400                | 74 |
|                          | HSP-150 / 200 / 250 / 300, HDP-190 / 240             | 75 |
| <b>Harsh Environment</b> | HEP-100, HEP-150, HEP-185                            | 76 |
|                          | HEP-240, HEP-320, HEP-600                            | 77 |
| <b>Security Series</b>   | DRC-40, DRC-60, DRC-100                              | 78 |
|                          | PSC-35-x[C], PSC-60-x[C], PSC-100-x[C], PSC-160-x[C] | 79 |
|                          | ADS-55, AD-55, ADD-55,                               | 80 |
|                          | ADS-155, AD-155, ADD-155                             |    |
|                          | SCP-35, SCP-50, SCP-75, IPC-250, IPC-300             | 81 |

## ■ DC/DC Converter

|                              |                                    |                             |
|------------------------------|------------------------------------|-----------------------------|
| <b>Module Type</b>           | SRS, SUS01                         | 82                          |
|                              | SBT01, SFT01, DET01                | 83                          |
|                              | SPR01, SMU01, SMA01                | 84                          |
|                              | SPU02, SPU03, SPA02, SPB03, SPB05  | 85                          |
|                              | SCW03, DCW03, SCW05, DCW05         | 86                          |
|                              | SLW05, DLW05, SCW08, DCW08         | 87                          |
|                              | SKE10, DKE10, SCW12, DCW12         | 88                          |
|                              | SKM15, SKA15, DKA15                | 89                          |
|                              | SKE15, DKE15, SKA20, SKM30         | 90                          |
|                              | SDM30, DKA30, TKA30                | 91                          |
|                              | SKM50, SKA40, SKA60                | 92                          |
|                              | MHB75, MHB100                      | Heat Sink for MHB Series 93 |
|                              | MHB150                             | 94                          |
| <b>On Board Type</b>         | NSD05                              | 94                          |
|                              | NSD10-S, NSD10-D, NSD15-S, NSD15-D | 95                          |
|                              | NID30, NID60                       | 96                          |
| <b>PCB Type</b>              | PSD-05, PSD-15                     | 96                          |
|                              | PSD-30, PSD-45                     | 97                          |
| <b>Enclosed Type</b>         | SD-15, SD-25                       | 97                          |
|                              | SD-50, SD-100, SD-150, SD-200      | 98                          |
|                              | SD-350, SD-500, SD-1000            | RPB-1600 99                 |
|                              | RSD-100, RSD-150, RSD-200, RSD-300 | 100                         |
| <b>Other Power Solutions</b> | LED Power Family / Inverter Family | 101                         |

## ■ Accessories / Case Drawing

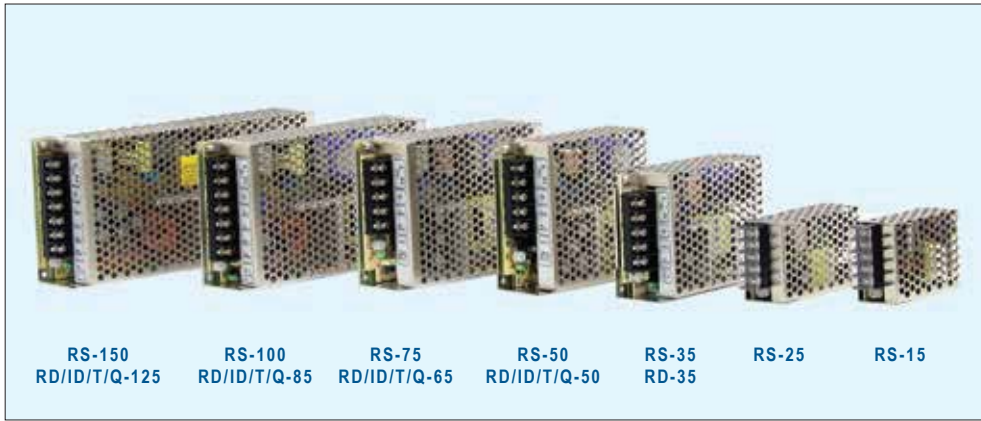
|                     |                                                 |     |
|---------------------|-------------------------------------------------|-----|
| <b>Case Drawing</b> | Case 901 / 902 / 903 / 905 / 906 / 907          | 102 |
|                     | Case 910A / 912 / 915A / 916(A/B) / 920A / 926A | 103 |
|                     | Case 928A / 929A / 931A / 932A / 935A / 939A    | 104 |
|                     | Case 940A / 941B / 943A / 946A / 952B / 971A    | 105 |
|                     | Case 977A / 978A / 980A / 986A / 987A / 995A    | 106 |
|                     | Case 206A / 207A / 238A / 239A / 240A / 241A    | 107 |
| <b>Accessories</b>  | DRL-01 / 02 / 03A, DRP-01 / 01A / 02 / 03 / 04  | 108 |
|                     | MHS012 / 013 / 014 / 025 / 026 / 027            |     |
|                     | TBC-05 / 07 / 08 / 09                           |     |

|  |                             |  |                             |
|--|-----------------------------|--|-----------------------------|
|  | : New Announced             |  | : Under Development         |
|  | : New Product within 1 Year |  | : Supplementary Information |



# Enclosed-G3 Series

High Reliability Compact



## ■ Features

- No load power consumption <0.5W (RS-15~75)
- All using 105°C long life electrolytic capacitors
- Protections: Short circuit / Overload / Over voltage / Over Temp. (RS-15)
- Meet EMS EN50082-2/EN61000-6-2 heavy industry level (35~150W)
- Withstand 300VAC surge input for 5 sec.
- High operating temperature up to 70°C
- Withstand 5G vibration test
- Miniature size
- Long life and high reliability
- LED indicator for power on
- 100% full load burn-in test
- Suitable for critical applications
- 3 years warranty

## ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                | RS-15                                                                                                              | RS-25                                                      | RS-35<br>RD-35                                                          | RS-50<br>RD / ID / T / Q-50 | RS-75<br>RD / ID / T / Q-65 | RS-100<br>RD / ID / T / Q-85 | RS-150<br>RD / ID / T / Q-125 |
|--------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------|-----------------------------|------------------------------|-------------------------------|
| AC input voltage range   | 85~264VAC, 120~370VDC                                                                                              | 88~264VAC, 125~373VDC                                      |                                                                         |                             |                             |                              | 115 / 230VAC by switch        |
| AC inrush current (max.) | Cold start, 65A at 230VAC                                                                                          | 30A at 230VAC                                              | 36A at 230VAC                                                           | 33A at 230VAC               | 40A at 230VAC               |                              |                               |
| DC adjustment range      | ±10% by potentiometer for single output; CH1 -5%~+10% by potentiometer for multiple output                         |                                                            |                                                                         |                             |                             |                              |                               |
| Overload protection      | >105%, hiccup mode                                                                                                 | 110%~180%                                                  | 110%~150% hiccup mode, auto-recovery (150% ~190% for RID-125-1205/2405) |                             |                             |                              |                               |
| Over voltage protection  | 115%~135%, shut off                                                                                                | 115%~135% rated output voltage, hiccup mode, auto-recovery |                                                                         |                             |                             |                              |                               |
| Withstand voltage        | I/P - O/P: 3kVAC, I/P - FG: 1.5kVAC, O/P - FG: 0.5kVAC, 1 minute                                                   |                                                            |                                                                         |                             |                             |                              |                               |
| Working temperature      | -20~+70°C                                                                                                          |                                                            | -25~+70°C (refer to the derating curve for different models)            |                             |                             |                              |                               |
| Vibration                | 10~500Hz, 5G 10min. /1 cycle, period for 60 min. each along X, Y, Z axes                                           |                                                            |                                                                         |                             |                             |                              |                               |
| Safety standards         | UL60950-1, TUV EN60950-1, CCC GB4943(RS-50 only) approved                                                          |                                                            |                                                                         |                             |                             |                              |                               |
| EMC standards            | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2) (35~150W); GB9254 for RS-50 only |                                                            |                                                                         |                             |                             |                              |                               |
| Connection               | Terminal block for input and output                                                                                |                                                            |                                                                         |                             |                             |                              |                               |
| Dimension (LxWxH)(mm)    | 62.5x 51x 28                                                                                                       | 78x 51x 28                                                 | 99x 82x 36                                                              | 99x 97x 36                  | 129x 97x 38                 | 159x 97x 38                  | 199x 98x 38                   |
| Case No.                 | 971A                                                                                                               | 931A                                                       | 932A                                                                    | 905B                        | 903                         | 901C                         | 902A                          |
| Packing                  | 108pcs /15.0kg                                                                                                     | 60pcs /13.0kg                                              | 45pcs /14.0kg                                                           | 45pcs /19.5kg               | 30pcs /13.3kg               | 24pcs /15.4kg                | 20pcs /15kg                   |

## ■ 15W — Single Output

| Model No. | Output        | Tol. | R&N   | Effi. |
|-----------|---------------|------|-------|-------|
| RS-15-3.3 | 3.3V, 0~3.0A  | ±3%  | 80mV  | 72%   |
| RS-15-5   | 5V, 0~3.0A    | ±2%  | 80mV  | 77%   |
| RS-15-12  | 12V, 0~1.3A   | ±1%  | 120mV | 81%   |
| RS-15-15  | 15V, 0~1.0A   | ±1%  | 120mV | 81%   |
| RS-15-24  | 24V, 0~0.625A | ±1%  | 200mV | 82%   |
| RS-15-48  | 48V, 0~0.313A | ±1%  | 200mV | 82%   |

|          |             |     |       |       |
|----------|-------------|-----|-------|-------|
| RS-50-15 | 15V, 0~3.4A | ±1% | 120mV | 86.0% |
| RS-50-24 | 24V, 0~2.2A | ±1% | 120mV | 88.0% |
| RS-50-48 | 48V, 0~1.1A | ±1% | 200mV | 89.0% |

## ■ 75W — Single Output

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| RS-75-3.3 | 3.3V, 0~15A | ±3%  | 80mV  | 75.0% |
| RS-75-5   | 5V, 0~12A   | ±2%  | 80mV  | 79.0% |
| RS-75-12  | 12V, 0~6.0A | ±1%  | 120mV | 84.5% |
| RS-75-15  | 15V, 0~5.0A | ±1%  | 120mV | 86.0% |
| RS-75-24  | 24V, 0~3.2A | ±1%  | 120mV | 88.5% |
| RS-75-48  | 48V, 0~1.6A | ±1%  | 200mV | 89.5% |

## ■ 25W — Single Output

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| RS-25-3.3 | 3.3V, 0~6.0A | ±3%  | 80mV  | 73.5% |
| RS-25-5   | 5V, 0~5.0A   | ±2%  | 80mV  | 78.5% |
| RS-25-12  | 12V, 0~2.1A  | ±1%  | 120mV | 81.5% |
| RS-25-15  | 15V, 0~1.7A  | ±1%  | 120mV | 83.5% |
| RS-25-24  | 24V, 0~1.1A  | ±1%  | 120mV | 86.0% |
| RS-25-48  | 48V, 0~0.57A | ±1%  | 200mV | 85.0% |

## ■ 100W — Single Output

| Model No.  | Output      | Tol. | R&N   | Effi. |
|------------|-------------|------|-------|-------|
| RS-100-3.3 | 3.3V, 0~20A | ±3%  | 80mV  | 74%   |
| RS-100-5   | 5V, 0~16A   | ±2%  | 80mV  | 77%   |
| RS-100-12  | 12V, 0~8.5A | ±1%  | 120mV | 81%   |
| RS-100-15  | 15V, 0~7.0A | ±1%  | 120mV | 82%   |
| RS-100-24  | 24V, 0~4.5A | ±1%  | 120mV | 84%   |
| RS-100-48  | 48V, 0~2.3A | ±1%  | 200mV | 84%   |

## ■ 35W — Single Output

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| RS-35-3.3 | 3.3V, 0~7.0A | ±3%  | 80mV  | 76.5% |
| RS-35-5   | 5V, 0~7.0A   | ±2%  | 80mV  | 80.5% |
| RS-35-12  | 12V, 0~3.0A  | ±1%  | 120mV | 84.5% |
| RS-35-15  | 15V, 0~2.4A  | ±1%  | 120mV | 86.0% |
| RS-35-24  | 24V, 0~1.5A  | ±1%  | 120mV | 88.0% |
| RS-35-48  | 48V, 0~0.8A  | ±1%  | 200mV | 88.5% |

## ■ 150W — Single Output

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| RS-150-3.3 | 3.3V, 0~30A  | ±3%  | 80mV  | 74%   |
| RS-150-5   | 5V, 0~26A    | ±2%  | 80mV  | 78%   |
| RS-150-12  | 12V, 0~12.5A | ±1%  | 120mV | 83%   |
| RS-150-15  | 15V, 0~10A   | ±1%  | 120mV | 84%   |
| RS-150-24  | 24V, 0~6.5A  | ±1%  | 120mV | 86%   |
| RS-150-48  | 48V, 0~3.3A  | ±1%  | 200mV | 87%   |

## ■ 50W — Single Output

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| RS-50-3.3 | 3.3V, 0~10A | ±3%  | 80mV  | 78.0% |
| RS-50-5   | 5V, 0~10A   | ±2%  | 80mV  | 83.0% |
| RS-50-12  | 12V, 0~4.2A | ±1%  | 120mV | 84.5% |

# Enclosed-G3 Series



## 35W — Dual Output

| Model No. | Output            | Tol. | R&N   | Effi. | Max. |
|-----------|-------------------|------|-------|-------|------|
| RD-35A    | 5V, 0.3~4.0A      | ±2%  | 80mV  | 79%   | 32W  |
|           | 12V, 0.2~1.0A     | ±6%  | 120mV |       |      |
| RD-35B    | 5V, 0.3~4.0A      | ±2%  | 80mV  | 82%   | 35W  |
|           | 24V, 0.2~1.3A     | ±5%  | 120mV |       |      |
| RD-3513   | 13.5V, 0.3~2.0A   | ±4%  | 120mV | 80%   | 35W  |
|           | -13.5V, 0.2~0.57A | ±4%  | 120mV |       |      |

## 50W — Dual Output (Output isolated for RID-50A/B)

| Model No. | Output        | Tol.     | R&N   | Effi. | Max. |
|-----------|---------------|----------|-------|-------|------|
| RD-50A    | 5V, 0.3~6.0A  | ±2%      | 80mV  | 79%   | 54W  |
|           | 12V, 0.3~3.0A | ±7%      | 120mV |       |      |
| RD-50B    | 5V, 0.3~6.0A  | ±2%      | 80mV  | 80%   | 54W  |
|           | 24V, 0.2~2.0A | +8%, -4% | 120mV |       |      |

## 65W — Dual Output (Output isolated for RID-65A/B)

| Model No. | Output        | Tol.     | R&N   | Effi. | Max. |
|-----------|---------------|----------|-------|-------|------|
| RD-65A    | 5V, 0.3~8.0A  | ±2%      | 80mV  | 79%   | 66W  |
|           | 12V, 0.2~4.0A | ±6%      | 120mV |       |      |
| RD-65B    | 5V, 0.3~8.0A  | ±2%      | 80mV  | 78%   | 68W  |
|           | 24V, 0.2~3.0A | +4%, -6% | 150mV |       |      |

## 85W — Dual Output (Output isolated for RID-85A/B)

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| RD-85A    | 5V, 2.0~10A   | ±2%  | 80mV  | 78%   | 88W  |
|           | 12V, 0.3~5.0A | ±5%  | 120mV |       |      |
| RD-85B    | 5V, 2.0~10A   | ±2%  | 80mV  | 80%   | 88W  |
|           | 24V, 0.3~2.5A | ±5%  | 120mV |       |      |

## 125W — Dual Output

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| RD-125A   | 5V, 2.0~15A   | ±5%  | 80mV  | 82%   | 131W |
|           | 12V, 0.5~10A  | ±7%  | 120mV |       |      |
| RD-125B   | 5V, 2.0~10A   | ±5%  | 80mV  | 85%   | 133W |
|           | 24V, 0.4~5.0A | ±7%  | 120mV |       |      |

## 125W — Dual Output (Output isolated for RID-125)

| Model No.    | Output         | Tol.     | R&N   | Effi. | Max. |
|--------------|----------------|----------|-------|-------|------|
| RD-125-1224  | 12V, 1.0~7.0A  | ±2%      | 120mV | 85%   | 133W |
|              | 24V, 0.4~5.0A  | +8%, -5% | 200mV |       |      |
| RD-125-2412  | 24V, 0.5~5.0A  | ±2%      | 200mV | 85%   | 133W |
|              | 12V, 1.0~7.0A  | ±10%     | 120mV |       |      |
| RD-125-1248  | 12V, 1.0~7.0A  | ±2%      | 120mV | 86%   | 138W |
|              | 48V, 0.2~2.5A  | +8%, -5% | 240mV |       |      |
| RD-125-4812  | 48V, 0.3~2.5A  | ±2%      | 240mV | 86%   | 138W |
|              | 12V, 1.0~7.0A  | ±10%     | 120mV |       |      |
| RD-125-2448  | 24V, 0.5~4.0A  | ±1%      | 200mV | 86%   | 144W |
|              | 48V, 0.2~2.5A  | ±4%      | 240mV |       |      |
| RD-125-4824  | 48V, 0.3~2.5A  | ±1%      | 240mV | 86%   | 144W |
|              | 24V, 0.5~4.0A  | ±8%      | 240mV |       |      |
| RID-125-1205 | 12V, 2.0~10.5A | ±2%      | 120mV | 80%   | 125W |
|              | 5V, 0.0~3.0A   | ±3%      | 80mV  |       |      |
| RID-125-2405 | 24V, 2.0~5.3A  | ±2%      | 120mV | 83%   | 125W |
|              | 5V, 0.0~3.0A   | ±3%      | 80mV  |       |      |

## 50W — Quad Output (RT-50 without -5V or -12V output)

| Model No. | Output         | Tol.     | R&N   | Effi. | Max. |
|-----------|----------------|----------|-------|-------|------|
| RQ-50B    | 5V, 0.5~6.0A   | ±2%      | 80mV  | 74%   | 46W  |
|           | 12V, 0.2~1.5A  | ±6%      | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±3%      | 100mV |       |      |
|           | -12V, 0.0~1.0A | ±3%      | 80mV  |       |      |
| RQ-50C    | 5V, 0.5~6.0A   | ±2%      | 80mV  | 75%   | 50W  |
|           | 15V, 0.2~1.5A  | ±6%      | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±3%      | 100mV |       |      |
|           | -15V, 0.0~1.0A | ±3%      | 80mV  |       |      |
| RQ-50D    | 5V, 0.5~6.0A   | ±2%      | 80mV  | 79%   | 53W  |
|           | 12V, 0.2~1.5A  | ±6%      | 120mV |       |      |
|           | 24V, 0.1~1.0A  | +7%, -5% | 180mV |       |      |
|           | -12V, 0.0~1.0A | ±3%      | 80mV  |       |      |

## 65W — Quad Output (RT-65 without -5V or -12V output)

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| RQ-65B    | 5V, 0.5~8.0A   | ±2%       | 80mV  | 76%   | 63W  |
|           | 12V, 0.2~3.0A  | +9%, -5%  | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±5%       | 80mV  |       |      |
|           | -12V, 0.0~1.0A | ±5%       | 80mV  |       |      |
| RQ-65C    | 5V, 0.5~8.0A   | ±2%       | 80mV  | 76%   | 65W  |
|           | 15V, 0.2~3.0A  | +10%, -4% | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±5%       | 80mV  |       |      |
|           | -15V, 0.0~1.0A | ±5%       | 80mV  |       |      |
| RQ-65D    | 5V, 0.5~8.0A   | ±2%       | 80mV  | 78%   | 68W  |
|           | 12V, 0.2~3.0A  | ±6%       | 120mV |       |      |
|           | 24V, 0.1~1.5A  | ±8%       | 180mV |       |      |
|           | -12V, 0.0~1.0A | ±5%       | 80mV  |       |      |

## 85W — Quad Output (RT-85 without -5V or -12V output)

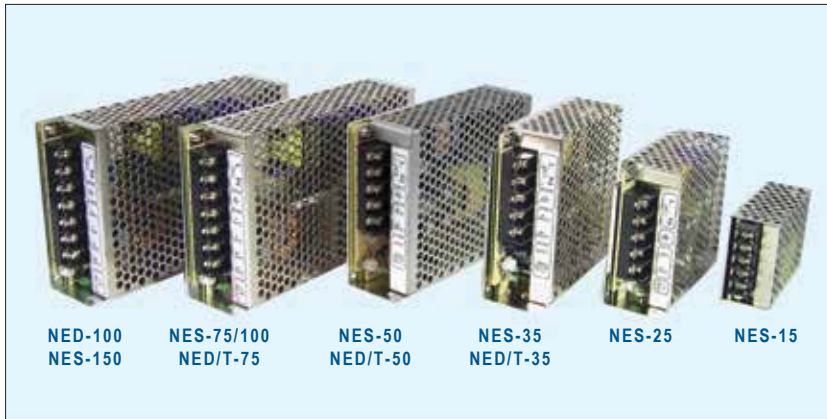
| Model No. | Output         | Tol.     | R&N   | Effi. | Max. |
|-----------|----------------|----------|-------|-------|------|
| RQ-85B    | 5V, 2.0~10A    | ±2%      | 80mV  | 76%   | 81W  |
|           | 12V, 0.3~4.0A  | +7%, -3% | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±8%      | 100mV |       |      |
|           | -12V, 0.0~1.0A | ±5%      | 80mV  |       |      |
| RQ-85C    | 5V, 2.0~10A    | ±2%      | 80mV  | 77%   | 83W  |
|           | 15V, 0.3~4.0A  | +3%, -7% | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±8%      | 100mV |       |      |
|           | -15V, 0.0~1.0A | ±5%      | 80mV  |       |      |
| RQ-85D    | 5V, 2.0~10A    | ±2%      | 80mV  | 78%   | 84W  |
|           | 12V, 0.3~4.0A  | +7%, -3% | 120mV |       |      |
|           | 24V, 0.1~1.5A  | ±8%      | 150mV |       |      |
|           | -12V, 0.0~1.0A | ±5%      | 80mV  |       |      |

## 125W — Quad Output (RT-125 without -5V or -12V output)

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| RQ-125B   | 5V, 2.0~12A    | ±2%       | 80mV  | 79%   | 120W |
|           | 12V, 0.5~4.5A  | +8%, -3%  | 120mV |       |      |
|           | -5V, 0.1~1.0A  | +6%, -10% | 80mV  |       |      |
|           | -12V, 0.0~1.0A | ±5%       | 80mV  |       |      |
| RQ-125C   | 5V, 2.0~12A    | ±2%       | 80mV  | 80%   | 123W |
|           | 15V, 0.5~4.0A  | +8%, -3%  | 120mV |       |      |
|           | -5V, 0.1~1.0A  | +6%, -10% | 80mV  |       |      |
|           | -15V, 0.0~1.0A | ±5%       | 80mV  |       |      |
| RQ-125D   | 5V, 2.0~12A    | ±2%       | 80mV  | 82%   | 124W |
|           | 12V, 0.5~4.0A  | +8%, -3%  | 120mV |       |      |
|           | 24V, 0.1~2.5A  | ±8%       | 150mV |       |      |
|           | -12V, 0.0~1.0A | ±5%       | 80mV  |       |      |

# Enclosed-NE Series

15~350W Compact



## Features

- Universal AC input / Full range  
(NES/D-100, NES-150 AC input selectable by switch)
- Protections: Short circuit / Overload / Over voltage
- Built-in over temperature protection for NES-15
- Cooling by free air convection
- 100% full load burn-in test
- 2 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                | NES-15                                                                                            | NES-25                               | NES-35<br>NED/T-35 | NES-50<br>NED/T-50 | NES-75<br>NED/T-75 | NES-100                                          | NES-150<br>NED-100 |
|--------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------|--------------------|--------------------|--------------------|--------------------------------------------------|--------------------|
| AC input voltage range   | 85~264VAC; 120~370VDC                                                                             |                                      |                    |                    |                    | 115/230VAC by switch                             |                    |
| AC inrush current (max.) | Cold start, 45A at 230VAC                                                                         |                                      |                    |                    |                    |                                                  |                    |
| DC adjustment range      | ±10% by potentiometer for single output;<br>CH1 -5%~+10% by potentiometer for multiple output     |                                      |                    |                    |                    | -5%~+10% (NES-100/150)<br>CH1 -5%~+10% (NED-100) |                    |
| Overload protection      | >105%                                                                                             | 110%~150% hiccup mode, auto-recovery |                    |                    |                    |                                                  |                    |
| Over voltage protection  | 115%~135% rated output voltage, shut off                                                          |                                      |                    |                    |                    | 115%~135% hiccup mode, auto-recovery             |                    |
| Withstand voltage        | I/P - O/P: 3kVAC, I/P - FG: 2kVAC, O/P - FG: 0.5kVAC, 1 minute                                    |                                      |                    |                    |                    |                                                  |                    |
| Working temperature      | -20~+60°C (refer to the derating curve for different models)                                      |                                      |                    |                    |                    |                                                  |                    |
| Vibration                | 10~500Hz, 2G 10min. /1 cycle, period for 60 min. each along X, Y, Z axes                          |                                      |                    |                    |                    |                                                  |                    |
| Safety standards         | UL60950-1, EN60950-1(NES-150 only), GB4943(NES only) approved, also design refer to TUV EN60950-1 |                                      |                    |                    |                    |                                                  |                    |
| EMC standards            | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, GB9254(NES only)                        |                                      |                    |                    |                    |                                                  |                    |
| Connection               | Terminal block for input and output                                                               |                                      |                    |                    |                    |                                                  |                    |
| Dimension (LxWxH)(mm)    | 78x 51x 28                                                                                        | 99x 82x 35                           | 99x 97x 36         | 129x 98x 38        | 159x 97x 38        | 159x 97x 38                                      | 199x 98x 38        |
| Case No.                 | 931A                                                                                              | 932B                                 | 905                | 903                | 901                | 901                                              | 902                |
| Packing                  | 60pcs/11.8kg                                                                                      | 45pcs/14.5kg                         | 45pcs/17.2kg       | 45pcs/21kg         | 30pcs/16.6kg       | 30pcs/17.5kg                                     | 20pcs/15kg         |

## 15W — Single Output

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| NES-15-5  | 5V, 0~3.0A   | ±2%  | 150mV | 79%   |
| NES-15-12 | 12V, 0~1.3A  | ±1%  | 150mV | 81%   |
| NES-15-15 | 15V, 0~1.0A  | ±1%  | 150mV | 81%   |
| NES-15-24 | 24V, 0~0.7A  | ±1%  | 200mV | 85%   |
| NES-15-48 | 48V, 0~0.35A | ±1%  | 240mV | 82%   |

## 25W — Single Output

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| NES-25-5  | 5V, 0~5.0A   | ±2%  | 80mV  | 78%   |
| NES-25-12 | 12V, 0~2.1A  | ±1%  | 120mV | 83%   |
| NES-25-15 | 15V, 0~1.7A  | ±1%  | 150mV | 84%   |
| NES-25-24 | 24V, 0~1.1A  | ±1%  | 200mV | 86%   |
| NES-25-48 | 48V, 0~0.57A | ±1%  | 240mV | 86%   |

## 35W — Single Output

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| NES-35-5  | 5V, 0~7.0A  | ±2%  | 80mV  | 78%   |
| NES-35-12 | 12V, 0~3.0A | ±1%  | 120mV | 81%   |
| NES-35-15 | 15V, 0~2.4A | ±1%  | 150mV | 83%   |
| NES-35-24 | 24V, 0~1.5A | ±1%  | 200mV | 85%   |
| NES-35-48 | 48V, 0~0.8A | ±1%  | 240mV | 86%   |

## 50W — Single Output

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| NES-50-5  | 5V, 0~10A   | ±2%  | 80mV  | 79%   |
| NES-50-12 | 12V, 0~4.2A | ±1%  | 120mV | 82%   |
| NES-50-15 | 15V, 0~3.4A | ±1%  | 150mV | 83%   |
| NES-50-24 | 24V, 0~2.2A | ±1%  | 200mV | 86%   |
| NES-50-48 | 48V, 0~1.1A | ±1%  | 240mV | 87%   |

## 75W — Single Output

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| NES-75-5  | 5V, 0~14A   | ±2%  | 80mV  | 77%   |
| NES-75-12 | 12V, 0~6.2A | ±1%  | 120mV | 82%   |
| NES-75-15 | 15V, 0~5.0A | ±1%  | 150mV | 83%   |
| NES-75-24 | 24V, 0~3.2A | ±1%  | 200mV | 86%   |
| NES-75-48 | 48V, 0~1.6A | ±1%  | 240mV | 87%   |

## 100W — Single Output

| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| NES-100-5   | 5V, 0~20A     | ±2%  | 80mV  | 80%   |
| NES-100-7.5 | 7.5V, 0~13.6A | ±1%  | 120mV | 81%   |
| NES-100-9   | 9V, 0~11.2A   | ±1%  | 120mV | 81%   |
| NES-100-12  | 12V, 0~8.5A   | ±1%  | 120mV | 83%   |
| NES-100-15  | 15V, 0~7.0A   | ±1%  | 120mV | 84%   |
| NES-100-24  | 24V, 0~4.5A   | ±1%  | 120mV | 86%   |
| NES-100-48  | 48V, 0~2.3A   | ±1%  | 150mV | 86%   |

## 150W — Single Output

| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| NES-150-3.3 | 3.3V, 0~30A  | ±3%  | 80mV  | 73%   |
| NES-150-5   | 5V, 0~26A    | ±2%  | 80mV  | 78%   |
| NES-150-7.5 | 7.5V, 0~20A  | ±1%  | 120mV | 80%   |
| NES-150-9   | 9V, 0~16.7A  | ±1%  | 120mV | 83%   |
| NES-150-12  | 12V, 0~12.5A | ±1%  | 120mV | 83%   |
| NES-150-15  | 15V, 0~10A   | ±1%  | 120mV | 83%   |
| NES-150-24  | 24V, 0~6.5A  | ±1%  | 120mV | 86%   |
| NES-150-48  | 48V, 0~3.3A  | ±1%  | 200mV | 86%   |

# Enclosed-NE Series



## 35W — Dual Output

| Model No. | Output                        | Tol.       | R&N           | Effi. | Max. |
|-----------|-------------------------------|------------|---------------|-------|------|
| NED-35A   | 5V, 0.5~5.0A<br>12V, 0.1~1.5A | ±2%<br>±6% | 80mV<br>120mV | 78%   | 32W  |
| NED-35B   | 5V, 0.5~4.0A<br>24V, 0.2~1.3A | ±2%<br>±6% | 80mV<br>200mV | 81%   | 35W  |

## 50W — Dual Output

| Model No. | Output                        | Tol.       | R&N           | Effi. | Max. |
|-----------|-------------------------------|------------|---------------|-------|------|
| NED-50A   | 5V, 1.0~6.0A<br>12V, 0.3~3.0A | ±2%<br>±6% | 80mV<br>120mV | 79%   | 54W  |
| NED-50B   | 5V, 1.0~6.0A<br>24V, 0.2~2.0A | ±2%<br>±6% | 80mV<br>200mV | 82%   | 54W  |

## 75W — Dual Output

| Model No. | Output                        | Tol.       | R&N           | Effi. | Max. |
|-----------|-------------------------------|------------|---------------|-------|------|
| NED-75A   | 5V, 1.0~8.0A<br>12V, 0.3~4.0A | ±2%<br>±6% | 80mV<br>120mV | 78%   | 71W  |
| NED-75B   | 5V, 1.0~6.0A<br>24V, 0.2~3.0A | ±2%<br>±6% | 80mV<br>200mV | 81%   | 73W  |

## 100W — Dual Output (Output isolated for NED-100GD)

| Model No. | Output                     | Tol.        | R&N           | Effi. | Max. |
|-----------|----------------------------|-------------|---------------|-------|------|
| NED-100A  | 5V, 2~10A<br>12V, 0.7~7.0A | ±2%<br>±10% | 80mV<br>120mV | 80%   | 100W |
| NED-100B  | 5V, 1~10A<br>24V, 0.3~3.5A | ±2%<br>±8%  | 80mV<br>200mV | 82%   | 100W |
| NED-100C  | 12V, 0~8.0A<br>5V, 0~3.0A  | ±2%<br>±3%  | 120mV<br>80mV | 80%   | 99W  |
| NED-100D  | 24V, 0~4.0A<br>5V, 0~3.0A  | ±2%<br>±3%  | 120mV<br>80mV | 82%   | 99W  |

## 35W — Triple Output

| Model No. | Output                                          | Tol.              | R&N                    | Effi. | Max. |
|-----------|-------------------------------------------------|-------------------|------------------------|-------|------|
| NET-35A   | 5V, 0.5~4.0A<br>12V, 0.1~1.5A<br>-5V, 0.1~0.5A  | ±2%<br>±6%<br>±6% | 80mV<br>120mV<br>120mV | 78%   | 30W  |
| NET-35B   | 5V, 0.5~4.0A<br>12V, 0.1~1.5A<br>-12V, 0.1~0.5A | ±2%<br>±6%<br>±6% | 80mV<br>120mV<br>120mV | 79%   | 33W  |
| NET-35C   | 5V, 0.5~3.5A<br>15V, 0.1~1.5A<br>-15V, 0.1~0.5A | ±2%<br>±8%<br>±8% | 80mV<br>150mV<br>150mV | 79%   | 35W  |
| NET-35D   | 5V, 0.5~3.5A<br>24V, 0.1~1.0A<br>12V, 0.1~1.0A  | ±2%<br>±8%<br>±8% | 80mV<br>200mV<br>120mV | 79%   | 37W  |

## 50W — Triple Output

| Model No. | Output                                          | Tol.              | R&N                    | Effi. | Max. |
|-----------|-------------------------------------------------|-------------------|------------------------|-------|------|
| NET-50A   | 5V, 0.6~5.0A<br>12V, 0.2~2.5A<br>-5V, 0.1~0.7A  | ±2%<br>±6%<br>±5% | 80mV<br>120mV<br>120mV | 76%   | 47W  |
| NET-50B   | 5V, 0.6~5.0A<br>12V, 0.2~2.5A<br>-12V, 0.1~0.7A | ±2%<br>±6%<br>±5% | 80mV<br>120mV<br>120mV | 78%   | 50W  |
| NET-50C   | 5V, 0.6~5.0A<br>15V, 0.1~2.0A<br>-15V, 0.1~0.7A | ±2%<br>±8%<br>±5% | 80mV<br>150mV<br>150mV | 78%   | 50W  |
| NET-50D   | 5V, 0.6~5.0A<br>24V, 0.1~1.5A<br>12V, 0.1~1.5A  | ±2%<br>±8%<br>±6% | 80mV<br>200mV<br>120mV | 80%   | 51W  |

## 75W — Triple Output

| Model No. | Output                                          | Tol.              | R&N                    | Effi. | Max. |
|-----------|-------------------------------------------------|-------------------|------------------------|-------|------|
| NET-75A   | 5V, 0.6~7.0A<br>12V, 0.2~3.5A<br>-5V, 0.1~0.7A  | ±2%<br>±6%<br>±5% | 80mV<br>120mV<br>120mV | 77%   | 69W  |
| NET-75B   | 5V, 0.6~7.0A<br>12V, 0.2~3.5A<br>-12V, 0.1~0.7A | ±2%<br>±6%<br>±5% | 80mV<br>120mV<br>120mV | 78%   | 65W  |
| NET-75C   | 5V, 0.6~7.0A<br>15V, 0.1~3.5A<br>-15V, 0.1~0.7A | ±2%<br>±8%<br>±5% | 80mV<br>150mV<br>150mV | 78%   | 72W  |
| NET-75D   | 5V, 0.6~6.0A<br>24V, 0.1~2.0A<br>12V, 0.1~1.5A  | ±2%<br>±8%<br>±6% | 80mV<br>200mV<br>120mV | 80%   | 73W  |

## 210W Single Output Switching Power Supply



CASE: 912E 215x 115x 50 mm

- AC input selectable by switch
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Overload  
Over voltage / Over temp.
- Cooling by free air convection
- Built-in constant current limiting circuit
- 100% full load burn-in test
- LED indicator for power on
- Low cost, high reliability
- 2 years warranty

AC input voltage range ..... 90~132VAC / 180~264VAC selectable by switch  
 DC adjustment range ..... ±10% rated output range  
 Overload protection ..... 105%~150% constant current limiting, auto-recovery  
 Over voltage protection ..... 115%~145% rated output voltage  
 Setup, rise, hold up time ..... 1000ms, 50ms, 20ms at full load and 230VAC  
 Withstand voltage ..... I/P - O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC  
 Working temperature ..... -20~+50°C (refer to output derating curve)  
 Safety standards ..... UL60950-1 approved  
 Packing ..... 0.93kg ; 12pcs / 12kg / 0.92CUFT

| Model No.   | Output      | Tol. | R&N   | Effi. |
|-------------|-------------|------|-------|-------|
| NES-200-3.3 | 3.3V, 0~40A | ±2%  | 150mV | 75%   |
| NES-200-5   | 5V, 0~40A   | ±2%  | 150mV | 79%   |
| NES-200-7.5 | 7.5V, 0~27A | ±2%  | 150mV | 82%   |
| NES-200-12  | 12V, 0~17A  | ±1%  | 150mV | 85%   |
| NES-200-15  | 15V, 0~14A  | ±1%  | 150mV | 85%   |
| NES-200-24  | 24V, 0~8.8A | ±1%  | 150mV | 87%   |
| NES-200-27  | 27V, 0~7.8A | ±1%  | 200mV | 88%   |
| NES-200-36  | 36V, 0~5.9A | ±1%  | 240mV | 89%   |
| NES-200-48  | 48V, 0~4.4A | ±1%  | 240mV | 89%   |

## 350W Single Output Switching Power Supply



CASE: 912C 215x 115x 50 mm

- AC input selectable by switch
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Overload  
Over voltage / Over temp.
- Forced air cooling by built-in DC fan
- Built-in fan ON/OFF control
- Built-in constant current limiting circuit
- 100% full load burn-in test
- LED indicator for power on
- Low cost, high reliability
- 2 years warranty

AC input voltage range ..... 90~132VAC / 180~264VAC selectable by switch  
 DC adjustment range ..... ±10% rated output range  
 Overload protection ..... 105%~135% constant current limiting, auto-recovery  
 Over voltage protection ..... 115%~145% rated output voltage  
 Setup, rise, hold up time ..... 1000ms, 50ms, 20ms at full load and 230VAC  
 Withstand voltage ..... I/P - O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC  
 Working temperature ..... -20~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1 approved  
 Packing ..... 1.07kg ; 12pcs / 13.5kg / 0.92CUFT

| Model No.   | Output       | Tol.       | R&N   | Effi. |
|-------------|--------------|------------|-------|-------|
| NES-350-3.3 | 3.3V, 0~60A  | +3%, -4.5% | 150mV | 74.0% |
| NES-350-5   | 5V, 0~60A    | ±3.0%      | 150mV | 78.0% |
| NES-350-7.5 | 7.5V, 0~46A  | ±2.0%      | 150mV | 80.0% |
| NES-350-12  | 12V, 0~29A   | ±1.5%      | 150mV | 83.0% |
| NES-350-15  | 15V, 0~23.2A | ±1.0%      | 150mV | 84.0% |
| NES-350-24  | 24V, 0~14.6A | ±1.0%      | 150mV | 87.0% |
| NES-350-27  | 27V, 0~13A   | ±1.0%      | 200mV | 88.0% |
| NES-350-36  | 36V, 0~9.7A  | ±1.0%      | 240mV | 87.5% |
| NES-350-48  | 48V, 0~7.3A  | ±1.0%      | 240mV | 87.5% |



# Enclosed-SE Series 100~450W Single Output



## Features

- AC input selectable by switch
- Withstand 300VAC surge input for 5 seconds (SE-200/350)
- Protections: Short circuit / Overload / Over voltage / Over temperature (except for SE-100)
- Forced air cooling by built-in DC fan (SE-350/450)
- Built-in fan ON/OFF control (SE-350)
- Built-in constant current limiting circuit (SE-200/350)
- Withstand 5G vibration test (SE-200/350)
- Built-in remote sense function (SE-450)
- 100% full load burn-in test
- LED indicator for power on
- 2 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                | SE-100                                                                           | SE-200                                   | SE-350                                   | SE-450                                        |
|--------------------------|----------------------------------------------------------------------------------|------------------------------------------|------------------------------------------|-----------------------------------------------|
| AC input voltage range   | 115/230VAC by switch                                                             |                                          |                                          |                                               |
| AC inrush current (max.) | Cold start, 36A at 230VAC                                                        | Cold start, 55A at 230VAC                | Cold start, 60A at 230VAC                | Cold start, 55A at 230VAC                     |
| DC adjustment range      | -5%~+10% rated output voltage                                                    |                                          |                                          |                                               |
| Overload protection      | Range                                                                            | 110%~150%                                | 105%~150%                                | 105%~150%                                     |
|                          | Type                                                                             | Hiccup mode, auto-recovery               | Constant current limiting, auto-recovery | Shut down o/p voltage, re-power on to recover |
| Over voltage protection  | 115%~135%                                                                        | 115%~145%                                |                                          |                                               |
| Withstand voltage        | I/P - O/P: 3kVAC, I/P - FG: 1.5kVAC, O/P-FG: 0.5kVAC                             |                                          |                                          |                                               |
| Working temperature      | -20~+60°C                                                                        | -20~+50°C                                | -20~+60°C                                | -10~+60°C (refer to output derating curve)    |
| Safety standards         | UL60950-1, GB4943(SE-100 only) approved                                          |                                          |                                          |                                               |
| EMC standards            | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, GB9254 for SE-100 only |                                          |                                          |                                               |
| Connection               | 7P/9.5mm pitch terminal block                                                    | 9P/9.5mm pitch terminal block with cover | 9P/11mm pitch terminal block with cover  |                                               |
| Dimension (LxWxH)(mm)    | 159x 97x 38                                                                      | 215x 115x 50                             | 225x 124x 50                             |                                               |
| Case No.                 | 901                                                                              | 912E                                     | 912C                                     | 986A                                          |
| Packing                  | 30pcs / 17.5kg                                                                   | 12pcs / 12kg                             | 12pcs / 13.5kg                           | 12pcs / 16kg                                  |

## SE-100 Series



| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| SE-100-5   | 5V, 0~20A     | ±2%  | 80mV  | 80%   |
| SE-100-7.5 | 7.5V, 0~13.6A | ±1%  | 120mV | 81%   |
| SE-100-9   | 9V, 0~11.2A   | ±1%  | 120mV | 81%   |
| SE-100-12  | 12V, 0~8.5A   | ±1%  | 120mV | 83%   |
| SE-100-15  | 15V, 0~7.0A   | ±1%  | 120mV | 84%   |
| SE-100-24  | 24V, 0~4.5A   | ±1%  | 120mV | 86%   |
| SE-100-48  | 48V, 0~2.3A   | ±1%  | 150mV | 86%   |

## SE-200 Series



| Model No.  | Output      | Tol. | R&N   | Effi. |
|------------|-------------|------|-------|-------|
| SE-200-3.3 | 3.3V, 0~40A | ±2%  | 150mV | 75%   |
| SE-200-5   | 5V, 0~40A   | ±2%  | 150mV | 79%   |
| SE-200-7.5 | 7.5V, 0~27A | ±2%  | 150mV | 82%   |
| SE-200-12  | 12V, 0~17A  | ±1%  | 150mV | 85%   |
| SE-200-15  | 15V, 0~14A  | ±1%  | 150mV | 85%   |
| SE-200-24  | 24V, 0~8.8A | ±1%  | 150mV | 87%   |
| SE-200-27  | 27V, 0~7.8A | ±1%  | 200mV | 88%   |
| SE-200-36  | 36V, 0~5.9A | ±1%  | 240mV | 89%   |
| SE-200-48  | 48V, 0~4.4A | ±1%  | 240mV | 89%   |

## SE-350 Series

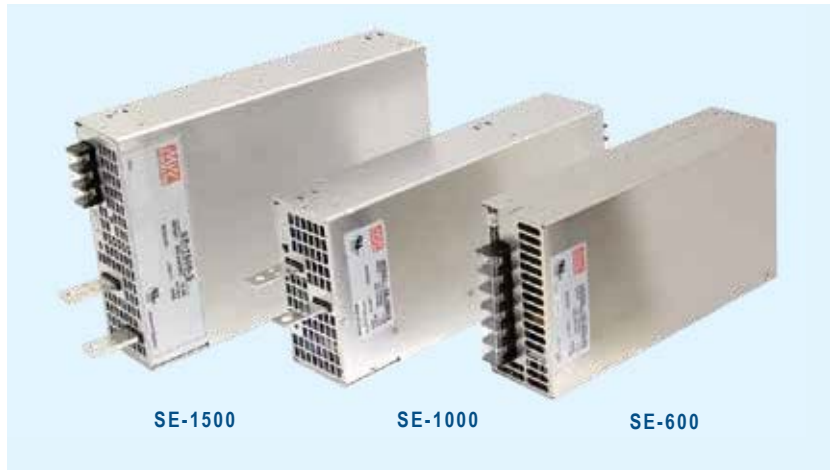


| Model No.  | Output       | Tol.       | R&N   | Effi. |
|------------|--------------|------------|-------|-------|
| SE-350-3.3 | 3.3V, 0~60A  | +3%, -4.5% | 150mV | 74.0% |
| SE-350-5   | 5V, 0~60A    | ±3.0%      | 150mV | 78.0% |
| SE-350-7.5 | 7.5V, 0~46A  | ±2.0%      | 150mV | 80.0% |
| SE-350-12  | 12V, 0~29A   | ±1.5%      | 150mV | 83.0% |
| SE-350-15  | 15V, 0~23.2A | ±1.0%      | 150mV | 84.0% |
| SE-350-24  | 24V, 0~14.6A | ±1.0%      | 150mV | 87.0% |
| SE-350-27  | 27V, 0~13A   | ±1.0%      | 200mV | 88.0% |
| SE-350-36  | 36V, 0~9.7A  | ±1.0%      | 240mV | 87.5% |
| SE-350-48  | 48V, 0~7.3A  | ±1.0%      | 240mV | 87.5% |

## SE-450 Series



| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| SE-450-3.3 | 3.3V, 0~75A  | ±3%   | 200mV | 74%   |
| SE-450-5   | 5V, 0~75A    | ±3%   | 200mV | 78%   |
| SE-450-12  | 12V, 0~37.5A | ±1%   | 200mV | 83%   |
| SE-450-15  | 15V, 0~30A   | ±1%   | 200mV | 84%   |
| SE-450-24  | 24V, 0~18.8A | ±1.5% | 200mV | 86%   |
| SE-450-36  | 36V, 0~12.5A | ±1%   | 200mV | 86%   |
| SE-450-48  | 48V, 0~9.4A  | ±1%   | 200mV | 88%   |



### Features

- AC input selectable by switch (SE-600/1000)  
AC input 180~264VAC only (SE-1500)
- Protections:  
Short circuit / Overload / Over voltage /  
Over temperature
- Forced air cooling by built-in DC fan
- Built-in remote sense function
- DC OK, remote ON/OFF control (SE-1000/1500)
- 100% full load burn-in test
- LED indicator for power on
- 2 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                | SE-600                                                                             | SE-1000                                        | SE-1500                                          |
|--------------------------|------------------------------------------------------------------------------------|------------------------------------------------|--------------------------------------------------|
| AC input voltage range   | 115/230VAC by switch                                                               |                                                | 180~264VAC                                       |
| AC inrush current (max.) | Cold start, 60A at 230VAC                                                          | Cold start, 55A at 230VAC                      | Cold start, 60A at 230VAC                        |
| DC adjustment range      | ±10% rated output voltage                                                          |                                                |                                                  |
| Overload protection      | Range                                                                              | 105%~125%                                      |                                                  |
|                          | Type                                                                               | Shut down o/p voltage, re-power on to recover  |                                                  |
| Over voltage protection  | 115%~140% Shut down o/p voltage, re-power on to recover                            |                                                |                                                  |
| Withstand voltage        | I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC                                   | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC | I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC |
| Working temperature      | -20~+60°C (refer to output derating curve)                                         |                                                | -20~+70°C (refer to output derating curve)       |
| Safety standards         | UL60950-1 approved                                                                 |                                                |                                                  |
| EMC standards            | Design refer to EN55022 class B                                                    |                                                |                                                  |
| Connection               | Terminal block with cover for input and output (SE-1000/1500: bus bars for output) |                                                |                                                  |
| Dimension (LxWxH)(mm)    | 247x 127x 63.5                                                                     | 278x 127x 63.5                                 | 278x 177.8x 63.5                                 |
| Case No.                 | 926A                                                                               | 935B                                           | 982A                                             |
| Packing                  | 6pcs / 13.4kg                                                                      | 6pcs / 16kg                                    | 4pcs / 14.2kg                                    |

### 600W SE-600

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| SE-600-5  | 5V, 0~100A   | ±2%  | 150mV | 78%   |
| SE-600-12 | 12V, 0~50A   | ±1%  | 150mV | 83%   |
| SE-600-15 | 15V, 0~40A   | ±1%  | 150mV | 84%   |
| SE-600-24 | 24V, 0~25A   | ±1%  | 150mV | 87%   |
| SE-600-27 | 27V, 0~22.2A | ±1%  | 150mV | 87%   |
| SE-600-36 | 36V, 0~16.6A | ±1%  | 200mV | 87%   |
| SE-600-48 | 48V, 0~12.5A | ±1%  | 200mV | 88%   |

### 1500W SE-1500

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| SE-1500-5  | 5V, 0~300A   | ±2%  | 150mV | 81%   |
| SE-1500-12 | 12V, 0~125A  | ±1%  | 150mV | 85%   |
| SE-1500-15 | 15V, 0~100A  | ±1%  | 150mV | 85%   |
| SE-1500-24 | 24V, 0~62.5A | ±1%  | 150mV | 87%   |
| SE-1500-27 | 27V, 0~55.6A | ±1%  | 150mV | 88%   |
| SE-1500-48 | 48V, 0~31.3A | ±1%  | 150mV | 89%   |

### 1000W SE-1000

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| SE-1000-5  | 5V, 0~150A   | ±1%  | 150mV | 81%   |
| SE-1000-9  | 9V, 0~100A   | ±1%  | 150mV | 84%   |
| SE-1000-12 | 12V, 0~83.3A | ±1%  | 150mV | 85%   |
| SE-1000-15 | 15V, 0~66.7A | ±1%  | 150mV | 86%   |
| SE-1000-24 | 24V, 0~41.7A | ±1%  | 200mV | 88%   |
| SE-1000-48 | 48V, 0~20.8A | ±1%  | 200mV | 89%   |



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### Features

- No load power consumption <0.2W for 35W/50W; <0.3W for 75W/100W
- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Ultra compact and 1U low profile
- Withstand 5G vibration test
- High operating temperature up to 70°C
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Compliance to IEC/EN60335-1(PD3) and IEC/EN61558-1,-2-16 for household appliances
- Operating altitude up to 5000 meters
- High efficiency, long life and high reliability
- LED indicator for power on
- Low cost
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | LRS-35                                                                                    | LRS-50 | LRS-75        | LRS-100                       |
|--------------------------|-------|-------------------------------------------------------------------------------------------|--------|---------------|-------------------------------|
| AC input voltage range   |       | 85~264VAC ; 120~370VDC                                                                    |        |               |                               |
| AC inrush current (max.) |       | Cold start, 45A at 230VAC                                                                 |        | 50A at 230VAC |                               |
| DC adjustment range      |       | ±10% by potentiometer                                                                     |        |               |                               |
| Overload protection      | Range | 110%~150%                                                                                 |        |               |                               |
|                          | Type  | Hiccup mode, auto-recovery                                                                |        |               |                               |
| Over voltage protection  | Range | 115%~135% rated output voltage                                                            |        |               |                               |
|                          | Type  | Shut down o/p voltage, re-power on to recover                                             |        |               |                               |
| Withstand voltage        |       | I/P-O/P: 3.75kVAC, I/P-FG: 2kVAC, O/P-FG: 1.25kVAC, 1 minute                              |        |               |                               |
| Working temperature      |       | -30~+70°C (refer to output derating curve)                                                |        |               |                               |
| Safety standards         |       | UL60950-1, IEC/EN60950-1, IEC/EN61558-1, EN61558-2-16, IEC/EN60335-1, CCC GB4943 approved |        |               |                               |
| EMC standards            |       | EN55022 class B, EN55014, EN61000-3-2, 3, EN61000-4,2,3,4,5,6,8,11, GB9254                |        |               |                               |
| Connection               |       | 5P/9.5mm pitch terminal block                                                             |        |               | 7P/9.5mm pitch terminal block |
| Dimension (LxWxH) (mm)   |       | 99x 82x 30                                                                                |        | 99x 97x 30    | 129x 97x 30                   |

### 35W

### LRS-35

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| LRS-35-5  | 5V, 0~7A    | ±2%  | 80mV  | 82.0% |
| LRS-35-12 | 12V, 0~3A   | ±1%  | 120mV | 86.0% |
| LRS-35-15 | 15V, 0~2.4A | ±1%  | 120mV | 86.0% |
| LRS-35-24 | 24V, 0~1.5A | ±1%  | 150mV | 88.0% |
| LRS-35-36 | 36V, 0~1A   | ±1%  | 200mV | 88.0% |
| LRS-35-48 | 48V, 0~0.8A | ±1%  | 200mV | 89.0% |

### 75W

### LRS-75

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| LRS-75-5  | 5V, 0~14A   | ±2%  | 100mV | 86.5% |
| LRS-75-12 | 12V, 0~6A   | ±1%  | 120mV | 89.0% |
| LRS-75-15 | 15V, 0~5A   | ±1%  | 120mV | 89.0% |
| LRS-75-24 | 24V, 0~3.2A | ±1%  | 150mV | 90.0% |
| LRS-75-36 | 36V, 0~2.1A | ±1%  | 200mV | 91.5% |
| LRS-75-48 | 48V, 0~1.6A | ±1%  | 200mV | 91.5% |

### 50W

### LRS-50

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| LRS-50-3.3 | 3.3V, 0~10A  | ±3%  | 80mV  | 80.0% |
| LRS-50-5   | 5V, 0~10A    | ±2%  | 80mV  | 83.0% |
| LRS-50-12  | 12V, 0~4.2A  | ±1%  | 120mV | 86.0% |
| LRS-50-15  | 15V, 0~3.4A  | ±1%  | 120mV | 88.0% |
| LRS-50-24  | 24V, 0~2.2A  | ±1%  | 150mV | 88.0% |
| LRS-50-36  | 36V, 0~1.45A | ±1%  | 200mV | 89.0% |
| LRS-50-48  | 48V, 0~1.1A  | ±1%  | 200mV | 90.0% |

### 100W

### LRS-100

| Model No.   | Output      | Tol. | R&N   | Effi. |
|-------------|-------------|------|-------|-------|
| LRS-100-3.3 | 3.3V, 0~20A | ±3%  | 100mV | 84.5% |
| LRS-100-5   | 5V, 0~18A   | ±2%  | 100mV | 86.0% |
| LRS-100-12  | 12V, 0~8.5A | ±1%  | 120mV | 88.0% |
| LRS-100-15  | 15V, 0~7A   | ±1%  | 120mV | 88.5% |
| LRS-100-24  | 24V, 0~4.5A | ±1%  | 150mV | 90.0% |
| LRS-100-36  | 36V, 0~2.8A | ±1%  | 200mV | 90.5% |
| LRS-100-48  | 48V, 0~2.3A | ±1%  | 200mV | 91.0% |



### ■ Features

- No load power consumption <0.5W for 150W; <0.75W for 200W/350W
- AC input selectable by switch (LRS-150F Universal AC input / Full range)
- Withstand 300VAC surge input for 5 seconds
- Ultra compact and 1U low profile
- Withstand 5G vibration test
- High operating temperature up to 70°C
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Cooling by free air convection (150W/200W); forced air cooling by built-in DC fan (350W)
- Compliance to IEC/EN60335-1(PD3) and IEC/EN61558-1,-2-16 for household appliances (150W)
- Operating altitude up to 5000 meters
- LED indicator for power on
- High efficiency, long life and high reliability
- Low cost
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.               |       | LRS-150F                                                                                  | LRS-150                | LRS-200                                        | LRS-350 |
|-------------------------|-------|-------------------------------------------------------------------------------------------|------------------------|------------------------------------------------|---------|
| AC input voltage range  |       | 85~264VAC; 120~370VDC                                                                     | 115 / 230VAC by switch |                                                |         |
| AC inrush current(max.) |       | Cold start, 60A at 230VAC                                                                 |                        |                                                |         |
| DC adjustment range     |       | ±10% by potentiometer                                                                     |                        |                                                |         |
| Overload protection     | Range | 110%~140%                                                                                 |                        |                                                |         |
|                         | Type  | Hiccup mode, auto-recovery                                                                |                        |                                                |         |
| Over voltage protection | Range | 115%~145% rated output voltage                                                            |                        |                                                |         |
|                         | Type  | Shut down o/p voltage, re-power on to recover                                             |                        |                                                |         |
| Withstand voltage       |       | I/P-O/P: 3.75kVAC, I/P-FG: 2kVAC, O/P-FG: 1.25kVAC                                        |                        | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC |         |
| Working temperature     |       | -30~+70°C                                                                                 |                        | -25~+70°C (refer to output derating curve)     |         |
| Safety standards        |       | UL60950-1, IEC/EN60950-1, IEC/EN61558-1, EN61558-2-16, IEC/EN60335-1, CCC GB4943 approved |                        | UL60950-1 approved                             |         |
| EMC standards           |       | EN55022 class B, EN55014, EN61000-3-2, 3, EN61000-4,2,3,4,5,6,8,11, GB9254                |                        | Design refer to EN55022 class A                |         |
| Connection              |       | 7P/9.5mm pitch terminal block                                                             |                        | 9P/9.5mm pitch terminal block                  |         |
| Dimension (LxWxH) (mm)  |       | 159x 97x 30                                                                               |                        | 215x 115x 30                                   |         |

### ■ LRS-150 Series



| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| LRS-150-12 | 12V, 0~12.5A | ±1%  | 150mV | 87.5% |
| LRS-150-15 | 15V, 0~10A   | ±1%  | 150mV | 88.5% |
| LRS-150-24 | 24V, 0~6.5A  | ±1%  | 200mV | 89.0% |
| LRS-150-36 | 36V, 0~4.3A  | ±1%  | 200mV | 89.0% |
| LRS-150-48 | 48V, 0~3.3A  | ±1%  | 200mV | 90.0% |

### ■ LRS-200 Series



| Model No.   | Output      | Tol.  | R&N   | Effi. |
|-------------|-------------|-------|-------|-------|
| LRS-200-3.3 | 3.3V, 0~40A | ±3%   | 150mV | 83.0% |
| LRS-200-4.2 | 4.2V, 0~40A | ±4%   | 150mV | 86.0% |
| LRS-200-5   | 5V, 0~40A   | ±3%   | 150mV | 87.0% |
| LRS-200-12  | 12V, 0~17A  | ±1.5% | 150mV | 87.5% |
| LRS-200-15  | 15V, 0~14A  | ±1%   | 150mV | 88.0% |
| LRS-200-24  | 24V, 0~8.8A | ±1%   | 150mV | 89.5% |
| LRS-200-36  | 36V, 0~5.9A | ±1%   | 200mV | 89.5% |
| LRS-200-48  | 48V, 0~4.4A | ±1%   | 200mV | 90.0% |

### ■ LRS-150F Series



| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| LRS-150F-5  | 5V, 0~22A    | ±2%  | 100mV | 85.0% |
| LRS-150F-12 | 12V, 0~12.5A | ±1%  | 150mV | 87.5% |
| LRS-150F-15 | 15V, 0~10A   | ±1%  | 150mV | 89.0% |
| LRS-150F-24 | 24V, 0~6.5A  | ±1%  | 200mV | 89.0% |
| LRS-150F-36 | 36V, 0~4.3A  | ±1%  | 200mV | 89.0% |
| LRS-150F-48 | 48V, 0~3.3A  | ±1%  | 200mV | 90.0% |

### ■ LRS-350 Series



| Model No.   | Output       | Tol.  | R&N   | Effi. |
|-------------|--------------|-------|-------|-------|
| LRS-350-3.3 | 3.3V, 0~60A  | ±4%   | 150mV | 79.5% |
| LRS-350-4.2 | 4.2V, 0~60A  | ±4%   | 150mV | 81.5% |
| LRS-350-5   | 5V, 0~60A    | ±3%   | 150mV | 83.5% |
| LRS-350-12  | 12V, 0~29A   | ±1.5% | 150mV | 85.0% |
| LRS-350-15  | 15V, 0~23.2A | ±1%   | 150mV | 86.0% |
| LRS-350-24  | 24V, 0~14.6A | ±1%   | 150mV | 88.0% |
| LRS-350-36  | 36V, 0~9.7A  | ±1%   | 200mV | 88.5% |
| LRS-350-48  | 48V, 0~7.3A  | ±1%   | 200mV | 89.0% |





### ■ Features

- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature (SP-150 / 200 / 240)
- Cooling by free air convection (SP-75 / 100 / 150)
- Forced air cooling by built-in DC fan (SP-200 / 240)
- Optional remote ON/OFF control (SP-75~200)
- Built-in fan speed control (SP-200)
- Built-in fan ON/OFF control (SP-240)
- 100% full load burn-in test
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | SP-75                                                                         | SP-100                                     | SP-150                    | SP-200                    | SP-240                     |
|--------------------------|-------|-------------------------------------------------------------------------------|--------------------------------------------|---------------------------|---------------------------|----------------------------|
| AC input voltage range   |       | 85~264VAC; 120~370VDC                                                         |                                            |                           |                           | 88~264VAC; 124~370VDC      |
| AC inrush current (max.) |       | Cold start, 45A at 230VAC                                                     | Cold start, 35A at 230VAC                  | Cold start, 45A at 230VAC | Cold start, 50A at 230VAC | Cold start, 40A at 230VAC  |
| DC adjustment range      |       | -5%~+10% rated output voltage                                                 |                                            |                           |                           | ±15% rated output voltage  |
| Overload protection      | Range | 105%~150%                                                                     |                                            |                           |                           | 105%~135%                  |
|                          | Type  | Constant current limiting, auto-recovery                                      |                                            |                           |                           | Hiccup mode, auto-recovery |
| Over voltage protection  | Range | 115%~135%                                                                     | 110%~135%                                  |                           |                           | 120%~150%                  |
|                          | Type  | Shut off, AC recycle to re-start                                              |                                            |                           |                           |                            |
| Withstand voltage        |       | I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC, 1 minute                    |                                            |                           |                           |                            |
| Working temperature      |       | -10~+60℃                                                                      |                                            | -10~+55℃                  | -10~+60℃                  | -20~+70℃                   |
| Safety standards         |       | UL60950-1, TUV EN60950-1, GB4943(SP-200 only) approved                        |                                            |                           |                           |                            |
| EMC standards            |       | EN55022 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3, GB9254(SP-200 only) |                                            |                           |                           |                            |
| Connection               |       | 5P / 9.5mm pitch                                                              | 7P / 9.5mm pitch terminal block with cover |                           |                           |                            |
| Dimension (LxWxH)(mm)    |       | 179x 97x 33                                                                   | 179x 99x 45                                | 199x 99x 50               | 199x 99x 50               | 190x 93x 50                |
| Case No.                 |       | 920A                                                                          | 915A                                       | 916A                      | 916B                      | 987A                       |
| Packing                  |       | 20pcs/12.0kg                                                                  | 20pcs/14.3kg                               | 20pcs/16.4kg              | 20pcs/17.9kg              | 18pcs/15.4kg               |

### ■ 75W SP-75

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| SP-75-3.3  | 3.3V, 0~15A   | ±2%  | 80mV  | 70.0% |
| SP-75-5    | 5V, 0~15A     | ±2%  | 80mV  | 76.0% |
| SP-75-7.5  | 7.5V, 0~10A   | ±2%  | 80mV  | 79.0% |
| SP-75-12   | 12V, 0~6.3A   | ±2%  | 80mV  | 81.0% |
| SP-75-13.5 | 13.5V, 0~5.6A | ±2%  | 80mV  | 82.0% |
| SP-75-15   | 15V, 0~5.0A   | ±2%  | 80mV  | 82.0% |
| SP-75-24   | 24V, 0~3.2A   | ±1%  | 100mV | 83.0% |
| SP-75-27   | 27V, 0~2.8A   | ±1%  | 100mV | 83.0% |
| SP-75-48   | 48V, 0~1.6A   | ±1%  | 100mV | 83.0% |

### ■ 100W SP-100

| Model No.   | Output         | Tol. | R&N   | Effi. |
|-------------|----------------|------|-------|-------|
| SP-100-3.3  | 3.3V, 0~20.0A  | ±2%  | 100mV | 75.0% |
| SP-100-5    | 5V, 0~20.0A    | ±2%  | 100mV | 79.0% |
| SP-100-7.5  | 7.5V, 0~13.5A  | ±2%  | 100mV | 82.0% |
| SP-100-12   | 12V, 0~8.50A   | ±2%  | 100mV | 82.5% |
| SP-100-13.5 | 13.5V, 0~7.50A | ±2%  | 100mV | 83.0% |
| SP-100-15   | 15V, 0~6.70A   | ±2%  | 100mV | 84.0% |
| SP-100-24   | 24V, 0~4.20A   | ±1%  | 150mV | 87.0% |
| SP-100-27   | 27V, 0~3.80A   | ±1%  | 150mV | 86.0% |
| SP-100-48   | 48V, 0~2.10A   | ±1%  | 250mV | 84.0% |

### ■ 150W SP-150

| Model No.   | Output         | Tol. | R&N   | Effi. |
|-------------|----------------|------|-------|-------|
| SP-150-3.3  | 3.3V, 0~30.0A  | ±2%  | 100mV | 73.0% |
| SP-150-5    | 5V, 0~30.0A    | ±2%  | 100mV | 77.5% |
| SP-150-7.5  | 7.5V, 0~20.0A  | ±2%  | 100mV | 81.0% |
| SP-150-12   | 12V, 0~12.5A   | ±2%  | 100mV | 84.0% |
| SP-150-13.5 | 13.5V, 0~11.2A | ±2%  | 100mV | 84.0% |
| SP-150-15   | 15V, 0~10.0A   | ±2%  | 100mV | 85.0% |
| SP-150-24   | 24V, 0~6.30A   | ±1%  | 150mV | 85.0% |
| SP-150-27   | 27V, 0~5.60A   | ±1%  | 150mV | 85.0% |
| SP-150-48   | 48V, 0~3.20A   | ±1%  | 250mV | 85.0% |

### ■ 200W SP-200

| Model No.   | Output         | Tol. | R&N   | Effi. |
|-------------|----------------|------|-------|-------|
| SP-200-3.3  | 3.3V, 0~40.0A  | ±2%  | 100mV | 69.0% |
| SP-200-5    | 5V, 0~40.0A    | ±2%  | 100mV | 76.0% |
| SP-200-7.5  | 7.5V, 0~26.7A  | ±2%  | 100mV | 78.5% |
| SP-200-12   | 12V, 0~16.7A   | ±2%  | 100mV | 84.0% |
| SP-200-13.5 | 13.5V, 0~14.9A | ±2%  | 100mV | 84.0% |
| SP-200-15   | 15V, 0~13.4A   | ±2%  | 100mV | 84.0% |
| SP-200-24   | 24V, 0~8.40A   | ±1%  | 150mV | 85.0% |
| SP-200-27   | 27V, 0~7.50A   | ±1%  | 150mV | 85.0% |
| SP-200-48   | 48V, 0~4.20A   | ±1%  | 250mV | 85.0% |

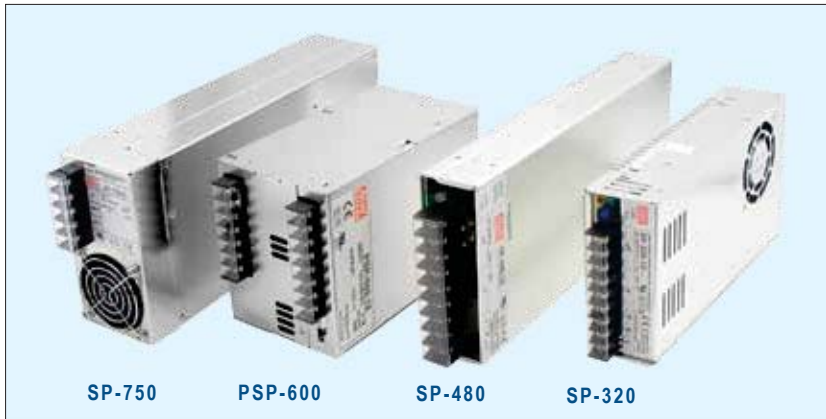
### ■ 240W SP-240

| Model No.  | Output      | Tol. | R&N   | Effi. |
|------------|-------------|------|-------|-------|
| SP-240-5   | 5V, 0~45A   | ±2%  | 150mV | 79.0% |
| SP-240-7.5 | 7.5V, 0~32A | ±2%  | 150mV | 83.0% |
| SP-240-12  | 12V, 0~20A  | ±1%  | 150mV | 86.0% |
| SP-240-15  | 15V, 0~16A  | ±1%  | 150mV | 86.0% |
| SP-240-24  | 24V, 0~10A  | ±1%  | 150mV | 87.0% |
| SP-240-30  | 30V, 0~8.0A | ±1%  | 150mV | 88.0% |
| SP-240-48  | 48V, 0~5.0A | ±1%  | 150mV | 89.0% |



#### 48hrs delivery—

We keep enough stock for 95% of standard models at our 2400m<sup>2</sup> warehouse. We can arrange prompt delivery within 48hrs.



### Features

- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- Built-in fan speed control (SP-320)
- Built-in remote sense function and ON/OFF control (SP-480/750 & PSP-600)
- Current sharing up to 2400W (3+1) (PSP-600)
- With DC OK signal output (PSP-600)
- With PG/PF signal output (SP-750)
- 100% full load burn-in test
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                | SP-320                                                                                                  | SP-480                                    | PSP-600                                      | SP-750                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------|
| AC input voltage range   | 88~264VAC                                                                                               | 85~264VAC                                 | 88~264VAC                                    | 90~264VAC                                                                      |
| AC inrush current (max.) | Cold start, 40A at 230VAC                                                                               |                                           |                                              | Cold Start, 45A at 230VAC                                                      |
| DC adjustment range      | ±10% rated output voltage                                                                               |                                           |                                              |                                                                                |
| Overload protection      | Range                                                                                                   | 105%~135%                                 | 105%~145%                                    | 105%~135%                                                                      |
|                          | Type                                                                                                    | Hiccup mode, auto-recovery                | Constant current limiting, auto-recovery     | Constant current limiting, auto-recovery                                       |
| Over voltage protection  | 115%~145%                                                                                               | 115%~140%                                 |                                              |                                                                                |
| Withstand voltage        | I/P - O/P: 3kVAC, I/P - FG: 1.5kVAC, O/P - FG: 0.5kVAC(short for SP-480), 1 minute                      |                                           |                                              |                                                                                |
| Working temperature      | -20~+65°C                                                                                               | -20~+60°C                                 |                                              |                                                                                |
| Safety standards         | UL60950-1, TUV EN60950-1 approved; GB4943 approved also for SP-320 (expect for 3.3V/ 5PNC/ 36V)         |                                           |                                              |                                                                                |
| EMC standards            | EN55022 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3, EN61000-6-2(SP-480/750), GB9254 (SP-320 only) |                                           |                                              |                                                                                |
| Connection               | 9P / 9.5mm pitch terminal block with cover                                                              | 9P / 11mm pitch terminal block with cover | 7+8P / 9.5mm pitch terminal block with cover | 5P / 10mm pitch terminal block with cover for input; copper pillars for output |
| Dimension (LxWxH)(mm)    | 215x115x50                                                                                              | 278x127x43                                | 170x120x93                                   | 278x127x63.5                                                                   |
| Case No.                 | 912G                                                                                                    | 929A                                      | 910A                                         | 919A                                                                           |
| Packing                  | 12pcs / 14.0kg                                                                                          | 6pcs / 11.3kg                             | 8pcs / 15.5kg                                | 6pcs / 18.4kg                                                                  |

### SP-320 Series



| Model No.    | Output         | Tol. | R&N   | Effi. |
|--------------|----------------|------|-------|-------|
| *SP-320-3.3  | 3.3V, 0~60.0A  | ±1%  | 150mV | 74%   |
| SP-320-5     | 5V, 0~55.0A    | ±2%  | 150mV | 79%   |
| *SP-320-5PNC | 5V, 0~55.0A    | ±2%  | 150mV | 80%   |
| SP-320-7.5   | 7.5V, 0~40.0A  | ±2%  | 150mV | 83%   |
| SP-320-12    | 12V, 0~25.0A   | ±1%  | 150mV | 86%   |
| SP-320-13.5  | 13.5V, 0~22.0A | ±1%  | 150mV | 86%   |
| SP-320-15    | 15V, 0~20.0A   | ±1%  | 150mV | 86%   |
| SP-320-24    | 24V, 0~13.0A   | ±1%  | 150mV | 87%   |
| SP-320-27    | 27V, 0~11.7A   | ±1%  | 200mV | 88%   |
| *SP-320-36   | 36V, 0~8.80A   | ±1%  | 220mV | 87%   |
| SP-320-48    | 48V, 0~6.70A   | ±1%  | 240mV | 89%   |

\* Without models

✧ SP-320-5PNC with conformal coating and high ambient temperature operation ability is suitable for LED moving sign applications, MOQ required.

### SP-480 Series



| Model No.  | Output      | Tol.  | R&N   | Effi. |
|------------|-------------|-------|-------|-------|
| SP-480-3.3 | 3.3V, 0~85A | ±2.0% | 80mV  | 73%   |
| SP-480-5   | 5V, 0~85A   | ±2.0% | 80mV  | 79%   |
| SP-480-12  | 12V, 0~43A  | ±1.5% | 120mV | 85%   |
| SP-480-15  | 15V, 0~35A  | ±1.5% | 150mV | 85%   |
| SP-480-24  | 24V, 0~22A  | ±1.0% | 150mV | 87%   |
| SP-480-48  | 48V, 0~11A  | ±1.0% | 240mV | 89%   |

### PSP-600 Series



| Model No.    | Output         | Tol. | R&N   | Effi. |
|--------------|----------------|------|-------|-------|
| PSP-600-5    | 5V, 0~80A      | ±2%  | 180mV | 79%   |
| PSP-600-12   | 12V, 0~50A     | ±1%  | 240mV | 84%   |
| PSP-600-13.5 | 13.5V, 0~44.5A | ±1%  | 240mV | 85%   |
| PSP-600-15   | 15V, 0~40A     | ±1%  | 240mV | 85%   |
| PSP-600-24   | 24V, 0~25A     | ±1%  | 240mV | 86%   |
| PSP-600-27   | 27V, 0~22.2A   | ±1%  | 240mV | 86%   |
| PSP-600-48   | 48V, 0~12.5A   | ±1%  | 300mV | 87%   |

### SP-750 Series

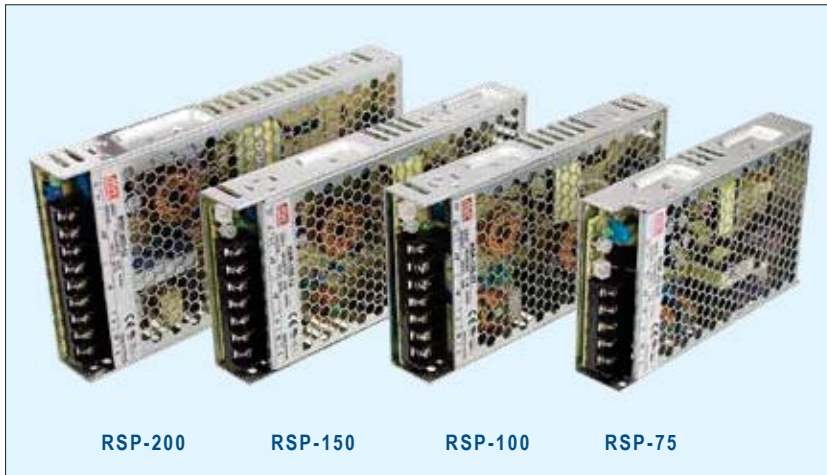


| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| SP-750-5  | 5V, 0~120A   | ±2%  | 120mV | 80%   |
| SP-750-12 | 12V, 0~62.5A | ±1%  | 120mV | 85%   |
| SP-750-15 | 15V, 0~50.0A | ±1%  | 120mV | 87%   |
| SP-750-24 | 24V, 0~31.3A | ±1%  | 120mV | 89%   |
| SP-750-27 | 27V, 0~27.8A | ±1%  | 120mV | 89%   |
| SP-750-48 | 48V, 0~15.7A | ±1%  | 120mV | 90%   |



Who can provide you better services and be a trustworthy partner in the power industry?

— "MEAN WELL" tries to be —



### Features

- Ultra low profile: 30mm
- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature (RSP-100/150/200)
- Cooling by free air convection
- Built-in constant current limiting circuit (RSP-75/100/150)
- Remote ON/OFF control (RSP-75/100/150)
- LED indicator for power on
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | RSP-75                                                                                                      | RSP-100                                    | RSP-150                         | RSP-200                                        |
|--------------------------|-------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------|---------------------------------|------------------------------------------------|
| AC input voltage range   |       | 85~264VAC; 120~370VDC                                                                                       |                                            |                                 | 88~264VAC; 124~370VDC                          |
| AC inrush current (max.) |       | Cold start, 35A at 230VAC                                                                                   | 30A at 230VAC                              | 45A at 230VAC                   | 40A at 230VAC                                  |
| DC adjustment range      |       | -5%~+10% rated output voltage                                                                               |                                            |                                 | ±10% rated output voltage                      |
| Overload protection      | Range | 105%~135%                                                                                                   | 105%~150%                                  |                                 |                                                |
|                          | Type  | Constant current limiting, auto-recovery                                                                    |                                            |                                 | Hiccup mode, auto-recovery                     |
| Over voltage protection  | Range | 110%~135%                                                                                                   |                                            |                                 | 115%~145%                                      |
|                          | Type  | Shut down O/P voltage, re-power on to recover                                                               |                                            |                                 |                                                |
| Withstand voltage        |       | I/P-O/P: 3.75kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                           |                                            |                                 | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC |
| Working temperature      |       | -25~+70°C                                                                                                   | -30~+70°C (refer to output derating curve) |                                 |                                                |
| Safety standards         |       | UL60950-1, TUV EN60950-1, EN61558-1, EN61558-2-16, CCC GB4943 approved; UL62368-1 approved for RSP-150 only |                                            |                                 | UL60950-1, TUV EN60950-1, CCC GB4943 approved  |
| EMC standards            |       | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, GB9254                                            |                                            |                                 |                                                |
| Connection               |       | 5P / 9.5mm pitch terminal block                                                                             | 7P / 9.5mm pitch terminal block            | 9P / 9.5mm pitch terminal block |                                                |
| Dimension (LxWxH) (mm)   |       | 159x97x30                                                                                                   | 179x99x30                                  | 199x99x30                       | 215x115x30                                     |

### 75W

### RSP-75

| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| RSP-75-3.3  | 3.3V, 0~15A   | ±2%  | 80mV  | 76.0% |
| RSP-75-5    | 5V, 0~15A     | ±2%  | 80mV  | 82.0% |
| RSP-75-7.5  | 7.5V, 0~10A   | ±2%  | 80mV  | 84.0% |
| RSP-75-12   | 12V, 0~6.3A   | ±2%  | 120mV | 85.0% |
| RSP-75-13.5 | 13.5V, 0~5.6A | ±2%  | 120mV | 85.0% |
| RSP-75-15   | 15V, 0~5A     | ±2%  | 120mV | 86.0% |
| RSP-75-24   | 24V, 0~3.2A   | ±1%  | 120mV | 87.0% |
| RSP-75-27   | 27V, 0~2.8A   | ±1%  | 120mV | 88.0% |
| RSP-75-48   | 48V, 0~1.6A   | ±1%  | 200mV | 89.0% |

### 150W

### RSP-150

| Model No.    | Output         | Tol. | R&N   | Effi. |
|--------------|----------------|------|-------|-------|
| RSP-150-3.3  | 3.3V, 0~30A    | ±2%  | 100mV | 81.5% |
| RSP-150-5    | 5V, 0~30A      | ±2%  | 100mV | 87.0% |
| RSP-150-7.5  | 7.5V, 0~20A    | ±2%  | 100mV | 88.5% |
| RSP-150-12   | 12V, 0~12.5A   | ±2%  | 100mV | 90.0% |
| RSP-150-13.5 | 13.5V, 0~11.2A | ±2%  | 100mV | 87.5% |
| RSP-150-15   | 15V, 0~10A     | ±2%  | 100mV | 88.5% |
| RSP-150-24   | 24V, 0~6.3A    | ±1%  | 150mV | 89.0% |
| RSP-150-27   | 27V, 0~5.6A    | ±1%  | 150mV | 89.5% |
| RSP-150-48   | 48V, 0~3.2A    | ±1%  | 250mV | 90.0% |

### 100W

### RSP-100

| Model No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| RSP-100-3.3  | 3.3V, 0~20A   | ±2%  | 100mV | 83.0% |
| RSP-100-5    | 5V, 0~20A     | ±2%  | 100mV | 86.0% |
| RSP-100-7.5  | 7.5V, 0~13.5A | ±2%  | 100mV | 87.0% |
| RSP-100-12   | 12V, 0~8.5A   | ±1%  | 100mV | 86.0% |
| RSP-100-13.5 | 13.5V, 0~7.5A | ±1%  | 100mV | 86.5% |
| RSP-100-15   | 15V, 0~6.7A   | ±1%  | 100mV | 87.0% |
| RSP-100-24   | 24V, 0~4.2A   | ±1%  | 150mV | 87.0% |
| RSP-100-27   | 27V, 0~3.8A   | ±1%  | 150mV | 87.0% |
| RSP-100-48   | 48V, 0~2.1A   | ±1%  | 250mV | 88.0% |

### 200W

### RSP-200

| Model No.    | Output         | Tol. | R&N   | Effi. |
|--------------|----------------|------|-------|-------|
| RSP-200-2.5  | 2.5V, 0~40A    | ±2%  | 100mV | 79.5% |
| RSP-200-3.3  | 3.3V, 0~40A    | ±2%  | 100mV | 81.5% |
| RSP-200-4    | 4V, 0~40A      | ±2%  | 100mV | 84.0% |
| RSP-200-5    | 5V, 0~40A      | ±2%  | 150mV | 85.5% |
| RSP-200-7.5  | 7.5V, 0~26.7A  | ±2%  | 150mV | 89.0% |
| RSP-200-12   | 12V, 0~16.7A   | ±1%  | 150mV | 89.0% |
| RSP-200-13.5 | 13.5V, 0~14.9A | ±1%  | 150mV | 89.0% |
| RSP-200-15   | 15V, 0~13.4A   | ±1%  | 150mV | 89.5% |
| RSP-200-24   | 24V, 0~8.4A    | ±1%  | 150mV | 89.5% |
| RSP-200-27   | 27V, 0~7.5A    | ±1%  | 200mV | 89.0% |
| RSP-200-36   | 36V, 0~5.56A   | ±1%  | 220mV | 90.0% |
| RSP-200-48   | 48V, 0~4.2A    | ±1%  | 240mV | 90.0% |



### Features

- 1U low profile
- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temp. / Fan alarm (RSP-750)
- Forced air cooling by built-in DC fan
- Vo can be trimmed by external control signal (RSP-750)
- Io can be trimmed by external control signal (RSP-750)
- Built-in remote sense and ON/OFF control (RSP-500/750)
- Built-in auxiliary power (RSP-750)
- DC OK signal (RSP-750)
- LED indicator for power on
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.               |        | RSP-320                                                                                                  | RSP-500                                  | RSP-750                                                                                                                                                                               |
|-------------------------|--------|----------------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC input voltage range  |        | 88~264VAC; 124~370VDC                                                                                    | 85~264VAC; 120~370VDC                    | 90~264VAC; 127~370VDC                                                                                                                                                                 |
| AC inrush current(max.) |        | Cold start, 40A at 230VAC                                                                                |                                          |                                                                                                                                                                                       |
| DC adjustment range     |        | Vo: ±10% by potentiometer                                                                                |                                          | Vo: ±10% by potentiometer, or to 40%~110% of rated output voltage by 2~5.5VDC external control signal<br>Io : to 40%~110% of rated output current by 2~5.5VDC external control signal |
| Overload protection     | Range  | 105%~135%                                                                                                | 105%~130%                                | 105%~125%                                                                                                                                                                             |
|                         | Type   | Hiccup mode, auto-recovery                                                                               | Constant current limiting, auto-recovery |                                                                                                                                                                                       |
| Over voltage protection | Range  | 115%~145%                                                                                                |                                          |                                                                                                                                                                                       |
|                         | Type   | Shut down O/P voltage, re-power on to recover                                                            |                                          |                                                                                                                                                                                       |
| Withstand voltage       |        | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                           |                                          |                                                                                                                                                                                       |
| Working temperature     |        | -30~+70°C (refer to output derating curve)                                                               |                                          |                                                                                                                                                                                       |
| Safety standards        |        | UL60950-1, TUV EN60950-1 approved; CCC GB4943 approved for RSP-320 only                                  |                                          |                                                                                                                                                                                       |
| EMC standards           |        | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2(RSP-500/750), GB9254(RSP-320 only) |                                          |                                                                                                                                                                                       |
| Connection              | Input  | 9P / 9.5mm pitch terminal block                                                                          | 3P / 9.5mm pitch terminal block          | 3P / 10mm pitch terminal block with cover                                                                                                                                             |
|                         | Output |                                                                                                          | 6P / 11mm pitch terminal block           | Copper pillars                                                                                                                                                                        |
| Dimension (LxWxH) (mm)  |        | 215x115x30                                                                                               | 230x127x40.5                             | 250x127x41                                                                                                                                                                            |
| Case No.                |        | 207A                                                                                                     | 226A                                     | 212A                                                                                                                                                                                  |

### 320W

### RSP-320

| Model No.    | Output         | Tol.      | R&N   | Effi. |
|--------------|----------------|-----------|-------|-------|
| RSP-320-2.5  | 2.5V, 0~60A    | $\pm 2\%$ | 100mV | 75.5% |
| RSP-320-3.3  | 3.3V, 0~60A    | $\pm 2\%$ | 100mV | 79.5% |
| RSP-320-4    | 4V, 0~60A      | $\pm 2\%$ | 100mV | 81.0% |
| RSP-320-5    | 5V, 0~60A      | $\pm 2\%$ | 150mV | 83.0% |
| *RSP-320-5CC | 5V, 0~60A      | $\pm 2\%$ | 150mV | 83.0% |
| RSP-320-7.5  | 7.5V, 0~40A    | $\pm 2\%$ | 150mV | 88.0% |
| RSP-320-12   | 12V, 0~26.7A   | $\pm 1\%$ | 150mV | 88.0% |
| RSP-320-13.5 | 13.5V, 0~23.8A | $\pm 1\%$ | 150mV | 88.0% |
| RSP-320-15   | 15V, 0~21.4A   | $\pm 1\%$ | 150mV | 88.5% |
| RSP-320-24   | 24V, 0~13.4A   | $\pm 1\%$ | 150mV | 89.0% |
| RSP-320-27   | 27V, 0~11.9A   | $\pm 1\%$ | 200mV | 89.0% |
| RSP-320-36   | 36V, 0~8.9A    | $\pm 1\%$ | 220mV | 89.5% |
| RSP-320-48   | 48V, 0~6.7A    | $\pm 1\%$ | 240mV | 90.0% |

\* RSP-320-5CC with conformal coating is suitable for LED moving sign applications, MOQ required.

### 500W

### RSP-500

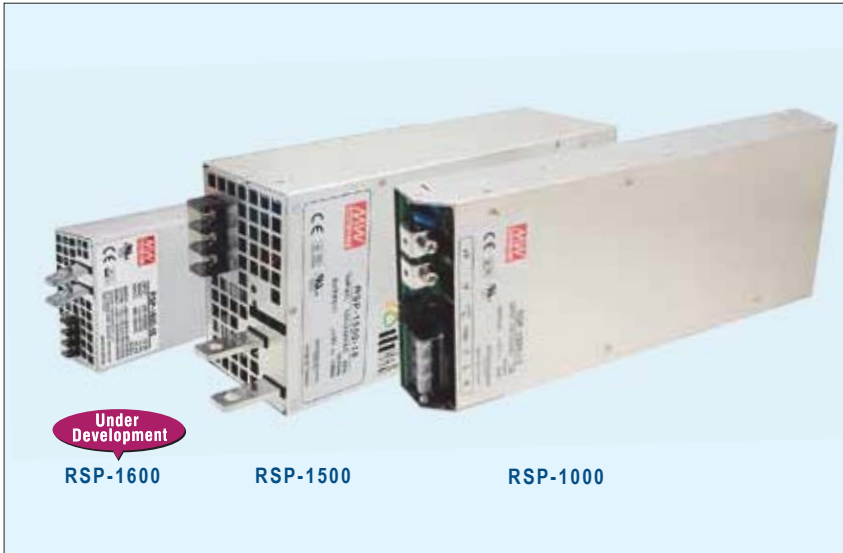
| Model No.   | Output       | Tol.      | R&N   | Effi. |
|-------------|--------------|-----------|-------|-------|
| RSP-500-3.3 | 3.3V, 0~90A  | $\pm 2\%$ | 120mV | 81.0% |
| RSP-500-4   | 4V, 0~90A    | $\pm 2\%$ | 120mV | 83.0% |
| RSP-500-5   | 5V, 0~90A    | $\pm 2\%$ | 150mV | 84.0% |
| RSP-500-12  | 12V, 0~41.7A | $\pm 1\%$ | 150mV | 88.0% |
| RSP-500-15  | 15V, 0~33.4A | $\pm 1\%$ | 150mV | 88.0% |
| RSP-500-24  | 24V, 0~21A   | $\pm 1\%$ | 150mV | 89.0% |
| RSP-500-27  | 27V, 0~18.6A | $\pm 1\%$ | 150mV | 89.5% |
| RSP-500-48  | 48V, 0~10.5A | $\pm 1\%$ | 150mV | 90.5% |

### 750W

### RSP-750

| Model No.  | Output       | Tol.      | R&N   | Effi. |
|------------|--------------|-----------|-------|-------|
| RSP-750-5  | 5V, 0~100A   | $\pm 2\%$ | 150mV | 82.0% |
| RSP-750-12 | 12V, 0~62.5A | $\pm 1\%$ | 150mV | 87.0% |
| RSP-750-15 | 15V, 0~50A   | $\pm 1\%$ | 150mV | 89.0% |
| RSP-750-24 | 24V, 0~31.3A | $\pm 1\%$ | 150mV | 90.5% |
| RSP-750-27 | 27V, 0~27.8A | $\pm 1\%$ | 150mV | 90.5% |
| RSP-750-48 | 48V, 0~15.7A | $\pm 1\%$ | 150mV | 92.0% |





### Features

- 1U low profile (RSP-1000/1600)
- Universal AC input / Full range
- Built-in active PFC function
- Protections:
  - Short circuit / Overload / Over voltage / Over temp.
- Forced air cooling by built-in DC fan
- High power density up to 25W/in<sup>3</sup> (RSP-1600)
- Vo can be trimmed by external resistor (RSP-1000/1500) or external control signal (RSP-1000/1600)
- Io can be trimmed by external control signal (RSP-1600)
- Built-in current sharing up to 4 units (RSP-1000/1500) or 5 units (RSP-1600)
- Built-in remote sense and ON/OFF control
- Built-in auxiliary power
- DC OK signal (RSP-1000/1600)
- Alarm signal output (RSP-1500/1600)
- 5 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                | RSP-1000                                                                                                                          | RSP-1500                                                                                    | RSP-1600                                                                                                                                                                               |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC input voltage range   | 90~264VAC; 127~370VDC                                                                                                             |                                                                                             |                                                                                                                                                                                        |
| AC inrush current (max.) | Cold start, 40A at 230VAC                                                                                                         | Cold start, 60A at 230VAC                                                                   | Cold start, 35A at 230VAC                                                                                                                                                              |
| DC adjustment range      | Vo: $\pm 10\%$ by potentiometer, or to 40%~110% of rated output voltage by external resistor or by 2~5VDC external control signal | Vo: -30%~+10% by potentiometer, or to 70%~100% of rated output voltage by external resistor | Vo: -1%~+22.5% by potentiometer, or to 40%~125% of rated output voltage by 1~5VDC external control signal<br>Io: to 20%~100% of rated output current by 1~5VDC external control signal |
| Overload protection      | Range                                                                                                                             | 105%~125%                                                                                   | 105%~115%                                                                                                                                                                              |
|                          | Type                                                                                                                              | Constant current limiting, auto-recovery                                                    | Constant current limiting, shut off after 5 sec., re-power on to recover                                                                                                               |
| Over voltage protection  | Range                                                                                                                             | 115%~135%                                                                                   | 130%~155%                                                                                                                                                                              |
|                          | Type                                                                                                                              | Shut down O/P voltage, re-power on to recover                                               |                                                                                                                                                                                        |
| Withstand voltage        | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                                                    |                                                                                             | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 1.5kVAC                                                                                                                                         |
| Working temperature      | -20~+60°C                                                                                                                         | -20~+70°C                                                                                   | -30~+70°C                                                                                                                                                                              |
| Safety standards         | UL60950-1, TUV EN60950-1 approved (RSP-1600 pending)                                                                              |                                                                                             |                                                                                                                                                                                        |
| EMC standards            | EN55022 class B; EN61000-3-2,3; EN61000-4-2,3,4,5,6,8,11; EN61000-6-2 for RSP-1000 (RSP-1600 pending)                             |                                                                                             |                                                                                                                                                                                        |
| Connection               | Input                                                                                                                             | 3P/10mm pitch terminal block with cover                                                     | 3P/10mm pitch terminal block with cover                                                                                                                                                |
|                          | Output                                                                                                                            | M5x12 screw terminal                                                                        | Bus bars                                                                                                                                                                               |
| Dimension (LxWxH) (mm)   | 295x 127x 41                                                                                                                      | 278x 127x 83.5                                                                              | 300x 85x 41                                                                                                                                                                            |
| Case No.                 | 952B                                                                                                                              | 943A                                                                                        | 237B                                                                                                                                                                                   |
| Packing                  | 1.95kg; 6pcs / 12.7kg / 1.15CUFT                                                                                                  | 3.0kg; 4pcs / 13kg / 1.19CUFT                                                               | 1.8kg; 6pcs / 12.5kg / 1.06CUFT                                                                                                                                                        |

### 1000W RSP-1000

| Model No.   | Output     | Tol.      | R&N   | Effi. |
|-------------|------------|-----------|-------|-------|
| RSP-1000-12 | 12V, 0~60A | $\pm 1\%$ | 150mV | 83%   |
| RSP-1000-15 | 15V, 0~50A | $\pm 1\%$ | 150mV | 85%   |
| RSP-1000-24 | 24V, 0~40A | $\pm 1\%$ | 150mV | 88%   |
| RSP-1000-27 | 27V, 0~37A | $\pm 1\%$ | 150mV | 88%   |
| RSP-1000-48 | 48V, 0~21A | $\pm 1\%$ | 150mV | 90%   |

### 1500W RSP-1500

| Model No.   | Output      | Tol.      | R&N   | Effi. |
|-------------|-------------|-----------|-------|-------|
| RSP-1500-5  | 5V, 0~240A  | $\pm 2\%$ | 150mV | 80%   |
| RSP-1500-12 | 12V, 0~125A | $\pm 1\%$ | 150mV | 87%   |
| RSP-1500-15 | 15V, 0~100A | $\pm 1\%$ | 150mV | 87%   |

| Model No.   | Output     | Tol.      | R&N   | Effi. |
|-------------|------------|-----------|-------|-------|
| RSP-1500-24 | 24V, 0~63A | $\pm 1\%$ | 150mV | 90%   |
| RSP-1500-27 | 27V, 0~56A | $\pm 1\%$ | 150mV | 90%   |
| RSP-1500-48 | 48V, 0~32A | $\pm 1\%$ | 200mV | 91%   |

### 1600W Under Development RSP-1600

| Model No.   | Output       | Tol.      | R&N   | Effi. |
|-------------|--------------|-----------|-------|-------|
| RSP-1600-12 | 12V, 0~125A  | $\pm 1\%$ | 150mV | 87.0% |
| RSP-1600-24 | 24V, 0~67A   | $\pm 1\%$ | 200mV | 90.5% |
| RSP-1600-27 | 27V, 0~59A   | $\pm 1\%$ | 200mV | 90.5% |
| RSP-1600-36 | 36V, 0~44.5A | $\pm 1\%$ | 250mV | 91.0% |
| RSP-1600-48 | 48V, 0~33.5A | $\pm 1\%$ | 300mV | 93.0% |



RSP-2400/3000

RSP-2000

### Features

- 1U low profile (RSP-2000)
- Universal AC input / Full range (RSP-2000)  
AC input 180~264VAC only (RSP-2400/3000)
- Built-in active PFC function
- Protections:  
Short circuit / Overload / Over voltage /  
Over temperature / Fan alarm (RSP-2400/3000)
- Forced air cooling by built-in DC fan
- High power density up to 21.4W/in<sup>3</sup> (RSP-2000)
- Vo can be trimmed by external control signal
- Built-in current sharing up to 4 units  
(RSP-2000) or 3 units (RSP-2400/3000)
- Built-in remote sense and ON/OFF control
- Built-in auxiliary power
- DC OK signal (RSP-2000)
- Alarm signal output
- 5 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |        | RSP-2000                                                                                                    | RSP-2400                                                                                                                      | RSP-3000                    |
|--------------------------|--------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| AC input voltage range   |        | 90~264VAC; 127~370VDC                                                                                       | 180~264VAC; 254~370VDC                                                                                                        |                             |
| AC inrush current (max.) |        | Cold start,<br>50A at 230VAC                                                                                | Cold start,<br>60A at 230VAC                                                                                                  |                             |
| DC adjustment range      |        | Vo: $\pm 10\%$ by potentiometer, or to 40%~115% of rated output voltage by 1~4.7VDC external control signal | Vo: $\pm 10\%$ by potentiometer, or to 20%~110% of rated output voltage by 1~5.5VDC external control signal                   |                             |
| Overload protection      | Range  | 105%~125%                                                                                                   | 100%~112%                                                                                                                     |                             |
|                          | Type   | Constant current limiting, shut off after 5 sec., re-power on to recover                                    | Constant current limiting, shut off after 5 sec., re-power on to recover (can adjust to continuous constant current limiting) |                             |
| Over voltage protection  | Range  | 120%~145%                                                                                                   | 115%~140%                                                                                                                     |                             |
|                          | Type   | Shut down O/P voltage, re-power on to recover                                                               |                                                                                                                               |                             |
| Withstand voltage        |        | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                              |                                                                                                                               |                             |
| Working temperature      |        | -35~+70°C                                                                                                   | -20~+70°C                                                                                                                     |                             |
| Safety standards         |        | UL60950-1, TUV EN60950-1 approved                                                                           |                                                                                                                               |                             |
| EMC standards            |        | EN55022 class B; EN61000-3-2,3; EN61000-4-2,3,4,5,6,8,11; EN61000-6-2(RSP-2000)                             |                                                                                                                               |                             |
| Connection               | Input  | 3P/10mm pitch terminal block with cover                                                                     | 3P/13mm pitch terminal block with cover                                                                                       |                             |
|                          | Output | M5x12 screw terminal                                                                                        | Bus bars                                                                                                                      |                             |
| Dimension (LxWxH) (mm)   |        | 295x 127x 41                                                                                                | 278x 177.8x 63.5                                                                                                              |                             |
| Case No.                 |        | 952D                                                                                                        | 982B                                                                                                                          |                             |
| Packing                  |        | 1.95kg; 6pcs / 12.7kg / 1.15CUFT                                                                            | 3.3kg; 4pcs / 14.2kg / 1.89CUFT                                                                                               | 4kg; 4pcs / 16kg / 1.89CUFT |

### 2000W RSP-2000

| Model No.   | Output      | Tol.      | R&N   | Effi. |
|-------------|-------------|-----------|-------|-------|
| RSP-2000-12 | 12V, 0~100A | $\pm 2\%$ | 150mV | 87.0% |
| RSP-2000-24 | 24V, 0~80A  | $\pm 1\%$ | 200mV | 90.5% |
| RSP-2000-48 | 48V, 0~42A  | $\pm 1\%$ | 300mV | 92.0% |

### 3000W RSP-3000

| Model No.   | Output       | Tol.      | R&N   | Effi. |
|-------------|--------------|-----------|-------|-------|
| RSP-3000-12 | 12V, 0~200A  | $\pm 1\%$ | 150mV | 87.5% |
| RSP-3000-24 | 24V, 0~125A  | $\pm 1\%$ | 150mV | 90.0% |
| RSP-3000-48 | 48V, 0~62.5A | $\pm 1\%$ | 200mV | 91.5% |

### 2400W RSP-2400

| Model No.   | Output        | Tol.      | R&N   | Effi. |
|-------------|---------------|-----------|-------|-------|
| RSP-2400-12 | 12V, 0~166.7A | $\pm 1\%$ | 150mV | 88.0% |
| RSP-2400-24 | 24V, 0~100A   | $\pm 1\%$ | 150mV | 90.5% |
| RSP-2400-48 | 48V, 0~50A    | $\pm 1\%$ | 200mV | 91.5% |



#### Customer Satisfaction —

Today's effort, tomorrow's reward. Continuously improve CQTS to satisfy customer is our goal.



#### To satisfy our customers is our goal —

- High Quality
- Low Cost
- Prompt Delivery
- Best Service



RST-5000



**NEW**  
RST-10000

### Features

- 3 $\phi$  3-wire/ $\Delta$  196~305VAC or 3 $\phi$  4-wire/ Y 340~530VAC wide input range
- Built-in active PFC function
- High efficiency up to 91%
- Protections:  
Short circuit / Overload / Over voltage / Over temperature/ Fan alarm
- Forced air cooling by built-in DC fan
- Vo can be trimmed by external control signal
- Io can be trimmed by external control signal
- Built-in current sharing up to 20kW  
(4 units of RST-5000 or 2 units of RST-10000)
- Built-in remote sense and ON/OFF control
- Built-in 12V/0.1A auxiliary power
- Alarm signal output
- 5 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |        | RST-5000                                                                                                                                                                            | RST-10000                                                                                      |
|--------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| AC input voltage range   |        | 3 $\phi$ 3-wire/ $\Delta$ 196~305VAC or 3 $\phi$ 4-wire/ Y 340~530VAC                                                                                                               |                                                                                                |
| AC inrush current (max.) |        | Cold start, 75A at 230VAC (3 $\phi$ 3-wire/ $\Delta$ ) or 50A at 400VAC (3 $\phi$ 4-wire/ Y)                                                                                        | Cold start, 150A at 230VAC (3 $\phi$ 3-wire/ $\Delta$ ) or 100A at 400VAC (3 $\phi$ 4-wire/ Y) |
| DC adjustment range      |        | Vo: -2%~+20% by potentiometer or to 20%~120% of rated output voltage by 1~6VDC external control signal<br>Io: to 20%~100% of rated output current by 1~5VDC external control signal |                                                                                                |
| Overload protection      | Range  | 100%~112%                                                                                                                                                                           |                                                                                                |
|                          | Type   | User adjustable continuous constant current limiting or constant current limiting with delay shutdown after 5 seconds. Re-power on to recover.                                      |                                                                                                |
| Over voltage protection  | Range  | 125%~140%                                                                                                                                                                           |                                                                                                |
|                          | Type   | Shut down O/P voltage, re-power on to recover                                                                                                                                       |                                                                                                |
| Withstand voltage        |        | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                                                                                                      |                                                                                                |
| Working temperature      |        | -30~+70°C (refer to output derating curve)                                                                                                                                          |                                                                                                |
| Safety standards         |        | UL60950-1, TUV EN60950-1 approved                                                                                                                                                   |                                                                                                |
| EMC standards            |        | EN55022 class A, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2                                                                                                               |                                                                                                |
| Connection               | Input  | 6P/13mm pitch terminal block with cover                                                                                                                                             |                                                                                                |
|                          | Output | Bus bars                                                                                                                                                                            |                                                                                                |
| Dimension (LxWxH) (mm)   |        | 460x 211x 83.5                                                                                                                                                                      | 540x 424x 83.5                                                                                 |
| Case No.                 |        | 223A                                                                                                                                                                                | 234A                                                                                           |
| Packing                  |        | 10kg; 1pcs / 10.1kg / 1.15CUFT                                                                                                                                                      | 23.5kg; 1pcs / 23.5kg / 2.45CUFT                                                               |

### 5000W

### RST-5000

| Model No.   | Output      | Tol. | R&N   | Effi. |
|-------------|-------------|------|-------|-------|
| RST-5000-24 | 24V, 0~200A | ±1%  | 150mV | 89%   |
| RST-5000-36 | 36V, 0~138A | ±1%  | 200mV | 90%   |
| RST-5000-48 | 48V, 0~105A | ±1%  | 200mV | 91%   |

### 10000W

### **NEW** RST-10000

| Model No.    | Output      | Tol. | R&N   | Effi. |
|--------------|-------------|------|-------|-------|
| RST-10000-24 | 24V, 0~400A | ±1%  | 150mV | 89%   |
| RST-10000-36 | 36V, 0~276A | ±1%  | 200mV | 90%   |
| RST-10000-48 | 48V, 0~210A | ±1%  | 200mV | 91%   |



To satisfy customers is our goal —

- High Quality
- Low Cost
- Prompt Delivery
- Best Service



MEAN WELL Catalog —

Your reference book for power supply.



### Features

- Universal AC input / Full range
- Built-in active PFC function
- Protections:
  - Short circuit / Overload / Over voltage / Over temperature
- Vo can be trimmed by external control signal
- Forced air cooling by built-in DC fan (except for SPV-150)
- Built-in remote sense and ON/OFF control (SPV-1500)
- Built-in 12V/0.1A auxiliary power and current sharing up to 4500W (SPV-1500)
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | SPV-150                                                                                                   | SPV-300   | SPV-1500                                                                                            |
|--------------------------|-------|-----------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------|
| AC input voltage range   |       | 88~264VAC; 124~370VDC                                                                                     |           | 90~264VAC; 127~370VDC                                                                               |
| AC inrush current (max.) |       | Cold start, 40A at 230VAC                                                                                 |           | Cold start, 60A at 230VAC                                                                           |
| DC adjustment range      |       | Vo: -15%~+10% by potentiometer or to 20%~110% of rated output voltage by 1~5.5VDC external control signal |           | Vo: ±5% by potentiometer or to 20%~110% of rated output voltage by 1~5.5VDC external control signal |
| Overload protection      | Range | 105%~150%                                                                                                 | 105%~135% |                                                                                                     |
|                          | Type  | constant current limiting, auto-recovery                                                                  |           |                                                                                                     |
| Over voltage protection  | Range | 115%~140%                                                                                                 |           | 120%~140%                                                                                           |
|                          | Type  | shut down O/P voltage, re-power on to recover                                                             |           |                                                                                                     |
| Withstand voltage        |       | I/P - O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                          |           |                                                                                                     |
| Working temperature      |       | -20~+65°C                                                                                                 |           | -20~+70°C                                                                                           |
| Safety standards         |       | UL60950-1, TUV EN60950-1 approved                                                                         |           |                                                                                                     |
| EMC standards            |       | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11                                                  |           |                                                                                                     |
| Dimension (LxWxH) (mm)   |       | 215x 115x 50                                                                                              |           | 278x 127x 83.5                                                                                      |
| Case No.                 |       | 912L                                                                                                      | 912G      | 943A                                                                                                |
| Packing                  |       | 1.1kg ; 12pcs / 14kg / 0.92CUFT                                                                           |           | 3.0kg ; 4pcs / 13kg / 1.19CUFT                                                                      |

### 150W SPV-150

| Model No.  | Output        | Tol.      | R&N   | Effi. |
|------------|---------------|-----------|-------|-------|
| SPV-150-12 | 12V, 0~12.5A  | $\pm 1\%$ | 150mV | 82%   |
| SPV-150-24 | 24V, 0~6.25A  | $\pm 1\%$ | 150mV | 83%   |
| SPV-150-48 | 48V, 0~3.125A | $\pm 1\%$ | 240mV | 83%   |

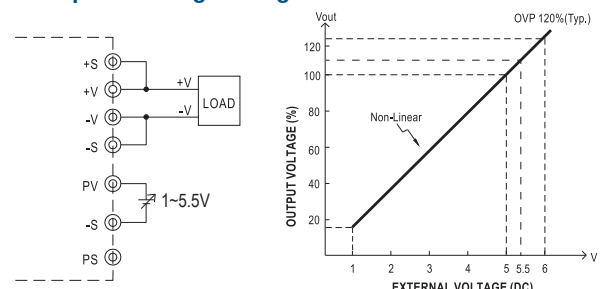
### 1500W SPV-1500

| Model No.   | Output      | Tol.      | R&N   | Effi. |
|-------------|-------------|-----------|-------|-------|
| SPV-1500-12 | 12V, 0~125A | $\pm 1\%$ | 150mV | 86.5% |
| SPV-1500-24 | 24V, 0~63A  | $\pm 1\%$ | 150mV | 90.0% |
| SPV-1500-48 | 48V, 0~32A  | $\pm 1\%$ | 200mV | 90.0% |

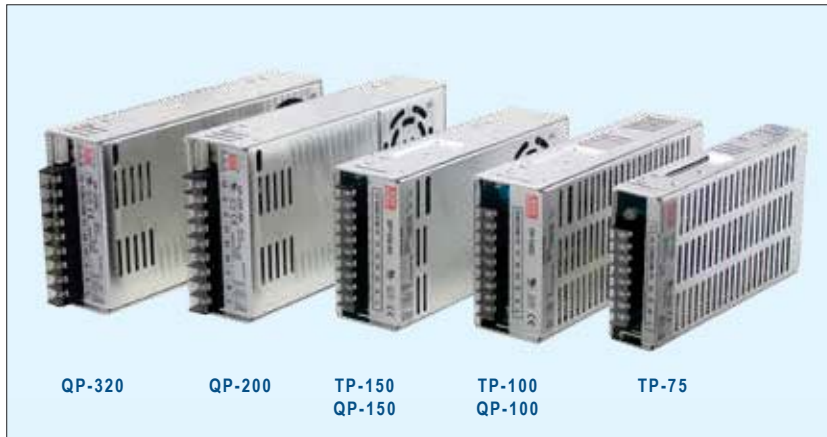
### 300W SPV-300

| Model No.  | Output       | Tol.      | R&N   | Effi. |
|------------|--------------|-----------|-------|-------|
| SPV-300-12 | 12V, 0~25A   | $\pm 1\%$ | 150mV | 83.5% |
| SPV-300-24 | 24V, 0~12.5A | $\pm 1\%$ | 150mV | 85.0% |
| SPV-300-48 | 48V, 0~6.25A | $\pm 1\%$ | 240mV | 86.5% |

### Output Voltage Programmable for SPV series







### ■ Features

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Over temperature protection (200~320W built-in, option for 100W and 150W)
- Built-in active PFC function
- Cooling by free air convection (75W / 100W)
- Forced air cooling by built-in DC fan (150W / 200W / 320W)
- 100% full load burn-in test
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                 |       | TP-75                                                         | TP-100<br>QP-100                                                                                                       | TP-150<br>QP-150 | QP-200                                          | QP-320                                          |
|---------------------------|-------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------|-------------------------------------------------|
| AC input voltage range    |       | 90~264VAC; 127~370VDC                                         |                                                                                                                        |                  |                                                 |                                                 |
| AC inrush current (max.)  |       | Cold start,<br>20A at 230VAC                                  | Cold start,<br>40A at 230VAC                                                                                           |                  | Cold start,<br>50A at 230VAC                    | Cold start,<br>45A at 230VAC                    |
| DC adjustment range       |       | CH1:<br>-5%~+10% rated output<br>voltage                      | CH1: -5%~+10% rated output voltage<br>(CH1&2 for QP-100/150-3x,<br>QP-100/150-D/F)                                     |                  | CH1&2:<br>-5%~+10% rated output voltage         |                                                 |
| Overload<br>protection    | Range | 105%~150%                                                     |                                                                                                                        |                  |                                                 |                                                 |
|                           | Type  | Hiccup mode, auto-recovery                                    |                                                                                                                        |                  | Constant current<br>limiting,<br>auto-recovery  | Fold back current<br>limiting,<br>auto-recovery |
| Over voltage protection   |       | CH1: 115%~135%                                                | 115%~135% for CH1 or CH1&2                                                                                             |                  |                                                 |                                                 |
| Withstand voltage         |       | I/P - O/P: 3kVAC, I/P - FG: 2kVAC, O/P - FG:0.5kVAC, 1 minute |                                                                                                                        |                  |                                                 |                                                 |
| Working temperature       |       | -10~+60°C (refer to output derating curve)                    |                                                                                                                        |                  |                                                 | -10~+70°C                                       |
| Setup, rise, hold up time |       | 800ms, 60ms, 36ms<br>at full load and<br>230VAC               | 800ms, 60ms, 24ms at full load and<br>230VAC(TP-100/150);<br>800ms, 50ms, 24ms at full load<br>and 230VAC (QP-100/150) |                  | 800ms, 50ms, 24ms<br>at full load and<br>230VAC | 800ms, 50ms, 16ms<br>at full load and<br>230VAC |
| Safety standards          |       | UL60950-1, TUV EN60950-1 approved                             |                                                                                                                        |                  |                                                 |                                                 |
| EMC standards             |       | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11      |                                                                                                                        |                  |                                                 |                                                 |
| Connection                |       | 8P/7.62mm pitch<br>terminal block                             | 9P/7.62mm pitch terminal block with cover                                                                              |                  | 9P/9.5mm pitch terminal block with cover        |                                                 |
| Dimension (LxWxH)(mm)     |       | 179x 99x 33                                                   | 199x 99x 50                                                                                                            |                  | 215x 115x 50                                    |                                                 |
| Case No.                  |       | 920A                                                          | 916A                                                                                                                   | 916B             | 912B                                            | 912I                                            |

### ■ 75W — Triple Output

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| TP-75A    | 5V, 1.5~10A    | ±3%  | 100mV | 70%   | 74W  |
|           | 12V, 0.2~4.0A  | ±4%  | 120mV |       |      |
|           | -5V, 0.0~0.6A  | ±8%  | 100mV |       |      |
| TP-75B    | 5V, 1.5~10A    | ±3%  | 100mV | 70%   | 76W  |
|           | 12V, 0.2~4.0A  | ±4%  | 120mV |       |      |
|           | -12V, 0.0~0.6A | ±8%  | 120mV |       |      |
| TP-75C    | 5V, 1.5~10A    | ±3%  | 100mV | 70%   | 75W  |
|           | 15V, 0.2~3.0A  | ±4%  | 120mV |       |      |
|           | -15V, 0.0~0.6A | ±8%  | 120mV |       |      |
| TP-75D    | 5V, 1.5~10A    | ±3%  | 100mV | 70%   | 76W  |
|           | 24V, 0.2~2.5A  | ±4%  | 120mV |       |      |
|           | 12V, 0.0~0.6A  | ±8%  | 120mV |       |      |
| TP-7503   | 5V, 1.5~10A    | ±3%  | 100mV | 70%   | 75W  |
|           | 3.3V, 0.2~8.0A | ±4%  | 50mV  |       |      |
|           | 12V, 0.0~0.6A  | ±8%  | 120mV |       |      |

### ■ 100W — Triple Output

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| TP-100A   | 5V, 3.0~15A    | ±3%       | 100mV | 75%   | 101W |
|           | 12V, 0.4~5.0A  | ±7%       | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±6%       | 100mV |       |      |
| TP-100B   | 5V, 3.0~15A    | ±3%       | 100mV | 78%   | 105W |
|           | 12V, 0.4~5.0A  | ±6%       | 120mV |       |      |
|           | -12V, 0.0~1.0A | ±6%       | 100mV |       |      |
| TP-100C   | 5V, 3.0~15A    | ±3%       | 100mV | 77%   | 104W |
|           | 15V, 0.4~4.0A  | +10%, -6% | 150mV |       |      |
|           | -15V, 0.0~1.0A | ±6%       | 100mV |       |      |
| TP-100D   | 5V, 3.0~15A    | ±3%       | 100mV | 78%   | 105W |
|           | 24V, 0.4~3.0A  | ±8%       | 150mV |       |      |
|           | 12V, 0.0~1.0A  | ±6%       | 100mV |       |      |

## 150W — Triple Output

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| TP-150A   | 5V, 2.0~20A    | ±3%       | 100mV | 75%   | 150W |
|           | 12V, 0.4~7.0A  | ±8%       | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±6%       | 100mV |       |      |
| TP-150B   | 5V, 2.0~20A    | ±3%       | 100mV | 77%   | 148W |
|           | 12V, 0.4~7.0A  | ±8%       | 120mV |       |      |
|           | -12V, 0.0~1.0A | ±6%       | 100mV |       |      |
| TP-150C   | 5V, 2.0~20A    | ±3%       | 100mV | 77%   | 152W |
|           | 15V, 0.4~6.0A  | +10%, -6% | 150mV |       |      |
|           | -15V, 0.0~1.0A | ±6%       | 100mV |       |      |
| TP-150D   | 5V, 2.0~20A    | ±3%       | 100mV | 78%   | 154W |
|           | 24V, 0.4~4.0A  | ±8%       | 150mV |       |      |
|           | 12V, 0.0~1.0A  | ±6%       | 100mV |       |      |

## 100W — Quad Output

| Model No. | Output          | Tol.      | R&N   | Effi. | Max. |
|-----------|-----------------|-----------|-------|-------|------|
| QP-100B   | 5V, 2.0~10A     | ±3%       | 100mV | 76%   | 101W |
|           | 12V, 0.3~4.0A   | ±6%       | 150mV |       |      |
|           | -12V, 0.15~1.0A | +10%, -6% | 150mV |       |      |
| QP-100C   | -5V, 0.0~1.0A   | ±5%       | 100mV | 77%   | 101W |
|           | 5V, 2.0~10A     | ±3%       | 100mV |       |      |
|           | 15V, 0.3~3.0A   | +6%, -10% | 150mV |       |      |
| QP-100D   | -15V, 0.15~1.0A | ±8%       | 150mV | 78%   | 100W |
|           | -5V, 0.0~1.0A   | ±5%       | 100mV |       |      |
|           | 5V, 2.0~10A     | ±3%       | 120mV |       |      |
| QP-100F   | 12V, 0.0~3.0A   | ±3%       | 150mV | 78%   | 103W |
|           | 24V, 0.3~2.0A   | ±6%       | 200mV |       |      |
|           | -12V, 0.0~1.0A  | ±5%       | 150mV |       |      |
| QP-100-3A | 5V, 2.0~10A     | ±3%       | 100mV | 74%   | 99W  |
|           | 3.3V, 0.0~10A   | ±3%       | 100mV |       |      |
|           | 12V, 0.3~3.0A   | ±6%       | 150mV |       |      |
| QP-100-3B | -5V, 0.0~1.0A   | ±5%       | 150mV | 74%   | 100W |
|           | 5V, 2.0~10A     | ±3%       | 100mV |       |      |
|           | 3.3V, 0.0~10A   | ±3%       | 100mV |       |      |
| QP-100-3C | 12V, 0.3~3.0A   | ±6%       | 150mV | 75%   | 101W |
|           | -12V, 0.0~1.0A  | ±5%       | 150mV |       |      |
|           | 5V, 2.0~10A     | ±3%       | 100mV |       |      |
| QP-100-3D | 3.3V, 0.0~10A   | ±3%       | 100mV | 75%   | 105W |
|           | 15V, 0.3~2.0A   | +8%, -6%  | 150mV |       |      |
|           | -15V, 0.0~1.0A  | ±5%       | 150mV |       |      |
| QP-100-3E | 5V, 2.0~10A     | ±3%       | 100mV | 75%   | 105W |
|           | 3.3V, 0.0~10A   | ±3%       | 100mV |       |      |
|           | 24V, 0.3~2.0A   | ±6%       | 150mV |       |      |
| QP-100-3F | -12V, 0.0~1.0A  | ±5%       | 150mV | 75%   | 105W |
|           | 5V, 2.0~10A     | ±3%       | 100mV |       |      |
|           | 3.3V, 0.0~10A   | ±3%       | 100mV |       |      |

## 150W — Quad Output

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| QP-150B   | 5V, 3.0~15A    | ±3%       | 100mV | 76%   | 150W |
|           | 12V, 0.4~5.0A  | ±6%       | 150mV |       |      |
|           | -12V, 0.3~2.0A | +10%, -6% | 150mV |       |      |
| QP-150C   | -5V, 0.0~1.0A  | ±5%       | 100mV | 77%   | 153W |
|           | 5V, 3.0~15A    | ±3%       | 100mV |       |      |
|           | 15V, 0.4~4.0A  | +6%, -10% | 150mV |       |      |
| QP-150D   | -15V, 0.3~2.0A | ±8%       | 150mV | 78%   | 150W |
|           | -5V, 0.0~1.0A  | ±5%       | 100mV |       |      |
|           | 5V, 3.0~15A    | ±3%       | 120mV |       |      |
| QP-150E   | 12V, 0.0~5.0A  | ±3%       | 150mV | 78%   | 150W |
|           | 24V, 0.4~3.0A  | ±6%       | 200mV |       |      |
|           | -12V, 0.0~1.0A | ±5%       | 150mV |       |      |

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| QP-150F   | 5V, 3.0~15A    | ±3%  | 120mV | 78%   | 152W |
|           | 15V, 0.0~5.0A  | ±3%  | 150mV |       |      |
|           | 24V, 0.4~3.0A  | ±6%  | 200mV |       |      |
|           | -15V, 0.0~1.0A | ±5%  | 150mV |       |      |

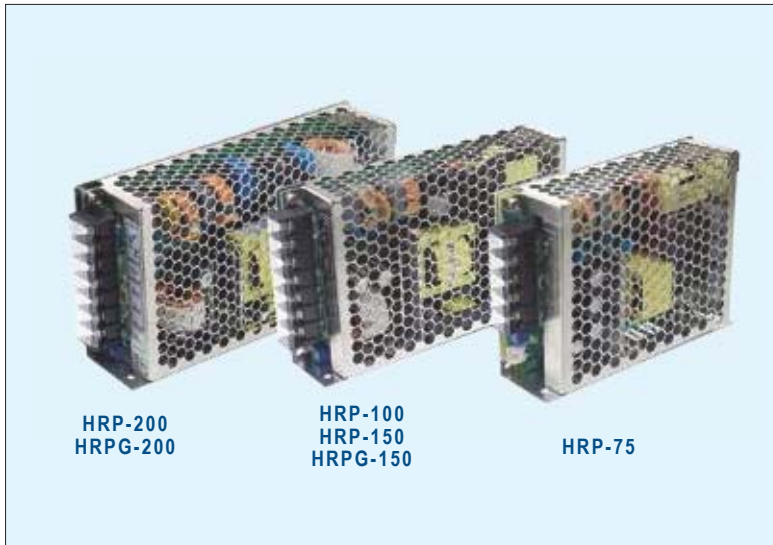
| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| QP-150-3A | 5V, 3.0~15A    | ±3%  | 100mV | 73%   | 146W |
|           | 3.3V, 0.0~15A  | ±3%  | 100mV |       |      |
|           | 12V, 0.4~5.0A  | ±6%  | 150mV |       |      |
| QP-150-3B | -5V, 0.0~1.0A  | ±5%  | 150mV | 75%   | 150W |
|           | 5V, 3.0~15A    | ±3%  | 100mV |       |      |
|           | 3.3V, 0.0~15A  | ±3%  | 100mV |       |      |
| QP-150-3C | 12V, 0.4~5.0A  | ±6%  | 150mV | 74%   | 152W |
|           | -12V, 0.0~1.0A | ±5%  | 150mV |       |      |
|           | 5V, 3.0~15A    | ±3%  | 100mV |       |      |
| QP-150-3D | 3.3V, 0.0~15A  | ±3%  | 100mV | 76%   | 150W |
|           | 24V, 0.3~3.0A  | ±6%  | 150mV |       |      |
|           | -12V, 0.0~1.0A | ±5%  | 150mV |       |      |

## 200W — Quad Output

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| QP-200D   | 5V, 3.0~20A    | ±3%       | 100mV | 75%   | 203W |
|           | 12V, 0.0~7.0A  | ±3%       | 150mV |       |      |
|           | 24V, 0.4~6.0A  | +10%, -6% | 150mV |       |      |
| QP-200F   | -12V, 0.0~1.0A | ±6%       | 150mV | 75%   | 203W |
|           | 5V, 3.0~20A    | ±3%       | 100mV |       |      |
|           | 15V, 0.0~6.0A  | ±3%       | 150mV |       |      |
| QP-200-3A | 24V, 0.4~6.0A  | +10%, -6% | 150mV | 72%   | 200W |
|           | -15V, 0.0~1.0A | ±6%       | 150mV |       |      |
|           | 5V, 3.0~20A    | ±3%       | 100mV |       |      |
| QP-200-3B | 3.3V, 0.0~20A  | ±3%       | 100mV | 72%   | 205W |
|           | 12V, 0.5~8.0A  | +8%, -10% | 150mV |       |      |
|           | -5V, 0.0~1.0A  | ±6%       | 150mV |       |      |
| QP-200-3C | 5V, 3.0~20A    | ±3%       | 100mV | 72%   | 210W |
|           | 3.3V, 0.0~20A  | ±3%       | 100mV |       |      |
|           | 15V, 0.5~7.0A  | +10%, -6% | 150mV |       |      |
| QP-200-3D | -15V, 0.0~1.0A | ±6%       | 150mV | 74%   | 204W |
|           | 5V, 3.0~20A    | ±3%       | 100mV |       |      |
|           | 3.3V, 0.0~20A  | ±3%       | 100mV |       |      |
| QP-200-3E | 24V, 0.4~6.0A  | +10%, -6% | 150mV | 74%   | 206W |
|           | -12V, 0.0~1.0A | ±6%       | 150mV |       |      |
|           | 5V, 3.0~20A    | ±3%       | 100mV |       |      |
| QP-200-3F | 3.3V, 0.0~20A  | ±3%       | 100mV | 74%   | 206W |
|           | 24V, 0.4~6.0A  | +10%, -6% | 150mV |       |      |
|           | -15V, 0.0~1.0A | ±6%       | 150mV |       |      |

## 320W — Quad Output

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| QP-320D   | 5V, 2.5~20A    | ±3%       | 100mV | 83%   | 316W |
|           | 12V, 0.0~10A   | ±3%       | 150mV |       |      |
|           | 24V, 0.2~5.0A  | +10%, -6% | 150mV |       |      |
| QP-320F   | -12V, 0.2~2.0A | ±10%      | 150mV | 83%   | 316W |
|           | 5V, 2.5~20A    | ±3%       | 100mV |       |      |
|           | 15V, 0.0~10A   | ±3%       | 150mV |       |      |
| QP-320E   | 24V, 0.2~5.0A  | +10%, -6% | 150mV | 83%   | 316W |
|           | -15V, 0.2~1.6A | ±10%      | 150mV |       |      |
|           | 5V, 2.5~20A    | ±3%       | 100mV |       |      |



### ■ Features

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Built-in active PFC function
- Protections:
  - Short circuit / Overload / Over voltage /
  - Over temperature (optional for HRP-75 / HRP-100)
- Built-in constant current limiting circuit
- Built-in remote sense function (HRP□-150 / 200)
- No load power consumption<0.5W (except for HRP-150/200)
- Built-in remote ON/OFF control (except for HRP-150 / 200)
- Built-in 5V / 0.3A standby output (HRPG-150 / 200)
- Cooling by free air convection
- 1U low profile
- LED indicator for power on
- 100% full load burn-in test
- 5 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | HRP-75                                                                                     | HRP-100                                  | HRP□-150                  | HRP□-200    |
|--------------------------|-------|--------------------------------------------------------------------------------------------|------------------------------------------|---------------------------|-------------|
| AC input voltage range   |       | 85~264VAC; 120~370VDC                                                                      |                                          |                           |             |
| AC inrush current (max.) |       | Cold start, 65A at 230VAC                                                                  |                                          | Cold start; 70A at 230VAC |             |
| DC adjustment range      |       | -5%~+10% rated output voltage                                                              |                                          | ±15% rated output voltage |             |
| Overload protection      | Range | 105%~135%                                                                                  |                                          |                           |             |
|                          | Type  | Constant current limiting, auto-recovery                                                   |                                          |                           |             |
| Over voltage protection  |       | 115%~145%                                                                                  |                                          |                           |             |
| Withstand voltage        |       | I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC, 1 minute                                 |                                          |                           |             |
| Working temperature      |       | -40~+70°C (refer to output derating curve)                                                 | -40~+60°C                                | -40~+70°C                 |             |
| Safety standards         |       | UL60950-1, TUV EN60950-1 approved                                                          |                                          |                           |             |
| EMC standards            |       | EN55022 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3, EN61000-6-2 heavy industry level |                                          |                           |             |
| Connection               |       | 5P/9.5mm pitch terminal block with cover                                                   | 7P/9.5mm pitch terminal block with cover |                           |             |
| Dimension (LxWxH)(mm)    |       | 129x98x38                                                                                  | 159x97x38                                |                           | 199x 98x 38 |
| Case No.                 |       | 903D                                                                                       | 9011                                     |                           | 902E        |

### ■ 75W HRP-75

| Model No.  | Output      | Tol.  | R&N   | Effi. |
|------------|-------------|-------|-------|-------|
| HRP-75-3.3 | 3.3V, 0~15A | ±2.5% | 80mV  | 77.0% |
| HRP-75-5   | 5V, 0~15A   | ±2.5% | 80mV  | 82.5% |
| HRP-75-7.5 | 7.5V, 0~10A | ±2.5% | 100mV | 84.0% |
| HRP-75-12  | 12V, 0~6.3A | ±1.5% | 120mV | 87.0% |
| HRP-75-15  | 15V, 0~5A   | ±1.5% | 150mV | 88.0% |
| HRP-75-24  | 24V, 0~3.2A | ±1.5% | 150mV | 88.5% |
| HRP-75-36  | 36V, 0~2.1A | ±1.5% | 200mV | 89.0% |
| HRP-75-48  | 48V, 0~1.6A | ±1.5% | 240mV | 89.0% |

### ■ 150W HRP□-150

| Model No.    | Output      | Tol.  | R&N   | Effi. |
|--------------|-------------|-------|-------|-------|
| HRP□-150-3.3 | 3.3V, 0~30A | ±2.5% | 80mV  | 78.5% |
| HRP□-150-5   | 5V, 0~26A   | ±2.5% | 80mV  | 85.0% |
| HRP□-150-7.5 | 7.5V, 0~20A | ±2.5% | 100mV | 87.0% |
| HRP□-150-12  | 12V, 0~13A  | ±1.5% | 120mV | 88.0% |
| HRP□-150-15  | 15V, 0~10A  | ±1.5% | 150mV | 88.0% |
| HRP□-150-24  | 24V, 0~6.5A | ±1.5% | 150mV | 88.0% |
| HRP□-150-36  | 36V, 0~4.3A | ±1.5% | 200mV | 89.0% |
| HRP□-150-48  | 48V, 0~3.3A | ±1.5% | 240mV | 89.0% |

□=blank, G; blank: basic function, G: with 5Vsb & no load <0.5W

### ■ 100W HRP-100

| Model No.   | Output        | Tol.         | R&N   | Effi. |
|-------------|---------------|--------------|-------|-------|
| HRP-100-3.3 | 3.3V, 0~20A   | +2.5%, -3.5% | 80mV  | 78.0% |
| HRP-100-5   | 5V, 0~17A     | ±2.5%        | 80mV  | 83.0% |
| HRP-100-7.5 | 7.5V, 0~13.5A | ±2.5%        | 100mV | 84.0% |
| HRP-100-12  | 12V, 0~8.5A   | ±1.5%        | 120mV | 87.5% |
| HRP-100-15  | 15V, 0~7A     | ±1.5%        | 150mV | 88.0% |
| HRP-100-24  | 24V, 0~4.5A   | ±1.5%        | 150mV | 88.5% |
| HRP-100-36  | 36V, 0~2.9A   | ±1.5%        | 200mV | 89.0% |
| HRP-100-48  | 48V, 0~2.2A   | ±1.5%        | 240mV | 90.0% |

### ■ 200W HRP□-200

| Model No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| HRP□-200-3.3 | 3.3V, 0~40A   | ±2%  | 80mV  | 80.0% |
| HRP□-200-5   | 5V, 0~35A     | ±2%  | 90mV  | 84.0% |
| HRP□-200-7.5 | 7.5V, 0~26.7A | ±2%  | 100mV | 86.0% |
| HRP□-200-12  | 12V, 0~16.7A  | ±1%  | 120mV | 88.0% |
| HRP□-200-15  | 15V, 0~13.4A  | ±1%  | 150mV | 88.0% |
| HRP□-200-24  | 24V, 0~8.4A   | ±1%  | 150mV | 88.0% |
| HRP□-200-36  | 36V, 0~5.7A   | ±1%  | 250mV | 89.0% |
| HRP□-200-48  | 48V, 0~4.3A   | ±1%  | 250mV | 89.0% |

□=blank, G; blank: basic function, G: with 5Vsb & no load <0.5W



HRP-600  
HRPG-600

HRP-450  
HRPG-450

HRP-300  
HRPG-300

### Features

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in constant current limiting circuit
- Built-in remote sense function
- Built-in DC OK signal
- No load power consumption<0.5W (HRPG-300 / 450)  
No load power consumption<0.75W (HRPG-600)
- Built-in remote ON/OFF control & 5V / 0.3A standby output (HRPG series)
- Built-in current sharing (HRPG-600-24 / 36 / 48)
- Forced air cooling by built-in DC fan
- 1U low profile (HRP□-300 / 450)
- 100% full load burn-in test
- 5 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | HRP□-300                                                                                   | HRP□-450                                     | HRP□-600     |
|--------------------------|-------|--------------------------------------------------------------------------------------------|----------------------------------------------|--------------|
| AC input voltage range   |       | 85~264VAC; 120~370VDC                                                                      |                                              |              |
| AC inrush current (max.) |       | Cold start, 70A at 230VAC                                                                  |                                              |              |
| DC adjustment range      |       | ±15% rated output voltage                                                                  |                                              |              |
| Overload Protection      | Range | 105%~135%                                                                                  |                                              |              |
|                          | Type  | Constant current limiting, auto-recovery                                                   |                                              |              |
| Over voltage protection  |       | 115%~145%                                                                                  |                                              |              |
| Withstand voltage        |       | I/P - O/P: 3kVAC, I/P - FG: 1.5kVAC, O/P - FG: 0.5kVAC, 1 minute                           |                                              |              |
| Working temperature      |       | -40~+70°C (refer to output derating curve)                                                 |                                              |              |
| Safety standards         |       | UL60950-1, TUV EN60950-1 approved                                                          |                                              |              |
| EMC standards            |       | EN55022 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3, EN61000-6-2 heavy industry level |                                              |              |
| Connection               |       | 7P/11mm pitch terminal block with cover                                                    | 3+6P/10&11mm pitch terminal block with cover |              |
| Dimension (LxWxH)(mm)    |       | 199x105x41                                                                                 | 218x105x41                                   | 218x105x63.5 |
| Case No.                 |       | 980A                                                                                       | 995A                                         | 977A         |

### 300W HRP□-300

| Model No.    | Output      | Tol.  | R&N   | Effi. |
|--------------|-------------|-------|-------|-------|
| HRP□-300-3.3 | 3.3V, 0~60A | ±2.5% | 80mV  | 80.0% |
| HRP□-300-5   | 5V, 0~60A   | ±2.0% | 90mV  | 82.0% |
| HRP□-300-7.5 | 7.5V, 0~40A | ±2.0% | 100mV | 86.0% |
| HRP□-300-12  | 12V, 0~27A  | ±1.0% | 120mV | 88.0% |
| HRP□-300-15  | 15V, 0~22A  | ±1.0% | 150mV | 88.0% |
| HRP□-300-24  | 24V, 0~14A  | ±1.0% | 150mV | 87.0% |
| HRP□-300-36  | 36V, 0~9A   | ±1.0% | 250mV | 88.0% |
| HRP□-300-48  | 48V, 0~7A   | ±1.0% | 250mV | 89.0% |

□ = blank, G; blank: basic function, G: with 5Vsb & no load <0.5W

### 600W HRP□-600

| Model No.    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|
| HRP□-600-3.3 | 3.3V, 0~120A | ±2%  | 100mV | 78.5% |
| HRP□-600-5   | 5V, 0~120A   | ±2%  | 100mV | 82.0% |
| HRP□-600-7.5 | 7.5V, 0~80A  | ±2%  | 100mV | 87.0% |
| HRP□-600-12  | 12V, 0~53A   | ±1%  | 120mV | 88.0% |
| HRP□-600-15  | 15V, 0~43A   | ±1%  | 150mV | 88.0% |
| HRP□-600-24  | 24V, 0~27A   | ±1%  | 150mV | 88.0% |
| HRP□-600-36  | 36V, 0~17.5A | ±1%  | 200mV | 89.0% |
| HRP□-600-48  | 48V, 0~13A   | ±1%  | 240mV | 89.0% |

□ = blank, G; blank: basic function, G: with 5Vsb & no load <0.75W

### 450W HRP□-450

| Model No.    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|
| HRP□-450-3.3 | 3.3V, 0~90A  | ±2%  | 80mV  | 80.0% |
| HRP□-450-5   | 5V, 0~90A    | ±2%  | 80mV  | 83.0% |
| HRP□-450-7.5 | 7.5V, 0~60A  | ±2%  | 100mV | 86.5% |
| HRP□-450-12  | 12V, 0~37.5A | ±1%  | 120mV | 88.0% |
| HRP□-450-15  | 15V, 0~30A   | ±1%  | 150mV | 89.0% |
| HRP□-450-24  | 24V, 0~18.8A | ±1%  | 150mV | 88.0% |
| HRP□-450-36  | 36V, 0~12.5A | ±1%  | 240mV | 89.0% |
| HRP□-450-48  | 48V, 0~9.5A  | ±1%  | 240mV | 89.5% |

□ = blank, G; blank: basic function, G: with 5Vsb & no load <0.5W



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### Features

- Universal AC input / Full range
- **Medical safety approved (MOOP level)**
- Low leakage current  $\leq 300\mu\text{A}$  ( $\leq 450\mu\text{A}$  for MSP-300)
- Withstand 300VAC surge input for 5 seconds
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- 1U low profile (MSP-100/200/300/450)
- Built-in constant current limiting circuit
- Built-in remote sense function (MSP-200/300/450/600)
- No load power consumption  $< 0.5\text{W}$  ( $< 0.6\text{W}$  for MSP-450 ;  $< 0.8\text{W}$  for MSP-600)
- Built-in current sharing (MSP-600-24/36/48)
- Built-in remote ON/OFF control
- Built-in 5V/0.3A standby output (MSP-200/300/450/600)
- Built-in DC OK signal (MSP-300/450/600)
- LED indicator for power on
- **5 years warranty**

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | MSP-100                                                               | MSP-200                                    | MSP-300                                   | MSP-450                                          | MSP-600                   |
|--------------------------|-------|-----------------------------------------------------------------------|--------------------------------------------|-------------------------------------------|--------------------------------------------------|---------------------------|
| AC input voltage range   |       | 85~264VAC; 120~370VDC                                                 |                                            |                                           |                                                  |                           |
| AC inrush current (max.) |       | Cold start, 65A at 230VAC                                             | Cold start, 70A at 230VAC                  |                                           |                                                  | Cold start, 80A at 230VAC |
| DC adjustment range      |       | ±15% rated output voltage                                             |                                            |                                           |                                                  |                           |
| Overload protection      | Range | 105%~135%                                                             |                                            |                                           |                                                  |                           |
|                          | Type  | Constant current limiting, auto-recovery                              |                                            |                                           |                                                  |                           |
| Over voltage protection  |       | 115%~145%                                                             |                                            |                                           |                                                  |                           |
| Withstand voltage        |       | I/P-O/P: 4kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC, 1 minute              |                                            |                                           |                                                  |                           |
| Working temperature      |       | -40~+60°C                                                             | -40~+70°C (refer to output derating curve) |                                           |                                                  |                           |
| Safety standards         |       | ANSI/AAMI ES60601-1, IEC60601-1 approved                              |                                            |                                           |                                                  |                           |
| EMC standards            |       | EN55011 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3, EN60601-1-2 |                                            |                                           |                                                  |                           |
| Connection               |       | 7P / 9.5mm pitch terminal block with cover                            |                                            | 7P / 11mm pitch terminal block with cover | 3+6P / 10 & 11mm pitch terminal block with cover |                           |
| Dimension (LxWxH)(mm)    |       | 159x 97x 38                                                           | 199x 98x 38                                | 199x 105x 41                              | 218x 105x 41                                     | 218x 105x 63.5            |
| Case No.                 |       | 901I                                                                  | 902E                                       | 980A                                      | 995A                                             | 977A                      |

### 100W MSP-100

| Model No.   | Output        | Tol.         | R&N   | Effi. |
|-------------|---------------|--------------|-------|-------|
| MSP-100-3.3 | 3.3V, 0~20A   | +2.5%, -3.5% | 80mV  | 78.0% |
| MSP-100-5   | 5V, 0~17A     | +2.5%, -3.5% | 80mV  | 83.0% |
| MSP-100-7.5 | 7.5V, 0~13.5A | $\pm 2.5\%$  | 100mV | 84.0% |
| MSP-100-12  | 12V, 0~8.5A   | $\pm 1.5\%$  | 120mV | 87.5% |
| MSP-100-15  | 15V, 0~7A     | $\pm 1.5\%$  | 150mV | 88.0% |
| MSP-100-24  | 24V, 0~4.5A   | $\pm 1.5\%$  | 150mV | 88.5% |
| MSP-100-36  | 36V, 0~2.9A   | $\pm 1.5\%$  | 200mV | 89.0% |
| MSP-100-48  | 48V, 0~2.2A   | $\pm 1.5\%$  | 240mV | 90.0% |

### 200W MSP-200

| Model No.   | Output        | Tol.      | R&N   | Effi. |
|-------------|---------------|-----------|-------|-------|
| MSP-200-3.3 | 3.3V, 0~40A   | $\pm 2\%$ | 80mV  | 80.0% |
| MSP-200-5   | 5V, 0~35A     | $\pm 2\%$ | 90mV  | 84.0% |
| MSP-200-7.5 | 7.5V, 0~26.7A | $\pm 2\%$ | 100mV | 86.0% |
| MSP-200-12  | 12V, 0~16.7A  | $\pm 1\%$ | 120mV | 88.0% |
| MSP-200-15  | 15V, 0~13.4A  | $\pm 1\%$ | 150mV | 88.0% |
| MSP-200-24  | 24V, 0~8.4A   | $\pm 1\%$ | 150mV | 88.0% |
| MSP-200-36  | 36V, 0~5.7A   | $\pm 1\%$ | 250mV | 89.0% |
| MSP-200-48  | 48V, 0~4.3A   | $\pm 1\%$ | 250mV | 89.0% |

### 300W MSP-300

| Model No.   | Output      | Tol.        | R&N   | Effi. |
|-------------|-------------|-------------|-------|-------|
| MSP-300-3.3 | 3.3V, 0~60A | $\pm 2.5\%$ | 80mV  | 80.0% |
| MSP-300-5   | 5V, 0~60A   | $\pm 2\%$   | 90mV  | 82.0% |
| MSP-300-7.5 | 7.5V, 0~40A | $\pm 2\%$   | 100mV | 86.0% |
| MSP-300-12  | 12V, 0~27A  | $\pm 1\%$   | 120mV | 88.0% |

| Model No.  | Output     | Tol.      | R&N   | Effi. |
|------------|------------|-----------|-------|-------|
| MSP-300-15 | 15V, 0~22A | $\pm 1\%$ | 150mV | 88.0% |
| MSP-300-24 | 24V, 0~14A | $\pm 1\%$ | 150mV | 87.0% |
| MSP-300-36 | 36V, 0~9A  | $\pm 1\%$ | 250mV | 88.0% |
| MSP-300-48 | 48V, 0~7A  | $\pm 1\%$ | 250mV | 89.0% |

### 450W MSP-450

| Model No.   | Output       | Tol.      | R&N   | Effi. |
|-------------|--------------|-----------|-------|-------|
| MSP-450-3.3 | 3.3V, 0~90A  | $\pm 2\%$ | 80mV  | 80.0% |
| MSP-450-5   | 5V, 0~90A    | $\pm 2\%$ | 80mV  | 83.0% |
| MSP-450-7.5 | 7.5V, 0~60A  | $\pm 2\%$ | 100mV | 86.5% |
| MSP-450-12  | 12V, 0~37.5A | $\pm 1\%$ | 120mV | 88.0% |
| MSP-450-15  | 15V, 0~30A   | $\pm 1\%$ | 150mV | 89.0% |
| MSP-450-24  | 24V, 0~18.8A | $\pm 1\%$ | 150mV | 88.0% |
| MSP-450-36  | 36V, 0~12.5A | $\pm 1\%$ | 240mV | 89.0% |
| MSP-450-48  | 48V, 0~9.5A  | $\pm 1\%$ | 240mV | 89.5% |

### 600W MSP-600

| Model No.   | Output       | Tol.      | R&N   | Effi. |
|-------------|--------------|-----------|-------|-------|
| MSP-600-3.3 | 3.3V, 0~120A | $\pm 2\%$ | 100mV | 78.5% |
| MSP-600-5   | 5V, 0~120A   | $\pm 2\%$ | 100mV | 82.0% |
| MSP-600-7.5 | 7.5V, 0~80A  | $\pm 2\%$ | 100mV | 86.0% |
| MSP-600-12  | 12V, 0~53A   | $\pm 1\%$ | 120mV | 88.0% |
| MSP-600-15  | 15V, 0~43A   | $\pm 1\%$ | 150mV | 88.0% |
| MSP-600-24  | 24V, 0~27A   | $\pm 1\%$ | 150mV | 88.0% |
| MSP-600-36  | 36V, 0~17.5A | $\pm 1\%$ | 200mV | 89.0% |
| MSP-600-48  | 48V, 0~13A   | $\pm 1\%$ | 240mV | 89.0% |



### ■ Features

- Universal AC input / Full range
- Built-in active PFC
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Output wattage:  
USP-150: 150W convection  
USP-225: 150W convection, 225W with 18CFM forced air  
USP-350: 300W convection, 350W with 23.5CFM forced air  
USP-500: 400W convection, 500W with 23.5CFM forced air
- High power density: 5.5W/in<sup>3</sup> (USP-150); 4.7W/in<sup>3</sup> (USP-225); 6.32W/in<sup>3</sup> (USP-350); 6.2W/in<sup>3</sup> (USP-500)
- U-bracket low profile: 33mm(USP-150); 38mm(USP-225/300); 41mm(USP-500)
- Built-in remote ON/OFF control, remote sense, DC OK signal (USP-500)
- **Optional current sharing(1+1) for USP-500-24/48**
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                |       | USP-150                                                          | USP-225                                  | USP-350                                   | USP-500                                       |
|--------------------------|-------|------------------------------------------------------------------|------------------------------------------|-------------------------------------------|-----------------------------------------------|
| AC input voltage range   |       | 90~295VAC; 127~417VDC                                            |                                          | 90~264VAC; 127~370VDC                     |                                               |
| AC inrush current (max.) |       | Cold start, 65A at 230VAC                                        | 15A at 115VAC,<br>35A at 230VAC          | 22A at 115VAC,<br>44A at 230VAC           | 30A at 115VAC,<br>50A at 230VAC               |
| DC adjustment range      |       | ±10% rated output voltage                                        |                                          |                                           |                                               |
| Overload protection      | Range | 110%~160%                                                        | 105%~150%                                | 105%~130%                                 |                                               |
|                          | Type  | Hiccup mode, auto-recovery                                       | Constant current limiting, auto-recovery |                                           | Constant current, shut off after 3 sec.       |
| Over voltage protection  | Range | 110%~135%                                                        | 110%~135%                                | 110%~140%                                 | 115%~135%                                     |
|                          | Type  | Shut off, AC recycle to re-start                                 |                                          | Hiccup mode, auto-recovery                | Shut off, AC recycle to re-start              |
| Withstand voltage        |       | I/P - O/P: 3kVAC, I/P - FG: 1.5kVAC, O/P - FG: 0.5kVAC, 1 minute |                                          |                                           |                                               |
| Working temperature      |       | -30~+65°C                                                        | -20~+65°C                                | -10~+65°C                                 | -20~+70°C                                     |
| Vibration                |       | 10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes       |                                          |                                           |                                               |
| Safety standards         |       | UL60950-1, TUV EN60950-1(except for USP-150) approved            |                                          |                                           |                                               |
| EMC standards            |       | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11         |                                          |                                           |                                               |
| Connection               |       | JST: SVH-21T-P1.1,<br>4P/7.62mm pitch terminal block             | 20P/2.54mm pitch,<br>Molex 39-29-9206    | 5+9P/2/3.96mm pitch,<br>JST: B5P/B9P/2-VH | 3+8P/8.5mm pitch terminal<br>block with cover |
| Dimension (LxWxH)(mm)    |       | 215x 67.4x 33                                                    | 202x 101.5x 38                           | 235.2x 101.5x 38                          | 254x 127x 41                                  |

### ■ USP-150 Series



| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| USP-150-12 | 12V, 0~12.5A | ±2%  | 100mV | 91.5% |
| USP-150-15 | 15V, 0~10.0A | ±2%  | 150mV | 91.5% |
| USP-150-24 | 24V, 0~6.30A | ±2%  | 150mV | 93.0% |
| USP-150-36 | 36V, 0~4.20A | ±2%  | 250mV | 93.0% |
| USP-150-48 | 48V, 0~3.20A | ±2%  | 250mV | 93.0% |

### ■ USP-350 Series



| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| USP-350-3.3 | 3.3V, 0~70.0A | ±2%  | 80mV  | 78%   |
| USP-350-5   | 5V, 0~70.0A   | ±2%  | 80mV  | 84%   |
| USP-350-12  | 12V, 0~29.2A  | ±2%  | 100mV | 88%   |
| USP-350-15  | 15V, 0~23.4A  | ±2%  | 100mV | 88%   |
| USP-350-24  | 24V, 0~14.6A  | ±2%  | 150mV | 88%   |
| USP-350-48  | 48V, 0~7.30A  | ±2%  | 150mV | 89%   |

### ■ USP-225 Series



| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| USP-225-3.3 | 3.3V, 0~40.0A | ±2%  | 100mV | 72%   |
| USP-225-5   | 5V, 0~40.0A   | ±2%  | 100mV | 77%   |
| USP-225-12  | 12V, 0~18.7A  | ±2%  | 100mV | 83%   |
| USP-225-15  | 15V, 0~15.0A  | ±2%  | 100mV | 84%   |
| USP-225-24  | 24V, 0~9.40A  | ±2%  | 150mV | 85%   |
| USP-225-48  | 48V, 0~4.70A  | ±2%  | 250mV | 86%   |

### ■ USP-500 Series



| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| USP-500-5  | 5V, 0~80.0A  | ±2%  | 80mV  | 85%   |
| USP-500-12 | 12V, 0~42.0A | ±2%  | 100mV | 90%   |
| USP-500-15 | 15V, 0~33.5A | ±2%  | 100mV | 90%   |
| USP-500-24 | 24V, 0~21.0A | ±2%  | 150mV | 89%   |
| USP-500-48 | 48V, 0~10.5A | ±2%  | 150mV | 90%   |



### Features

- Universal AC input / Full range
- Installed on DIN rail TS-35 / 7.5 or 15
- Protections: Short circuit / Overload / Over voltage
- No load power consumption <0.75W (<1W for MDR-100)
- LED indicator for power on
- Built-in active PFC and over temp. protection (MDR-100)
- Class I, Div 2 Hazardous Locations T4(MDR-40/60)
- DC OK signal output (MDR-10/20)
- DC OK relay contact (MDR-40/60/100)
- Cooling by free air convection
- 100% full load burn-in test
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                 | MDR-10                                                                                                                                               | MDR-20                                             | MDR-40                                             | MDR-60         | MDR-100            |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------|--------------------|
| AC input voltage range    | 85~264VAC; 120~370VDC                                                                                                                                |                                                    |                                                    |                |                    |
| AC inrush current         | Cold start, 35A at 115VAC, 70A at 230VAC                                                                                                             | Cold start, 20A at 115VAC, 40A at 230VAC           | Cold start, 30A at 115VAC, 60A at 230VAC           |                |                    |
| DC adjustment range       | Fixed                                                                                                                                                | ±10% rated output voltage                          | 0~+20% rated output voltage                        |                |                    |
| Overload protection       | >105% hiccup mode, auto-recovery                                                                                                                     | 105%~160% constant current limiting, auto-recovery | 105%~150% constant current limiting, auto-recovery |                |                    |
| Over voltage protection   | 115%~135% rated output voltage                                                                                                                       |                                                    | 125%~150% rated output voltage                     |                |                    |
| Setup, rise, hold up time | 500ms, 30ms, 120ms                                                                                                                                   | 500ms, 30ms, 50ms                                  |                                                    |                | 3000ms, 50ms, 50ms |
| Withstand voltage         | I/P-O/P:3kVAC, I/P-FG:2kVAC, 1minute                                                                                                                 |                                                    |                                                    |                |                    |
| Working temperature       | -20~+70°C (refer to output derating curve)                                                                                                           |                                                    |                                                    |                | -10~+60°C          |
| DC OK signal              | Open collector                                                                                                                                       |                                                    | Relay contact                                      |                |                    |
| Safety standards          | UL508, TUV EN60950-1 approved; MDR-40/60 also approved for UL60950-1, ANSI/ISA 12.12.01-2013 Class I, Div. 2 Group A, B, C, D Hazardous Locations T4 |                                                    |                                                    |                |                    |
| EMC standards             | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN61000-6-2 heavy industry level (MDR-40/60/100)                                |                                                    |                                                    |                |                    |
| Connection                | I/P: 3 poles, O/P: 3 poles screw DIN terminal                                                                                                        |                                                    | IP: 3 poles, O/P: 6 poles screw DIN terminal       |                |                    |
| Dimension (WxHxD)(mm)     | 22.5x90x100                                                                                                                                          |                                                    | 40x90x100                                          |                | 55x90x100          |
| Packing                   | 72pcs / 13.2kg                                                                                                                                       | 72pcs / 14.7kg                                     | 42pcs / 13.6kg                                     | 42pcs / 14.8kg | 30pcs / 13.6kg     |

### MDR-10 Series



| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| MDR-10-5  | 5V, 0~2.0A   | ±5%  | 80mV  | 77%   |
| MDR-10-12 | 12V, 0~0.84A | ±3%  | 120mV | 81%   |
| MDR-10-15 | 15V, 0~0.67A | ±3%  | 120mV | 81%   |
| MDR-10-24 | 24V, 0~0.42A | ±2%  | 150mV | 84%   |

### MDR-60 Series



| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| MDR-60-5  | 5V, 0~10.0A  | ±2%  | 80mV  | 78%   |
| MDR-60-12 | 12V, 0~5.00A | ±1%  | 120mV | 86%   |
| MDR-60-24 | 24V, 0~2.50A | ±1%  | 150mV | 88%   |
| MDR-60-48 | 48V, 0~1.25A | ±1%  | 200mV | 87%   |

### MDR-20 Series



| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| MDR-20-5  | 5V, 0~3.0A   | ±2%  | 80mV  | 76%   |
| MDR-20-12 | 12V, 0~1.67A | ±1%  | 120mV | 80%   |
| MDR-20-15 | 15V, 0~1.34A | ±1%  | 120mV | 81%   |
| MDR-20-24 | 24V, 0~1.00A | ±1%  | 150mV | 84%   |

### MDR-100 Series



| Model No.  | Output      | Tol. | R&N   | Effi. |
|------------|-------------|------|-------|-------|
| MDR-100-12 | 12V, 0~7.5A | ±1%  | 120mV | 83%   |
| MDR-100-24 | 24V, 0~4.0A | ±1%  | 150mV | 86%   |
| MDR-100-48 | 48V, 0~2.0A | ±1%  | 200mV | 87%   |

### MDR-40 Series



| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| MDR-40-5  | 5V, 0~6.00A  | ±2%  | 80mV  | 78%   |
| MDR-40-12 | 12V, 0~3.33A | ±1%  | 120mV | 86%   |
| MDR-40-24 | 24V, 0~1.70A | ±1%  | 150mV | 88%   |
| MDR-40-48 | 48V, 0~0.83A | ±1%  | 200mV | 88%   |



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#### To satisfy our customers is our goal —

- High Quality
- Low Cost
- Prompt Delivery
- Best Service



### Features

- Isolation Class II
- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temp. (DR-100)
- No load power consumption<1W (DR-100)  
No load power consumption<0.5W (DR-15)
- Installed on DIN rail TS-35 / 7.5 or 15
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- Suitable for building automation and control of household appliance
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | DR-15  | DR-30                                            | DR-60                        | DR-100  |
|--------------------------|-------|-----------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------|--------------------------------------------------------------------------------------------|
| AC input voltage range   |       | 85~264VAC; 120~370VDC                                                                   |                                                  |                              | 88~264VAC; 124~370VDC                                                                      |
| AC inrush current (max.) |       | Cold start,<br>65A at 230VAC                                                            | Cold start,<br>30A at 230VAC                     | Cold start,<br>36A at 230VAC | Cold start,<br>45A at 230VAC                                                               |
| DC adjustment range      |       | ±10% rated output voltage                                                               |                                                  |                              | 12V: 12~15V, 15V: 15~18V,<br>24V: 24~29V                                                   |
| Overload protection      | Range | 105%~160%                                                                               |                                                  |                              | 105%~135%                                                                                  |
|                          | Type  | constant current limiting, auto-recovery                                                |                                                  |                              |                                                                                            |
| Over voltage protection  | Range | 115%~135% rated output voltage                                                          |                                                  |                              | 125%~155% rated output voltage                                                             |
|                          | Type  | Shut off, clamp by zener diode                                                          | Shut down, re-power on to recover                |                              |                                                                                            |
| Withstand voltage        |       | I/P-O/P: 3kVAC                                                                          |                                                  |                              |                                                                                            |
| Working temperature      |       | -20~+60°C (refer to output load derating curve)                                         |                                                  |                              |                                                                                            |
| Vibration                |       | 10~500Hz, 2G 10 min./1 cycle, period for 60 min. each along X, Y, Z axes                |                                                  |                              |                                                                                            |
| Safety standards         |       | UL60950-1, TUV60950-1 approved                                                          |                                                  |                              |                                                                                            |
| EMC standards            |       | EN55022 class B, EN61000-3-2,3, EN61000-6-2, EN61000-4-2,3,4,5,6,8,11, EN61204-3        |                                                  |                              |                                                                                            |
| Connection               |       | I/P and O/P:<br>2 poles screw DIN terminal                                              | I/P: 2 poles,<br>O/P: 4 poles screw DIN terminal |                              |                                                                                            |
| Dimension (WxHxD)(mm)    |       | 25x93x56                                                                                | 78x93x56                                         |                              | 100x93x56                                                                                  |
| Case No.                 |       | 985A                                                                                    | 918B                                             |                              | 970A                                                                                       |
| Packing                  |       | 140pcs / 15.0kg                                                                         | 48pcs / 14.0kg                                   | 48pcs / 15.4kg               | 36pcs / 13.6kg                                                                             |

### 15W DR-15

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| DR-15-5   | 5V, 0~2.40A  | ±2%  | 80mV  | 77.0% |
| DR-15-12  | 12V, 0~1.25A | ±1%  | 120mV | 84.0% |
| DR-15-15  | 15V, 0~1.00A | ±1%  | 120mV | 83.5% |
| DR-15-24  | 24V, 0~0.63A | ±1%  | 150mV | 85.0% |

### 60W DR-60

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| DR-60-5   | 5V, 0~6.5A  | ±2%  | 80mV  | 76%   |
| DR-60-12  | 12V, 0~4.5A | ±1%  | 120mV | 82%   |
| DR-60-15  | 15V, 0~4.0A | ±1%  | 120mV | 83%   |
| DR-60-24  | 24V, 0~2.5A | ±1%  | 150mV | 84%   |

### 30W DR-30

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| DR-30-5   | 5V, 0~3.0A  | ±2%  | 80mV  | 74%   |
| DR-30-12  | 12V, 0~2.0A | ±1%  | 120mV | 81%   |
| DR-30-15  | 15V, 0~2.0A | ±1%  | 120mV | 82%   |
| DR-30-24  | 24V, 0~1.5A | ±1%  | 150mV | 83%   |

### 100W DR-100

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| DR-100-12 | 12V, 0~7.5A | ±2%  | 120mV | 87%   |
| DR-100-15 | 15V, 0~6.5A | ±1%  | 120mV | 87%   |
| DR-100-24 | 24V, 0~4.2A | ±1%  | 150mV | 89%   |



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### Energy Saving —

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### Features

- Universal AC input / Full range (DR-45/75, DRP-240)  
AC input selectable by switch (DR-120, DRP-480S)  
AC input 180~264VAC only (DRP-480)
- Built-in active PFC function (DRP-240)
- Built-in passive PFC function compliance to EN61000-3-2 (480W models)
- Protections: Short circuit / Overload /  
Over voltage / Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508 (industrial control equipment) listed
- 100% full load burn-in test
- LED indicator for power on
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                  |       | DR-45                                                                                                              | DR-75                                 | DR-120         | DRP-240                                    | DRP-480       | DRP-480S      |
|----------------------------|-------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------|----------------|--------------------------------------------|---------------|---------------|
| AC input voltage range     |       | 85~264VAC(DR-45/75, DRP-240); 90~132/180~264VAC selectable by switch (DR-120, DRP-480S); 180~264VAC only (DRP-480) |                                       |                |                                            |               |               |
| AC inrush current (230VAC) |       | 56A                                                                                                                | 40A                                   | 40A            | 45A                                        | 40A           | 45A           |
| DC adjustment range        |       | ±10%                                                                                                               | 12V: 12~14V, 24V: 24~28V, 48V: 48~53V |                |                                            |               |               |
| Overload protection        |       | 105%~150% constant current limiting, auto-recovery                                                                 |                                       |                |                                            |               |               |
| Over voltage protection    | Range | 115%~142% rated output voltage                                                                                     |                                       |                | 30~36V for 24V model, 54~60V for 48V model |               |               |
|                            | Type  | Shut off, AC recycle to re-start                                                                                   |                                       |                |                                            |               |               |
| Over temp. protection      |       | Shut down output voltage, recovers automatically after temperature goes down (DRP-240, re-power on to recover)     |                                       |                |                                            |               |               |
| Withstand voltage          |       | I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC, 1 minute                                                         |                                       |                |                                            |               |               |
| Working temperature        |       | -10~+50°C                                                                                                          | -10~+60°C                             |                | -10~+70°C                                  | -20~+70°C     |               |
| Safety standards           |       | UL508, TUV EN60950-1 approved (UL60950-1 also for DR-120, DRP-240, DRP-480, DRP-480S)                              |                                       |                |                                            |               |               |
| EMC standards              |       | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 heavy industry level                         |                                       |                |                                            |               |               |
| Connection                 |       | I/P: 3 poles, O/P: 4 poles screw DIN terminal                                                                      |                                       |                |                                            |               |               |
| Dimension (WxHxD)(mm)      |       | 78x93x67                                                                                                           | 55.5x125.2x100                        | 65.5x125.2x100 | 125.5x125.2x100                            | 227x125.2x100 |               |
| Case No.                   |       | 918A                                                                                                               | 923                                   | 921A           | 922A                                       | 930           |               |
| Packing                    |       | 48pcs / 17.5kg                                                                                                     | 20pcs / 13.0kg                        | 20pcs / 16.5kg | 12pcs / 15.5kg                             | 6pcs / 15.0kg | 6pcs / 16.6kg |

### DR-45 Series



| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| DR-4505   | 5V, 0~5.0A  | ±2%  | 100mV | 72%   |
| DR-4512   | 12V, 0~3.5A | ±1%  | 200mV | 77%   |
| DR-4515   | 15V, 0~2.8A | ±1%  | 240mV | 77%   |
| DR-4524   | 24V, 0~2.0A | ±1%  | 480mV | 80%   |

### DR-75 Series



| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| DR-75-12  | 12V, 0~6.3A | ±2%  | 100mV | 76%   |
| DR-75-24  | 24V, 0~3.2A | ±1%  | 150mV | 80%   |
| DR-75-48  | 48V, 0~1.6A | ±1%  | 240mV | 81%   |

### DR-120 Series



| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| DR-120-12 | 12V, 0~10A  | ±2%  | 80mV  | 80%   |
| DR-120-24 | 24V, 0~5.0A | ±1%  | 80mV  | 84%   |
| DR-120-48 | 48V, 0~2.5A | ±1%  | 100mV | 85%   |

### DRP-240 Series



| Model No.  | Output      | Tol. | R&N   | Effi. |
|------------|-------------|------|-------|-------|
| DRP-240-24 | 24V, 0~10A  | ±1%  | 80mV  | 84%   |
| DRP-240-48 | 48V, 0~5.0A | ±1%  | 150mV | 85%   |

### DRP-480 Series



| Model No.  | Output     | Tol. | R&N   | Effi. |
|------------|------------|------|-------|-------|
| DRP-480-24 | 24V, 0~20A | ±1%  | 120mV | 89%   |
| DRP-480-48 | 48V, 0~10A | ±1%  | 120mV | 89%   |

### DRP-480S Series



| Model No.   | Output     | Tol. | R&N   | Effi. |
|-------------|------------|------|-------|-------|
| DRP-480S-24 | 24V, 0~20A | ±1%  | 120mV | 89%   |
| DRP-480S-48 | 48V, 0~10A | ±1%  | 120mV | 89%   |



### Customer Satisfaction

Today's effort, tomorrow's reward. Continuously improve CQTS to satisfy customer is our goal.



### Features

- Input 340~550VAC, 3-phase  
(2-phase for DRH-120)
- Protections: Short circuit / Overload /  
Over voltage / Over temperature
- Built-in constant current limiting circuit
- Cooling by free air convection
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508 (industrial control equipment) listed  
(240~960W)
- EN61000-6-2 (EN50082-2) industrial immunity level
- Optional parallel function (1+1) (960W only)
- 100% full load burn-in test
- LED indicator for power on
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                       |       | DRH-120                                                                                               | DRT-240                                            | DRT-480       | DRT-960                                                |
|---------------------------------|-------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------|---------------|--------------------------------------------------------|
| AC input voltage range          |       | 340~550VAC, two phase                                                                                 | 340~550VAC, 3-phase (two phase operation possible) |               |                                                        |
| AC inrush current (max.)        |       | Cold start, 50A at 400VAC                                                                             |                                                    |               |                                                        |
| DC adjustment range             |       | 24V: 24~28V, 48V: 48~55V                                                                              |                                                    |               |                                                        |
| Overload protection             | Range | 105%~160%                                                                                             | 105%~150%                                          |               | 105%~125%                                              |
|                                 | Type  | Constant current limiting, auto-recovery                                                              |                                                    |               | Constant current limiting, delay shut off after 3 sec. |
| Over voltage protection         | Range | 24V: 30~36V, 48V: 59~66V                                                                              |                                                    |               |                                                        |
|                                 | Type  | Shut off, AC recycle to re-start                                                                      |                                                    |               |                                                        |
| Over temperature protection     |       | Shut down output voltage, recovers automatically after temperature goes down                          |                                                    |               |                                                        |
| Withstand voltage               |       | I/P - O/P: 3kVAC, I/P - FG: 1.5kVAC, O/P - FG: 0.5kVAC, 1 minute                                      |                                                    |               |                                                        |
| Working temperature             |       | -20~+60°C                                                                                             | -20~+70°C                                          |               | -20~+60°C                                              |
| Safety standards                |       | UL60950-1 approved                                                                                    | UL508, UL60950-1, TUV EN60950-1 approved           |               |                                                        |
| EMC standards                   |       | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN61000-6-2 heavy industry level |                                                    |               |                                                        |
| Connection (screw DIN terminal) |       | I/P: 3 poles, O/P: 4 poles                                                                            | I/P: 4 poles, O/P: 4 poles                         |               | I/P: 4 poles, O/P: 6 poles                             |
| Dimension (WxHxD)(mm)           |       | 65.5x125.2x100                                                                                        | 125.5x125.2x100                                    | 227x125.2x100 | 276x125.2x100                                          |
| Case No.                        |       | 921A                                                                                                  | 922A                                               | 930A          | 934                                                    |
| Packing                         |       | 20pcs / 16.0kg                                                                                        | 12pcs / 16.6kg                                     | 6pcs / 16.0kg | 4pcs / 14.2kg                                          |

### DRH-120 (Two Phase)



| Model No.  | Output      | Tol. | R&N  | Effi. |
|------------|-------------|------|------|-------|
| DRH-120-24 | 24V, 0~5.0A | ±1%  | 80mV | 85%   |
| DRH-120-48 | 48V, 0~2.5A | ±1%  | 80mV | 86%   |

### DRT-480 (Three Phase)



| Model No.  | Output     | Tol. | R&N  | Effi. |
|------------|------------|------|------|-------|
| DRT-480-24 | 24V, 0~20A | ±1%  | 80mV | 89%   |
| DRT-480-48 | 48V, 0~10A | ±1%  | 80mV | 90%   |

### DRT-240 (Three Phase)



| Model No.  | Output      | Tol. | R&N  | Effi. |
|------------|-------------|------|------|-------|
| DRT-240-24 | 24V, 0~10A  | ±1%  | 80mV | 89%   |
| DRT-240-48 | 48V, 0~5.0A | ±1%  | 80mV | 89%   |

### DRT-960 (Three Phase)



| Model No.  | Output     | Tol. | R&N  | Effi. |
|------------|------------|------|------|-------|
| DRT-960-24 | 24V, 0~40A | ±1%  | 80mV | 91%   |
| DRT-960-48 | 48V, 0~20A | ±1%  | 80mV | 92%   |



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#### 48hrs delivery—

We keep enough stock for 95% of standard models at our 2400m<sup>2</sup> warehouse. We can arrange prompt delivery within 48hrs.



EDR-75

EDR-120

EDR-150

### Features

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508 (industrial control equipment) listed
- EN61000-6-2 (EN50082-2) industrial immunity level
- 100% full load burn-in test
- Low cost
- 2 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                       |       | EDR-75                                                                                            | EDR-120          | EDR-150     |
|---------------------------------|-------|---------------------------------------------------------------------------------------------------|------------------|-------------|
| AC input voltage range          |       | 90~264VAC; 127~370VDC                                                                             |                  |             |
| AC inrush current (max.)        |       | Cold start, 35A at 230VAC                                                                         |                  |             |
| DC adjustment range             |       | 12V: 12~14V, 24V: 24~28V, 48V: 48~55V                                                             |                  |             |
| Overload protection             | Range | 105%~130%                                                                                         |                  |             |
|                                 | Type  | Constant current limiting, auto-recovery                                                          |                  |             |
| Over voltage protection         | Range | 12V: 14~17V, 24V: 29~33V, 48V: 56~65V                                                             |                  | 24V: 29~33V |
|                                 | Type  | Shut down o/p voltage, re-power on to recover                                                     |                  |             |
| Over temperature protection     |       | Shut down o/p voltage, re-power on to recover                                                     |                  |             |
| Withstand voltage               |       | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                    |                  |             |
| Working temperature             |       | -20~+60°C (refer to output derating curve)                                                        |                  |             |
| Safety standards                |       | UL508, TUV EN60950-1 approved                                                                     |                  |             |
| EMC standards                   |       | EN55022 classA, EN61000-3-2(125W for EDR-150),3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2(EN50082-2) |                  |             |
| Connection (screw DIN terminal) |       | I/P: 3 poles, O/P: 4 poles                                                                        |                  |             |
| Dimension (WxHxD)(mm)           |       | 32x 125.2x 102                                                                                    | 40x 125.2x 113.5 |             |
| Case No.                        |       | 221B                                                                                              | 992D             |             |
| Packing                         |       | 28pcs / 15.3kg                                                                                    | 20pcs / 13kg     |             |

### 75W EDR-75

| Model No. | Output      | Tol.  | R&N   | Effi. |
|-----------|-------------|-------|-------|-------|
| EDR-75-12 | 12V, 0~6.3A | ±2.0% | 100mV | 85.5% |
| EDR-75-24 | 24V, 0~3.2A | ±1.0% | 120mV | 87.5% |
| EDR-75-48 | 48V, 0~1.6A | ±1.0% | 150mV | 88.5% |

### 120W EDR-120

| Model No.  | Output      | Tol.  | R&N   | Effi. |
|------------|-------------|-------|-------|-------|
| EDR-120-12 | 12V, 0~10A  | ±2.0% | 100mV | 85.0% |
| EDR-120-24 | 24V, 0~5A   | ±1.0% | 120mV | 87.5% |
| EDR-120-48 | 48V, 0~2.5A | ±1.0% | 150mV | 88.5% |

### 150W EDR-150

| Model No.  | Output (230VAC/115VAC) | Tol.  | R&N   | Effi. |
|------------|------------------------|-------|-------|-------|
| EDR-150-24 | 24V, 0~6.5A / 0~5.2A   | ±1.0% | 150mV | 87%   |



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#### 48hrs delivery—

We keep enough stock for 95% of standard models at our 2400m<sup>2</sup> warehouse. We can arrange prompt delivery within 48hrs.



### Features

- Universal AC input / Full range
- Built-in active PFC function(NDR-240/480)
- High efficiency up to 92.5%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508 (industrial control equipment) listed
- EN61000-6-2 (EN50082-2) industrial immunity level
- 100% full load burn-in test
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                       |       | NDR-75                                                                                      | NDR-120          | NDR-240                              | NDR-480                                                                  |
|---------------------------------|-------|---------------------------------------------------------------------------------------------|------------------|--------------------------------------|--------------------------------------------------------------------------|
| AC input voltage range          |       | 90~264VAC; 127~370VDC                                                                       |                  |                                      |                                                                          |
| AC inrush current (max.)        |       | Cold start, 35A at 230VAC                                                                   |                  |                                      |                                                                          |
| DC adjustment range             |       | 12V: 12~14V, 24V: 24~28V, 48V: 48~55V                                                       |                  |                                      |                                                                          |
| Overload protection             | Range | 105%~130%                                                                                   |                  |                                      |                                                                          |
|                                 | Type  | Constant current limiting, auto-recovery                                                    |                  |                                      | Constant current limiting, shut off after 3 sec., re-power on to recover |
| Over voltage protection         | Range | 12V: 14~17V, 24V: 29~33V, 48V: 56~65V                                                       |                  |                                      |                                                                          |
|                                 | Type  | Shut down o/p voltage, re-power on to recover                                               |                  |                                      |                                                                          |
| Over temperature protection     |       | Shut down o/p voltage, re-power on to recover                                               |                  | Shut down o/p voltage, auto-recovery |                                                                          |
| Withstand voltage               |       | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                              |                  |                                      |                                                                          |
| Working temperature             |       | -20~+70°C (refer to output derating curve)                                                  |                  |                                      |                                                                          |
| Safety standards                |       | UL508, TUV EN60950-1 approved                                                               |                  |                                      |                                                                          |
| EMC standards                   |       | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2(EN50082-2), EN61204-3 |                  |                                      |                                                                          |
| Connection (screw DIN terminal) |       | I/P: 3 poles, O/P: 4 poles                                                                  |                  |                                      |                                                                          |
| Dimension (WxHxD)(mm)           |       | 32x 125.2x 102                                                                              | 40x 125.2x 113.5 | 63x 125.2x 113.5                     | 85.5x 125.2x 128.5                                                       |
| Case No.                        |       | 221B                                                                                        | 992D             | 979C                                 | 984D                                                                     |
| Packing                         |       | 28pcs / 15.3kg                                                                              | 20pcs / 13kg     | 12pcs / 13kg                         | 8pcs / 15.4kg                                                            |

### NDR-75 Series



| Model No. | Output      | Tol.  | R&N   | Effi. |
|-----------|-------------|-------|-------|-------|
| NDR-75-12 | 12V, 0~6.3A | ±2.0% | 100mV | 85.5% |
| NDR-75-24 | 24V, 0~3.2A | ±1.0% | 150mV | 88.0% |
| NDR-75-48 | 48V, 0~1.6A | ±1.0% | 240mV | 89.0% |

### NDR-240 Series



| Model No.  | Output     | Tol.  | R&N   | Effi. |
|------------|------------|-------|-------|-------|
| NDR-240-24 | 24V, 0~10A | ±1.0% | 150mV | 88.5% |
| NDR-240-48 | 48V, 0~5A  | ±1.0% | 150mV | 90.0% |

### NDR-120 Series



| Model No.  | Output      | Tol.  | R&N   | Effi. |
|------------|-------------|-------|-------|-------|
| NDR-120-12 | 12V, 0~10A  | ±2.0% | 100mV | 85.5% |
| NDR-120-24 | 24V, 0~5A   | ±1.0% | 120mV | 88.0% |
| NDR-120-48 | 48V, 0~2.5A | ±1.0% | 150mV | 89.0% |

### NDR-480 Series



| Model No.  | Output     | Tol.  | R&N   | Effi. |
|------------|------------|-------|-------|-------|
| NDR-480-24 | 24V, 0~20A | ±1.0% | 150mV | 92.5% |
| NDR-480-48 | 48V, 0~10A | ±1.0% | 150mV | 92.5% |



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SDR-75 SDR-120 SDR-240 SDR-480P SDR-960

### Features

- High efficiency up to 94%
- Universal AC input / Full range (SDR-75/120/240/480)  
AC input 180~264VAC only (SDR-960)
- Built-in active PFC function (SDR-120/240/480/960)
- Protections: Short circuit / Overload /  
Over voltage / Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508(industrial control equipment) approved
- EN61000-6-2(EN50082-2) industrial immunity level
- Built-in DC OK relay contact (except for SDR-75)
- 150% peak load capability (SDR-75/120/240/480)  
130% peak load capability (SDR-960)
- Current sharing up to 3840W (7+1) for SDR-480P  
Current sharing up to 3840W (3+1) for SDR-960
- Comply with GL (SDR-120/240/480)
- Comply with SEMI F47 (SDR-75/120/240/480)
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                       |       | SDR-75                                                                                                                                                                  | SDR-120                                            | SDR-240                      | SDR-480□                                                            | SDR-960                                                                                                                                                                   |
|---------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC input voltage range          |       | 88~264VAC; 124~370VDC                                                                                                                                                   |                                                    |                              | 90~264VAC; 127~370VDC                                               | 180~264VAC; 254~370VDC                                                                                                                                                    |
| AC inrush current (max.)        |       | Cold start,<br>50A at 230VAC                                                                                                                                            | Cold start,<br>70A at 230VAC                       | Cold start,<br>65A at 230VAC | Cold start,<br>80A at 230VAC                                        | Cold start,<br>50A at 230VAC                                                                                                                                              |
| DC adjustment range             |       | 12V: 12~14V (only for SDR-75/120), 24V: 24~28V, 48V: 48~55V                                                                                                             |                                                    |                              |                                                                     |                                                                                                                                                                           |
| Overload protection             |       | Normally works within 110%~150% rated output power for 3 seconds and then shut down output voltage with auto-recovery (re-power on to recover for SDR-75)               |                                                    |                              |                                                                     | Normally works within 105%~130% rated output power for 3 seconds and then shut down o/p voltage with auto-recovery after 30 seconds if the peak load condition is removed |
|                                 |       | >150% rated power or short circuit, constant current limiting with auto-recovery within 2 seconds and may cause to shut down if over 2 seconds                          |                                                    |                              |                                                                     | Constant current limiting within 130%~150% rated output power for more than 3 seconds and then shut down o/p voltage, re-power on to recover                              |
| Over voltage protection         | Range | 14~17V for 12V model(SDR-75/120), 29~33V for 24V model, 56~65V for 48V model                                                                                            |                                                    |                              |                                                                     |                                                                                                                                                                           |
|                                 | Type  | Shut down o/p voltage, re-power on to recover                                                                                                                           |                                                    |                              | Shut down o/p voltage with auto-recovery, or re-power on to recover |                                                                                                                                                                           |
| Over temperature protection     |       | Re-power on to recover                                                                                                                                                  | Recovers automatically after temperature goes down |                              |                                                                     |                                                                                                                                                                           |
| Withstand voltage               |       | I/P-O/P:3kVAC, I/P-FG:1.5kVAC, O/P-FG:0.5kVAC, O/P-DC OK:0.5kVAC (except for SDR-75)                                                                                    |                                                    |                              |                                                                     |                                                                                                                                                                           |
| Working temperature             |       | -30~+70℃                                                                                                                                                                | -25~+70℃ (refer to output derating curve)          |                              |                                                                     | -30~+70℃                                                                                                                                                                  |
| Safety standards                |       | UL508, TUV EN60950-1, GL (SDR-120/240/480) approved                                                                                                                     |                                                    |                              |                                                                     |                                                                                                                                                                           |
| EMC standards                   |       | EN55011(SDR-120/240/480), EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), EN61204-3; SEMI (SDR-75/120/240/480), GL (SDR-120/240/480) |                                                    |                              |                                                                     |                                                                                                                                                                           |
| Connection (screw DIN terminal) |       | I/P: 3 poles, O/P: 4 poles                                                                                                                                              |                                                    | I/P: 3 poles, O/P: 6 poles   | I/P: 3 poles, O/P: 8 poles                                          | I/P:3 poles, O/P: 6 poles                                                                                                                                                 |
| Dimension (WxHxD)(mm)           |       | 32x125.2x102                                                                                                                                                            | 40x125.2x113.5                                     | 63x125.2x113.5               | 85.5x125.2x128.5                                                    | 110x125.2x150                                                                                                                                                             |

### SDR-75 Series



| Model No. | Output      | Tol.  | R&N   | Effi. |
|-----------|-------------|-------|-------|-------|
| SDR-75-12 | 12V, 0~6.3A | ±1.0% | 100mV | 88.5% |
| SDR-75-24 | 24V, 0~3.2A | ±1.0% | 100mV | 89.0% |
| SDR-75-48 | 48V, 0~1.6A | ±1.0% | 120mV | 90.0% |

### SDR-120 Series



| Model No.  | Output      | Tol.  | R&N   | Effi. |
|------------|-------------|-------|-------|-------|
| SDR-120-12 | 12V, 0~10A  | ±1.0% | 100mV | 89.0% |
| SDR-120-24 | 24V, 0~ 5A  | ±1.0% | 100mV | 91.0% |
| SDR-120-48 | 48V, 0~2.5A | ±1.0% | 120mV | 90.5% |

### SDR-240 Series



| Model No.  | Output     | Tol.  | R&N   | Effi. |
|------------|------------|-------|-------|-------|
| SDR-240-24 | 24V, 0~10A | ±1.0% | 100mV | 94%   |
| SDR-240-48 | 48V, 0~5A  | ±1.0% | 120mV | 94%   |

### SDR-480 Series



| Model No.   | Output     | Tol.  | R&N   | Effi. |
|-------------|------------|-------|-------|-------|
| SDR-480□-24 | 24V, 0~20A | ±1.2% | 100mV | 94%   |
| SDR-480□-48 | 48V, 0~10A | ±1.0% | 120mV | 94%   |

□ =blank, P ; Blank: basic function, P: with parallel function

### SDR-960 Series



| Model No.  | Output     | Tol.  | R&N   | Effi. |
|------------|------------|-------|-------|-------|
| SDR-960-24 | 24V, 0~40A | ±1.0% | 180mV | 94%   |
| SDR-960-48 | 48V, 0~20A | ±1.0% | 250mV | 94%   |



WDR-120

WDR-240

WDR-480

### ■ Features

- Single and two phase wide input range 180~550VAC
- Built-in active PFC function (WDR-240/480)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508(industrial control equipment) approved
- EN61000-6-2(EN50082-2) industrial immunity level
- Built-in DC OK relay contact
- 100% full load burn-in test
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                          |       | WDR-120                                                                                                            | WDR-240                                                                                                                                                    | WDR-480                                                                                 |
|------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| AC input voltage range             |       | 180~550VAC(single and two phase); 254~780VDC                                                                       |                                                                                                                                                            |                                                                                         |
| AC input current                   |       | 0.55A / 400VAC, 1.2A / 230VAC                                                                                      | 1A / 400VAC, 2A / 230VAC                                                                                                                                   | 1.6A / 400VAC, 4A / 230VAC                                                              |
| AC inrush current (max.)           |       | Cold start, 50A at 400VAC                                                                                          |                                                                                                                                                            |                                                                                         |
| DC adjustment range                |       | 12V: 12~15V, 24V: 24~29V, 48V: 48~58V                                                                              | 24V: 24~28V, 48V: 48~55V                                                                                                                                   |                                                                                         |
| Overload protection                |       | 105%~130% rated output power, constant current limiting, auto-recovery                                             | 105%~130% rated output power, constant current limiting, unit will shut down after 3 sec.; auto-recovery after 1 minute if the fault condition is removed. |                                                                                         |
| Over voltage protection            | Range | 16~18V for 12V model (only for WDR-120), 29~33V for 24V model, 56~65V for 48V model                                |                                                                                                                                                            |                                                                                         |
|                                    | Type  | Shut down o/p voltage, auto-recovery                                                                               | Shut down o/p voltage, auto-recovery after 1 minute if the fault condition is removed                                                                      |                                                                                         |
| Setup, rise, hold up time          |       | 2000ms, 70ms, 10ms at full load and 230VAC; 2000ms, 70ms, 50ms at full load and 400VAC                             | 1500ms, 150ms, 18ms at full load and 230VAC; 800ms, 150ms, 18ms at full load and 400VAC                                                                    | 2000ms, 150ms, 16ms at full load and 230VAC; 800ms, 150ms, 18ms at full load and 400VAC |
| Over temp. protection              |       | Shut down output voltage, recovers automatically after temperature goes down                                       |                                                                                                                                                            |                                                                                         |
| Withstand voltage                  |       | I/P-O/P:3kVAC, I/P-FG:1.5kVAC, O/P-FG:0.5kVAC, O/P-DC OK:0.5kVAC, 1 minute                                         |                                                                                                                                                            |                                                                                         |
| Isolation resistance               |       | 100MΩ(min.)@500VDC                                                                                                 |                                                                                                                                                            |                                                                                         |
| Working temperature                |       | -25~+70°C (refer to output derating curve)                                                                         | -30~+70°C (refer to output derating curve)                                                                                                                 |                                                                                         |
| DC OK signal                       |       | Relay Contact                                                                                                      |                                                                                                                                                            |                                                                                         |
| Leakage current                    |       | <3.5mA at 530VAC                                                                                                   |                                                                                                                                                            |                                                                                         |
| Vibration                          |       | 10~500Hz, 2G 10 minutes / 1 cycle, period of 60 minutes each along X, Y, Z axes                                    |                                                                                                                                                            |                                                                                         |
| Safety standards                   |       | UL508 approved ; IEC60950-1 CB approved by SIQ ; Design refer to GL                                                |                                                                                                                                                            |                                                                                         |
| EMC standards                      |       | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), EN61204-3, heavy industry level |                                                                                                                                                            |                                                                                         |
| Connection<br>(screw DIN terminal) |       | I/P: 3 poles, O/P: 4 poles                                                                                         | I/P: 3 poles, O/P: 6 poles                                                                                                                                 |                                                                                         |
| Dimension (WxHxD)(mm)              |       | 40x125.2x113.5                                                                                                     | 63x125.2x113.5                                                                                                                                             | 85.5x125.2x128.5                                                                        |
| Packing                            |       | 20pcs / 14kg                                                                                                       | 12pcs / 13.7kg                                                                                                                                             | 8pcs / 14.6kg                                                                           |

### ■ WDR-120 Series



| Model No.  | Output      | Tol.  | R&N   | Effi. |
|------------|-------------|-------|-------|-------|
| WDR-120-12 | 12V, 0~10A  | ±1.5% | 120mV | 89.5% |
| WDR-120-24 | 24V, 0~5A   | ±1.0% | 120mV | 91%   |
| WDR-120-48 | 48V, 0~2.5A | ±1.0% | 150mV | 92%   |

### ■ WDR-240 Series



| Model No.  | Output     | Tol.  | R&N   | Effi. |
|------------|------------|-------|-------|-------|
| WDR-240-24 | 24V, 0~10A | ±1.0% | 150mV | 91%   |
| WDR-240-48 | 48V, 0~5A  | ±1.0% | 150mV | 91%   |

### ■ WDR-480 Series



| Model No.  | Output     | Tol.  | R&N   | Effi. |
|------------|------------|-------|-------|-------|
| WDR-480-24 | 24V, 0~20A | ±1.0% | 100mV | 92%   |
| WDR-480-48 | 48V, 0~10A | ±1.0% | 150mV | 93%   |



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## 960W High Input Voltage

- Input 340~550VAC, 3-phase
- **Width only 110mm**
- Built-in active PFC function
- **High efficiency up to 94.5%**
- Protections:  
Short circuit / Overload /  
Over voltage / Over temp.
- Cooling by free air convection
- Installed on DIN rail TS-35 / 7.5 or 15
- EN61000-6-2(EN50082-2) industrial immunity level
- Current sharing up to 3840W (3+1)
- Built-in DC OK relay contact
- 3 years warranty



|                               |                                                                                                                    |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------|
| AC input voltage range .....  | 340~550VAC, 3-phase (2-phase operation possible)                                                                   |
| AC input current (Typ.).....  | 2A / 400VAC, 1.4A / 500VAC                                                                                         |
| AC inrush current .....       | Cold start, 60A at 400VAC                                                                                          |
| DC adjustment range .....     | 24V: 24~28V, 48V: 48~55V                                                                                           |
| Overload protection .....     | 105%~130% rated output power, constant current limiting, unit will shut down after 3 sec., re-power on to recover  |
| Over voltage protection ..... | 29~33V (24V model), 56~65V (48V model), shut down o/p voltage, re-power on to recover                              |
| Over temperature.....         | Shut down o/p voltage, recovers automatically after temperature goes down                                          |
| Withstand voltage.....        | I/P-O/P:3kVAC I/P-FG:2kVAC O/P-FG: 0.5kVAC, O/P-DC OK: 0.5kVAC                                                     |
| Working temperature .....     | -30~+70°C (refer to output derating curve)                                                                         |
| Safety standards.....         | UL508 approved; IEC60950-1 CB approved by SIQ                                                                      |
| EMC standards .....           | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), EN61204-3, heavy industry level |
| Connection .....              | I/P: 3 poles, O/P: 6 poles screw DIN terminal                                                                      |

| Model No.  | Output     | Tol.  | R&N   | Effi. |
|------------|------------|-------|-------|-------|
| TDR-960-24 | 24V, 0~40A | ±1.0% | 180mV | 94.0% |
| TDR-960-48 | 48V, 0~20A | ±1.0% | 250mV | 94.5% |

## 40 & 60W Output Current Programmable

- Universal AC input / Full range
- **Io can be trimmed 10~100% by 1~10Vdc, PWM signal or resistance**
- Installed on DIN rail TS-35 / 7.5 or 15
- Protections:  
Short circuit / Overload /  
Over voltage
- Pass LPS
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- **Suitable for machine vision inspection system and plant cultivation application**
- 3 years warranty



|                                |                                                                               |
|--------------------------------|-------------------------------------------------------------------------------|
| AC input voltage range .....   | 90~264VAC; 127~370VDC                                                         |
| AC inrush current .....        | Cold start, 60A at 230VAC                                                     |
| DC adjustment range .....      | 12V: 12~15V, 24V: 24~30V                                                      |
| Current adjustment range ..... | 10%~100% rated output current adjustable by 1~10Vdc, PWM signal or resistance |
| Overload protection .....      | 95%~108% rated output power, constant current limiting, auto-recovery         |
| Over voltage protection.....   | 120%~155% rated output power, shut down o/p voltage, re-power on to recover   |
| Withstand voltage .....        | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                |
| Working temperature .....      | -30~+70°C (refer to output derating curve)                                    |
| Safety standards .....         | UL60950-1, TUV EN60950-1 approved                                             |
| EMC standards .....            | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3           |
| Connection .....               | I/P: 3 poles, O/P: 6 poles screw DIN terminal                                 |

### ✦ DRA-40 Series

| Model No. | Output       | Tol.  | R&N   | Effi. |
|-----------|--------------|-------|-------|-------|
| DRA-40-12 | 12V, 0~3.34A | ±1.0% | 120mV | 85%   |
| DRA-40-24 | 24V, 0~1.7A  | ±1.0% | 150mV | 87%   |

### ✦ DRA-60 Series

| Model No. | Output      | Tol.  | R&N   | Effi. |
|-----------|-------------|-------|-------|-------|
| DRA-60-12 | 12V, 0~5A   | ±1.0% | 120mV | 85%   |
| DRA-60-24 | 24V, 0~2.5A | ±1.0% | 150mV | 87%   |



We provide specification, drawing, test report and more information, please visit our website —  
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### 20A Power Supply Redundancy Module

- Suitable for redundant operation of 24V system
- Installed on DIN rail TS-35 / 7.5 or 15
- Relay contact signal output and LED indicator for input failure alarm
- Cooling by free air convection
- 3 years warranty



DC input voltage range .....21~28V, 20A max. x 2 channels  
 Reverse voltage ..... 30V  
 DC output current ..... 20A max.  
 DC output voltage drop ..... 0.6V max.  
 Input voltage alarm ..... When input is > 20V(±5%) and <30V(±5%), relay contacts  
 Relay contact rating ..... 30VDC, 1A  
 Working temperature ..... -40~+70°C  
 Safety standard ..... UL508 approved  
 EMC standards ..... EN55022 class B, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... I/P: 4 poles, O/P: 2 poles screw DIN terminal,  
 Single output: 4 poles

| Model No. | Output   | Reverse Voltage | Current  |
|-----------|----------|-----------------|----------|
| DR-RDN20  | 24V, 20A | 30V max.        | 20A max. |

#### ► Feature Description

**DR-RDN20** is a 20A redundancy (decoupling) module for the 24VDC power system. Containing 2 sets of 20A Or-ing diodes with wonderful heat dissipation deployment, DR-RDN20 offers a safe option of 1+1 redundant set-up. Not only perfectly decouple power sources from each other as well as from the load, DR-RDN-20 also provides users monitoring signals for both input channels through the built-in relays.

**DR-UPS40** is a 40A max. DC UPS (battery control) module for the 24VDC power system. Accompany with external batteries, it can back-up up to 40A of current to critical loads for certain period of time depending on the capacity of batteries. With complete monitoring signals / LED indicators for DC BUS OK, Battery Fail, Battery Discharge, and the repeated Battery Test function to check the situation of external batteries, users can customize their own DC UPS system to back up critical loads and capture the status of the whole system easily.

### 40A DC UPS Module

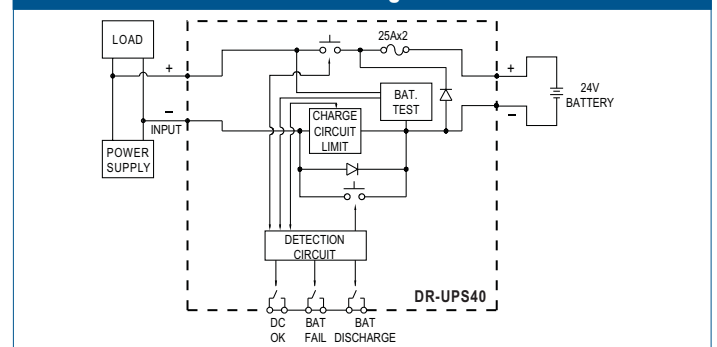
- Battery controller for DIN rail UPS system
- Parallel connected to DC BUS
- Suitable for 24V system up to 40A
- Installed on DIN Rail TS-35 / 7.5 or 15
- Built-in battery test function
- Battery polarity protection
- Relay contact signal output and LED indicator for DC BUS OK, Battery Fail, and Battery Discharge
- Cooling by free air convection
- 3 years warranty



DC input / DC bus ..... 24~29V, 40A max.  
 Battery input voltage ..... 21~29V  
 Battery input Current ..... 0~40A  
 Charge current (typ.) ..... 2A  
 External battery (typ.) ..... 24V, 4AH / 7AH / 12AH  
 DC bus ok ..... Relay status : Short when DC voltage between 21~29V(±3%), relay contacts  
 LED(Green) : DC bus OK : light;  
 DC bus fail : dark  
 Battery fail ..... Relay status : Short when battery failure is observed through the battery test function, relay contacts  
 LED(Red) : Battery over-discharge warning or battery broken: light;  
 Battery OK: dark  
 Battery discharge ..... Relay status : Short when battery in discharge condition, relay contacts  
 LED(Yellow) : Battery discharging: light;  
 Battery is not discharging or discharging current <2A: dark  
 Working temperature ..... -20~+70°C  
 EMC standards ..... EN55022 class B, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... I/P: 2 poles, O/P: 2 poles screw DIN terminal,  
 Single output: 6 poles

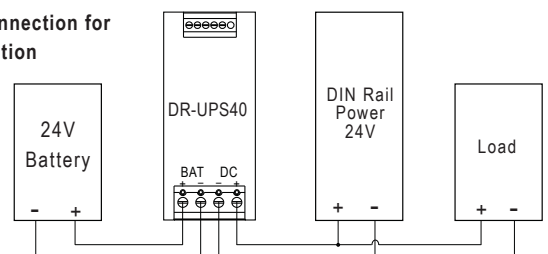
| Model No. | DC BUS Voltage | DC BUS Current |
|-----------|----------------|----------------|
| DR-UPS40  | 24~29V         | 40A max.       |

#### Block Diagram



#### Example of Application

##### Back up connection for AC interruption



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- High Quality
- Low Cost
- Prompt Delivery
- Best Service



# Green Open Frame 5~20W Medical Encapsulated Type

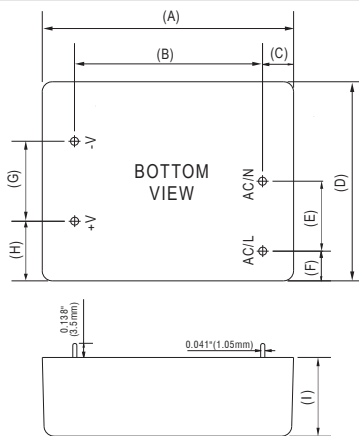


## Features

- Universal AC input / Full range
- Medical safety approved (2xMOPP)
- Suitable for BF application with appropriate system consideration
- Protections: Short circuit / Overload / Over voltage
- Low leakage current < 300μA (20W)
- No load power consumption <0.5W (<0.75W for 20W models)
- Fully isolated plastic case
- Isolation class II (5~15W), class I (20W)
- Cooling by free air convection
- Meet industrial, IT safety requirements
- 100% full load burn-in test
- 3 years warranty

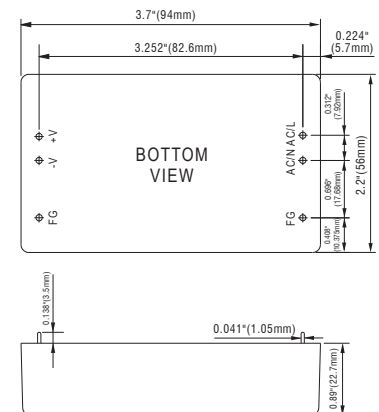


## PM-05 / 10 / 15 Series



|   | 5W               | 10W              | 15W              |
|---|------------------|------------------|------------------|
| A | 2.475" (62.85mm) | 2.76" (70mm)     | 2.95" (75mm)     |
| B | 1.85" (47mm)     | 2.13" (54mm)     | 2.441" (62mm)    |
| C | 0.306" (7.8mm)   | 0.315" (8mm)     | 0.256" (6.5mm)   |
| D | 1.97" (50mm)     | 1.97" (50mm)     | 2.09" (53mm)     |
| E | 0.689" (17.5mm)  | 0.689" (17.5mm)  | 0.788" (20mm)    |
| F | 0.295" (7.5mm)   | 0.295" (7.5mm)   | 0.256" (6.5mm)   |
| G | 0.789" (20.04mm) | 0.789" (20.04mm) | 0.906" (23.01mm) |
| H | 0.59" (15mm)     | 0.59" (15mm)     | 0.59" (15mm)     |
| I | 0.776" (19.7mm)  | 0.89" (22.7mm)   | 0.89" (22.7mm)   |

## PM-20 Series



## General Specification

AC input voltage range ..... 85~264VAC; 120~370VDC

Frequency range ..... 47~440Hz

AC inrush current (max.) ... Cold start, 25A at 115VAC, 45A at 230VAC  
(PM-15: 30A at 115VAC, 50A at 230VAC)  
(PM-20: 30A at 115VAC, 65A at 230VAC)

Overload protection ..... >105% hiccup mode, auto recovery

Over voltage protection ..... 115%~135% rated output voltage, shut off,  
AC recycle to re-start

Setup, rise, hold up time ... PM-5/15: 1000ms, 20ms, 100ms @ 230VAC  
PM-10: 1800ms, 20ms, 100ms @ 230VAC  
PM-20: 500ms, 20ms, 50ms @ 230VAC

Withstand voltage ..... I/P-O/P: 4kVAC, 1 minute

Working temperature ..... PM-5/10/15: -20~+70°C  
PM-20: -20~+60°C

Safety standards ..... ANSI/AAMI ES60601-1, TUV EN60601-1,  
UL60950-1 (PM-15) approved

EMC standards ..... EN55011, EN55022 class B, EN61000-3-2,3  
EN61000-4-2,3,4,5,6,8,11, EN55024,  
EN60601-1-2, EN61204-3 Medical level, criteria A

Connection ..... 4 industrial pins (20W: 6 industrial pins)

Packing ..... 0.085kg ; 120pcs / 11.2kg / 0.97CUFT(PM-05)  
0.105kg ; 120pcs / 13.6kg / 0.97CUFT(PM-10)  
0.14kg ; 120pcs / 17.8kg / 0.97CUFT(PM-15)  
0.18kg ; 90pcs / 17.2kg / 0.97CUFT(PM-20)

## PM-05 Series

| Model No. | Output        | Tol. | R&N   | Effi. |
|-----------|---------------|------|-------|-------|
| PM-05-3.3 | 3.3V, 0~1.25A | ±3%  | 80mV  | 67%   |
| PM-05-5   | 5V, 0~1.00A   | ±2%  | 80mV  | 71%   |
| PM-05-12  | 12V, 0~0.42A  | ±2%  | 150mV | 73%   |
| PM-05-15  | 15V, 0~0.33A  | ±2%  | 150mV | 74%   |
| PM-05-24  | 24V, 0~0.23A  | ±2%  | 240mV | 76%   |

## PM-10 Series

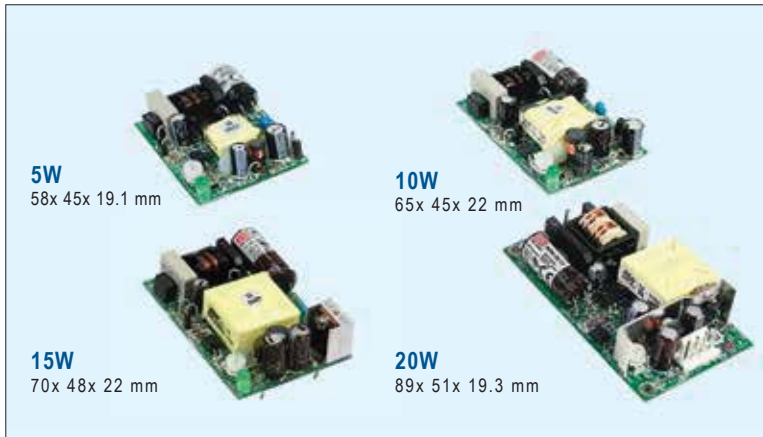
| Model No. | Output        | Tol. | R&N   | Effi. |
|-----------|---------------|------|-------|-------|
| PM-10-3.3 | 3.3V, 0~2.50A | ±3%  | 150mV | 66%   |
| PM-10-5   | 5V, 0~2.00A   | ±2%  | 150mV | 74%   |
| PM-10-12  | 12V, 0~0.85A  | ±2%  | 150mV | 78%   |
| PM-10-15  | 15V, 0~0.67A  | ±2%  | 150mV | 79%   |
| PM-10-24  | 24V, 0~0.42A  | ±2%  | 240mV | 79%   |

## PM-15 Series

| Model No. | Output        | Tol. | R&N   | Effi. |
|-----------|---------------|------|-------|-------|
| PM-15-3.3 | 3.3V, 0~3.50A | ±3%  | 80mV  | 73%   |
| PM-15-5   | 5V, 0~3.00A   | ±2%  | 80mV  | 76%   |
| PM-15-12  | 12V, 0~1.25A  | ±2%  | 150mV | 78%   |
| PM-15-15  | 15V, 0~1.00A  | ±2%  | 150mV | 79%   |
| PM-15-24  | 24V, 0~0.63A  | ±2%  | 240mV | 81%   |

## PM-20 Series

| Model No. | Output        | Tol. | R&N   | Effi. |
|-----------|---------------|------|-------|-------|
| PM-20-3.3 | 3.3V, 0~4.50A | ±3%  | 80mV  | 71%   |
| PM-20-5   | 5V, 0~4.40A   | ±2%  | 80mV  | 75%   |
| PM-20-12  | 12V, 0~1.80A  | ±2%  | 150mV | 81%   |
| PM-20-15  | 15V, 0~1.40A  | ±2%  | 150mV | 83%   |
| PM-20-24  | 24V, 0~0.92A  | ±2%  | 240mV | 84%   |

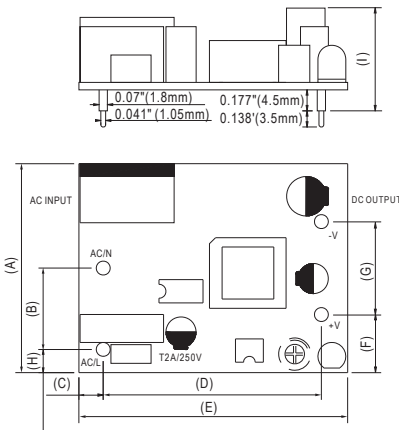


### Features

- Universal AC input / Full range
- Medical safety approved (2xMOPP)
- Suitable for BF application with appropriate system consideration
- Protections:
  - Short circuit / Overload / Over voltage / Over temperature
- Low leakage current < 300μA (20W)
- No load power consumption <0.5W (<0.75W for 20W models)
- Isolation class II (5~15W)
- On-board type version available for 20W (optional)
- Cooling by free air convection
- Meet industrial, IT safety requirements
- 100% full load burn-in test
- 3 years warranty

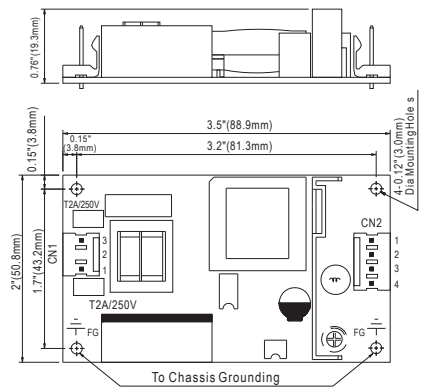


### NFM-05 / 10 / 15 Series



|   | 5W               | 10W              | 15W              |
|---|------------------|------------------|------------------|
| A | 1.77" (45mm)     | 1.77" (45mm)     | 1.89" (48mm)     |
| B | 0.689" (17.5mm)  | 0.689" (17.5mm)  | 0.788" (20mm)    |
| C | 0.21" (5.33mm)   | 0.22" (5.5mm)    | 0.157" (4mm)     |
| D | 1.85" (47mm)     | 2.13" (54mm)     | 2.441" (62mm)    |
| E | 2.28" (57.9mm)   | 2.56" (65mm)     | 2.75" (69.85mm)  |
| F | 0.491" (12.47mm) | 0.491" (12.47mm) | 0.492" (12.5mm)  |
| G | 0.789" (20.04mm) | 0.789" (20.04mm) | 0.906" (23.01mm) |
| H | 0.196" (5mm)     | 0.196" (5mm)     | 0.157" (4mm)     |
| I | 0.75" (19.1mm)   | 0.87" (22mm)     | 0.87" (22mm)     |

### NFM-20 Series



### General Specification

|                           |                                                                                                                                                                                         |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC input voltage range    | 85~264VAC; 120~370VDC                                                                                                                                                                   |
| Frequency range           | 47-440Hz                                                                                                                                                                                |
| AC inrush current (max.)  | Cold start, 25A at 115VAC, 45A at 230VAC<br>(NFM-15: 30A at 115VAC, 50A at 230VAC)<br>(NFM-20: 30A at 115VAC, 65A at 230VAC)                                                            |
| DC adjustment range       | ±10% rated output voltage                                                                                                                                                               |
| Overload protection       | >105% hiccup mode, auto recovery                                                                                                                                                        |
| Over voltage protection   | 115%~135% rated output voltage, shut off,<br>AC recycle to re-start                                                                                                                     |
| Over temp. protection     | Shutdown o/p voltage, recovers automatically<br>after temperature goes down                                                                                                             |
| Setup, rise, hold up time | NFM-5/15: 1000ms, 20ms, 100ms @ 230VAC<br>NFM-10: 1800ms, 20ms, 100ms @ 230VAC<br>NFM-20: 500ms, 20ms, 50ms @ 230VAC                                                                    |
| Withstand voltage         | I/P-O/P: 4kVAC, 1 minute                                                                                                                                                                |
| Working temperature       | NFM-5/10/15: -20~+70°C<br>NFM-20: -20~+60°C                                                                                                                                             |
| Safety standards          | ANSI/AAMI ES60601-1, TUV EN60601-1,<br>UL60950-1 (NFM-15) approved                                                                                                                      |
| EMC standards             | EN55011, EN55022 class B, EN61000-3-2,3<br>EN61000-4-2,3,4,5,6,8,11, EN55024,<br>EN60601-1-2, EN61204-3 Medical level,<br>criteria A                                                    |
| Connection                | 4 industrial pins for 5~15W<br>3P/4P/3.96mm pitch, Molex 41791-03/04 for 20W                                                                                                            |
| Packing                   | 0.03kg ; 120pcs / 4.6kg / 0.97CUFT(NFM-05)<br>0.045kg ; 120pcs / 6.4kg / 0.97CUFT(NFM-10)<br>0.065kg ; 120pcs / 8.8kg / 0.97CUFT(NFM-15)<br>0.09kg ; 105pcs / 10.5kg / 0.97CUFT(NFM-20) |

### 5W

### NFM-05

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| NFM-05-3.3 | 3.3V, 0~1.25A | ±2%  | 80mV  | 67%   |
| NFM-05-5   | 5V, 0~1.00A   | ±2%  | 80mV  | 71%   |
| NFM-05-12  | 12V, 0~0.42A  | ±1%  | 150mV | 73%   |
| NFM-05-15  | 15V, 0~0.33A  | ±1%  | 150mV | 74%   |
| NFM-05-24  | 24V, 0~0.23A  | ±1%  | 240mV | 76%   |

### 10W

### NFM-10

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| NFM-10-3.3 | 3.3V, 0~2.50A | ±2%  | 150mV | 66%   |
| NFM-10-5   | 5V, 0~2.00A   | ±2%  | 150mV | 74%   |
| NFM-10-12  | 12V, 0~0.85A  | ±1%  | 150mV | 78%   |
| NFM-10-15  | 15V, 0~0.67A  | ±1%  | 150mV | 79%   |
| NFM-10-24  | 24V, 0~0.42A  | ±1%  | 240mV | 79%   |

### 15W

### NFM-15

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| NFM-15-3.3 | 3.3V, 0~3.50A | ±2%  | 80mV  | 73%   |
| NFM-15-5   | 5V, 0~3.00A   | ±2%  | 80mV  | 76%   |
| NFM-15-12  | 12V, 0~1.25A  | ±1%  | 150mV | 78%   |
| NFM-15-15  | 15V, 0~1.00A  | ±1%  | 150mV | 79%   |
| NFM-15-24  | 24V, 0~0.63A  | ±1%  | 240mV | 81%   |

### 20W

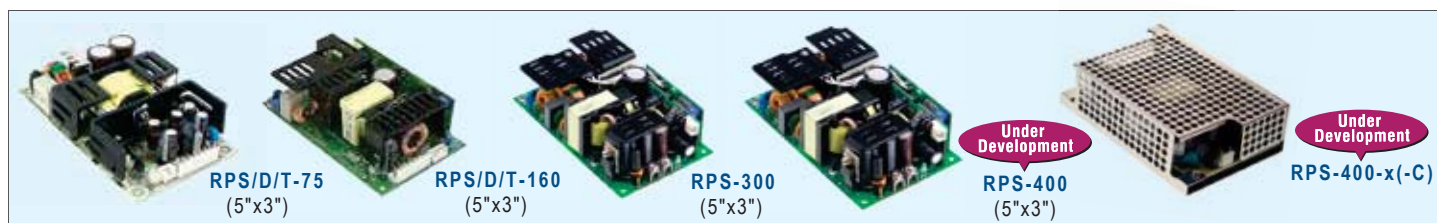
### NFM-20

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| NFM-20-3.3 | 3.3V, 0~4.50A | ±2%  | 80mV  | 71%   |
| NFM-20-5   | 5V, 0~4.40A   | ±2%  | 80mV  | 75%   |
| NFM-20-12  | 12V, 0~1.80A  | ±1%  | 150mV | 81%   |
| NFM-20-15  | 15V, 0~1.40A  | ±1%  | 150mV | 83%   |
| NFM-20-24  | 24V, 0~0.92A  | ±1%  | 240mV | 84%   |





# Green Open Frame 75~400W 1~3 Output Medical Type



## Features

- Universal AC input / Full range
- Medical safety approved (2xMOPP)
- Suitable for BF application with appropriate system consideration (except for RPS/D/T-75)
- Built-in active PFC function (except for RPS/D/T-75)
- Protections: Short circuit / Overload / Over voltage / Over temperature (except for RPS/D/T-75)
- Low leakage current <150μA (<200μA for 160W, 300μA for 300/400W)
- With power good and fail signal output (RPS/D/T-160, RPS-300/400)
- Built-in remote sense function (RPS-160 5~15V, RPS-300/400)
- No load power consumption <0.5W (<0.75W for RPS-75&RPS/D/T-160 G model)
- Built-in 12V/0.5A auxiliary output (RPS-300/400)
- Standby 5V@0.8A (RPS/D/T-160 G model); 5V@1A (RPS-300/400)
- LED indicator for power on
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.               | RPS/D/T-75                                                                                                | RPS-160                              | RPD-160        | RPT-160        | RPS-300                  | RPS-400-x(-C)                          |
|-------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------|----------------|----------------|--------------------------|----------------------------------------|
| Rated Power             | 100W (23.5CFM)                                                                                            | 160W (20.5CFM)                       | 150W (20.5CFM) | 300W (20.5CFM) | 400W (25CFM)             |                                        |
| Fan                     | 75W                                                                                                       | 110W                                 | 100W           | 200W           | 250W                     |                                        |
| Convection              | 75W                                                                                                       | 110W                                 | 100W           | 200W           | 250W                     |                                        |
| AC input voltage range  | 90~264VAC                                                                                                 |                                      |                |                |                          | 80~264VAC                              |
| DC adjustment range     | CH1: -5%~+10% rated output voltage                                                                        | ±10%                                 | 0~+10%         | ±5%            |                          |                                        |
| Overload protection     | 140%~180% hiccup mode, auto-recovery                                                                      | 105%~135% hiccup mode, auto-recovery |                |                |                          |                                        |
| Over voltage protection | CH1: 110%~135% shut down o/p voltage, re-power on to recover                                              |                                      |                |                |                          |                                        |
| Withstand voltage       | I/P-O/P: 4kVAC, I/P-FG:2kVAC, O/P-FG: 1.5kVAC                                                             |                                      |                |                |                          |                                        |
| Working temperature     | -20~+70°C (refer to output derating curve)                                                                |                                      |                |                | -30~+70°C                |                                        |
| Safety standards        | ANSI/AAMI ES60601-1, TUV EN60601-1 approved (RPS-300/400 pending)                                         |                                      |                |                |                          |                                        |
| EMC standards           | EN55022(except for 400W), EN55011 class B(Radiation class A for RPS-300/400), EN61000-3-2,-3; EN60601-1-2 |                                      |                |                |                          |                                        |
| Connection              | JST B3P / B8P-VH                                                                                          |                                      |                |                | JST B5P / screw terminal |                                        |
| Dimension (LxWxH)(mm)   | 127x 76.2x 31                                                                                             | 127x 76.2x 34.6                      |                |                | 127x 76.2x 35            | PCB: 127x 76.5x35<br>Case: 130x 85x 40 |

## 75W:Single Output—Class I RPS-75

| Model No.  | Output      | Tol. | R&N   | Effi. |
|------------|-------------|------|-------|-------|
| RPS-75-3.3 | 3.3V, 0~20A | ±2%  | 80mV  | 73%   |
| RPS-75-5   | 5V, 0~18.7A | ±2%  | 80mV  | 78%   |
| RPS-75-12  | 12V, 0~8.3A | ±1%  | 120mV | 82%   |
| RPS-75-15  | 15V, 0~6.7A | ±1%  | 150mV | 83%   |
| RPS-75-24  | 24V, 0~4.2A | ±1%  | 240mV | 85%   |
| RPS-75-36  | 36V, 0~2.8A | ±1%  | 300mV | 86%   |
| RPS-75-48  | 48V, 0~2.1A | ±1%  | 300mV | 86%   |

## 75W:Dual Output—Class I RPD-75

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| RPD-75A   | 5V, 1.0~9.5A  | ±2%  | 80mV  | 77%   | 96W  |
|           | 12V, 0.3~4.0A | ±6%  | 120mV |       |      |
| RPD-75B   | 5V, 1.0~6.8A  | ±2%  | 80mV  | 79%   | 99W  |
|           | 24V, 0.2~2.7A | ±6%  | 200mV |       |      |

## 75W:Triple Output—Class I RPT-75

| Model No. | Output         | Tol.     | R&N   | Effi. | Max. |
|-----------|----------------|----------|-------|-------|------|
| RPT-75A   | 5V, 0.6~8.0A   | ±2%      | 80mV  | 76%   | 93W  |
|           | 12V, 0.2~4.0A  | ±6%      | 120mV |       |      |
|           | -5V, 0.1~1.0A  | ±5%      | 120mV |       |      |
| RPT-75B   | 5V, 0.6~8.0A   | ±2%      | 80mV  | 77%   | 100W |
|           | 12V, 0.2~4.0A  | ±6%      | 120mV |       |      |
|           | -12V, 0.1~1.0A | ±5%      | 120mV |       |      |
| RPT-75C   | 5V, 0.6~8.0A   | ±2%      | 80mV  | 77%   | 100W |
|           | 15V, 0.1~3.0A  | ±8%      | 150mV |       |      |
|           | -15V, 0.1~1.0A | ±5%      | 150mV |       |      |
| RPT-75D   | 5V, 0.6~7.0A   | ±2%      | 80mV  | 79%   | 95W  |
|           | 24V, 0.1~2.0A  | ±8%      | 200mV |       |      |
|           | 12V, 0.1~1.0A  | ±8%      | 120mV |       |      |
| RPT-7503  | 3.3V, 0.7~7.0A | ±4%      | 80mV  | 74%   | 81W  |
|           | 5V, 0.0~8.0A   | ±6%      | 120mV |       |      |
|           | 12V, 0.0~1.5A  | +10%,-6% | 120mV |       |      |

## 160W:Single Output—Class I RPS-160

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| RPS-160-5  | 5V, 0~30.0A  | ±4%  | 100mV | 85%   |
| RPS-160-12 | 12V, 0~12.9A | ±3%  | 100mV | 87%   |
| RPS-160-15 | 15V, 0~10.3A | ±3%  | 120mV | 87%   |
| RPS-160-24 | 24V, 0~6.5A  | ±2%  | 150mV | 87%   |
| RPS-160-48 | 48V, 0~3.25A | ±2%  | 250mV | 88%   |

## 160W:Dual Output—Class I RPD-160

| Model No. | Output        | Tol.  | R&N   | Effi. | Max. |
|-----------|---------------|-------|-------|-------|------|
| RPD-160B  | 5V, 1.0~12A   | ±2.5% | 80mV  | 84%   | 150W |
|           | 24V, 0.2~3.6A | ±6%   | 200mV |       |      |

## 160W:Triple Output—Class I RPT-160

| Model No. | Output         | Tol.    | R&N   | Effi. | Max. |
|-----------|----------------|---------|-------|-------|------|
| RPT-160A  | 5V, 0.6~14A    | ±2%     | 100mV | 84%   | 145W |
|           | 12V, 0.2~5.5A  | ±5%     | 120mV |       |      |
|           | -5V, 0.1~1.0A  | -5%,+7% | 120mV |       |      |
| RPT-160B  | 5V, 0.6~14A    | ±2%     | 100mV | 84%   | 146W |
|           | 12V, 0.2~5.0A  | ±5%     | 120mV |       |      |
|           | -12V, 0.1~1.0A | -4%,+5% | 120mV |       |      |
| RPT-160C  | 5V, 0.6~14A    | ±2%     | 100mV | 83%   | 143W |
|           | 15V, 0.1~3.6A  | ±4%     | 150mV |       |      |
|           | -15V, 0.1~1.0A | ±8%     | 150mV |       |      |
| RPT-160D  | 5V, 0.3~11A    | ±2%     | 100mV | 83%   | 148W |
|           | 12V, 0.2~5.0A  | ±5%     | 120mV |       |      |
|           | 24V, 0.15~1.2A | -5%,+7% | 200mV |       |      |

□ = blank, G; blank: basic function,  
G: with 5Vsb/0.8A & no load power consumption < 0.75W

## 300W—Class I RPS-300

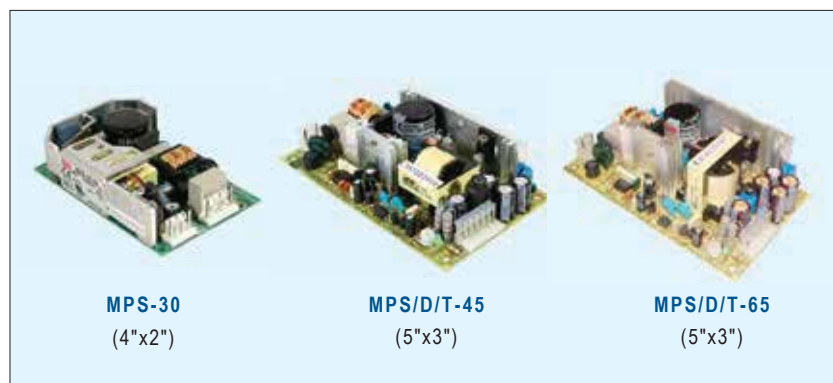
| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| RPS-300-12 | 12V, 0~25A    | ±3%  | 120mV | 90.0% |
| RPS-300-15 | 15V, 0~20A    | ±3%  | 120mV | 90.0% |
| RPS-300-24 | 24V, 0~12.5A  | ±2%  | 150mV | 92.5% |
| RPS-300-27 | 27V, 0~11.12A | ±2%  | 200mV | 93.0% |
| RPS-300-48 | 48V, 0~6.25A  | ±2%  | 250mV | 93.0% |

## 400W—Class I Under Development RPS-400

| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| RPS-400-12□ | 12V, 0~33.3A | ±3%  | 120mV | 92.0% |
| RPS-400-15□ | 15V, 0~26.7A | ±3%  | 150mV | 92.0% |
| RPS-400-24□ | 24V, 0~16.7A | ±2%  | 200mV | 93.0% |
| RPS-400-27□ | 27V, 0~14.9A | ±1%  | 200mV | 93.0% |
| RPS-400-48□ | 48V, 0~8.4A  | ±1%  | 250mV | 94.0% |

□ = blank, -C; blank: PCB type(standard), -C: Enclosed type(optional)





### Features

- Universal AC input / Full range
- Medical safety approved (2x MOPP)
- Protections: Short circuit / Overload / Over voltage / Over temperature (MPS-30)
- Low leakage current <250μA (<200μA for MPS-30)
- Cooling by free air convection
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.               | MPS-30                                                                 | MPS/D/T-45                                     | MPS/D/T-65                 |
|-------------------------|------------------------------------------------------------------------|------------------------------------------------|----------------------------|
| AC input voltage range  | 88~264VAC; 120~370VDC                                                  | 90~264VAC; 127~370VDC                          |                            |
| DC adjustment range     | NA                                                                     | CH1: ±10% rated output voltage                 |                            |
| Overload protection     | >105% rated output power                                               | 53~75W rated output power                      | 73~105W rated output power |
| Over voltage protection | 110%~135%                                                              | CH1: 115%~135% hiccup mode, auto-recovery      |                            |
| Withstand voltage       | I/P-O/P: 4kVAC, I/P-FG:2kVAC, 1 minute                                 |                                                |                            |
| Working temperature     | -10~+60°C (refer to output derating curve)                             |                                                |                            |
| Safety standards        | ANSI/AAMI ES60601-1, TUV EN60601-1 approved                            |                                                |                            |
| EMC standards           | EN55011 class B, EN61000-3-2,-3, EN61000-4-2,3,4,5,6,8,11, EN60601-1-2 |                                                |                            |
| Connection              | 5+4P/3.96mm pitch, Molex P/N:41791-05,04                               | 2P+6P/3.96mm pitch, Molex P/N:5277-02, 5273-06 |                            |
| Dimension (LxWxH)(mm)   | 101.6x 65.8x 23.5                                                      | 127x 76x 28                                    | 127x 76x 42                |

### 30W:Single Output—Class I MPS-30

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| MPS-30-5  | 5V, 0~5.0A  | ±3%  | 80mV  | 72%   |
| MPS-30-12 | 12V, 0~2.5A | ±3%  | 120mV | 75%   |
| MPS-30-15 | 15V, 0~2.0A | ±3%  | 150mV | 76%   |
| MPS-30-24 | 24V, 0~1.2A | ±3%  | 240mV | 77%   |
| MPS-30-27 | 27V, 0~1.1A | ±3%  | 240mV | 78%   |
| MPS-30-48 | 48V, 0~0.6A | ±2%  | 240mV | 78%   |

### 45W:Single Output—Class I MPS-45

| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| MPS-45-3.3  | 3.3V, 0~8.0A  | ±3%  | 80mV  | 65%   |
| MPS-45-5    | 5V, 0~8.0A    | ±3%  | 100mV | 72%   |
| MPS-45-7.5  | 7.5V, 0~5.4A  | ±3%  | 100mV | 75%   |
| MPS-45-12   | 12V, 0~3.7A   | ±2%  | 100mV | 76%   |
| MPS-45-13.5 | 13.5V, 0~3.3A | ±2%  | 100mV | 76%   |
| MPS-45-15   | 15V, 0~3.0A   | ±2%  | 100mV | 77%   |
| MPS-45-24   | 24V, 0~1.9A   | ±2%  | 100mV | 78%   |
| MPS-45-27   | 27V, 0~1.7A   | ±2%  | 100mV | 78%   |
| MPS-45-48   | 48V, 0~1.0A   | ±2%  | 100mV | 78%   |

### 45W:Dual Output—Class I MPD-45

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| MPD-45A   | 5V, 0.4~5.0A  | ±4%  | 60mV  | 76%   | 40W  |
|           | 12V, 0.2~2.5A | ±7%  | 120mV |       |      |
| MPD-45B   | 5V, 0.4~5.0A  | ±4%  | 60mV  | 78%   | 45W  |
|           | 24V, 0.2~1.8A | ±7%  | 150mV |       |      |

### 45W:Triple Output—Class I MPT-45

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| MPT-45A   | 5V, 0.4~5.0A   | ±4%  | 60mV  | 73%   | 41W  |
|           | 12V, 0.2~2.5A  | ±7%  | 120mV |       |      |
|           | -5V, 0.0~0.5A  | ±5%  | 60mV  |       |      |
| MPT-45B   | 5V, 0.4~5.0A   | ±4%  | 60mV  | 75%   | 43W  |
|           | 12V, 0.2~2.5A  | ±7%  | 120mV |       |      |
|           | -12V, 0.0~0.5A | ±5%  | 100mV |       |      |

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| MPT-45C   | 5V, 0.4~5.0A   | ±4%  | 60mV  | 75%   | 44W  |
|           | 15V, 0.2~2.3A  | ±7%  | 120mV |       |      |
|           | -15V, 0.0~0.5A | ±5%  | 100mV |       |      |

### 65W:Single Output—Class I MPS-65

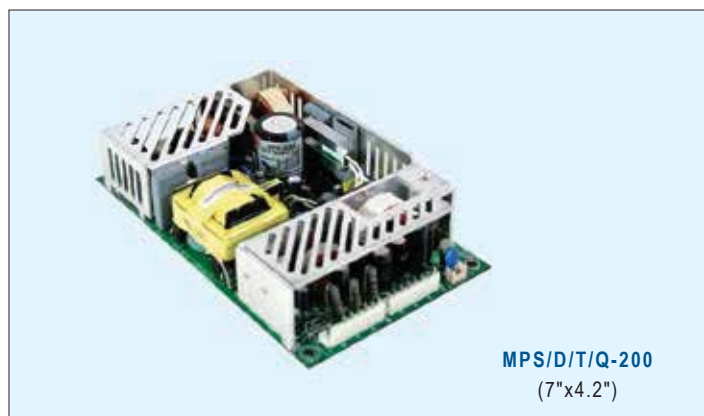
| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| MPS-65-3.3  | 3.3V, 0~12A   | ±3%  | 80mV  | 66%   |
| MPS-65-5    | 5V, 0~12A     | ±3%  | 100mV | 74%   |
| MPS-65-7.5  | 7.5V, 0~8.0A  | ±3%  | 100mV | 76%   |
| MPS-65-12   | 12V, 0~5.2A   | ±2%  | 100mV | 77%   |
| MPS-65-13.5 | 13.5V, 0~4.7A | ±2%  | 100mV | 78%   |
| MPS-65-15   | 15V, 0~4.2A   | ±2%  | 100mV | 79%   |
| MPS-65-24   | 24V, 0~2.7A   | ±2%  | 100mV | 80%   |
| MPS-65-27   | 27V, 0~2.4A   | ±2%  | 100mV | 80%   |
| MPS-65-48   | 48V, 0~1.35A  | ±2%  | 100mV | 80%   |

### 65W:Dual Output—Class I MPD-65

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| MPD-65A   | 5V, 0.4~7.0A  | ±4%  | 60mV  | 75%   | 61W  |
|           | 12V, 0.2~3.2A | ±7%  | 150mV |       |      |
| MPD-65B   | 5V, 0.4~6.0A  | ±4%  | 60mV  | 78%   | 66W  |
|           | 24V, 0.2~2.6A | ±7%  | 150mV |       |      |

### 65W:Triple Output—Class I MPT-65

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| MPT-65A   | 5V, 0.4~7.0A   | ±4%       | 60mV  | 74%   | 60W  |
|           | 12V, 0.2~3.2A  | +10%, -7% | 120mV |       |      |
|           | -5V, 0.0~0.7A  | ±5%       | 60mV  |       |      |
| MPT-65B   | 5V, 0.4~7.0A   | ±4%       | 60mV  | 74%   | 64W  |
|           | 12V, 0.2~3.2A  | +10%, -7% | 160mV |       |      |
|           | -12V, 0.0~0.7A | ±5%       | 100mV |       |      |
| MPT-65C   | 5V, 0.4~7.0A   | ±4%       | 60mV  | 74%   | 65W  |
|           | 15V, 0.2~2.6A  | +10%, -7% | 180mV |       |      |
|           | -15V, 0.0~0.7A | ±5%       | 100mV |       |      |



### ■ Features

- Universal AC input / Full range
- Built-in active PFC function
- Medical safety approved (2xMOPP)
- Suitable for BF application with appropriate system consideration
- Low leakage current <180μA
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in remote sense function and remote ON/OFF control
- Free air convection for 140W, 200W with 25CFM forced air
- With P.G and P.F signal output
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



|                          |                                                                                                   |                                     |
|--------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------|
| Model No.                | MPS/D/T/Q-200                                                                                     |                                     |
| AC input voltage range   | 90~264VAC                                                                                         |                                     |
| AC inrush current (max.) | Cold start, 60A at 230VAC                                                                         |                                     |
| DC adjustment range      | CH1: -5~+10% rated output voltage                                                                 |                                     |
| Overload protection      | Range                                                                                             | 120%~160% rated output power        |
|                          | Type                                                                                              | Hiccup mode, auto-recovery          |
| Over voltage protection  | Range                                                                                             | CH1: 115%~135% rated output voltage |
|                          | Type                                                                                              | Shut down o/p voltage               |
| Withstand voltage        | I/P-O/P: 4kVAC, I/P-FG: 1.5kVAC, O/P-FG: 1.5kVAC                                                  |                                     |
| Working temperature      | -20~+70°C (refer to output derating curve)                                                        |                                     |
| Safety standards         | ANSI/AAMI ES60601-1, TUV EN60601-1, IEC60601-1 approved; Design refer to UL60950-1, TUV EN60950-1 |                                     |
| EMC standards            | EN55011/EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN60601-1-2, EN61000-6-2        |                                     |
| Connection               | 3P, 20P / 3.96mm pitch, JST B3P/VH, Molex 5566-20; 3P, 8Px2 / 3.96mm pitch. JSTB3P / B8Px2-VH     |                                     |
| Dimension (LxWxH)(mm)    | 177.8x 107.2x 35.5                                                                                |                                     |

### ■ 200W:Single Output—Class I MPS-200

| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| MPS-200-3.3 | 3.3V, 0~40A  | ±2%  | 80mV  | 77%   |
| MPS-200-5   | 5V, 0~40A    | ±2%  | 80mV  | 81%   |
| MPS-200-12  | 12V, 0~16.7A | ±2%  | 100mV | 84%   |
| MPS-200-15  | 15V, 0~13.4A | ±2%  | 100mV | 85%   |
| MPS-200-24  | 24V, 0~8.4A  | ±1%  | 150mV | 86%   |
| MPS-200-48  | 48V, 0~4.2A  | ±1%  | 200mV | 87%   |

### ■ 200W:Dual Output—Class I MPD-200

| Model No. | Output        | Tol.     | R&N   | Effi. | Max. |
|-----------|---------------|----------|-------|-------|------|
| MPD-200A  | 5V, 4.0~24A   | ±2%      | 80mV  | 82%   | 196W |
|           | 12V, 0.8~9.6A | +8%, -5% | 120mV |       |      |
| MPD-200B  | 5V, 4.0~24A   | ±2%      | 80mV  | 83%   | 196W |
|           | 24V, 0.4~4.8A | ±6.5%    | 180mV |       |      |

### ■ 200W:Triple Output—Class I MPT-200

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| MPT-200A  | 5V, 4.0~24A    | ±2%  | 80mV  | 80%   | 200W |
|           | 12V, 0.8~9.0A  | ±8%  | 120mV |       |      |
|           | -5V, 0.0~2.4A  | ±5%  | 80mV  |       |      |
| MPT-200B  | 5V, 4.0~24A    | ±2%  | 80mV  | 80%   | 196W |
|           | 12V, 0.6~7.2A  | ±8%  | 120mV |       |      |
|           | -12V, 0.0~2.4A | ±5%  | 80mV  |       |      |
| MPT-200C  | 5V, 4.0~24A    | ±2%  | 80mV  | 80%   | 201W |
|           | 15V, 0.5~5.6A  | ±8%  | 150mV |       |      |
|           | -15V, 0.0~2.4A | ±5%  | 80mV  |       |      |

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| MPT-200D  | 5V, 4.0~24A   | ±2%  | 80mV  | 81%   | 196W |
|           | 24V, 0.3~3.6A | ±8%  | 180mV |       |      |
|           | 12V, 0.0~2.4A | ±5%  | 80mV  |       |      |

### ■ 200W:Quad Output—Class I MPQ-200

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| MPQ-200B  | 5V, 3.0~18A    | ±2%  | 80mV  | 78%   | 193W |
|           | 12V, 0.7~8.4A  | ±8%  | 120mV |       |      |
|           | -5V, 0.0~2.4A  | ±5%  | 80mV  |       |      |
| MPQ-200C  | -12V, 0.0~2.4A | ±5%  | 80mV  |       |      |
|           | 5V, 3.0~18A    | ±2%  | 80mV  | 78%   | 190W |
|           | 15V, 0.5~6.0A  | ±6%  | 150mV |       |      |
| MPQ-200D  | -5V, 0.0~2.4A  | ±5%  | 80mV  |       |      |
|           | -15V, 0.0~2.4A | ±5%  | 80mV  |       |      |
|           | 5V, 3.0~18A    | ±2%  | 80mV  | 79%   | 195W |
| MPQ-200E  | 24V, 0.3~3.6A  | ±8%  | 180mV |       |      |
|           | 12V, 0.0~2.4A  | ±5%  | 80mV  |       |      |
|           | -12V, 0.0~2.4A | ±5%  | 80mV  |       |      |
| MPQ-200F  | 5V, 3.0~18A    | ±2%  | 80mV  | 81%   | 200W |
|           | 24V, 0.3~3.3A  | ±8%  | 180mV |       |      |
|           | 15V, 0.0~2.4A  | ±5%  | 80mV  |       |      |
| MPQ-200G  | -15V, 0.0~2.4A | ±5%  | 80mV  |       |      |

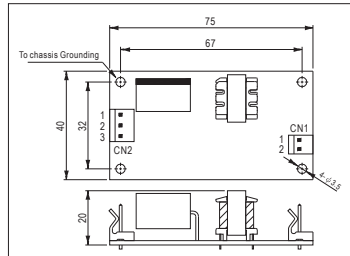
### 5W & 15W & 35W Single Output

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature(PS-05/15)
- Cooling by free air convection
- Low leakage current <0.5mA(PS-05/15)
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

CB CE



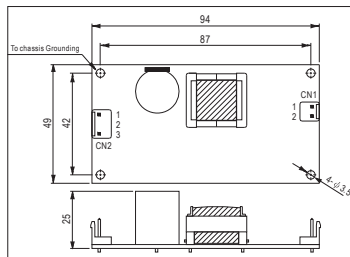
PS-05  
75x 40x 20 mm



CB CE



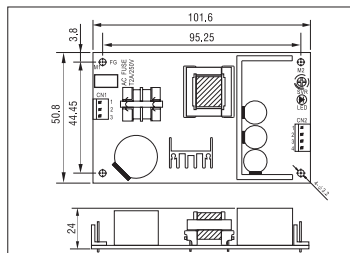
PS-15  
94x 49x 25 mm



CB CE



PS-35  
101.6x 50.8x 24 mm



- AC input voltage range ..... 85~264VAC; 120~370VDC(PS-05/15)  
90~264VAC; 127~370VDC(PS-35)
- AC inrush current ..... Cold start, 30A at 230VAC(PS-05),  
40A at 230VAC(PS-15), 45A at 230VAC(PS-35)
- Overload protection ..... 105%~160% hiccup mode, auto-recovery
- Over voltage protection ..... 115%~150% rated output voltage
- Over temp. protection ..... Hiccup mode, auto-recovery(PS-05/15)
- Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG:1.5kVAC, 1minute
- Working temperature ..... -10~+60°C (PS-05/15); -20~+65°C (PS-35)
- Safety standards ..... IEC60950-1 CB approved(PS-05/15)  
UL60950-1, TUV EN60950-1 approved(PS-35)
- EMC standards ..... EN55022 class B, EN61000-3-2,3,  
EN61000-4-2,3,4,5,6,8,11
- Connection ..... PS-05: 3P/ 5mm, 2P/ 3.96mm pitch, Molex 5285-03,5273-02  
PS-15: 3+2P/3.96mm pitch, JST B3P/B2P-VH  
PS-35: 3+4P/3.96mm pitch, JST B3P/B4P-VH-B

#### 5W

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| PS-05-5   | 5V, 0~1.0A   | ±2%  | 100mV | 70%   |
| PS-05-12  | 12V, 0~0.45A | ±2%  | 120mV | 75%   |
| PS-05-15  | 15V, 0~0.35A | ±2%  | 120mV | 75%   |
| PS-05-24  | 24V, 0~0.22A | ±2%  | 200mV | 76%   |
| PS-05-48  | 48V, 0~0.11A | ±1%  | 200mV | 76%   |

#### 10W

| Model No. | Output        | Tol. | R&N   | Effi. |
|-----------|---------------|------|-------|-------|
| PS-15-5   | 5V, 0~2.80A   | ±2%  | 100mV | 74%   |
| PS-15-12  | 12V, 0~1.25A  | ±2%  | 120mV | 77%   |
| PS-15-15  | 15V, 0~1.00A  | ±2%  | 120mV | 78%   |
| PS-15-24  | 24V, 0~0.625A | ±2%  | 150mV | 79%   |
| PS-15-48  | 48V, 0~0.313A | ±2%  | 200mV | 77%   |

#### 35W

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| PS-35-3.3  | 3.3V, 0~6.0A  | ±2%  | 80mV  | 70%   |
| PS-35-5    | 5V, 0~6.0A    | ±2%  | 100mV | 78%   |
| PS-35-7.5  | 7.5V, 0~4.7A  | ±2%  | 100mV | 80%   |
| PS-35-12   | 12V, 0~3.0A   | ±1%  | 120mV | 81%   |
| PS-35-13.5 | 13.5V, 0~2.6A | ±1%  | 120mV | 81%   |
| PS-35-15   | 15V, 0~2.4A   | ±1%  | 150mV | 81%   |
| PS-35-24   | 24V, 0~1.5A   | ±1%  | 200mV | 85%   |
| PS-35-48   | 48V, 0~0.75A  | ±1%  | 240mV | 84%   |

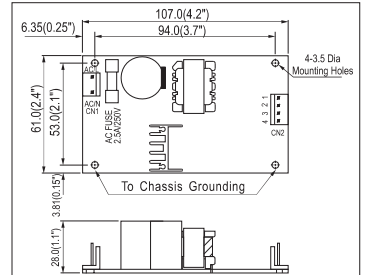
### 25W 1~2 Output

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Cooling by free air convection
- Low leakage current <0.5mA
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

CB CE



107x 61x 28 mm



- AC input voltage range ..... 85~264VAC; 120~370VDC
- AC inrush current ..... Cold start, 36A at 230VAC
- Overload protection ..... >105% hiccup mode, auto-recovery
- Over voltage protection ..... 115%~135% rated output voltage
- Over temp. protection ..... Shut down o/p voltage, re-power on to recover
- Leakage current ..... Less than 0.5mA at 240VAC
- Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG:2kVAC, 1minute
- Working temperature ..... -10~+60°C (refer to output derating curve)
- Safety standards ..... UL60950-1, TUV EN60950-1 approved
- EMC standards ..... EN55022 class B, EN61000-3-2,3,  
EN61000-4-2,3,4,5
- Connection ..... 3P, 4P/ 3.96mm pitch, Molex P/N: 41791-03, 04
- Packing ..... 0.14kg ; 96pcs / 15.0kg / 1.30CUFT(PS-25)  
0.15kg ; 96pcs / 15.9kg / 1.30CUFT(PD-25)  
0.13kg ; 96pcs / 15.4kg / 1.30CUFT(PD-2503)

#### Single Output

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| PS-25-3.3  | 3.3V, 0~5.0A  | ±3%  | 80mV  | 66%   |
| PS-25-5    | 5V, 0~5.0A    | ±2%  | 80mV  | 74%   |
| PS-25-7.5  | 7.5V, 0~3.3A  | ±2%  | 80mV  | 76%   |
| PS-25-12   | 12V, 0~2.1A   | ±2%  | 100mV | 78%   |
| PS-25-13.5 | 13.5V, 0~1.9A | ±2%  | 100mV | 78%   |
| PS-25-15   | 15V, 0~1.7A   | ±2%  | 100mV | 78%   |
| PS-25-24   | 24V, 0~1.0A   | ±2%  | 240mV | 79%   |
| PS-25-27   | 27V, 0~0.9A   | ±2%  | 240mV | 79%   |
| PS-25-48   | 48V, 0~0.5A   | ±2%  | 350mV | 79%   |

#### Dual Output

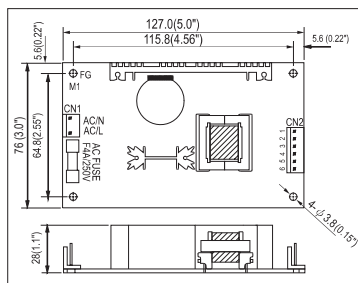
| Model No. | Output         | Tol.    | R&N   | Effi. | Max. |
|-----------|----------------|---------|-------|-------|------|
| PD-25A    | 5V, 0.2~2.5A   | ±2%     | 50mV  | 71%   | 25W  |
|           | 12V, 0.1~1.5A  | ±6%     | 150mV |       |      |
| PD-25B    | 5V, 0.2~2.0A   | ±2%     | 50mV  | 77%   | 25W  |
|           | 24V, 0.1~1.0A  | ±6%     | 200mV |       |      |
| PD-2505   | 5V, 0.1~3.0A   | ±6%     | 50mV  | 73%   | 25W  |
|           | -5V, 0.1~2.5A  | ±6%     | 50mV  |       |      |
| PD-2512   | 12V, 0.1~1.2A  | ±4%     | 50mV  | 74%   | 24W  |
|           | -12V, 0.1~1.2A | ±4%     | 50mV  |       |      |
| PD-2515   | 15V, 0.1~1.0A  | ±4%     | 50mV  | 75%   | 24W  |
|           | -15V, 0.1~1.0A | ±4%     | 50mV  |       |      |
| PD-2503   | 3.3V, 0.2~5.0A | ±2%     | 50mV  | 72%   | 25W  |
|           | 5V, 0.1~4.0A   | +5%,-8% | 50mV  |       |      |

### 45W 1~3 Output

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Fixed switching frequency at 65kHz
- Low leakage current <0.75mA
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty



127x 76x 28 mm



AC input voltage range ...90~264VAC; 127~370VDC  
 AC inrush current .....Cold start, 15A at 115VAC, 30A at 230VAC  
 DC adjustment range .....CH1: -5%~+10% rated output voltage  
 Overload protection .....53~75W hiccup mode, auto-recovery  
 Over voltage protection ..CH1: 115%~135% rated output voltage  
 Leakage current .....Less than 0.75mA at 240VAC  
 Withstand voltage .....I/P-O/P: 3kVAC, I/P-FG:1.5kVAC(PS-45 2kVAC)  
 Working temperature .....-10~+60°C (refer to output derating curve)  
 Safety standards .....UL60950-1, TUV EN60950-1 approved  
 EMC standards .....EN55022 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,8,11  
 Connection .....2P, 6P/ 3.96mm pitch, Molex 5277-02 / 5273-06  
 Packing .....0.19kg ; 72pcs / 15.6kg / 1.35CUFT(PS-45)  
 0.20kg ; 72pcs / 16.0kg / 1.35CUFT(PD-45)  
 0.21kg ; 72pcs / 17.0kg / 1.35CUFT(PT-45)

#### Single Output

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| PS-45-3.3  | 3.3V, 0~8.0A  | ±3%  | 80mV  | 69%   |
| PS-45-5    | 5V, 0~8.0A    | ±3%  | 100mV | 74%   |
| PS-45-7.5  | 7.5V, 0~5.4A  | ±3%  | 100mV | 75%   |
| PS-45-12   | 12V, 0~3.7A   | ±2%  | 100mV | 76%   |
| PS-45-13.5 | 13.5V, 0~3.3A | ±2%  | 100mV | 77%   |
| PS-45-15   | 15V, 0~3.0A   | ±2%  | 100mV | 77%   |
| PS-45-24   | 24V, 0~1.9A   | ±2%  | 100mV | 78%   |
| PS-45-27   | 27V, 0~1.7A   | ±2%  | 100mV | 78%   |
| PS-45-48   | 48V, 0~1.0A   | ±2%  | 100mV | 78%   |

#### Dual Output

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| PD-45A    | 5V, 0.4~5.0A  | ±4%  | 50mV  | 77%   | 40W  |
|           | 12V, 0.2~2.5A | ±7%  | 120mV |       |      |
| PD-45B    | 5V, 0.4~5.0A  | ±4%  | 50mV  | 78%   | 45W  |
|           | 24V, 0.2~1.8A | ±7%  | 120mV |       |      |

#### Triple Output

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| PT-45A    | 5V, 0.4~5.0A   | ±4%  | 50mV  | 75%   | 41W  |
|           | 12V, 0.2~2.5A  | ±7%  | 120mV |       |      |
|           | -5V, 0.0~0.5A  | ±5%  | 50mV  |       |      |
| PT-45B    | 5V, 0.4~5.0A   | ±4%  | 50mV  | 75%   | 43W  |
|           | 12V, 0.2~2.5A  | ±7%  | 120mV |       |      |
|           | -12V, 0.0~0.5A | ±5%  | 100mV |       |      |
| PT-45C    | 5V, 0.4~5.0A   | ±4%  | 50mV  | 75%   | 44W  |
|           | 15V, 0.2~2.3A  | ±7%  | 120mV |       |      |
|           | -15V, 0.0~0.5A | ±5%  | 100mV |       |      |

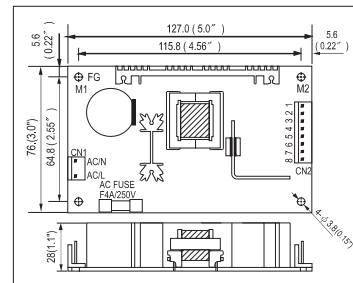
### 45W & 65W Triple Output with 3.3V Channel

- Universal AC input / Full range
- Total power for CH1+2: 35W (PT-45)
- Total power for CH1+2: 54W (PT-65)
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- 2 years warranty



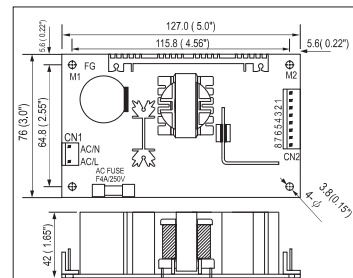
PT-4503

127x 76x 28 mm



PT-6503

127x 76x 42 mm



AC input voltage range ..... 90~264VAC; 127~370VDC  
 AC inrush current ..... Cold start, 20A at 115VAC, 40A at 230VAC  
 DC adjustment range ..... 3.3V: ±10% rated output voltage  
 Overload protection ..... 120%~160% hiccup mode, auto-recovery  
 Over voltage protection ..... 5V: 115%~135% rated output voltage  
 Leakage current ..... Less than 1.0mA at 240VAC  
 Setup, rise, hold up time ..... 800ms, 50ms, 60ms at full load and 230VAC  
 Withstand voltage .....I/P-O/P: 3kVAC, I/P-FG:1.5kVAC, 1minute  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standards .....UL60950-1, TUV EN60950-1 approved  
 EMC standards .....EN55022 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,11  
 Connection .....2P, 8P/ 3.96mm pitch, Molex: 5277-02, 5273-08  
 Packing .....0.23kg ; 72pcs / 17.6kg / 1.35CUFT(PT-4503)  
 0.28kg ; 54pcs / 16.2kg / 1.35CUFT(PT-6503)

#### Triple Output (45W)

| Model No. | Output         | Tol.     | R&N   | Effi. | Max. |
|-----------|----------------|----------|-------|-------|------|
| PT-4503   | 3.3V, 0.0~5.0A | ±2%      | 50mV  | 72%   | 45W  |
|           | 5V, 0.2~7.0A   | +4%, -2% | 50mV  |       |      |
|           | 12V, 0.0~1.2A  | ±8%      | 100mV |       |      |

#### Triple Output (65W)

| Model No. | Output         | Tol.     | R&N   | Effi. | Max. |
|-----------|----------------|----------|-------|-------|------|
| PT-6503   | 3.3V, 0.0~7.0A | ±3%      | 50mV  | 72%   | 62W  |
|           | 5V, 0.2~10A    | +4%, -2% | 50mV  |       |      |
|           | 12V, 0.0~1.2A  | ±8%      | 100mV |       |      |



#### 48hrs delivery—

We keep enough stock for 95% of standard models at our 2400m² warehouse. We can arrange prompt delivery within 48hrs.

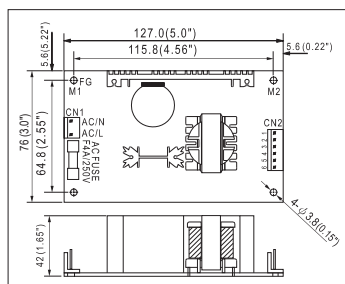


### 65W 1~3 Output

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Low leakage current <0.75mA
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty



127x 76x 42 mm



AC input voltage range ..... 90~264VAC; 127~370VDC  
 AC inrush current ..... Cold start, 20A at 115VAC, 40A at 230VAC  
 DC adjustment range ..... CH1: -5%~+10% rated output voltage  
 Overload protection ..... 73~105W hiccup mode, auto-recovery  
 Over voltage protection ..... CH1: 115%~135% rated output voltage  
 Leakage current ..... Less than 0.75mA at 240VAC  
 Setup, rise, hold up time ..... 800ms, 20ms, 60ms at full load and 230VAC  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC (PS-65 2kVAC)  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... 2P, 6P/ 3.96mm pitch, Molex P/N: 5277-02, 5273-06  
 Packing ..... 0.21kg ; 54pcs / 14.2kg / 1.35CUFT (PS-65)  
 0.24kg ; 54pcs / 15.0kg / 1.35CUFT (PD-65)  
 0.25kg ; 54pcs / 15.9kg / 1.35CUFT (PT-65)

#### Single Output

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| PS-65-3.3  | 3.3V, 0~12A   | ±3%  | 80mV  | 69%   |
| PS-65-5    | 5V, 0~12A     | ±3%  | 100mV | 76%   |
| PS-65-7.5  | 7.5V, 0~8.0A  | ±3%  | 100mV | 79%   |
| PS-65-12   | 12V, 0~5.2A   | ±2%  | 100mV | 79%   |
| PS-65-13.5 | 13.5V, 0~4.7A | ±2%  | 100mV | 79%   |
| PS-65-15   | 15V, 0~4.2A   | ±2%  | 100mV | 79%   |
| PS-65-24   | 24V, 0~2.7A   | ±2%  | 100mV | 80%   |
| PS-65-27   | 27V, 0~2.4A   | ±2%  | 100mV | 80%   |
| PS-65-48   | 48V, 0~1.35A  | ±2%  | 100mV | 80%   |

#### Dual Output

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| PD-65A    | 5V, 0.4~7.0A  | ±4%  | 50mV  | 78%   | 61W  |
|           | 12V, 0.2~3.2A | ±7%  | 120mV |       |      |
| PD-65B    | 5V, 0.4~6.0A  | ±4%  | 50mV  | 81%   | 66W  |
|           | 24V, 0.2~2.6A | ±7%  | 150mV |       |      |

#### Triple Output

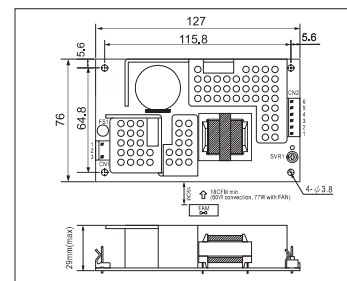
| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| PT-65A    | 5V, 0.4~7.0A   | ±4%  | 50mV  | 76%   | 60W  |
|           | 12V, 0.2~3.2A  | ±7%  | 120mV |       |      |
|           | -5V, 0.0~0.7A  | ±5%  | 50mV  |       |      |
| PT-65B    | 5V, 0.4~7.0A   | ±4%  | 50mV  | 77%   | 64W  |
|           | 12V, 0.2~3.2A  | ±7%  | 120mV |       |      |
|           | -12V, 0.0~0.7A | ±5%  | 100mV |       |      |
| PT-65C    | 5V, 0.4~7.0A   | ±4%  | 50mV  | 77%   | 65W  |
|           | 15V, 0.2~2.6A  | ±7%  | 120mV |       |      |
|           | -15V, 0.0~0.7A | ±5%  | 100mV |       |      |
| PT-65D    | 5V, 0.5~5.0A   | ±4%  | 50mV  | 79%   | 68W  |
|           | 12V, 0.2~4.0A  | ±6%  | 100mV |       |      |
|           | 24V, 0.2~1.3A  | ±6%  | 200mV |       |      |

### 65W 2, 3 Output

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 12V or 24V high peak current capability
- 60~65W free air convection, 77~80W with 18 CFM forced air
- Low leakage current < 1mA
- 100% full load burn-in test
- 2 years warranty



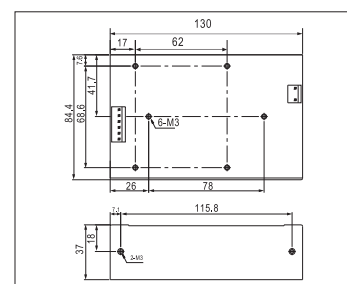
127x 76x 29 mm



#### With Case



130x 85x 37 mm



AC input voltage range ..... 90~264VAC; 127~370VDC  
 AC inrush current ..... Cold start, 25A at 115VAC, 50A at 230VAC  
 DC adjustment range ..... CH1 12V: 11.4~12.8V, 24V: 22.8~26.4V  
 Overload protection ..... 90~125W hiccup mode, auto-recovery  
 Over voltage protection ..... CH1: 115%~135% rated output voltage  
 Leakage current ..... Less than 1mA at 240VAC  
 Setup, rise, hold up time ..... 800ms, 20ms, 20ms at full load and 230VAC  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 2kVAC, 1minute  
 Working temperature ..... -20~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... 3P, 6P/ 3.96mm pitch, Molex P/N: 5273-03, 5273-06  
 Packing ..... 0.24kg ; 63pcs / 16kg / 1.35CUFT (PCB type)  
 0.47kg ; 32pcs / 16kg / 0.64CUFT (Enclosed type)

#### Dual Output

| Model No. | Output      | Tol. | R&N   | Effi. | Max. |
|-----------|-------------|------|-------|-------|------|
| RPD-65C□  | 12V, 0~5.8A | ±2%  | 120mV | 79%   | 60W  |
|           | 5V, 0~1.5A  | ±5%  | 50mV  |       |      |
| RPD-65D□  | 24V, 0~2.9A | ±2%  | 150mV | 81%   | 60W  |
|           | 5V, 0~1.5A  | ±5%  | 50mV  |       |      |

#### Triple Output

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| RPT-65E□  | 12V, 0.18~5.8A | ±2%  | 120mV | 77%   | 63W  |
|           | 5V, 0.0~1.5A   | ±5%  | 100mV |       |      |
|           | -5V, 0.0~0.7A  | ±5%  | 120mV |       |      |
| RPT-65F□  | 12V, 0.18~5.8A | ±2%  | 150mV | 77%   | 66W  |
|           | 5V, 0.0~1.5A   | ±5%  | 100mV |       |      |
|           | -12V, 0.0~0.7A | ±5%  | 150mV |       |      |
| RPT-65G□  | 24V, 0.09~2.9A | ±2%  | 150mV | 81%   | 66W  |
|           | 5V, 0.0~1.5A   | ±5%  | 50mV  |       |      |
|           | 12V, 0.0~0.7A  | ±5%  | 100mV |       |      |

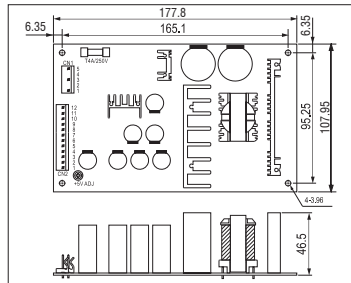
□ = blank, -C ; blank: PCB Type, -C: Enclosed Type

### 110W Dual Output

- Universal AC input / Full range
- Power good signal output (option)
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Low leakage current <1mA@ 240VAC
- 2 years warranty



**PD-110**  
177.8x 107.95x 46.5 mm



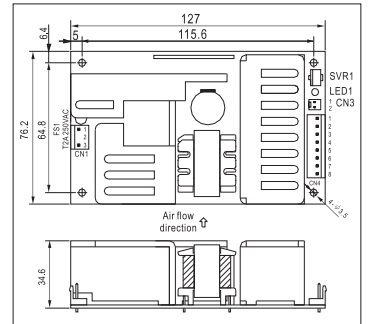
AC input voltage range ..100~264VAC; 141~370VDC  
 AC inrush current .....Cold start, 45A at 230VAC  
 DC adjustment range .....CH1: -5%~+10% rated output voltage  
 Overload protection .....105%~135% hiccup mode, auto-recovery  
 Over voltage protection ..CH1: 115%~135% rated output voltage  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG:1.5kVAC, 1minute  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,11  
 Connection .....5+12P/ 3.96mm pitch, Molex: 5273-05,12  
 Packing ..... 0.51kg ; 24pcs / 13.1kg / 1.19CUFT

### 125W 1,3 Output with PFC Function

- Universal AC input / Full range
- Built-in active PFC function
- High power density 6.117W/in<sup>3</sup>
- Protections: Short circuit / Overload / Over voltage
- Built-in remote sense for PPS-125
- LED indicator for power on
- Free air convection for 100W and 125W with 18 CFM forced air
- 100% full load burn-in test
- 3 years warranty



127x 76.2x 34.6 mm



AC input voltage range .....90~264VAC; 127~370VDC  
 AC inrush current .....Cold start, 24A at 230VAC  
 DC adjustment range .....CH1: ±5% rated output voltage  
 Overload protection .....130%~160% fold back current limiting, auto-recovery  
 Over voltage protection .....CH1:110%~135% rated output voltage  
 Leakage current ..... Less than 2.0mA at 240VAC  
 Setup, rise, hold up time .... 1000ms, 30ms, 24ms at full load and 230VAC  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG:1.5kVAC, 1minute  
 Working temperature .....-20~+70°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,8,11  
 Connection .....3+8P/3.96mm pitch, JST: B3P/B8P-VH (PPS-125)  
 3+5Px2 /3.96mm pitch, JST: B3P/B5Px2-VH (PPT-125)  
 Packing .....0.37kg; 36pcs / 14.3kg / 0.79CUFT

#### Single Output

| Model No.    | Output        | Tol. | R&N   | Effi. |  |
|--------------|---------------|------|-------|-------|--|
| PPS-125-3.3  | 3.3V, 0~25A   | ±2%  | 100mV | 70%   |  |
| PPS-125-5    | 5V, 0~25A     | ±2%  | 100mV | 79%   |  |
| PPS-125-12   | 12V, 0~10.5A  | ±2%  | 100mV | 80%   |  |
| PPS-125-13.5 | 13.5V, 0~9.3A | ±2%  | 100mV | 80%   |  |
| PPS-125-15   | 15V, 0~8.4A   | ±2%  | 100mV | 80%   |  |
| PPS-125-24   | 24V, 0~5.2A   | ±1%  | 150mV | 83%   |  |
| PPS-125-27   | 27V, 0~4.6A   | ±1%  | 150mV | 83%   |  |
| PPS-125-48   | 48V, 0~2.6A   | ±1%  | 250mV | 84%   |  |

#### Triple Output

| Model No. | Output           | Tol. | R&N   | Effi. | Max  |
|-----------|------------------|------|-------|-------|------|
| PPT-125A  | 3.3V, 1.0~12.5A  | ±3%  | 100mV | 75%   | 99W  |
|           | 5V, 0.8~10.0A    | ±5%  | 100mV |       |      |
|           | 12V, 0.05~0.63A  | ±6%  | 120mV |       |      |
| PPT-125B  | 5V, 1.0~14.38A   | ±3%  | 100mV | 78%   | 124W |
|           | 12V, 0.3~3.75A   | ±5%  | 120mV |       |      |
|           | -12V, 0.05~0.63A | ±6%  | 120mV |       |      |
| PPT-125C  | 5V, 1.0~13.75A   | ±3%  | 100mV | 78%   | 125W |
|           | 15V, 0.25~3.13A  | ±5%  | 150mV |       |      |
|           | -15V, 0.05~0.63A | ±6%  | 150mV |       |      |
| PPT-125D  | 5V, 1.0~8.75A    | ±3%  | 100mV | 78%   | 126W |
|           | 24V, 0.25~3.13A  | ±5%  | 240mV |       |      |
|           | 12V, 0.05~0.63A  | ±6%  | 120mV |       |      |



#### Energy Saving —

We care about energy saving. This logo represents that this model has "low no load power consumption"!



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- Low Cost
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- Best Service



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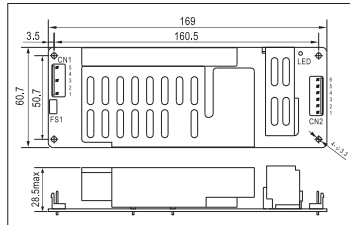


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### 150W Single Output with PFC Function

- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Cooling by free air convection
- High power density 8.4W/in<sup>3</sup>
- No load power consumption <1W
- 100% full load burn-in test
- 3 years warranty

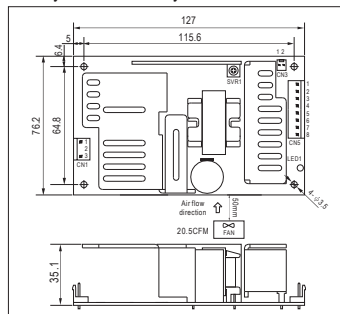


AC input voltage range ..... 90~264VAC ; 127~370VDC  
 DC adjustment range ..... Can be modified between  $\pm 10\%$  rated output voltage by factory  
 Overload protection ..... 105%~135% hiccup mode, auto-recovery  
 Over voltage protection ..... 110%~135% rated output voltage  
 Withstand voltage ..... I/P-O/P: 4.25kVDC, I/P-FG: 1.5kVAC, 1minute  
 Working temperature ..... -20~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... 5+6P/3.96mm pitch, JST P/N :B5P/B6P-VH  
 Packing ..... 0.32kg ; 48pcs / 15.8kg / 0.79CUFT

| Model No.  | Output      | Tol.      | R&N   | Effi. |
|------------|-------------|-----------|-------|-------|
| ASP-150-12 | 12V, 0~11A  | $\pm 2\%$ | 150mV | 88%   |
| ASP-150-15 | 15V, 0~9.5A | $\pm 2\%$ | 180mV | 88%   |
| ASP-150-20 | 20V, 0~7.5A | $\pm 1\%$ | 200mV | 90%   |
| ASP-150-24 | 24V, 0~6.3A | $\pm 1\%$ | 240mV | 90%   |
| ASP-150-48 | 48V, 0~3.2A | $\pm 1\%$ | 240mV | 89%   |

### 200W Single Output with PFC Function

- Universal AC input / Full range
- High efficiency up to 90%
- PF>0.98@115VAC; >0.93@230VAC
- Protections: Short circuit / Overload / Over voltage / Over temp.
- High power density 9.78W/in<sup>3</sup>
- 5"x3" compact size
- ZVS technology to reduce power dissipation
- Built-in remote sense function
- Free air convection for 150W and 200W with 20.5 CFM forced air
- 3 years warranty

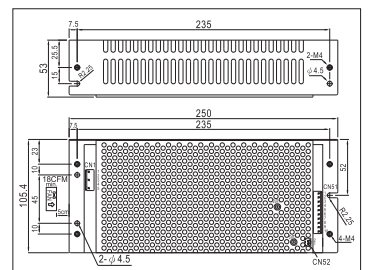
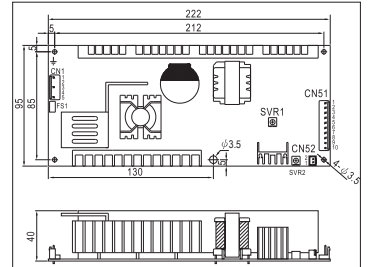


AC input voltage range ..... 90~264VAC; 127~370VDC  
 DC adjustment range .....  $\pm 10\%$  rated output voltage  
 Overload protection ..... 105%~135% hiccup mode, auto-recovery  
 Over voltage protection ..... 115%~135% rated output voltage  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, 1minute  
 Working temperature ..... -20~+70°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... 3+8P/3.96mm pitch, JST B3P/B8P-VH  
 Packing ..... 0.37kg ; 36pcs / 14.3kg / 0.79CUFT

| Model No.  | Output        | Tol.      | R&N   | Effi. |
|------------|---------------|-----------|-------|-------|
| PPS-200-5  | 5V, 0~36.0A   | $\pm 4\%$ | 100mV | 86%   |
| PPS-200-12 | 12V, 0~16.6A  | $\pm 3\%$ | 100mV | 89%   |
| PPS-200-15 | 15V, 0~13.3A  | $\pm 3\%$ | 100mV | 89%   |
| PPS-200-24 | 24V, 0~8.30A  | $\pm 2\%$ | 150mV | 89%   |
| PPS-200-27 | 27V, 0~7.40A  | $\pm 2\%$ | 150mV | 89%   |
| PPS-200-48 | 48V, 0~4.167A | $\pm 2\%$ | 250mV | 90%   |

### 250W Isolated Dual Output with PFC Function

- Universal AC input / Full range
- Isolated output & GND for CH1,CH2
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Optional case available
- Cooling by free air convection
- Remote control function for CH1
- Peak load 170% for 10 sec. (CH1)
- 100% full load burn-in test
- 3 years warranty



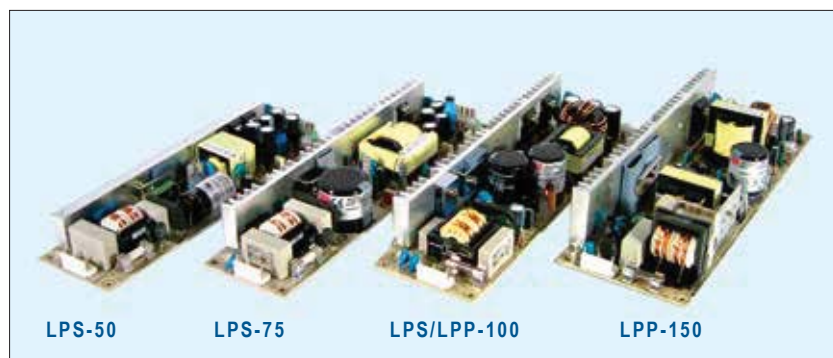
AC input voltage range ..... 90~264VAC; 127~370VDC  
 AC inrush current ..... Cold start, 58A at 230VAC  
 Leakage current ..... Less than 3.5mA at 240VAC  
 DC adjustment range .....  $\pm 10\%$  for CH1;  $\pm 5\%$  for CH2  
 Overload protection(CH1) ..... 105%~170% normally operation, shut off after 10 sec.; >180%, constant current, shut off after 10 sec.  
 (CH2) ..... 101%~150% hiccup mode, auto-recovery  
 Over voltage protection ..... CH1: 115%~140%, CH2: 110%~135%  
 Setup, rise, hold up time ..... 1200ms, 60ms, 30ms at full load and 230VAC  
 Withstand voltage ..... I/P-O/P: 3.0kVAC, I/P-FG: 2kVAC, 1minute  
 Working temperature ..... -20~+70°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,-3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2  
 Connection ..... 5+10+2P/3.96mm pitch JST B5P/B10P-VH, B2B-XH  
 Packing ..... 0.74kg ; 18pcs / 14.3kg / 0.88CUFT (PCB type); 1.6kg ; 9pcs / 15.4kg / 0.61CUFT (Enclosed type)

| Model No. | Output      | Tol.      | R&N   | Effi. |
|-----------|-------------|-----------|-------|-------|
| PID-250A  | 12V, 0~15A  | $\pm 3\%$ | 120mV | 83%   |
| PID-250B  | 5V, 0~5.0A  | $\pm 2\%$ | 50mV  | 86%   |
| PID-250C  | 24V, 0~9.4A | $\pm 2\%$ | 150mV | 86%   |
| PID-250D  | 5V, 0~5.0A  | $\pm 2\%$ | 50mV  | 86%   |
| PID-250D  | 36V, 0~6.3A | $\pm 2\%$ | 200mV | 86%   |
| PID-250D  | 5V, 0~5.0A  | $\pm 2\%$ | 50mV  | 86%   |
| PID-250D  | 48V, 0~4.7A | $\pm 2\%$ | 200mV | 86%   |
| PID-250D  | 5V, 0~5.0A  | $\pm 2\%$ | 50mV  | 86%   |

#### ► Feature Description

PID-250 series is suitable for motor-based equipment with logic control circuit. CH1 with high peak power capability can provide the required surge loading while starting up the motor. The isolated 5V/5A CH2 is good for logic control usage and can still work properly even CH1 is malfunction or at any protection modes. The isolated design between CH1 and CH2 can significantly prevent noise of the motor action from entering control circuits and hence secure the accurate operation of the end equipment.





### ■ Features

- Universal AC input / Full range
- Built-in active PFC function (LPP-100/150)
- Protections: Short circuit / Overload / Over voltage
- Optional over temperature protection for LPP-150
- Built-in remote ON/OFF control (LPS-50/75)
- Cooling by free air convection
- 100% full load burn-in test
- 2 years warranty for LPS series
- 3 years warranty for LPP series

| LPS-50 | LPS-75 | LPS/LPP-100 | LPP-150 |
|--------|--------|-------------|---------|
|        |        |             |         |

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                  |       | LPS-50                                                                                                         | LPS-75           | LPS-100                                   | LPP-100                                  | LPP-150                          |
|----------------------------|-------|----------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------|------------------------------------------|----------------------------------|
| AC input voltage range     |       | 90~264VAC                                                                                                      |                  | 115/230 auto switch                       | 85~264VAC                                |                                  |
| AC inrush current (230VAC) |       | 35A                                                                                                            | 36A              | 60A                                       | 30A                                      | 55A                              |
| DC adjustment range        |       | ±10% rated output voltage                                                                                      |                  |                                           | -5%~+10% rated output voltage            |                                  |
| Overload protection        | Range | 122%~160%                                                                                                      | 115%~150%        | 105%~140%                                 | 105%~150% rated output power             |                                  |
|                            | Type  | Hiccup mode, auto recovery                                                                                     |                  |                                           | Constant current limiting, auto recovery |                                  |
| Over voltage protection    | Range | 110%~135% of rated output voltage                                                                              |                  |                                           |                                          | Shut off, AC recycle to re-start |
|                            | Type  | Hiccup mode, auto recovery                                                                                     |                  |                                           |                                          |                                  |
| Withstand voltage          |       | I/P-O/P: 3kVAC, I/P-FG:1.5kVAC(2kVAC for LPP-150), O/P-FG: 0.5kVAC, 1 minute                                   |                  |                                           |                                          |                                  |
| Working temperature        |       | -20~+70℃ (refer to output derating curve)                                                                      |                  | -10~+60℃ (refer to output derating curve) |                                          |                                  |
| Safety standards           |       | UL60950-1, TUV EN60950-1 approved                                                                              |                  |                                           |                                          |                                  |
| EMC standards              |       | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 (EN61000-6-2 heavy industry level for LPS-50/75 only) |                  |                                           |                                          |                                  |
| Connection                 |       | JST B5P / B4P-VH                                                                                               | JST B5P / B6P-VH | JST B5P / B8P-VH                          |                                          | JST B5P / B6Px2-VH               |
| Dimension (LxWxH)(mm)      |       | 195x 55x 23                                                                                                    | 222x 55x 30      | 222x 62x 32                               | 222x 62x 33.6                            | 222x 75x 41                      |
| Packing                    |       | 48pcs / 12.5kg                                                                                                 | 48pcs / 15.6kg   | 24pcs / 12.5kg                            | 24pcs / 13.9kg                           | 24pcs / 16.6kg                   |

### ■ 50W LPS-50

| Model No.  | Output      | Tol. | R&N   | Effi. |
|------------|-------------|------|-------|-------|
| LPS-50-3.3 | 3.3V, 0~10A | ±3%  | 50mV  | 75%   |
| LPS-50-5   | 5V, 0~10A   | ±3%  | 50mV  | 81%   |
| LPS-50-12  | 12V, 0~4.2A | ±2%  | 80mV  | 82%   |
| LPS-50-15  | 15V, 0~3.4A | ±2%  | 80mV  | 84%   |
| LPS-50-24  | 24V, 0~2.1A | ±1%  | 80mV  | 85%   |
| LPS-50-48  | 48V, 0~1.1A | ±1%  | 100mV | 86%   |

### ■ 75W LPS-75

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| LPS-75-3.3 | 3.3V, 0~15A  | ±3%  | 80mV  | 69%   |
| LPS-75-5   | 5V, 0~15A    | ±3%  | 80mV  | 77%   |
| LPS-75-12  | 12V, 0~6.2A  | ±2%  | 100mV | 80%   |
| LPS-75-15  | 15V, 0~5.0A  | ±2%  | 100mV | 81%   |
| LPS-75-24  | 24V, 0~3.2A  | ±2%  | 120mV | 83%   |
| LPS-75-48  | 48V, 0~1.56A | ±2%  | 120mV | 83%   |

### ■ 100W LPS-100

| Model No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| LPS-100-3.3  | 3.3V, 0~20A   | ±3%  | 150mV | 69%   |
| LPS-100-5    | 5V, 0~20A     | ±3%  | 100mV | 77%   |
| LPS-100-7.5  | 7.5V, 0~13.3A | ±2%  | 100mV | 77%   |
| LPS-100-12   | 12V, 0~8.4A   | ±2%  | 100mV | 79%   |
| LPS-100-13.5 | 13.5V, 0~7.5A | ±2%  | 100mV | 79%   |
| LPS-100-15   | 15V, 0~6.7A   | ±2%  | 100mV | 80%   |

|            |             |     |       |     |
|------------|-------------|-----|-------|-----|
| LPS-100-24 | 24V, 0~4.2A | ±1% | 150mV | 80% |
| LPS-100-27 | 27V, 0~3.8A | ±1% | 150mV | 81% |
| LPS-100-48 | 48V, 0~2.1A | ±1% | 200mV | 81% |

### ■ 100W (with PFC Function) LPP-100

| Model No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| LPP-100-3.3  | 3.3V, 0~20A   | ±2%  | 100mV | 69%   |
| LPP-100-5    | 5V, 0~20A     | ±2%  | 100mV | 75%   |
| LPP-100-7.5  | 7.5V, 0~13.5A | ±2%  | 100mV | 76%   |
| LPP-100-12   | 12V, 0~8.5A   | ±2%  | 100mV | 79%   |
| LPP-100-13.5 | 13.5V, 0~7.5A | ±2%  | 100mV | 79%   |
| LPP-100-15   | 15V, 0~6.7A   | ±2%  | 100mV | 80%   |
| LPP-100-24   | 24V, 0~4.2A   | ±1%  | 150mV | 83%   |
| LPP-100-27   | 27V, 0~3.8A   | ±1%  | 150mV | 83%   |
| LPP-100-48   | 48V, 0~2.1A   | ±1%  | 250mV | 83%   |

### ■ 150W (with PFC Function) LPP-150

| Model No.    | Output         | Tol. | R&N   | Effi. |
|--------------|----------------|------|-------|-------|
| LPP-150-3.3  | 3.3V, 0~30A    | ±2%  | 100mV | 70%   |
| LPP-150-5    | 5V, 0~30A      | ±2%  | 100mV | 76%   |
| LPP-150-7.5  | 7.5V, 0~20A    | ±2%  | 100mV | 80%   |
| LPP-150-12   | 12V, 0~12.5A   | ±2%  | 100mV | 82%   |
| LPP-150-13.5 | 13.5V, 0~11.2A | ±2%  | 100mV | 83%   |
| LPP-150-15   | 15V, 0~10A     | ±2%  | 100mV | 83%   |
| LPP-150-24   | 24V, 0~6.3A    | ±1%  | 150mV | 85%   |
| LPP-150-27   | 27V, 0~5.6A    | ±1%  | 150mV | 85%   |
| LPP-150-48   | 48V, 0~3.2A    | ±1%  | 250mV | 85%   |



# Green Open Frame

1~20W AC/DC Miniature Encapsulated Type



## Features

- Universal AC input / Full range
- No load power consumption < 0.075W (<0.1W for IRM-5~20)
- Miniature size, high power density
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Isolation Class II
- Comply with EN55022 class B without any additional components
- Fully isolated plastic case
- Withstand 5G vibration test
- Low cost, high reliability
- Pass LPS
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.               | IRM-01-x <input type="checkbox"/> S                                                                | IRM-02-x <input type="checkbox"/> S | IRM-03-x <input type="checkbox"/> S | IRM-05                                     | IRM-10    | IRM-15         | IRM-20    |
|-------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------------|-----------|----------------|-----------|
| AC input voltage range  | 85~305VAC                                                                                          |                                     |                                     | 85~264VAC; 120~370VDC                      |           |                |           |
| Overload protection     | 105%~160%                                                                                          |                                     | 105%~260%                           | 115%~260%                                  | 115%~190% |                | 115%~160% |
| Over voltage protection | 115%~135% rated output voltage                                                                     |                                     |                                     |                                            |           |                |           |
| Withstand voltage       | I/P-O/P: 3kVAC                                                                                     |                                     |                                     |                                            |           |                |           |
| Working temperature     | -30~+85°C                                                                                          |                                     |                                     | -30~+70°C (refer to output derating curve) |           |                |           |
| Safety standards        | UL60950-1, TUV EN60950-1 approved (IRM-01/02 pending); Design refer to IEC60601-1 for IRM-01/02/03 |                                     |                                     |                                            |           |                |           |
| EMC standards           | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 (IRM-01/02 pending)                       |                                     |                                     |                                            |           |                |           |
| Dimension (LxWxH)(mm)   | PCB: 33.7x 22.2x 15<br>SMD: 33.7x 22.2x 16                                                         |                                     | PCB: 37x 24x 15<br>SMD: 37x 24x 16  | 45.7x 25.4x 21.5                           |           | 52.4x 27.2x 24 |           |

## 1W Under Development IRM-01

| Model No.                           | Output        | Tol. | R&N   | Effi. |
|-------------------------------------|---------------|------|-------|-------|
| IRM-01-3.3 <input type="checkbox"/> | 3.3V, 0~300mA | ±1%  | 100mV | 66%   |
| IRM-01-5 <input type="checkbox"/>   | 5V, 0~200mA   | ±1%  | 100mV | 70%   |
| IRM-01-9 <input type="checkbox"/>   | 9V, 0~111mA   | ±1%  | 100mV | 72%   |
| IRM-01-12 <input type="checkbox"/>  | 12V, 0~83mA   | ±1%  | 150mV | 74%   |
| IRM-01-15 <input type="checkbox"/>  | 15V, 0~67mA   | ±1%  | 200mV | 75%   |
| IRM-01-24 <input type="checkbox"/>  | 24V, 0~42mA   | ±1%  | 240mV | 77%   |

☐ = Blank, S ; Blank: PCB mounting style, S: SMD type

## 2W Under Development IRM-02

| Model No.                           | Output        | Tol. | R&N   | Effi. |
|-------------------------------------|---------------|------|-------|-------|
| IRM-02-3.3 <input type="checkbox"/> | 3.3V, 0~600mA | ±1%  | 100mV | 66%   |
| IRM-02-5 <input type="checkbox"/>   | 5V, 0~400mA   | ±1%  | 100mV | 70%   |
| IRM-02-9 <input type="checkbox"/>   | 9V, 0~222mA   | ±1%  | 100mV | 72%   |
| IRM-02-12 <input type="checkbox"/>  | 12V, 0~167mA  | ±1%  | 150mV | 74%   |
| IRM-02-15 <input type="checkbox"/>  | 15V, 0~133mA  | ±1%  | 200mV | 75%   |
| IRM-02-24 <input type="checkbox"/>  | 24V, 0~83mA   | ±1%  | 240mV | 77%   |

☐ = Blank, S ; Blank: PCB mounting style, S: SMD type

## 3W NEW IRM-03

| Model No.                           | Output        | Tol. | R&N   | Effi. |
|-------------------------------------|---------------|------|-------|-------|
| IRM-03-3.3 <input type="checkbox"/> | 3.3V, 0~900mA | ±2%  | 100mV | 68%   |
| IRM-03-5 <input type="checkbox"/>   | 5V, 0~600mA   | ±2%  | 100mV | 72%   |
| IRM-03-9 <input type="checkbox"/>   | 9V, 0~333mA   | ±2%  | 100mV | 77%   |
| IRM-03-12 <input type="checkbox"/>  | 12V, 0~250mA  | ±1%  | 150mV | 78%   |
| IRM-03-15 <input type="checkbox"/>  | 15V, 0~200mA  | ±1%  | 200mV | 78%   |
| IRM-03-24 <input type="checkbox"/>  | 24V, 0~125mA  | ±1%  | 240mV | 80%   |

☐ = Blank, S ; Blank: PCB mounting style, S: SMD type

## 5W IRM-05

| Model No.  | Output        | Tol.  | R&N   | Effi. |
|------------|---------------|-------|-------|-------|
| IRM-05-3.3 | 3.3V, 0~1.25A | ±2.5% | 200mV | 68%   |
| IRM-05-5   | 5V, 0~1A      | ±2.5% | 200mV | 71%   |
| IRM-05-12  | 12V, 0~0.42A  | ±2.5% | 200mV | 75%   |
| IRM-05-15  | 15V, 0~0.33A  | ±2.5% | 200mV | 75%   |
| IRM-05-24  | 24V, 0~0.23A  | ±2.5% | 200mV | 77%   |

## 10W IRM-10

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| IRM-10-3.3 | 3.3V, 0~2.5A | ±2.5% | 200mV | 74%   |
| IRM-10-5   | 5V, 0~2A     | ±2.5% | 200mV | 77%   |
| IRM-10-12  | 12V, 0~0.85A | ±2.5% | 200mV | 82%   |
| IRM-10-15  | 15V, 0~0.67A | ±2.5% | 200mV | 82%   |
| IRM-10-24  | 24V, 0~0.42A | ±2.5% | 200mV | 82%   |

## 15W IRM-15

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| IRM-15-3.3 | 3.3V, 0~3.5A | ±2.5% | 200mV | 74%   |
| IRM-15-5   | 5V, 0~3A     | ±2.5% | 200mV | 78%   |
| IRM-15-12  | 12V, 0~1.25A | ±2.5% | 200mV | 82%   |
| IRM-15-15  | 15V, 0~1A    | ±2.5% | 200mV | 82%   |
| IRM-15-24  | 24V, 0~0.63A | ±2.5% | 200mV | 83%   |

## 20W IRM-20

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| IRM-20-3.3 | 3.3V, 0~4.5A | ±2.5% | 200mV | 76%   |
| IRM-20-5   | 5V, 0~4A     | ±2.5% | 200mV | 79%   |
| IRM-20-12  | 12V, 0~1.8A  | ±2.5% | 200mV | 84%   |
| IRM-20-15  | 15V, 0~1.4A  | ±2.5% | 200mV | 84%   |
| IRM-20-24  | 24V, 0~0.9A  | ±2.5% | 200mV | 85%   |

# Green Open Frame 30~60W AC/DC Miniature Encapsulated Type



## Features

- Universal AC input / Full range
- No load power consumption < 0.1W
- Miniature size, high power density
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Isolation Class II
- Fully isolated plastic case
- Comply with EN55022 class B without any additional components
- Withstand 5G vibration test
- Low cost, high reliability
- Pass LPS (except for IRM-45/60 5V)
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                 | IRM-30-x <sup>ST</sup>                                                  | IRM-45-x <sup>ST</sup> | IRM-60-x <sup>ST</sup>                               |
|---------------------------|-------------------------------------------------------------------------|------------------------|------------------------------------------------------|
| AC input voltage range    | 85~264VAC                                                               |                        |                                                      |
| AC inrush current (max.)  | Cold start, 25A at 115VAC, 45A at 230VAC                                |                        | Cold start, 30A at 115VAC, 60A at 230VAC             |
| Overload protection       | 105%~160%                                                               |                        | 115%~160%                                            |
| Over voltage protection   | 105%~135%                                                               |                        |                                                      |
| Setup, rise, hold up time | 1000ms, 30ms, 40ms at 230VAC                                            |                        | 1000ms, 30ms, 50ms at 230VAC                         |
| Leakage current           | Less than 0.25mA at 240VAC                                              |                        |                                                      |
| Withstand voltage         | I/P-O/P: 3kVAC                                                          |                        |                                                      |
| Working temperature       | -30~+70°C (refer to output derating curve)                              |                        |                                                      |
| Vibration                 | 10~500Hz, 5G 10min./1 cycle, period for 60 min. each along X, Y, Z axes |                        |                                                      |
| Safety standards          | UL60950-1, TUV EN60950-1 approved                                       |                        |                                                      |
| EMC standards             | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11                |                        |                                                      |
| Connection                | 4 industrial pins                                                       |                        |                                                      |
| Dimension (LxWxH)(mm)     | PCB mounting: 69.5x 39x 24; Screw I/O: 91x 39.5x 28.5                   |                        | PCB mounting: 87x 52x 29.5; Screw I/O: 109x 52x 33.5 |

## 30W IRM-30

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| IRM-30-5□  | 5V, 0~6A     | ±2.5% | 120mV | 83%   |
| IRM-30-12□ | 12V, 0~2.5A  | ±2.5% | 150mV | 88%   |
| IRM-30-15□ | 15V, 0~2A    | ±2.5% | 200mV | 88%   |
| IRM-30-24□ | 24V, 0~1.3A  | ±2.5% | 240mV | 88.5% |
| IRM-30-48□ | 48V, 0~0.63A | ±2.5% | 300mV | 90%   |

□ = Blank, ST ; Blank: PCB mounting style, ST: Screw terminal style

## 45W NEW IRM-45

| Model No.  | Output      | Tol.  | R&N   | Effi. |
|------------|-------------|-------|-------|-------|
| IRM-45-5□  | 5V, 0~8A    | ±2.5% | 80mV  | 83.5% |
| IRM-45-12□ | 12V, 0~3.8A | ±2.5% | 150mV | 87.5% |
| IRM-45-15□ | 15V, 0~3A   | ±2.5% | 180mV | 88.5% |

□ = Blank, ST ; Blank: PCB mounting style, ST: Screw terminal style

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| IRM-45-24□ | 24V, 0~1.9A  | ±2.5% | 200mV | 89.5% |
| IRM-45-48□ | 48V, 0~0.94A | ±2.5% | 300mV | 90.5% |

□ = Blank, ST ; Blank: PCB mounting style, ST: Screw terminal style

## 60W NEW IRM-60

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| IRM-60-5□  | 5V, 0~10A    | ±2.5% | 80mV  | 84%   |
| IRM-60-12□ | 12V, 0~5A    | ±2.5% | 120mV | 87.5% |
| IRM-60-15□ | 15V, 0~4A    | ±2.5% | 120mV | 89%   |
| IRM-60-24□ | 24V, 0~2.5A  | ±2.5% | 150mV | 90%   |
| IRM-60-48□ | 48V, 0~1.25A | ±2.5% | 240mV | 91%   |

□ = Blank, ST ; Blank: PCB mounting style, ST: Screw terminal style



### ■ Features

- Universal AC input / Full range
- No load power consumption <0.1W(<0.3W for 15~35W)
- High efficiency up to 91%
- Compact size, 1U low profile
- Cooling by free air convection
- Protections: Short circuit / Overload / Over voltage
- Class I or Class II installations
- LED indicator for power on (EPS-25/35/45S/65S)
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | EPS-15                                                                         | EPS-25                       | EPS-35                    | EPS-45S                      | EPS-65S |
|--------------------------|-------|--------------------------------------------------------------------------------|------------------------------|---------------------------|------------------------------|---------|
| AC input voltage range   |       | 85~264VAC; 120~370VDC                                                          |                              |                           | 80~264VAC                    |         |
| AC inrush current (max.) |       | Cold start, 45A at 230VAC                                                      | Cold start, 35A at 230VAC    | Cold start, 40A at 230VAC | Cold start, 60A at 230VAC    |         |
| DC adjustment range      |       | ±10% rated output voltage                                                      |                              |                           | -5~+10% rated output voltage |         |
| Overload protection      | Range | 115%~150% rated output power                                                   | 115%~170% rated output power |                           | 115%~150% rated output power |         |
|                          | Type  | Hiccup mode, auto-recovery                                                     |                              |                           |                              |         |
| Over voltage protection  |       | 110%~135% shut down o/p voltage, re-power on to recover                        |                              |                           |                              |         |
| Withstand voltage        |       | I/P-O/P: 3kVAC, I/P-FG:2kVAC, O/P-FG: 0.5kVAC                                  |                              |                           |                              |         |
| Working temperature      |       | -30~+70°C (refer to output derating curve)                                     |                              |                           |                              |         |
| Safety standards         |       | UL60950-1, TUV EN60950-1 approved (EPS-45S/65S pending)                        |                              |                           |                              |         |
| EMC standards            |       | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 (EPS-45S/65S pending) |                              |                           |                              |         |
| Connection               |       | JST B3P/B2P-VH                                                                 |                              |                           | JST B3P/B4P-VH               |         |
| Dimension (LxWxH)(mm)    |       | 63.5x45.7x24                                                                   | 76.2x50.8x24                 |                           |                              |         |

### ■ 15W—Class I EPS-15

| Model No.  | Output(Rated / Peak 10 sec.) | Tol. | R&N   | Effi. |
|------------|------------------------------|------|-------|-------|
| EPS-15-3.3 | 3.3V, 0~3A / 3.3A            | ±2%  | 50mV  | 75%   |
| EPS-15-5   | 5V, 0~3A / 3.3A              | ±2%  | 50mV  | 78%   |
| EPS-15-7.5 | 7.5V, 0~2A / 2.2A            | ±2%  | 80mV  | 81%   |
| EPS-15-12  | 12V, 0~1.25A / 1.38A         | ±1%  | 80mV  | 82%   |
| EPS-15-15  | 15V, 0~1A / 1.1A             | ±1%  | 100mV | 83%   |
| EPS-15-24  | 24V, 0~0.625A / 0.69A        | ±1%  | 150mV | 83%   |
| EPS-15-27  | 27V, 0~0.56A / 0.615A        | ±1%  | 180mV | 84%   |
| EPS-15-36  | 36V, 0~0.42A / 0.46A         | ±1%  | 200mV | 85%   |
| EPS-15-48  | 48V, 0~0.313A / 0.344A       | ±1%  | 200mV | 85%   |

### ■ 25W—Class I EPS-25

| Model No.  | Output(Rated / Peak 10 sec.) | Tol. | R&N   | Effi. |
|------------|------------------------------|------|-------|-------|
| EPS-25-3.3 | 3.3V, 0~5A / 5.5A            | ±2%  | 60mV  | 79%   |
| EPS-25-5   | 5V, 0~5A / 5.5A              | ±2%  | 60mV  | 81%   |
| EPS-25-7.5 | 7.5V, 0~3.4A / 3.74A         | ±2%  | 80mV  | 83%   |
| EPS-25-12  | 12V, 0~2.1A / 2.34A          | ±1%  | 100mV | 86%   |
| EPS-25-15  | 15V, 0~1.7A / 1.87A          | ±1%  | 100mV | 87%   |
| EPS-25-24  | 24V, 0~1.05A / 1.17A         | ±1%  | 180mV | 88%   |
| EPS-25-27  | 27V, 0~0.95A / 1.05A         | ±1%  | 180mV | 89%   |
| EPS-25-36  | 36V, 0~0.7A / 0.78A          | ±1%  | 200mV | 89%   |
| EPS-25-48  | 48V, 0~0.53A / 0.59A         | ±1%  | 240mV | 90%   |

### ■ 35W—Class I EPS-35

| Model No.  | Output(Rated / Peak 10 sec.) | Tol.  | R&N  | Effi. |
|------------|------------------------------|-------|------|-------|
| EPS-35-3.3 | 3.3V, 0~6A / 6.6A            | ±2.5% | 60mV | 80%   |
| EPS-35-5   | 5V, 0~6A / 6.6A              | ±2.0% | 70mV | 82%   |
| EPS-35-7.5 | 7.5V, 0~4.7A / 5.2A          | ±2.0% | 80mV | 84%   |

| Model No. | Output(Rated / Peak 10 sec.) | Tol.  | R&N   | Effi. |
|-----------|------------------------------|-------|-------|-------|
| EPS-35-12 | 12V, 0~3A / 3.3A             | ±1.0% | 100mV | 87%   |
| EPS-35-15 | 15V, 0~2.4A / 2.65A          | ±1.0% | 100mV | 88%   |
| EPS-35-24 | 24V, 0~1.5A / 1.65A          | ±1%   | 180mV | 89%   |
| EPS-35-27 | 27V, 0~1.3A / 1.45A          | ±1%   | 180mV | 89%   |
| EPS-35-36 | 36V, 0~1A / 1.1A             | ±1%   | 200mV | 89%   |
| EPS-35-48 | 48V, 0~0.75A / 0.82A         | ±1%   | 240mV | 90%   |

### ■ 45W—Class II NEW EPS-45S

| Model No.   | Output(Rated / Peak 10 sec.) | Tol. | R&N   | Effi. |
|-------------|------------------------------|------|-------|-------|
| EPS-45S-3.3 | 3.3V, 0~8A / 8.8A            | ±2%  | 80mV  | 80%   |
| EPS-45S-5   | 5V, 0~8A / 8.8A              | ±2%  | 80mV  | 83%   |
| EPS-45S-7.5 | 7.5V, 0~5.4A / 5.95A         | ±2%  | 80mV  | 85%   |
| EPS-45S-12  | 12V, 0~3.8A / 4.18A          | ±2%  | 120mV | 88%   |
| EPS-45S-15  | 15V, 0~3A / 3.3A             | ±2%  | 150mV | 89%   |
| EPS-45S-24  | 24V, 0~1.9A / 2.1A           | ±1%  | 240mV | 90%   |
| EPS-45S-48  | 48V, 0~0.94A / 1.03A         | ±1%  | 300mV | 91%   |

### ■ 65W—Class II NEW EPS-65S

| Model No.   | Output(Rated / Peak 10 sec.) | Tol. | R&N   | Effi. |
|-------------|------------------------------|------|-------|-------|
| EPS-65S-3.3 | 3.3V, 0~11A / 12.12A         | ±2%  | 80mV  | 80%   |
| EPS-65S-5   | 5V, 0~10A / 11A              | ±2%  | 80mV  | 83%   |
| EPS-65S-7.5 | 7.5V, 0~8A / 8.8A            | ±2%  | 80mV  | 85%   |
| EPS-65S-12  | 12V, 0~5.42A / 5.96A         | ±2%  | 120mV | 88%   |
| EPS-65S-15  | 15V, 0~4.34A / 4.77A         | ±2%  | 150mV | 89%   |
| EPS-65S-24  | 24V, 0~2.71A / 2.98A         | ±1%  | 240mV | 90%   |
| EPS-65S-48  | 48V, 0~1.36A / 1.49A         | ±1%  | 300mV | 91%   |



### Features

- Compact size, 1U low profile
- Universal AC input / Full range
- Built-in active PFC function (ELP-75)
- Class I or Class II installations
- **No load power consumption < 0.3W (<0.5W for ELP-75)**
- High efficiency up to 91%
- Protections: Short circuit / Overload / Over voltage / Over temp.(EPS-120)
- Cooling by free air convection
- Built-in 12V/0.5A auxiliary output (EPS-120)
- LED indicator for power on
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.               |            | EPS-45-x(-C)                                                               | EPS-65-x(-C) | EPS-120         | ELP-75-x(-C)                                    |
|-------------------------|------------|----------------------------------------------------------------------------|--------------|-----------------|-------------------------------------------------|
| Rated Power             | Fan        | NA                                                                         | NA           | 120W (20.5CFM)  | NA                                              |
|                         | Convection | 45W                                                                        | 65W          | 90W             | 75W                                             |
| AC input voltage range  |            | 90~264VAC                                                                  |              | 80~264VAC       | 90~264VAC                                       |
| DC adjustment range     |            | ±10% rated output voltage                                                  |              | ±5%             | ±10%                                            |
| Overload protection     | Range      | 115%~150% rated output power                                               |              |                 | 105%~150% rated output power                    |
|                         | Type       | Hiccup mode, auto-recovery                                                 |              |                 |                                                 |
| Over voltage protection |            | 110%~130% shut down o/p voltage, re-power on to recover                    |              |                 |                                                 |
| Withstand voltage       |            | I/P-O/P: 3kVAC, I/P-FG:2kVAC, O/P-FG: 0.5kVAC, 1 minute                    |              |                 | I/P-O/P: 3kVAC, I/P-FG:1.5kVAC, O/P-FG: 0.5kVAC |
| Working temperature     |            | -30~+70°C (refer to output derating curve)                                 |              |                 |                                                 |
| Safety standards        |            | UL60950-1, TUV EN60950-1 approved (EPS-120 pending)                        |              |                 |                                                 |
| EMC standards           |            | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 (EPS-120 pending) |              |                 |                                                 |
| Connection              |            | 3+4P/3.96mm pitch, JST B3P/B4P-VH                                          |              |                 | 3+4P/3.96mm pitch, JST B3P/B6P-VH               |
| Dimension (LxWxH)(mm)   |            | PCB: 101.6x50.8x29 ; Case: 103.4x62x37                                     |              | 101.6x 50.8x 29 | PCB: 175x 60x 27 ; Case: 195x 68.5x 33          |

### 45W—Class I EPS-45

| Model No.   | Output(Rated / Peak 10 sec.) | Tol. | R&N   | Effi. |
|-------------|------------------------------|------|-------|-------|
| EPS-45-3.3□ | 3.3V, 0~8A / 9A              | ±3%  | 80mV  | 80%   |
| EPS-45-5□   | 5V, 0~8A / 9A                | ±2%  | 80mV  | 82%   |
| EPS-45-7.5□ | 7.5V, 0~5.4A / 5.6A          | ±2%  | 100mV | 84%   |
| EPS-45-12□  | 12V, 0~3.75A / 4.2A          | ±2%  | 120mV | 87%   |
| EPS-45-15□  | 15V, 0~3A / 3.3A             | ±2%  | 150mV | 88%   |
| EPS-45-24□  | 24V, 0~1.9A / 2.1A           | ±1%  | 240mV | 89%   |
| EPS-45-36□  | 36V, 0~1.25A / 1.4A          | ±1%  | 280mV | 89%   |
| EPS-45-48□  | 48V, 0~1A / 1.1A             | ±1%  | 300mV | 90%   |

□ = blank, -C ; blank: PCB type, -C: Enclosed type

### 120W—Class I or II Under Development EPS-120

| Model No.  | Output      | Tol. | R&N   | Effi. |
|------------|-------------|------|-------|-------|
| EPS-120-12 | 12V, 0~10A  | ±2%  | 120mV | 88.0% |
| EPS-120-15 | 15V, 0~8A   | ±2%  | 120mV | 88.5% |
| EPS-120-24 | 24V, 0~5A   | ±1%  | 150mV | 90.0% |
| EPS-120-27 | 27V, 0~4.5A | ±1%  | 150mV | 90.0% |
| EPS-120-48 | 48V, 0~2.5A | ±1%  | 200mV | 91.0% |

### 65W—Class I EPS-65

| Model No.   | Output(Rated / Peak 10 sec.) | Tol. | R&N   | Effi. |
|-------------|------------------------------|------|-------|-------|
| EPS-65-3.3□ | 3.3V, 0~11A / 12A            | ±3%  | 80mV  | 80%   |
| EPS-65-5□   | 5V, 0~11A / 12A              | ±2%  | 80mV  | 82%   |
| EPS-65-7.5□ | 7.5V, 0~8A / 8.8A            | ±2%  | 100mV | 84%   |
| EPS-65-12□  | 12V, 0~5.42A / 6A            | ±2%  | 120mV | 86%   |
| EPS-65-15□  | 15V, 0~4.34A / 4.8A          | ±2%  | 150mV | 87%   |
| EPS-65-24□  | 24V, 0~2.71A / 3A            | ±1%  | 240mV | 88%   |
| EPS-65-36□  | 36V, 0~1.81A / 2A            | ±1%  | 280mV | 89%   |
| EPS-65-48□  | 48V, 0~1.36A / 1.5A          | ±1%  | 300mV | 90%   |

□ = blank, -C ; blank: PCB type, -C: Enclosed type

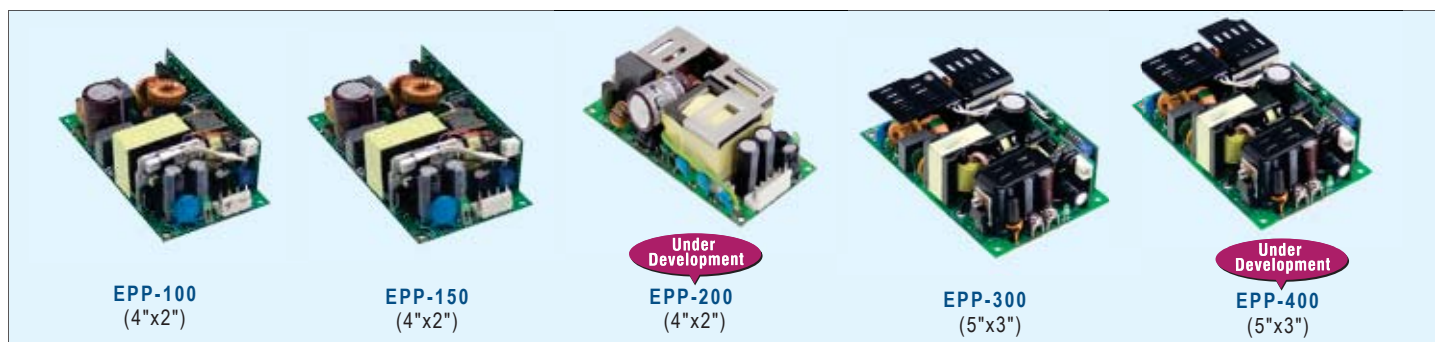
### 75W—Class I ELP-75

| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| ELP-75-3.3□ | 3.3V, 0~15A  | ±3%  | 80mV  | 80%   |
| ELP-75-5□   | 5V, 0~15A    | ±2%  | 80mV  | 82%   |
| ELP-75-12□  | 12V, 0~6.25A | ±2%  | 120mV | 89%   |
| ELP-75-15□  | 15V, 0~5A    | ±2%  | 150mV | 90%   |
| ELP-75-24□  | 24V, 0~3.15A | ±1%  | 240mV | 90%   |
| ELP-75-36□  | 36V, 0~2.1A  | ±1%  | 280mV | 90%   |
| ELP-75-48□  | 48V, 0~1.6A  | ±1%  | 300mV | 90%   |

□ = blank, -C ; blank: PCB type, -C: Enclosed type



# Green Open Frame 100~400W Single Output



## Features

- Universal AC input / Full range
- Built-in active PFC function
- Class I or Class II installations
- No load power consumption <0.5W
- High efficiency up to 94%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in 12V/0.5A auxiliary output (12V/0.3A for EPP-100/150)
- Standby 5V@1A with fan, @ 0.6A without fan (EPP-300/400)
- Built-in remote sense function (EPP-300/400)
- LED indicator for power on
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.               |            | EPP-100                                                                                        | EPP-150      | EPP-200                  | EPP-300                     | EPP-400                                       |
|-------------------------|------------|------------------------------------------------------------------------------------------------|--------------|--------------------------|-----------------------------|-----------------------------------------------|
| Rated Power             | Fan        | 100W (20CFM)                                                                                   | 150W (20CFM) | 200W (20.5CFM)           | 300W (20.5CFM)              | 400W (25CFM)                                  |
|                         | Convection | 75W                                                                                            | 100W         | 140W                     | 200W                        | 250W                                          |
| AC input voltage range  |            | 90~264VAC                                                                                      |              | 80~264VAC                | 90~264VAC                   | 80~264VAC                                     |
| DC adjustment range     |            | -2%~+5% rated output voltage                                                                   |              | ±5% rated output voltage |                             |                                               |
| Overload protection     | Range      | 105%~145%                                                                                      |              | 115%~150%                | 105%~135%                   | 115%~135%                                     |
|                         | Type       | Hiccup mode, auto-recovery                                                                     |              |                          |                             |                                               |
| Over voltage protection | Range      | 115%~135% rated output voltage                                                                 |              | 110%~130%                | 115%~135%                   | 110%~130%                                     |
|                         | Type       | Shut down o/p voltage, re-power on to recover                                                  |              |                          |                             |                                               |
| Withstand voltage       |            | I/P-O/P: 3kVAC, I/P-FG:2kVAC, O/P-FG: 0.5kVAC                                                  |              |                          |                             | I/P-O/P: 4kVAC, I/P-FG:2kVAC, O/P-FG: 1.5kVAC |
| Working temperature     |            | -30~+70°C (refer to output derating curve)                                                     |              |                          |                             |                                               |
| Safety standards        |            | UL60950-1, TUV EN60950-1 approved (EPP-400 pending)                                            |              |                          |                             |                                               |
| EMC standards           |            | EN55011 (EPP-300) / EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 (EPP-400 pending) |              |                          |                             |                                               |
| Connection              |            | JST B3P / B4P-VH                                                                               |              | JST B3P / B6P-VH         | JST B5P-VH / Screw terminal |                                               |
| Dimension (LxWxH)(mm)   |            | 101.6x 50.8x 29                                                                                |              |                          | 127x 76.2x 35               |                                               |

## 100W—Class I EPP-100

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| EPP-100-12 | 12V, 0~8.5A  | ±2%  | 120mV | 91.0% |
| EPP-100-15 | 15V, 0~6.67A | ±2%  | 150mV | 91.0% |
| EPP-100-24 | 24V, 0~4.2A  | ±1%  | 240mV | 92.0% |
| EPP-100-27 | 27V, 0~3.71A | ±1%  | 240mV | 92.5% |
| EPP-100-48 | 48V, 0~2.1A  | ±1%  | 300mV | 92.5% |

## 150W—Class I EPP-150

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| EPP-150-12 | 12V, 0~12.5A  | ±2%  | 130mV | 91.5% |
| EPP-150-15 | 15V, 0~10.0A  | ±2%  | 150mV | 92.0% |
| EPP-150-24 | 24V, 0~6.25A  | ±1%  | 240mV | 93.0% |
| EPP-150-27 | 27V, 0~5.56A  | ±1%  | 240mV | 92.0% |
| EPP-150-48 | 48V, 0~3.125A | ±1%  | 300mV | 92.0% |

## 200W—Class I or II Under Development EPP-200

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| EPP-200-12 | 12V, 0~16.7A | ±2%  | 100mV | 92%   |
| EPP-200-15 | 15V, 0~13.4A | ±2%  | 100mV | 92%   |
| EPP-200-24 | 24V, 0~8.4A  | ±1%  | 150mV | 93%   |
| EPP-200-27 | 27V, 0~7.5A  | ±1%  | 150mV | 93%   |
| EPP-200-48 | 48V, 0~4.2A  | ±1%  | 200mV | 94%   |

## 300W—Class I EPP-300

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| EPP-300-12 | 12V, 0~25.0A  | ±3%  | 120mV | 90.0% |
| EPP-300-15 | 15V, 0~20.0A  | ±3%  | 120mV | 90.0% |
| EPP-300-24 | 24V, 0~12.5A  | ±2%  | 150mV | 92.5% |
| EPP-300-27 | 27V, 0~11.12A | ±2%  | 200mV | 93.0% |
| EPP-300-48 | 48V, 0~6.25A  | ±2%  | 250mV | 93.0% |

## 400W—Class I Under Development EPP-400

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| EPP-400-12 | 12V, 0~33.3A | ±3%  | 120mV | 92%   |
| EPP-400-15 | 15V, 0~26.7A | ±3%  | 150mV | 92%   |
| EPP-400-24 | 24V, 0~16.7A | ±2%  | 200mV | 93%   |
| EPP-400-27 | 27V, 0~14.9A | ±1%  | 200mV | 93%   |
| EPP-400-48 | 48V, 0~8.4A  | ±1%  | 250mV | 94%   |



### Products —

- One Stop Shopping
- Total Solution



### Customer Satisfaction —

Today's effort, tomorrow's reward. Continuously improve CQTS to satisfy customer is our goal.



### ■ Features

- Interchangeable AC plugs (plug kit sold separately)
- Universal AC input / Full range
- No load power consumption <0.075W
- Energy efficiency Level VI
- Comply with EISA 2007/DoE and EU ErP
- Class II power (without earth pin)
- Protections: Short circuit / Over voltage / Overload
- Fully enclosed plastic case
- LED indicator for power on
- Pass LPS
- Approvals: UL / CUL / TUV / CCC / RCM / FCC / CE
- 2 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                 | GE12                                                                                                                                     | GE18 | GE24 | GE30 |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|
| AC input voltage range    | 90~264VAC / 0.4A for GE12; 90~264VAC / 0.7A for GE18/24/30                                                                               |      |      |      |
| AC inrush current (max.)  | Cold start, 40A at 100VAC; 80A at 230VAC                                                                                                 |      |      |      |
| Overload protection       | Hiccup mode, auto-recovery                                                                                                               |      |      |      |
| Over voltage protection   | 115%~135% rated output voltage                                                                                                           |      |      |      |
| Setup, rise, hold up time | 4000ms, 100ms, 30ms at 230VAC input                                                                                                      |      |      |      |
| Withstand voltage         | I/P-O/P:4242VDC, 1 minute                                                                                                                |      |      |      |
| Working temperature       | -10~+50°C (refer to output derating curve)                                                                                               |      |      |      |
| Safety standards          | UL60950-1, CSA22.2, TUV EN60950-1, CCC GB4943, AS/NZS 60950.1 approved                                                                   |      |      |      |
| EMC standards             | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, FCC part15 class B, GB9254                                                     |      |      |      |
| Length of output cable    | 100cm of 16AWG for GE12 5~12V and GE18/24 5~9V ; 120cm of 18AWG for GE18 12V and GE30; 150cm of 18AWG for GE12/18 15~48V and GE24 12~48V |      |      |      |
| Standard DC plug          | P1J: 2.1øx5.5øx11mm / C+, tuning fork type (refer to page 61 for DC plug list)                                                           |      |      |      |

### ■ Wall-mounted (Interchangeable Type)—12W

| Order No.<br>(Main body) | Output        | Tol. | R&N   | Effi. |
|--------------------------|---------------|------|-------|-------|
| GE12I05-P1J              | 5V, 0~2.00A   | ±5%  | 50mV  | 80.0% |
| GE12I07-P1J              | 7.5V, 0~1.33A | ±5%  | 75mV  | 82.0% |
| GE12I09-P1J              | 9V, 0~1.33A   | ±5%  | 100mV | 84.0% |
| GE12I12-P1J              | 12V, 0~1.00A  | ±3%  | 120mV | 84.0% |
| GE12I15-P1J              | 15V, 0~0.80A  | ±3%  | 150mV | 85.0% |
| GE12I18-P1J              | 18V, 0~0.83A  | ±3%  | 180mV | 85.0% |
| GE12I24-P1J              | 24V, 0~0.625A | ±3%  | 240mV | 85.5% |

### ■ Wall-mounted (Interchangeable Type)—24W

| Order No.<br>(Main body) | Output        | Tol. | R&N   | Effi. |
|--------------------------|---------------|------|-------|-------|
| GE24I05-P1J              | 5V, 0~3.00A   | ±5%  | 50mV  | 81.0% |
| GE24I07-P1J              | 7.5V, 0~2.00A | ±5%  | 75mV  | 83.0% |
| GE24I09-P1J              | 9V, 0~2.22A   | ±5%  | 100mV | 85.5% |
| GE24I12-P1J              | 12V, 0~2.00A  | ±3%  | 120mV | 86.0% |
| GE24I15-P1J              | 15V, 0~1.60A  | ±3%  | 150mV | 86.0% |
| GE24I18-P1J              | 18V, 0~1.33A  | ±3%  | 180mV | 87.0% |
| GE24I24-P1J              | 24V, 0~1.00A  | ±3%  | 240mV | 87.5% |
| GE24I48-P1J              | 48V, 0~0.50A  | ±3%  | 300mV | 89.0% |

### ■ Wall-mounted (Interchangeable Type)—18W

| Order No.<br>(Main body) | Output        | Tol. | R&N   | Effi. |
|--------------------------|---------------|------|-------|-------|
| GE18I05-P1J              | 5V, 0~2.40A   | ±5%  | 50mV  | 80.5% |
| GE18I07-P1J              | 7.5V, 0~1.73A | ±5%  | 75mV  | 82.5% |
| GE18I09-P1J              | 9V, 0~2.00A   | ±5%  | 100mV | 85.0% |
| GE18I12-P1J              | 12V, 0~1.50A  | ±3%  | 120mV | 86.0% |
| GE18I15-P1J              | 15V, 0~1.20A  | ±3%  | 150mV | 86.5% |
| GE18I18-P1J              | 18V, 0~1.00A  | ±3%  | 180mV | 87.0% |
| GE18I24-P1J              | 24V, 0~0.75A  | ±3%  | 240mV | 87.0% |
| GE18I48-P1J              | 48V, 0~0.375A | ±3%  | 300mV | 87.0% |

### ■ Wall-mounted (Interchangeable Type)—30W

| Order No.<br>(Main body) | Output       | Tol. | R&N   | Effi. |
|--------------------------|--------------|------|-------|-------|
| GE30I12-P1J              | 12V, 0~2.50A | ±3%  | 120mV | 84%   |
| GE30I15-P1J              | 15V, 0~2.00A | ±3%  | 150mV | 86%   |
| GE30I18-P1J              | 18V, 0~1.66A | ±3%  | 180mV | 87%   |
| GE30I24-P1J              | 24V, 0~1.25A | ±3%  | 240mV | 87%   |

### ■ Interchangeable AC Plug Specifically for GE12/18/24/30

| AC Plug Type and Order No. |            |               |            |                 |
|----------------------------|------------|---------------|------------|-----------------|
| AC Plug-AU                 | AC Plug-UK | AC Plug-EU    | AC Plug-US | AC Plug-MIX     |
|                            |            |               |            |                 |
| Australia Type             | U.K. Type  | European Type | U.S. Type  | Mixed Four Type |

▶ Note: Main body unit and AC plug should be ordered separately; The main body needs to be used along with any of the AC plug.

### 6W Green Adaptor

- Universal AC input / Full range
- No load power consumption < 0.075W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE and EU ErP
- 2 pole US / European type plug
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage
- Pass LPS
- Fully enclosed plastic case
- Approvals: UL/CUL/FCC for GS06U, TUV/CE for GS06E
- 2 years warranty



AC input voltage range ..... 90~264VAC ; 127~370VDC  
 AC inrush current(max.) ... Cold start, 50A at 230VAC  
 Overload protection ..... Hiccup mode, auto-recovery  
 Over voltage protection ... Clamp by zener diode >120V  
 Withstand voltage ..... I/P-O/P: 4242VDC, 1minute  
 Working temperature ..... 0~+50°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, CSA 22.2, TUV EN60950-1  
 EMC standards ..... FCC part15 class B(U Type); EN55022 class B(E Type)  
 Length of output cable ..... 120cm of 18AWG for 5~9V; 180cm of 24AWG for 12~48V

| Order No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| GS06□-1P1J  | 5V, 0~1.00A   | ±5%  | 50mV  | 75.0% |
| GS06□-11P1J | 7.5V, 0~0.80A | ±5%  | 80mV  | 80.5% |
| GS06□-2P1J  | 9V, 0~0.66A   | ±5%  | 80mV  | 79.5% |
| GS06□-3P1J  | 12V, 0~0.50A  | ±3%  | 100mV | 79.5% |
| GS06□-4P1J  | 15V, 0~0.40A  | ±3%  | 120mV | 80.5% |
| GS06□-5P1J  | 18V, 0~0.33A  | ±3%  | 150mV | 81.5% |
| GS06□-6P1J  | 24V, 0~0.25A  | ±2%  | 180mV | 82.0% |
| GS06□-8P1J  | 48V, 0~0.125A | ±2%  | 200mV | 85.0% |

□ = U/E ; U: American 2P, E: European 2P

### 12W Green Adaptor

- Universal AC input / Full range
- No load power consumption < 0.3W
- **Energy efficiency Level V**
- Comply with EISA 2007 and EU ErP
- 2 pole US / European type plug
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Pass LPS
- Fully enclosed plastic case
- Approvals: UL/CUL/BSMI/CB/FCC for GS12U, TUV/CB/CE for GS12E
- 2 years warranty



AC input voltage range ..... 90~264VAC ; 127~370VDC  
 AC inrush current(max.) ... Cold start, 45A at 230VAC  
 Overload protection ..... Hiccup mode, auto-recovery  
 Over voltage protection ... 115%~135% clamp by zener diode  
 Withstand voltage ..... I/P-O/P: 3kVAC, 1minute  
 Working temperature ..... 0~+50°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, CSA 22.2, BSMI CNS14336, TUV EN60950-1  
 EMC standards ..... EN55022, EN61204-3, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, FCC part15 class B

| Order No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| GS12□ 05-P1I | 5V, 0~2.00A   | ±5%  | 75mV  | 76.0% |
| GS12□ 07-P1I | 7.5V, 0~1.60A | ±4%  | 90mV  | 78.5% |
| GS12□ 09-P1I | 9V, 0~1.33A   | ±4%  | 90mV  | 78.5% |
| GS12□ 12-P1I | 12V, 0~1.00A  | ±3%  | 120mV | 78.5% |
| GS12□ 15-P1I | 15V, 0~0.80A  | ±3%  | 150mV | 80.0% |
| GS12□ 18-P1I | 18V, 0~0.67A  | ±3%  | 180mV | 80.0% |
| GS12□ 24-P1I | 24V, 0~0.50A  | ±3%  | 200mV | 80.5% |

□ = U/E ; U: American 2P, E: European 2P

### 5W Green USB Adaptor



- Universal AC input / Full range
- No load power consumption < 0.075W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE and EU ErP
- Compact size
- 2 pole US / European type plug
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Pass LPS
- Fully enclosed plastic case
- 2 years warranty

AC input voltage range ..... 90~264VAC ; 127~370VDC  
 Overload protection ..... 105%~135% rated output power, hiccup mode, auto-recovery  
 Over voltage protection ..... 105%~200% rated output voltage, hiccup mode, auto-recovery  
 Withstand voltage ..... I/P-O/P: 4242VDC, 1 minute  
 Working temperature ..... -20~+50°C (refer to output derating curve)  
 Safety standards ..... U-Type: UL60950-1, CSA22.2 approved  
 E-Type: TUV EN60950-1 approved  
 EMC standards ..... FCC part15 class B(U Type); EN55022 class B(E Type)  
 Standard DC plug ..... USB Type A

| Order No. | Output   | Tol. | R&N  | Effi. |
|-----------|----------|------|------|-------|
| GS05U-USB | 5V, 0~1A | ±4%  | 90mV | 74.0% |
| GS05E-USB | 5V, 0~1A | ±4%  | 80mV | 74.5% |

### 15W Green Adaptor

- Universal AC input / Full range
- No load power consumption < 0.075W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE and EU ErP
- Protections: Short circuit / Overload / Over voltage
- Pass LPS
- Fully enclosed plastic case
- 2 years warranty



AC input voltage range ..... 90~264VAC ; 127~370VDC  
 AC inrush current(max.) ... Cold start, 50A at 230VAC  
 Overload protection ..... Hiccup mode, auto-recovery  
 Over voltage protection ... Clamp by zener diode > 120V  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, 1 minute  
 Working temperature ..... 0~+50°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, CSA 22.2, TUV EN60950-1 approved  
 EMC standards ..... EN55022-B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,11, FCC part 15 class B  
 Length of output cable ..... 120cm of 18AWG for 5~15V; 180cm of 18AWG for 18~48V  
 Standard DC plug ..... P1J: 2.1øx5.5øx11mm / C+, tuning fork type (refer to page 61 for DC plug list)

| Order No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| GS15□-1P1J  | 5.0V, 0~2.40A | ±5%  | 50mV  | 80.0% |
| GS15□-11P1J | 7.5V, 0~1.60A | ±5%  | 80mV  | 82.5% |
| GS15□-2P1J  | 9.0V, 0~1.66A | ±5%  | 80mV  | 85.0% |
| GS15□-3P1J  | 12V, 0~1.25A  | ±3%  | 80mV  | 85.0% |
| GS15□-4P1J  | 15V, 0~1.00A  | ±3%  | 100mV | 85.0% |
| GS15□-5P1J  | 18V, 0~0.83A  | ±3%  | 120mV | 85.0% |
| GS15□-6P1J  | 24V, 0~0.625A | ±2%  | 150mV | 85.5% |
| GS15□-8P1J  | 48V, 0~0.31A  | ±2%  | 240mV | 87.0% |

□ = A/B/E/U ; A: IEC320-C14, B: IEC320-C8  
 E: European 2P, U: American 2P





**GS18/25A**

93x 54x 36 mm



**GS18/25B**

79x 54x 33 mm



**GS18/25/36U**

79x 54x 33 mm



**GS18/25/36E**

79x 54x 33 mm

### Features

- Universal AC input / Full range
- No load power consumption < 0.3W
- **Energy efficiency Level V**
- Comply with EISA 2007, NRCAN, AU/NZ MEPS and EU ErP
- 2 pole USA / EURO plug or IEC320-C14/C8
- Class II power (without earth pin) for B/U/E type
- Class I power (with earth pin) only for A type
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- LED indicator for power on (except for GS36)
- Pass LPS
- Approvals:
  - A type: UL / CUL / TUV / BSMI / CCC / PSE / CB / FCC / CE
  - B type: UL / CUL / TUV / BSMI / CCC / CB / FCC / CE
  - U type: UL / CUL / BSMI / CB / FCC
  - E type: TUV / CB / CE
- 2 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Order No.                                               |       | GS18                                                                                                                                                                                                                                                                                            | GS25 | GS36                                        |
|---------------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------|
| AC input voltage range                                  |       | 90~264VAC ; 135~370VDC                                                                                                                                                                                                                                                                          |      |                                             |
| AC inrush current (max.)                                |       | Cold start, 45A at 230VAC                                                                                                                                                                                                                                                                       |      | Cold start, 60A at 230VAC                   |
| Overload protection                                     | Range | 105%~150% rated output power                                                                                                                                                                                                                                                                    |      | 110%~250% rated output power                |
|                                                         | Type  | Hiccup mode, auto-recovery                                                                                                                                                                                                                                                                      |      |                                             |
| Over voltage protection                                 |       | 105%~135% rated output voltage, clamp by zener diode                                                                                                                                                                                                                                            |      |                                             |
| Withstand voltage                                       |       | I/P-O/P: 4242VDC, 1 minute                                                                                                                                                                                                                                                                      |      |                                             |
| Working temperature                                     |       | 0~+50°C (refer to output derating curve )                                                                                                                                                                                                                                                       |      | -20~+50°C (refer to output derating curve ) |
| Safety standards                                        |       | A-Type: UL60950-1, CSA 22.2, TUV EN60950-1, BSMI CNS14336, PSE J60950-1(GS18A/GS25A-5V~28V only), CCC GB4943 approved<br>B-Type: UL60950-1, CSA 22.2, TUV EN60950-1, BSMI CNS14336, CCC GB4943 approved<br>U-Type: UL60950-1, CSA22.2, BSMI CNS14336 approved<br>E-Type: TUV EN60950-1 approved |      |                                             |
| EMC standards                                           |       | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11(A/B/E type); FCC part 15 class B, CNS13438(A/B/U type); GB9254(A/B type)                                                                                                                                                               |      |                                             |
| Length of output cable                                  |       | 120cm of 16AWG for 5~12V ; 180cm of UL1185, 18AWG for 15~48V                                                                                                                                                                                                                                    |      | 100cm of UL1185, 16AWG                      |
| Standard DC plug<br>(refer to page 61 for DC plug list) |       | P1J: 2.1øx5.5øx11mm / C+, tuning fork type                                                                                                                                                                                                                                                      |      |                                             |

### Desktop / Wall-mounted — 18W



| Order No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| GS18□05-P1J | 5V, 0~3.00A   | ±5%  | 50mV  | 79.5% |
| GS18□07-P1J | 7.5V, 0~2.00A | ±5%  | 80mV  | 82.0% |
| GS18□09-P1J | 9V, 0~2.00A   | ±5%  | 80mV  | 83.0% |
| GS18□12-P1J | 12V, 0~1.50A  | ±3%  | 80mV  | 85.0% |
| GS18□15-P1J | 15V, 0~1.20A  | ±3%  | 100mV | 85.0% |
| GS18□18-P1J | 18V, 0~1.00A  | ±3%  | 150mV | 85.0% |

| Order No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| GS18□24-P1J | 24V, 0~0.75A  | ±2%  | 180mV | 86.0% |
| GS18□28-P1J | 28V, 0~0.64A  | ±2%  | 240mV | 86.5% |
| GS18□48-P1J | 48V, 0~0.375A | ±2%  | 240mV | 87.0% |

□ = A / B / U / E  
 Class I — A: IEC320-C14  
 Class II — B: IEC320-C8, U: American 2P, E: European 2P

### Desktop / Wall-mounted — 25W



| Order No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| GS25□05-P1J | 5V, 0~4.00A   | ±5%  | 50mV  | 78.5% |
| GS25□07-P1J | 7.5V, 0~2.93A | ±5%  | 80mV  | 81.5% |
| GS25□09-P1J | 9V, 0~2.77A   | ±5%  | 80mV  | 82.5% |
| GS25□12-P1J | 12V, 0~2.08A  | ±3%  | 80mV  | 84.5% |
| GS25□15-P1J | 15V, 0~1.66A  | ±3%  | 100mV | 84.5% |
| GS25□18-P1J | 18V, 0~1.38A  | ±3%  | 150mV | 84.5% |

| Order No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| GS25□24-P1J | 24V, 0~1.04A | ±2%  | 180mV | 85.5% |
| GS25□28-P1J | 28V, 0~0.89A | ±2%  | 240mV | 85.5% |
| GS25□48-P1J | 48V, 0~0.52A | ±2%  | 240mV | 87.0% |

□ = A / B / U / E  
 Class I — A: IEC320-C14  
 Class II — B: IEC320-C8, U: American 2P, E: European 2P

### Wall-mounted — 36W



| Order No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| GS36□05-P1J | 5V, 0~4.50A  | ±5%  | 90mV  | 76.5% |
| GS36□09-P1J | 9V, 0~3.50A  | ±5%  | 90mV  | 81.5% |
| GS36□12-P1J | 12V, 0~3.00A | ±3%  | 100mV | 84.5% |

| Order No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| GS36□24-P1J | 24V, 0~1.50A | ±2%  | 180mV | 85.5% |
| GS36□48-P1J | 48V, 0~0.75A | ±2%  | 240mV | 87.5% |

□ = U / E ; U: American 2P, E: European 2P





### ■ Features

- Universal AC input / Full range
- No load power consumption <0.3W for GS40/60; <0.5W for GS90/120
- **Energy efficiency Level V**
- Comply with EISA 2007, NRCAN, AU/NZ MEPS and EU ErP
- Built-in active PFC function for GS90/120
- 3 pole AC inlet IEC320-C14
- Class I power (with earth pin)
- Protections: Short circuit / Over voltage / Overload / Over temp. (except for GS40)
- Fully enclosed plastic case
- LED indicator for power on
- Pass LPS (except for GS120)
- 2 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Order No.                                               |       | GS40A                                                                                                                                                                                                   | GS60A | GS90A                                                                                                                                              | GS120A                             |
|---------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| AC input voltage range                                  |       | 90~264VAC ; 127~370VDC                                                                                                                                                                                  |       |                                                                                                                                                    | 85~264VAC ; 120~370VDC             |
| AC inrush current (max.)                                |       | Cold start, 65A at 230VAC                                                                                                                                                                               |       | Cold start, 70A at 230VAC                                                                                                                          |                                    |
| Overload protection                                     | Range | 105%~150% rated output power                                                                                                                                                                            |       | 110%~150%                                                                                                                                          | 105%~160%                          |
|                                                         | Type  | Hiccup mode, auto-recovery                                                                                                                                                                              |       |                                                                                                                                                    |                                    |
| Over voltage protection                                 |       | 105%~135% rated output voltage                                                                                                                                                                          |       |                                                                                                                                                    |                                    |
| Setup, rise, hold up time                               |       | 1000ms, 30ms, 50ms at 230VAC input                                                                                                                                                                      |       | 1000ms, 20ms, 20ms at 230VAC input                                                                                                                 | 2000ms, 30ms, 20ms at 230VAC input |
| Withstand voltage                                       |       | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                                                                                                                          |       |                                                                                                                                                    | I/P-FG: 3kVAC                      |
| Working temperature                                     |       | -30~+60°C                                                                                                                                                                                               |       | -30~+50°C                                                                                                                                          | -30~+70°C                          |
| Safety standards                                        |       | UL60950-1, TUV EN60950-1, BSMI CNS14336, CCC GB4943, PSE J60950-1(except for 48V) approved                                                                                                              |       |                                                                                                                                                    |                                    |
| EMC standards                                           |       | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, CNS13438, GB9254, FCC part15 class B                                                                                                          |       |                                                                                                                                                    |                                    |
| Length of output cable                                  |       | GS40:<br>100cm of UL1185, 16AWG for 5~15V;<br>180cm of UL1185, 18AWG for 18~48V<br>GS60:<br>100cm of UL2464, 16AWG for 5~9V;<br>100cm of UL1185, 16AWG for 12~15V;<br>180cm of UL1185, 18AWG for 18~48V |       | 100cm of UL1185, 14AWG for 12~15V;<br>120cm of UL1185, 16AWG for 19~48V<br><br>120cm of UL2464, 18AWGx4C                                           |                                    |
| Standard DC plug<br>(refer to page 61 for DC plug list) |       | P1J:<br>2.1øx5.5øx11mm / C+, tuning fork type                                                                                                                                                           |       | P1M:<br>2.5øx5.5øx11mm / C+, tuning fork type<br><br>R7B: Power DIN 4P with lock type<br>P1M: 2.5øx5.5øx11mm/C+,<br>tuning fork type (20~48V only) |                                    |

### ■ Desktop (IEC 320-C14 / Class I) — 40W

| Order No.   | Output        | Tol.  | R&N   | Effi. |
|-------------|---------------|-------|-------|-------|
| GS40A05-P1J | 5V, 0~5.00A   | ±5%   | 100mV | 80.5% |
| GS40A07-P1J | 7.5V, 0~5.34A | ±5%   | 100mV | 85.5% |
| GS40A09-P1J | 9V, 0~4.45A   | ±5%   | 100mV | 85.0% |
| GS40A12-P1J | 12V, 0~3.34A  | ±3%   | 100mV | 89.0% |
| GS40A15-P1J | 15V, 0~2.67A  | ±3%   | 100mV | 89.5% |
| GS40A18-P1J | 18V, 0~2.22A  | ±3%   | 150mV | 90.0% |
| GS40A24-P1J | 24V, 0~1.67A  | ±2.5% | 180mV | 91.0% |
| GS40A48-P1J | 48V, 0~0.84A  | ±2.5% | 240mV | 92.0% |

### ■ Desktop (IEC 320-C14 / Class I) — 60W

| Order No.   | Output        | Tol.  | R&N   | Effi. |
|-------------|---------------|-------|-------|-------|
| GS60A05-P1J | 5V, 0~6.00A   | ±5%   | 100mV | 81.0% |
| GS60A07-P1J | 7.5V, 0~6.00A | ±5%   | 100mV | 85.5% |
| GS60A09-P1J | 9V, 0~6.00A   | ±5%   | 100mV | 87.5% |
| GS60A12-P1J | 12V, 0~5.00A  | ±3%   | 100mV | 88.0% |
| GS60A15-P1J | 15V, 0~4.00A  | ±3%   | 100mV | 88.5% |
| GS60A18-P1J | 18V, 0~3.33A  | ±3%   | 150mV | 88.5% |
| GS60A24-P1J | 24V, 0~2.50A  | ±3%   | 180mV | 90.0% |
| GS60A48-P1J | 48V, 0~1.25A  | ±2.5% | 240mV | 92.0% |

### ■ Desktop (IEC 320-C14 / Class I) — 90W

| Order No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| GS90A12-P1M | 12V, 0~6.67A | ±5%  | 80mV  | 88.0% |
| GS90A15-P1M | 15V, 0~6.00A | ±5%  | 100mV | 89.0% |
| GS90A19-P1M | 19V, 0~4.74A | ±4%  | 150mV | 89.0% |
| GS90A24-P1M | 24V, 0~3.75A | ±3%  | 180mV | 89.5% |
| GS90A48-P1M | 48V, 0~1.87A | ±2%  | 240mV | 91.0% |

### ■ Desktop (IEC 320-C14 / Class I) — 120W

| Order No.     | Output      | Tol. | R&N   | Effi. |
|---------------|-------------|------|-------|-------|
| GS120A12-R7B  | 12V, 0~8.5A | ±5%  | 80mV  | 87.5% |
| GS120A15-R7B  | 15V, 0~7.0A | ±5%  | 120mV | 89.0% |
| GS120A20-□    | 20V, 0~6.0A | ±5%  | 150mV | 89.0% |
| GS120A24-□    | 24V, 0~5.0A | ±3%  | 180mV | 90.0% |
| GS120A48-□    | 48V, 0~2.5A | ±2%  | 240mV | 91.0% |
| □ = P1M / R7B |             |      |       |       |

# Industrial Adaptor 160~280W Single Output



## ■ Features

- Universal AC input / Full range
- No load power consumption < 0.5W
- **Energy efficiency Level V**
- Comply with EISA 2007, NRCAN, AU/NZ MEPS and EU ErP
- Built-in active PFC function
- 3 pole AC inlet IEC320-C14
- Class I power (with earth pin)
- **Fanless design, high operating temperature up to +70°C**
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Fully enclosed plastic case
- LED indicator for power on
- 2 years warranty



## ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

(except for GS280-20/24/48V)

(except for 48V)

| Order No.                                               |       | GS160A                                                                                          | GS220A                                     | GS280A                                                                                                         |
|---------------------------------------------------------|-------|-------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| AC input voltage range                                  |       | 85~264VAC ; 120~370VDC                                                                          | 90~264VAC ; 127~370VDC                     |                                                                                                                |
| AC inrush current (max.)                                |       | Cold start, 120A at 230VAC                                                                      |                                            |                                                                                                                |
| Overload protection                                     | Range | 105%~135% rated output power                                                                    |                                            |                                                                                                                |
|                                                         | Type  | Hiccup mode, auto-recovery                                                                      |                                            |                                                                                                                |
| Over voltage protection                                 | Range | 105%~135% rated output power                                                                    |                                            |                                                                                                                |
|                                                         | Type  | Shut down o/p voltage, re-power on to recover                                                   |                                            |                                                                                                                |
| Hold up time                                            |       | 20ms at full load                                                                               |                                            | 16ms at full load                                                                                              |
| Withstand voltage                                       |       | I/P-O/P: 3kVAC, 1 minute                                                                        |                                            |                                                                                                                |
| Working temperature                                     |       | -30~+70°C                                                                                       | -30~+60°C (refer to output derating curve) |                                                                                                                |
| Safety standards                                        |       | UL60950-1, TUV EN60950-1, BSMI CNS14336, CCC GB4943, PSE J60950-1(except for 48V) approved      |                                            |                                                                                                                |
| EMC standards                                           |       | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, FCC part 15 class B, CNS13438, GB9254 |                                            |                                                                                                                |
| Length of output cable                                  |       | 120cm of UL2464, 18AWGx4C                                                                       | 100cm of UL2464, 16AWGx4C                  |                                                                                                                |
| Standard DC plug<br>(refer to page 61 for DC plug list) |       | R7B: Power DIN 4P with lock type                                                                |                                            | 4P/6.35mm pitch, AMP 1-480702-0 (power supply side);<br>AMP 1-480703-0(customer side, not provided with GS280) |

## ■ Desktop (IEC320-C14/Class I) — 160W

| Order No.    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|
| GS160A12-R7B | 12V, 0~11.5A | ±5%  | 80mV  | 89.0% |
| GS160A15-R7B | 15V, 0~9.6A  | ±5%  | 100mV | 90.0% |
| GS160A20-R7B | 20V, 0~8.0A  | ±4%  | 150mV | 92.0% |
| GS160A24-R7B | 24V, 0~6.67A | ±3%  | 180mV | 92.5% |
| GS160A48-R7B | 48V, 0~3.34A | ±3%  | 240mV | 94.0% |

## ■ Desktop (IEC320-C14/Class I) — 280W

| Order No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| GS280A12-C4P | 12V, 0~18.5A  | ±5%  | 120mV | 89.0% |
| GS280A15-C4P | 15V, 0~16A    | ±5%  | 120mV | 89.5% |
| GS280A20-C4P | 20V, 0~13A    | ±4%  | 150mV | 92.0% |
| GS280A24-C4P | 24V, 0~11.67A | ±3%  | 280mV | 93.0% |
| GS280A48-C4P | 48V, 0~5.84A  | ±2%  | 280mV | 94.0% |

## ■ Desktop (IEC320-C14/Class I) — 220W

| Order No.    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|
| GS220A12-R7B | 12V, 0~15.0A | ±5%  | 80mV  | 90.0% |
| GS220A15-R7B | 15V, 0~13.4A | ±5%  | 100mV | 90.0% |
| GS220A20-R7B | 20V, 0~11.0A | ±4%  | 150mV | 92.0% |
| GS220A24-R7B | 24V, 0~9.20A | ±3%  | 180mV | 93.5% |
| GS220A48-R7B | 48V, 0~4.60A | ±2%  | 240mV | 94.5% |



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**GST18/25/36B**  
79x 54x 33 mm



**GST18/25/36U**  
79x 54x 33 mm



**GST18/25/36E**  
79x 54x 33 mm

### Features

- Universal AC input / Full range
- No load power consumption < 0.075W
- **Energy efficiency Level VI**
- Comply with EISA 2007 / DoE, NRCAN, AU/NZ MEPS, EU ErP and CoC Version 5
- 2 pole USA / EURO plug or IEC320-C14/C8
- Class II power (without earth pin) for B/U/E type
- Class I power (with earth pin) only for A type
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- LED indicator for power on
- Pass LPS
- Approvals:
  - A type: UL / CUL / TUV / BSMI / CCC / PSE / CB / FCC / CE
  - B type: UL / CUL / TUV / BSMI / CCC / CB / FCC / CE
  - U type: UL / CUL / BSMI / CB / FCC
  - E type: TUV / CB / CE
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Order No.                | GST18                                                                                                                                                                                                                                                                  | GST25                                                                  | GST36                        |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------|
| AC input voltage range   | 85~264VAC                                                                                                                                                                                                                                                              |                                                                        |                              |
| AC inrush current (max.) | Cold start, 70A at 230VAC                                                                                                                                                                                                                                              |                                                                        |                              |
| Overload protection      | Range: 110%~150% rated output power<br>Type: Hiccup mode, auto-recovery                                                                                                                                                                                                |                                                                        | 110%~250% rated output power |
| Over voltage protection  | 110%~140% rated output voltage, clamp by zener diode                                                                                                                                                                                                                   |                                                                        |                              |
| Withstand voltage        | I/P-O/P: 4242VDC, 1 minute                                                                                                                                                                                                                                             |                                                                        |                              |
| Working temperature      | -30~+70°C (refer to output derating curve )                                                                                                                                                                                                                            |                                                                        |                              |
| Safety standards         | A-Type: UL60950-1, CSA 22.2, TUV EN60950-1, BSMI CNS14336, PSE J60950-1, CCC GB4943 approved<br>B-Type: UL60950-1, CSA 22.2, TUV EN60950-1, BSMI CNS14336, CCC GB4943 approved<br>U-Type: UL60950-1, CSA22.2, BSMI CNS14336 approved<br>E-Type: TUV EN60950-1 approved |                                                                        |                              |
| EMC standards            | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11(A/B/E type); FCC part 15 class B, CNS13438 class B(A/B/U type); GB9254(A/B type)                                                                                                                              |                                                                        |                              |
| Length of output cable   | 120cm of UL1185, 16AWG for 5~12V ;<br>180cm of UL1185, 18AWG for 15~48V                                                                                                                                                                                                | 100cm of UL2468, 16AWG for 5~12V;<br>180cm of UL1185, 18AWG for 15~48V | 100cm of UL2468, 16AWG       |
| Standard DC plug         | P1J: 2.10x5.50x11mm / C+, tuning fork type (refer to page 61 for DC plug list)                                                                                                                                                                                         |                                                                        |                              |

### Desktop / Wall-mounted — 18W



| Order No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| GST18□05-P1J | 5V, 0~3.00A   | ±5%  | 80mV  | 81.0% |
| GST18□07-P1J | 7.5V, 0~2.00A | ±5%  | 80mV  | 85.0% |
| GST18□09-P1J | 9V, 0~2.00A   | ±5%  | 80mV  | 85.0% |
| GST18□12-P1J | 12V, 0~1.50A  | ±3%  | 80mV  | 86.0% |
| GST18□15-P1J | 15V, 0~1.20A  | ±3%  | 100mV | 87.0% |
| GST18□18-P1J | 18V, 0~1.00A  | ±3%  | 150mV | 88.0% |

| Order No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| GST18□24-P1J | 24V, 0~0.75A  | ±2%  | 180mV | 88.0% |
| GST18□28-P1J | 28V, 0~0.64A  | ±2%  | 240mV | 88.5% |
| GST18□48-P1J | 48V, 0~0.375A | ±2%  | 240mV | 89.0% |

□ = A / B / U / E  
 Class I — A: IEC320-C14  
 Class II — B: IEC320-C8, U: American 2P, E: European 2P

### Desktop / Wall-mounted — 25W



| Order No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| GST25□05-P1J | 5V, 0~4.00A   | ±5%  | 80mV  | 81.5% |
| GST25□07-P1J | 7.5V, 0~2.93A | ±5%  | 80mV  | 84.5% |
| GST25□09-P1J | 9V, 0~2.55A   | ±5%  | 80mV  | 85.0% |
| GST25□12-P1J | 12V, 0~2.08A  | ±3%  | 80mV  | 86.5% |
| GST25□15-P1J | 15V, 0~1.66A  | ±3%  | 100mV | 87.0% |
| GST25□18-P1J | 18V, 0~1.38A  | ±3%  | 150mV | 87.0% |

| Order No.    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|
| GST25□24-P1J | 24V, 0~1.04A | ±2%  | 180mV | 88.0% |
| GST25□28-P1J | 28V, 0~0.89A | ±2%  | 240mV | 88.0% |
| GST25□48-P1J | 48V, 0~0.52A | ±2%  | 240mV | 89.0% |

□ = A / B / U / E  
 Class I — A: IEC320-C14  
 Class II — B: IEC320-C8, U: American 2P, E: European 2P

### Wall-mounted — 36W



| Order No.    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|
| GST36□05-P1J | 5V, 0~4.30A  | ±5%  | 90mV  | 82.0% |
| GST36□09-P1J | 9V, 0~3.11A  | ±5%  | 90mV  | 86.0% |
| GST36□12-P1J | 12V, 0~3.00A | ±3%  | 100mV | 87.5% |

| Order No.    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|
| GST36□24-P1J | 24V, 0~1.50A | ±2%  | 180mV | 88.5% |
| GST36□48-P1J | 48V, 0~0.75A | ±2%  | 240mV | 90.0% |

□ = B / U / E ; B: IEC320-C8; U: American 2P, E: European 2P



### Features

- Universal AC input / Full range
- No load power consumption <0.075W for GST40A/60A; <0.15W for GST90A/120A
- **Energy efficiency Level VI**
- Comply with EISA 2007 / DoE, NRCAN, AU/NZ MEPS, EU ErP and CoC Version 5
- Built-in active PFC function for GST90A/120A
- 3 pole AC inlet IEC320-C14
- Class I power (with earth pin)
- Protections: Short circuit / Over voltage / Overload / Over temp. (except for GST40A)
- Fully enclosed plastic case
- LED indicator for power on
- Pass LPS (except for GST90A/120A)
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Order No.                                               | GST40A                                                                                                                                                                                                                                         | GST60A                       | GST90A                                                                  | GST120A                                                                                       |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| AC input voltage range                                  | 90~264VAC; 127~370VDC                                                                                                                                                                                                                          |                              |                                                                         | 85~264VAC; 120~370VDC                                                                         |
| AC inrush current (max.)                                | Cold start, 65A at 230VAC                                                                                                                                                                                                                      |                              | Cold start, 70A at 230VAC                                               |                                                                                               |
| Overload protection                                     | Range                                                                                                                                                                                                                                          | 105%~150% rated output power | 110%~150%                                                               | 105%~160%                                                                                     |
|                                                         | Type                                                                                                                                                                                                                                           | Hiccup mode, auto-recovery   |                                                                         |                                                                                               |
| Over voltage protection                                 | 105%~135% rated output voltage                                                                                                                                                                                                                 |                              |                                                                         |                                                                                               |
| Setup, rise, hold up time                               | 1000ms, 50ms, 50ms at 230VAC input                                                                                                                                                                                                             |                              | 1000ms, 20ms, 20ms at 230VAC input                                      | 2000ms, 30ms, 20ms at 230VAC input                                                            |
| Withstand voltage                                       | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                                                                                                                                                                 |                              |                                                                         | I/P-FG: 3kVAC                                                                                 |
| Working temperature                                     | -30~+70°C                                                                                                                                                                                                                                      |                              |                                                                         |                                                                                               |
| Safety standards                                        | UL60950-1, TUV EN60950-1, BSMI CNS14336, CCC GB4943, PSE J60950-1 approved                                                                                                                                                                     |                              |                                                                         |                                                                                               |
| EMC standards                                           | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, CNS13438, GB9254, FCC part15 class B                                                                                                                                                 |                              |                                                                         |                                                                                               |
| Length of output cable                                  | GST40A:<br>100cm of UL1185, 16AWG for 5~15V;<br>180cm of UL1185, 18AWG for 18~48V<br>GST60A:<br>100cm of UL2464, 16AWG for 5~9V;<br>100cm of UL1185, 16AWG for 12~15V;<br>150cm of UL1185, 16AWG for 18V;<br>180cm of UL1185, 18AWG for 24~48V |                              | 100cm of UL1185, 14AWG for 12~15V;<br>120cm of UL1185, 16AWG for 19~48V | 100cm of UL2464, 16AWGx4C for 12V<br>120cm of UL2464, 18AWGx4C for 15~48V                     |
| Standard DC plug<br>(refer to page 61 for DC plug list) | P1J: 2.1øx5.5øx11mm / C+,<br>tuning fork type                                                                                                                                                                                                  |                              | P1M: 2.5øx5.5øx11mm / C+,<br>tuning fork type                           | R7B: Power DIN 4P with lock type<br>P1M: 2.5øx5.5øx11mm/C+,<br>tuning fork type (20~48V only) |

### Desktop (IEC 320-C14 / Class I) — 40W

| Order No.    | Output        | Tol.  | R&N   | Effi. |
|--------------|---------------|-------|-------|-------|
| GST40A05-P1J | 5V, 0~5.00A   | ±5%   | 150mV | 84.5% |
| GST40A07-P1J | 7.5V, 0~5.34A | ±5%   | 150mV | 87.5% |
| GST40A09-P1J | 9V, 0~4.45A   | ±5%   | 150mV | 88.5% |
| GST40A12-P1J | 12V, 0~3.34A  | ±3%   | 150mV | 89.5% |
| GST40A15-P1J | 15V, 0~2.67A  | ±3%   | 150mV | 90.0% |
| GST40A18-P1J | 18V, 0~2.22A  | ±3%   | 150mV | 90.0% |
| GST40A24-P1J | 24V, 0~1.67A  | ±2.5% | 180mV | 91.0% |
| GST40A48-P1J | 48V, 0~0.84A  | ±2.5% | 240mV | 92.0% |

### Desktop (IEC 320-C14 / Class I) — 60W

| Order No.    | Output        | Tol.  | R&N   | Effi. |
|--------------|---------------|-------|-------|-------|
| GST60A05-P1J | 5V, 0~6.00A   | ±5%   | 150mV | 85.5% |
| GST60A07-P1J | 7.5V, 0~6.00A | ±5%   | 150mV | 88.5% |
| GST60A09-P1J | 9V, 0~6.00A   | ±5%   | 150mV | 89.0% |
| GST60A12-P1J | 12V, 0~5.00A  | ±3%   | 150mV | 89.5% |
| GST60A15-P1J | 15V, 0~4.00A  | ±3%   | 150mV | 89.5% |
| GST60A18-P1J | 18V, 0~3.33A  | ±3%   | 150mV | 89.5% |
| GST60A24-P1J | 24V, 0~2.50A  | ±3%   | 180mV | 90.5% |
| GST60A48-P1J | 48V, 0~1.25A  | ±2.5% | 240mV | 92.0% |

### Desktop (IEC 320-C14 / Class I) — 90W

| Order No.    | Output       | Tol.  | R&N   | Effi. |
|--------------|--------------|-------|-------|-------|
| GST90A12-P1M | 12V, 0~6.67A | ±5%   | 120mV | 89.0% |
| GST90A15-P1M | 15V, 0~6.00A | ±5%   | 150mV | 89.5% |
| GST90A19-P1M | 19V, 0~4.74A | ±4%   | 180mV | 90.0% |
| GST90A24-P1M | 24V, 0~3.75A | ±3%   | 200mV | 90.0% |
| GST90A48-P1M | 48V, 0~1.87A | ±2.5% | 240mV | 91.0% |

### Desktop (IEC 320-C14 / Class I) — 120W

| Order No.     | Output      | Tol.  | R&N   | Effi. |
|---------------|-------------|-------|-------|-------|
| GST120A12-R7B | 12V, 0~8.5A | ±5%   | 120mV | 88.5% |
| GST120A15-R7B | 15V, 0~7.0A | ±5%   | 150mV | 89.0% |
| GST120A20-□   | 20V, 0~6.0A | ±5%   | 180mV | 90.0% |
| GST120A24-□   | 24V, 0~5.0A | ±3%   | 200mV | 90.5% |
| GST120A48-□   | 48V, 0~2.5A | ±2.5% | 240mV | 91.0% |

□ = P1M / R7B





### ■ Features

- Universal AC input / Full range
- No load power consumption<0.15W(GST280A <0.5W)
- **Energy efficiency Level VI**
- Comply with EISA 2007 / DoE, NRCAN, AU/NZ MEPS, EU ErP and CoC Version 5
- Built-in active PFC function
- 3 pole AC inlet IEC320-C14
- Class I power (with earth pin)
- **Fanless design, high operating temperature up to +70°C**
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Fully enclosed plastic case
- LED indicator for power on
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Order No.                                               | GST160A                                                                                                    | GST220A                                       | GST280A                                                                                                            |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| AC input voltage range                                  | 85~264VAC ; 120~370VDC                                                                                     |                                               |                                                                                                                    |
| AC inrush current (max.)                                | Cold start, 120A at 230VAC                                                                                 |                                               |                                                                                                                    |
| Overload protection                                     | Range                                                                                                      | 105%~135% rated output power                  |                                                                                                                    |
|                                                         | Type                                                                                                       | Hiccup mode, auto-recovery                    |                                                                                                                    |
| Over voltage protection                                 | Range                                                                                                      | 105%~135% rated output power                  |                                                                                                                    |
|                                                         | Type                                                                                                       | Shut down o/p voltage, re-power on to recover |                                                                                                                    |
| Hold up time                                            | 20ms at full load                                                                                          |                                               | 16ms at full load                                                                                                  |
| Withstand voltage                                       | I/P-O/P: 3kVAC, 1 minute                                                                                   |                                               |                                                                                                                    |
| Working temperature                                     | -30~+70°C (refer to output derating curve)                                                                 |                                               |                                                                                                                    |
| Safety standards                                        | UL60950-1, TUV EN60950-1, BSMI CNS14336, CCC GB4943, PSE J60950-1 approved                                 |                                               |                                                                                                                    |
| EMC standards                                           | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, FCC part 15 class B, CNS13438, GB9254, GB17625.1 |                                               |                                                                                                                    |
| Length of output cable                                  | 100cm of UL2464, 18AWGx4C for 12V<br>120cm of UL2464, 18AWGx4C for 15~48V                                  | 100cm of UL2464, 16AWGx4C                     |                                                                                                                    |
| Standard DC plug<br>(refer to page 61 for DC plug list) | R7B: Power DIN 4P with lock type                                                                           |                                               | 6P/4.2mm pitch, MOLEX 39-01-2060(power supply side);<br>MOLEX 39-01-2061(customer side, not provided with GST280A) |

### ■ Desktop (IEC320-C14/Class I) — 160W

| Order No.     | Output       | Tol. | R&N   | Effi. |
|---------------|--------------|------|-------|-------|
| GST160A12-R7B | 12V, 0~11.5A | ±5%  | 80mV  | 90.0% |
| GST160A15-R7B | 15V, 0~9.6A  | ±5%  | 100mV | 91.0% |
| GST160A20-R7B | 20V, 0~8.0A  | ±4%  | 150mV | 93.0% |
| GST160A24-R7B | 24V, 0~6.67A | ±3%  | 180mV | 93.0% |
| GST160A48-R7B | 48V, 0~3.34A | ±3%  | 240mV | 94.0% |

### ■ Desktop (IEC320-C14/Class I) — 280W

| Order No.     | Output        | Tol. | R&N   | Effi. |
|---------------|---------------|------|-------|-------|
| GST280A12-C6P | 12V, 0~21A    | ±5%  | 120mV | 90.0% |
| GST280A15-C6P | 15V, 0~17A    | ±5%  | 120mV | 90.0% |
| GST280A20-C6P | 20V, 0~13A    | ±4%  | 150mV | 92.0% |
| GST280A24-C6P | 24V, 0~11.67A | ±3%  | 280mV | 93.0% |
| GST280A48-C6P | 48V, 0~5.84A  | ±2%  | 280mV | 94.0% |

### ■ Desktop (IEC320-C14/Class I) — 220W

| Order No.     | Output       | Tol. | R&N   | Effi. |
|---------------|--------------|------|-------|-------|
| GST220A12-R7B | 12V, 0~15.0A | ±5%  | 80mV  | 90.0% |
| GST220A15-R7B | 15V, 0~13.4A | ±5%  | 100mV | 90.0% |
| GST220A20-R7B | 20V, 0~11.0A | ±4%  | 150mV | 92.0% |
| GST220A24-R7B | 24V, 0~9.20A | ±3%  | 180mV | 93.5% |
| GST220A48-R7B | 48V, 0~4.60A | ±2%  | 240mV | 94.5% |

### ► Optional Grayish Model



Optional grayish models (PANTONE Cool Gray 2C) are available for GST&GSM18/25/36 series. MOQ is 200pcs per model. Please contact MEAN WELL sales representatives for more details.



### Features

- Universal AC input / Full range
- No load power consumption <0.075W
- **Energy efficiency level VI**
- Comply with EISA 2007/DoE, EU ErP
- 2 pole US/European type plug
- Class II (without earth Pin)
- Protections: Short circuit / Over load / Over voltage
- Pass LPS
- Fully enclosed plastic case
- Approvals:  
U type: UL / CUL / CB / FCC; E type: TUV / CB / CE
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                                               | SGA12                                                                                                       | SGA18                                                                          | SGA25                                                                              |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| AC input voltage range                                  | 90~264VAC; 127~370VDC                                                                                       |                                                                                |                                                                                    |
| AC inrush current (max.)                                | Cold start, 45A at 230VAC                                                                                   | Cold start, 50A at 230VAC                                                      | Cold start, 60A at 230VAC                                                          |
| DC adjustment range                                     | ±10% rated output voltage                                                                                   |                                                                                |                                                                                    |
| Overload protection                                     | Range                                                                                                       | 110%~250% rated output power                                                   |                                                                                    |
|                                                         | Type                                                                                                        | Hiccup mode, auto recovery                                                     |                                                                                    |
| Over voltage protection                                 | Range                                                                                                       | 110%~140% rated output voltage                                                 |                                                                                    |
|                                                         | Type                                                                                                        | Clamp by Zener diode                                                           |                                                                                    |
| Setup, rise, hold up time                               | 1300ms, 50ms, 16ms                                                                                          | 300ms, 30ms, 16ms                                                              | 300ms, 60ms, 18ms                                                                  |
| Withstand voltage                                       | I/P-O/P: 4242VDC                                                                                            |                                                                                |                                                                                    |
| Working temperature                                     | -20~+60°C (refer to output derating curve)                                                                  |                                                                                |                                                                                    |
| Safety standards                                        | U-Type: UL60950-1, CSA22.2 approved; E-Type: TUV EN60950-1 approved                                         |                                                                                |                                                                                    |
| EMC standards                                           | U-Type: FCC part15 class B; E-Type: EN55022 class B                                                         |                                                                                |                                                                                    |
| Length of output cable                                  | 100cm of 18AWG for SGA12□05~07-P1J<br>120cm of 22AWG for SGA12□09-P1J<br>180cm of 24AWG for SGA12□12~48-P1J | 100cm of 16AWG for 5~9V<br>100cm of 18AWG for 12V<br>150cm of 22AWG for 15~48V | 100cm of 16AWG for 5~12V<br>180cm of 18AWG for 15~18V<br>180cm of 20AWG for 24~48V |
| Standard DC Plug<br>(refer to page 61 for DC plug list) | USB: Type A; P1J: 2.1øx5.5øx11mm / C+, tuning fork type                                                     |                                                                                |                                                                                    |
| Dimension (LxWxH)(mm)                                   | 62.2x 27.4x 39.7                                                                                            | 75.5x 32x 47.5                                                                 |                                                                                    |

### Wall-mounted — 12W

| Model No.    | Output      | Tol. | R&N   | Effi. |
|--------------|-------------|------|-------|-------|
| SGA12□05-USB | 5V, 2.40A   | ±5%  | 50mV  | 80.0% |
| SGA12□05-P1J | 5V, 2.40A   | ±5%  | 50mV  | 80.0% |
| SGA12□07-P1J | 7.5V, 1.60A | ±5%  | 50mV  | 83.0% |
| SGA12□09-P1J | 9V, 1.33A   | ±3%  | 80mV  | 83.0% |
| SGA12□12-P1J | 12V, 1.00A  | ±3%  | 80mV  | 83.0% |
| SGA12□15-P1J | 15V, 0.80A  | ±3%  | 80mV  | 84.5% |
| SGA12□18-P1J | 18V, 0.666A | ±3%  | 80mV  | 85.0% |
| SGA12□24-P1J | 24V, 0.50A  | ±2%  | 100mV | 86.0% |
| SGA12□48-P1J | 48V, 0.25A  | ±2%  | 100mV | 88.0% |

□ = U/E; U: American 2P, E: European 2P

### Wall-mounted — 18W

| Model No.    | Output     | Tol. | R&N  | Effi. |
|--------------|------------|------|------|-------|
| SGA18□05-P1J | 5V, 3.00A  | ±5%  | 80mV | 80.5% |
| SGA18□09-P1J | 9V, 2.00A  | ±5%  | 80mV | 84.5% |
| SGA18□12-P1J | 12V, 1.50A | ±3%  | 80mV | 84.0% |

| Model No.    | Output      | Tol. | R&N   | Effi. |
|--------------|-------------|------|-------|-------|
| SGA18□15-P1J | 15V, 1.20A  | ±3%  | 80mV  | 84.0% |
| SGA18□18-P1J | 18V, 1.00A  | ±3%  | 80mV  | 84.5% |
| SGA18□24-P1J | 24V, 0.75A  | ±2%  | 80mV  | 85.0% |
| SGA18□48-P1J | 48V, 0.375A | ±2%  | 120mV | 86.0% |

□ = U/E; U: American 2P, E: European 2P

### Wall-mounted — 25W

| Model No.    | Output      | Tol. | R&N   | Effi. |
|--------------|-------------|------|-------|-------|
| SGA25□05-P1J | 5V, 4.00A   | ±5%  | 80mV  | 82.0% |
| SGA25□07-P1J | 7.5V, 2.93A | ±5%  | 80mV  | 85.5% |
| SGA25□09-P1J | 9V, 2.77A   | ±5%  | 80mV  | 86.0% |
| SGA25□12-P1J | 12V, 2.08A  | ±3%  | 80mV  | 86.0% |
| SGA25□15-P1J | 15V, 1.66A  | ±3%  | 80mV  | 86.5% |
| SGA25□18-P1J | 18V, 1.38A  | ±3%  | 80mV  | 86.5% |
| SGA25□24-P1J | 24V, 1.04A  | ±2%  | 80mV  | 87.0% |
| SGA25□48-P1J | 48V, 0.52A  | ±2%  | 120mV | 88.5% |

□ = U/E; U: American 2P, E: European 2P

### 40W&60W Slim Wall-mounted Green Adaptor

- Universal AC input / Full range
- No load power consumption <0.075W for SGA40 and SGA60 5~7.5V; <0.15W for SGA60 9~48V
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE, EU ErP
- 2 pole US/European type plug
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage
- Pass LPS
- Fully enclosed plastic case
- LED indicator for power on (60W only)
- 3 year warranty



AC input voltage range ..... 90~264VAC ; 127~370VDC  
 AC inrush current(max.) ..... Cold start, 70A at 230VAC(40W);  
 80A at 230VAC(60W)  
 Overload protection ..... Hiccup mode, auto-recovery  
 Over voltage protection ..... 110%~140% clamp by Zener diode  
 Setup, rise, hold up time ... 40W: 500ms, 100ms, 12ms at full load  
 60W: 500ms, 50ms, 12ms at full load  
 Withstand voltage ..... I/P-O/P:4242VDC, 1 minute  
 Working temperature ..... -20~+50°C (refer to output derating curve)  
 Safety standards ..... U-Type: UL60950-1, CSA 22.2 approved  
 E-Type: TUV EN60950-1 approved  
 EMC standards ..... U-Type: FCC part15 Class B  
 E-Type: EN55022 Class B  
 Length of output cable ..... 100cm of 14AWG for SGA40 5V and SGA60 5~9V  
 100cm of 16AWG for SGA40 9~15V and  
 SGA60 12~18V  
 150cm of 18AWG for SGA60 24~48V  
 150cm of 20AWG for SGA40 18~48V  
 Standard DC plug ..... P1J: 2.1øx5.5øx11mm/C+, turning fork type  
 (refer to page 61 for DC plug list)

#### ❖ 40W

| Order No.    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|
| SGA40□05-P1J | 5V, 0~5.00A  | ±5%  | 120mV | 84.0% |
| SGA40□09-P1J | 9V, 0~4.44A  | ±5%  | 120mV | 87.0% |
| SGA40□12-P1J | 12V, 0~3.33A | ±3%  | 120mV | 86.5% |
| SGA40□15-P1J | 15V, 0~2.66A | ±2%  | 120mV | 86.5% |
| SGA40□18-P1J | 18V, 0~2.22A | ±2%  | 120mV | 87.0% |
| SGA40□24-P1J | 24V, 0~1.67A | ±2%  | 150mV | 88.0% |
| SGA40□48-P1J | 48V, 0~0.84A | ±2%  | 150mV | 89.0% |

□ = U / E, U: American 2P, E: European 2P

#### ❖ 60W

| Order No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| SGA60□05-P1J | 5V, 0~6.00A   | ±5%  | 80mV  | 84%   |
| SGA60□07-P1J | 7.5V, 0~6.00A | ±5%  | 80mV  | 86%   |
| SGA60□09-P1J | 9V, 0~5.50A   | ±5%  | 80mV  | 87%   |
| SGA60□12-P1J | 12V, 0~5.00A  | ±3%  | 80mV  | 88%   |
| SGA60□15-P1J | 15V, 0~4.00A  | ±3%  | 80mV  | 87%   |
| SGA60□18-P1J | 18V, 0~3.33A  | ±2%  | 80mV  | 88%   |
| SGA60□24-P1J | 24V, 0~2.50A  | ±2%  | 100mV | 88%   |
| SGA60□48-P1J | 48V, 0~1.25A  | ±2%  | 120mV | 91%   |

□ = U / E, U: American 2P, E: European 2P

### 25W AC-DC Triple Output

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Fully enclosed plastic case
- LED indicator for power on
- 1 year warranty



AC input voltage range ..... 90~264VAC ; 135~370VDC  
 AC inrush current(max.) ..... Cold start, 60A at 230VAC  
 Overload protection ..... Hiccup mode, auto-recovery  
 Over voltage protection ..... 110%~140% of +5V output  
 Setup, rise, hold up time ... 200ms, 50ms, 16ms at full load  
 Withstand voltage ..... I/P-O/P:3kVAC, I/P-FG:1.5kVAC, 1 minute  
 Working temperature ..... 0~+40°C (refer to output derating curve)  
 Safety standards ..... UL1950, CSA 22.2, TUV EN60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,11  
 Length of output cable ..... 150cm of UL2464  
 Standard DC plug ..... R1B: DIN 5P

#### ❖ 25W — Triple output (IEC 320-C14 / Class I)

| Order No.   | Output         | Tol. | R&N   | Effi. | Max. |
|-------------|----------------|------|-------|-------|------|
| P25A13A-R1B | 5V, 0.5~2.5A   | ±5%  | 50mV  | 70%   | 25W  |
|             | 12V, 0.1~0.8A  | ±5%  | 100mV |       |      |
|             | -5V, 0.1~0.3A  | ±3%  | 100mV |       |      |
| P25A13D-R1B | 5V, 0.5~2.5A   | ±5%  | 50mV  | 72%   | 25W  |
|             | 12V, 0.1~0.8A  | ±5%  | 100mV |       |      |
|             | -12V, 0.1~0.3A | ±3%  | 100mV |       |      |
| P25A14E-R1B | 5V, 0.5~2.5A   | ±5%  | 50mV  | 74%   | 25W  |
|             | 15V, 0.1~0.5A  | ±5%  | 100mV |       |      |
|             | -15V, 0.1~0.3A | ±3%  | 100mV |       |      |

#### ❖ 25W — Triple output (IEC 320-C8 / Class II)

| Order No.   | Output         | Tol. | R&N   | Effi. | Max. |
|-------------|----------------|------|-------|-------|------|
| P25B13A-R1B | 5V, 0.5~2.5A   | ±5%  | 50mV  | 70%   | 25W  |
|             | 12V, 0.1~0.8A  | ±5%  | 100mV |       |      |
|             | -5V, 0.1~0.3A  | ±3%  | 100mV |       |      |
| P25B13D-R1B | 5V, 0.5~2.5A   | ±5%  | 50mV  | 72%   | 25W  |
|             | 12V, 0.1~0.8A  | ±5%  | 100mV |       |      |
|             | -12V, 0.1~0.3A | ±3%  | 100mV |       |      |
| P25B14E-R1B | 5V, 0.5~2.5A   | ±5%  | 50mV  | 74%   | 25W  |
|             | 15V, 0.1~0.5A  | ±5%  | 100mV |       |      |
|             | -15V, 0.1~0.3A | ±3%  | 100mV |       |      |

### 50W AC-DC Triple Output



- 3 pole AC inlet IEC320-C14
- Class I power (with earth pin)
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- LED indicator for power on
- 1 year warranty

AC input voltage range ..... 90~264VAC ; 135~370VDC  
 AC inrush current(max.) ..... Cold start, 40A at 230VAC  
 Overload protection ..... Hiccup mode, auto-recovery  
 Over voltage protection ..... 110%~140% for +5V output  
 Hold up time ..... 12ms at full load  
 Withstand voltage ..... I/P-O/P:3kVAC, I/P-FG:1.5kVAC, 1 minute  
 Working temperature ..... 0~+40°C (refer to output derating curve)  
 Safety standards ..... UL1950, TUV EN60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,11  
 Length of output cable ..... 120cm of UL2464  
 Standard DC plug ..... R1B: DIN 5P

| Order No.   | Output         | Tol. | R&N   | Effi. | Max.  |
|-------------|----------------|------|-------|-------|-------|
| P50A13A-R1B | 5V, 0.5~4.0A   | ±6%  | 50mV  | 70%   | 46.5W |
|             | 12V, 0.5~2.0A  | ±10% | 100mV |       |       |
|             | -5V, 0.1~0.5A  | ±12% | 100mV |       |       |
| P50A13D-R1B | 5V, 0.5~4.0A   | ±6%  | 50mV  | 72%   | 50.0W |
|             | 12V, 0.5~2.0A  | ±10% | 100mV |       |       |
|             | -12V, 0.1~0.5A | ±12% | 100mV |       |       |
| P50A14E-R1B | 5V, 0.5~4.0A   | ±6%  | 50mV  | 74%   | 50.0W |
|             | 15V, 0.5~1.5A  | ±10% | 100mV |       |       |
|             | -15V, 0.1~0.5A | ±12% | 100mV |       |       |



### Features

- Interchangeable AC plugs (plug kit sold separately)
- Medical safety approved (2xMOPP)
- Suitable for BF application with appropriate system consideration
- Universal AC input / Full range
- No load power consumption <0.075W
- Energy efficiency Level VI
- Comply with EISA 2007/DoE and EU ErP
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage
- Low leakage current <100μA
- Fully enclosed plastic case
- Optional lock type DC plug
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



|                           |                                                                              |
|---------------------------|------------------------------------------------------------------------------|
| Order No.                 | GEM18I                                                                       |
| AC input voltage range    | 80~264VAC; 113~370VDC                                                        |
| AC inrush current (max.)  | Cost start, 30A at 100VAC; 60A at 230VAC                                     |
| Overload protection       | Range: 105%~160% rated output power<br>Type: Hiccup mode, auto-recovery      |
| Over voltage protection   | 110%~140% rated output voltage, clamp by zener diode                         |
| Setup, rise, hold up time | 500ms, 30ms, 16ms at 230VAC input                                            |
| Withstand voltage         | I/P-O/P: 5656VDC, 1 minute                                                   |
| Working temperature       | -20~+50°C (refer to output derating curve)                                   |
| Safety standards          | ANSI/AAMI ES60601-1/60601-1-11, TUV EN60601-1/60601-1-11 approved            |
| EMC standards             | EN55022 Class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, FCC part18 class B |
| Length of output cable    | 100cm of 16AWG for 5~9V; 100cm of 18AWG for 12V; 150cm of 22AWG for 15~48V   |
| Standard DC plug          | P1J: 2.1øx5.5øx11mm/C+, turning fork type                                    |

### Wall-mounted(Interchangeable Type)—18W

| Order No.<br>(main body) | Output       | Tol. | R&N  | Effi. |
|--------------------------|--------------|------|------|-------|
| GEM18I05-P1J             | 5V, 0~3.00A  | ±5%  | 60mV | 80%   |
| GEM18I09-P1J             | 9V, 0~2.00A  | ±5%  | 60mV | 84%   |
| GEM18I12-P1J             | 12V, 0~1.50A | ±3%  | 80mV | 84%   |
| GEM18I15-P1J             | 15V, 0~1.20A | ±3%  | 80mV | 84%   |
| GEM18I18-P1J             | 18V, 0~1.00A | ±2%  | 80mV | 84%   |
| GEM18I24-P1J             | 24V, 0~0.75A | ±2%  | 80mV | 85%   |
| GEM18I48-P1J             | 48V, 0~0.38A | ±2%  | 80mV | 87%   |

#### Interchangeable AC Plug Specifically for GEM18I

| AC Plug Type      |              |             |
|-------------------|--------------|-------------|
| AC Plug Order No. | AC Plug-AU2  | AC Plug-UK2 |
| AC Plug Type      |              |             |
| AC Plug Order No. | AC Plug-EU2  | AC Plug-US2 |
| Mix four Type     |              |             |
| AC Plug Order No. | AC Plug-MIX2 |             |

Note: Main body unit and AC plug should be ordered separately; The main body needs to be used along with any of the AC plug.

### Optional DC Plug List

| Tuning Fork Style   | Type        | A<br>OD        | B<br>ID | C<br>L     |
|---------------------|-------------|----------------|---------|------------|
|                     | P1I         | 5.5            | 2.1     | 9.5        |
|                     | P1J         | 5.5            | 2.1     | 11.0       |
|                     | P1L         | 5.5            | 2.5     | 9.5        |
|                     | P1M         | 5.5            | 2.5     | 11.0       |
| Barrel Style        | Type        | A<br>OD        | B<br>ID | C<br>L     |
|                     | P2I         | 5.5            | 2.1     | 9.5        |
|                     | P2J         | 5.5            | 2.1     | 11.0       |
|                     | P2L         | 5.5            | 2.5     | 9.5        |
|                     | P2M         | 5.5            | 2.5     | 11.0       |
| Lock Style          | Type        | A              | B       | C          |
|                     | P2S (S761K) | 5.53           | 2.03    | 12.06      |
| DIN 5 Pin           | Type        | Pin Assignment |         |            |
|                     | R1B         | 1              | COM     | Triple COM |
|                     |             | 2              | COM     | COM        |
|                     |             | 3              | Vout    | +5V        |
|                     |             | 4              | COM     | -Vout      |
|                     |             | 5              | Vout    | +Vout      |
| DIN 4 Pin with lock | Type        | Pin Assignment |         |            |
|                     | R7B         | PIN No.        | Output  |            |
|                     |             | 1              | +Vout   |            |
|                     |             | 2              | GND     |            |
|                     |             | 3              | GND     |            |
|                     |             | 4              | +Vout   |            |

► Minimum order quantity is varied for different models.





### Features

- Universal AC input / Full range
- Medical safety approved(2xMOPP)
- Suitable for BF application with appropriate system consideration
- Low leakage current <50μA
- No load power consumption <0.1W(<0.3W for GSM06)
- Energy efficiency Level VI (GSM06 and GSM18/25/36 5~9V for Level V)
- Comply with EISA 2007/DoE, NRCAN, AU/NZ MEPS, EU ErP and meet CoC Version 5(GSM18/25/36); EISA 2007 and EU ErP(GSM06)
- Class II power(without earth pin)
- 2 pole USA / EURO plug or IEC320-C8
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- LED indicator for power on(except for GSM06)
- Optional lock type DC plug
- Certificates: B-Type: UL / CUL / TUV / CB / FCC / CE  
U-Type: UL / CUL / CB / FCC  
E-Type: TUV / CB / CE
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Order No.                 |       | GSM06                                                                                                                                                                                                                                                                                  | GSM18                                                                                                                                                              | GSM25 | GSM36 |
|---------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|
| AC input voltage range    |       | 80~264VAC; 113~370VDC                                                                                                                                                                                                                                                                  |                                                                                                                                                                    |       |       |
| AC inrush current (max.)  |       | Cold start, 30A at 230VAC                                                                                                                                                                                                                                                              | Cold start, 55A at 230VAC                                                                                                                                          |       |       |
| Overload protection       | Range | >105% rated output power                                                                                                                                                                                                                                                               | 105%~170% rated output power                                                                                                                                       |       |       |
|                           | Type  | Hiccup mode, auto-recovery                                                                                                                                                                                                                                                             |                                                                                                                                                                    |       |       |
| Over voltage protection   |       | 110%~140%                                                                                                                                                                                                                                                                              | 105%~135% rated output voltage, shut down o/p voltage, re-power on to recover                                                                                      |       |       |
| Setup, rise, hold up time |       | 1000ms, 50ms, 12ms                                                                                                                                                                                                                                                                     | 500ms, 30ms, 16ms at 230VAC input                                                                                                                                  |       |       |
| Withstand voltage         |       | I/P-O/P: 5656VDC                                                                                                                                                                                                                                                                       | I/P-O/P: 4kVAC                                                                                                                                                     |       |       |
| Working temperature       |       | 0~+50°C                                                                                                                                                                                                                                                                                | -25~+60°C (refer to output derating curve )                                                                                                                        |       |       |
| Safety standards          |       | B-Type(except for GSM06): ANSI/AAMI ES60601-1/ES60601-1-11 , TUV EN60601-1 / EN60601-1-11 approved<br>U-Type: ANSI/AAMI ES60601-1, ES60601-1-11 approved<br>E-Type: TUV EN60601-1 / EN60601-1-11 approved                                                                              |                                                                                                                                                                    |       |       |
| EMC standards             |       | B-Type(except for GSM06): EN55011 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN60601-1-2 medical level, FCC Part 15 class B<br>U-Type: FCC Part 15 class B<br>E-Type: EN55011 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN60601-1-2 medical level |                                                                                                                                                                    |       |       |
| Length of output cable    |       | 120cm of UL2468, 22AWG for 5~9V;<br>180cm of UL2468, 24AWG for 12~24V                                                                                                                                                                                                                  | 120cm of UL1185, 16AWG for GSM18/25/36 5~9V;<br>180cm of UL1185, 16AWG for GSM25 12V and GSM36 12~48V;<br>180cm of UL1185, 18AWG for GSM18 12~48V and GSM25 15~48V |       |       |
| Standard DC plug          |       | P1J: 2.1øx 5.5øx 11mm / C+, tuning fork type (refer to page 61 for DC plug list)                                                                                                                                                                                                       |                                                                                                                                                                    |       |       |
| Dimension (LxWxH)(mm)     |       | 66x 32x 42.5                                                                                                                                                                                                                                                                           | 79x 54x 33                                                                                                                                                         |       |       |

### Wall-mounted — 6W

| Order No.    | Output        | Tol. | R&N   | Effi. | Order No.                                  | Output       | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|--------------------------------------------|--------------|------|-------|-------|
| GSM06□05-P1J | 5V, 0~1.20A   | ±5%  | 50mV  | 68%   | GSM06□15-P1J                               | 15V, 0~0.40A | ±5%  | 120mV | 79%   |
| GSM06□06-P1J | 6V, 0~1.00A   | ±5%  | 50mV  | 74%   | GSM06□18-P1J                               | 18V, 0~0.33A | ±5%  | 150mV | 80%   |
| GSM06□07-P1J | 7.5V, 0~0.80A | ±5%  | 80mV  | 74%   | GSM06□24-P1J                               | 24V, 0~0.25A | ±4%  | 180mV | 82%   |
| GSM06□09-P1J | 9V, 0~0.66A   | ±5%  | 80mV  | 76%   | □ = U / E ; U: American 2P, E: European 2P |              |      |       |       |
| GSM06□12-P1J | 12V, 0~0.50A  | ±5%  | 100mV | 77%   |                                            |              |      |       |       |

### Desktop / Wall-mounted — 18W

| Order No.    | Output        | Tol. | R&N   | Effi. | Order No.                                                       | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|-----------------------------------------------------------------|---------------|------|-------|-------|
| GSM18□05-P1J | 5V, 0~3.00A   | ±5%  | 60mV  | 80%   | GSM18□18-P1J                                                    | 18V, 0~1.00A  | ±3%  | 150mV | 86%   |
| GSM18□07-P1J | 7.5V, 0~2.00A | ±5%  | 80mV  | 83%   | GSM18□24-P1J                                                    | 24V, 0~0.75A  | ±2%  | 180mV | 87%   |
| GSM18□09-P1J | 9V, 0~2.00A   | ±5%  | 80mV  | 84%   | GSM18□48-P1J                                                    | 48V, 0~0.375A | ±2%  | 240mV | 88%   |
| GSM18□12-P1J | 12V, 0~1.50A  | ±3%  | 120mV | 85%   | □ = B / U / E ;<br>B: IEC320-C8, U: American 2P, E: European 2P |               |      |       |       |
| GSM18□15-P1J | 15V, 0~1.20A  | ±3%  | 120mV | 85.5% |                                                                 |               |      |       |       |

### Desktop / Wall-mounted — 25W

| Order No.    | Output        | Tol. | R&N   | Effi. | Order No.                                                       | Output       | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|-----------------------------------------------------------------|--------------|------|-------|-------|
| GSM25□05-P1J | 5V, 0~4.00A   | ±6%  | 60mV  | 80%   | GSM25□18-P1J                                                    | 18V, 0~1.38A | ±3%  | 150mV | 86%   |
| GSM25□07-P1J | 7.5V, 0~2.93A | ±5%  | 80mV  | 83%   | GSM25□24-P1J                                                    | 24V, 0~1.04A | ±2%  | 180mV | 87%   |
| GSM25□09-P1J | 9V, 0~2.77A   | ±5%  | 80mV  | 84%   | GSM25□48-P1J                                                    | 48V, 0~0.52A | ±2%  | 240mV | 88%   |
| GSM25□12-P1J | 12V, 0~2.08A  | ±3%  | 120mV | 86%   | □ = B / U / E ;<br>B: IEC320-C8, U: American 2P, E: European 2P |              |      |       |       |
| GSM25□15-P1J | 15V, 0~1.66A  | ±3%  | 120mV | 86%   |                                                                 |              |      |       |       |

### Desktop / Wall-mounted — 36W

| Order No.    | Output        | Tol. | R&N   | Effi. | Order No.                                                       | Output       | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|-----------------------------------------------------------------|--------------|------|-------|-------|
| GSM36□05-P1J | 5V, 0~4.50A   | ±6%  | 80mV  | 80%   | GSM36□18-P1J                                                    | 18V, 0~2.00A | ±3%  | 150mV | 87%   |
| GSM36□07-P1J | 7.5V, 0~4.32A | ±5%  | 80mV  | 83%   | GSM36□24-P1J                                                    | 24V, 0~1.50A | ±2%  | 180mV | 87%   |
| GSM36□09-P1J | 9V, 0~4.00A   | ±5%  | 80mV  | 84%   | GSM36□48-P1J                                                    | 48V, 0~0.75A | ±2%  | 240mV | 88%   |
| GSM36□12-P1J | 12V, 0~3.00A  | ±3%  | 120mV | 86%   | □ = B / U / E ;<br>B: IEC320-C8, U: American 2P, E: European 2P |              |      |       |       |
| GSM36□15-P1J | 15V, 0~2.40A  | ±3%  | 120mV | 87%   |                                                                 |              |      |       |       |



### Features

- Universal AC input / Full range
- Medical safety approved(2xMOPP)
- Suitable for BF application with appropriate system consideration (except for GSM40A/60A)
- Low leakage current < 50μA(<100μA for GSM40A/60A/90B)
- No load power consumption <0.1W(<0.15W for GSM90B)
- Energy efficiency Level VI (except GSM40/60 5~9V for Level V)
- Comply with EISA 2007/DoE, NRCAN, AU/NZ MEPS, EU ErP and meet CoC Version 5
- Built-in active PFC function(GSM90B)

- High efficiency up to 91.5%
- A-Type: Class I(with earth Pin)  
B-Type: Class II(without earth Pin)
- Protections: Short circuit / Overload / Over voltage / Over temp.(except for GSM40)
- Fully enclosed plastic case
- LED indicator for power on
- Optional lock type DC plug
- 3 years warranty



### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Order No.                                               | GSM40A/B                                                                                                                                                      | GSM60A/B                                      | GSM90B                                                                  |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------------------------------------|
| AC input voltage range                                  | 80~264VAC; 113~370VDC                                                                                                                                         |                                               |                                                                         |
| AC inrush current (max.)                                | Cold start, 65A at 230VAC                                                                                                                                     |                                               |                                                                         |
| Overload protection                                     | Range                                                                                                                                                         | 105%~160% rated output power                  | 110%~150%                                                               |
|                                                         | Type                                                                                                                                                          | Hiccup mode, auto-recovery                    |                                                                         |
| Over voltage protection                                 | Range                                                                                                                                                         | 105%~135% rated output voltage                |                                                                         |
|                                                         | Type                                                                                                                                                          | Shut down o/p voltage, re-power on to recover |                                                                         |
| Setup, rise, hold up time                               | 1000ms, 30ms, 50ms                                                                                                                                            |                                               | 1000ms, 50ms, 20ms                                                      |
| Withstand voltage                                       | A-Type: I/P-O/P: 4kVAC, I/P-FG: 2kVAC, O/P-FG: Short<br>B-Type: I/P-O/P: 4kVAC                                                                                |                                               | I/P-O/P: 4kVAC                                                          |
| Working temperature                                     | -30~+60°C (refer to output derating curve)                                                                                                                    |                                               |                                                                         |
| Safety standards                                        | ANSI/AAMI ES60601-1 / ES60601-1-11, TUV EN60601-1 / EN60601-1-11 approved                                                                                     |                                               |                                                                         |
| EMC standards                                           | EN55011 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN60601-1-2 medical level, FCC Part 15 class B                                           |                                               |                                                                         |
| Length of output cable                                  | 100cm of UL2464, 16AWG for GSM40 5~7.5V and GSM60 5~15V<br>100cm of UL1185, 16AWG for GSM40 9~12V<br>150cm of UL1185, 16AWG for GSM40 15~48V and GSM60 18~48V |                                               | 100cm of UL1185, 14AWG for 12~15V;<br>120cm of UL1185, 16AWG for 19~48V |
| Standard DC plug<br>(refer to page 61 for DC plug list) | P1J: 2.1øx5.5øx11mm/c+, tuning fork type                                                                                                                      |                                               | P1M: 2.5øx5.5øx11mm/c+, tuning fork type                                |
| Dimension (LxWxH)(mm)                                   | 125x 50x 31.5                                                                                                                                                 |                                               | 145x 60x 32                                                             |

### Desktop (IEC 320-C14 / Class I) — 40W

| Order No.    | Output          | Tol.  | R&N   | Effi. |
|--------------|-----------------|-------|-------|-------|
| GSM40A05-P1J | 5V, 0.1~5.00A   | ±5%   | 100mV | 81.0% |
| GSM40A07-P1J | 7.5V, 0.1~5.34A | ±5%   | 100mV | 85.5% |
| GSM40A09-P1J | 9V, 0.1~4.45A   | ±5%   | 100mV | 86.0% |
| GSM40A12-P1J | 12V, 0.1~3.34A  | ±3%   | 100mV | 88.0% |
| GSM40A15-P1J | 15V, 0.1~2.67A  | ±3%   | 100mV | 88.5% |
| GSM40A18-P1J | 18V, 0.1~2.22A  | ±3%   | 150mV | 89.5% |
| GSM40A24-P1J | 24V, 0.1~1.67A  | ±2.5% | 180mV | 90.0% |
| GSM40A48-P1J | 48V, 0.1~1.84A  | ±2.5% | 240mV | 91.0% |

### Desktop (IEC 320-C14 / Class I) — 60W

| Order No.    | Output          | Tol.  | R&N   | Effi. |
|--------------|-----------------|-------|-------|-------|
| GSM60A05-P1J | 5V, 0.1~6.00A   | ±5%   | 100mV | 81.5% |
| GSM60A07-P1J | 7.5V, 0.1~6.00A | ±5%   | 100mV | 86.0% |
| GSM60A09-P1J | 9V, 0.1~6.00A   | ±5%   | 100mV | 87.5% |
| GSM60A12-P1J | 12V, 0.1~5.00A  | ±3%   | 100mV | 88.0% |
| GSM60A15-P1J | 15V, 0.1~4.00A  | ±3%   | 100mV | 88.5% |
| GSM60A18-P1J | 18V, 0.1~3.33A  | ±3%   | 150mV | 89.0% |
| GSM60A24-P1J | 24V, 0.1~2.50A  | ±3%   | 180mV | 90.0% |
| GSM60A48-P1J | 48V, 0.1~1.25A  | ±2.5% | 240mV | 91.0% |

### Desktop (IEC 320-C8 / Class II) — 40W

| Order No.    | Output          | Tol. | R&N   | Effi. |
|--------------|-----------------|------|-------|-------|
| GSM40B05-P1J | 5V, 0.1~5.00A   | ±5%  | 100mV | 81.0% |
| GSM40B07-P1J | 7.5V, 0.1~5.34A | ±5%  | 100mV | 85.5% |

| Order No.    | Output         | Tol.  | R&N   | Effi. |
|--------------|----------------|-------|-------|-------|
| GSM40B09-P1J | 9V, 0.1~4.45A  | ±5%   | 100mV | 86.0% |
| GSM40B12-P1J | 12V, 0.1~3.34A | ±3%   | 100mV | 88.0% |
| GSM40B15-P1J | 15V, 0.1~2.67A | ±3%   | 100mV | 88.5% |
| GSM40B18-P1J | 18V, 0.1~2.22A | ±3%   | 150mV | 89.5% |
| GSM40B24-P1J | 24V, 0.1~1.67A | ±2.5% | 180mV | 90.0% |
| GSM40B48-P1J | 48V, 0.1~0.84A | ±2.5% | 240mV | 91.0% |

### Desktop (IEC 320-C8 / Class II) — 60W

| Order No.    | Output          | Tol.  | R&N   | Effi. |
|--------------|-----------------|-------|-------|-------|
| GSM60B05-P1J | 5V, 0.1~6.00A   | ±5%   | 100mV | 81.0% |
| GSM60B07-P1J | 7.5V, 0.1~6.00A | ±5%   | 100mV | 86.0% |
| GSM60B09-P1J | 9V, 0.1~6.00A   | ±5%   | 100mV | 87.5% |
| GSM60B12-P1J | 12V, 0.1~5A     | ±3%   | 100mV | 88.0% |
| GSM60B15-P1J | 15V, 0.1~4A     | ±3%   | 100mV | 88.5% |
| GSM60B18-P1J | 18V, 0.1~3.33A  | ±3%   | 150mV | 89.0% |
| GSM60B24-P1J | 24V, 0.1~2.5A   | ±3%   | 180mV | 90.0% |
| GSM60B48-P1J | 48V, 0.1~1.25A  | ±2.5% | 240mV | 91.5% |

### Desktop (IEC 320-C8 / Class II) — 90W

| Order No.    | Output       | Tol.  | R&N   | Effi. |
|--------------|--------------|-------|-------|-------|
| GSM90B12-P1M | 12V, 0~6.67A | ±5%   | 120mV | 88.0% |
| GSM90B15-P1M | 15V, 0~6.00A | ±5%   | 150mV | 89.0% |
| GSM90B19-P1M | 19V, 0~4.74A | ±4%   | 180mV | 89.0% |
| GSM90B24-P1M | 24V, 0~3.75A | ±3%   | 200mV | 90.0% |
| GSM90B48-P1M | 48V, 0~1.87A | ±2.5% | 240mV | 91.0% |



## Features

- Universal AC input / Full range
- Medical safety approved (2xMOPP)
- Suitable for BF application with appropriate system consideration
- Low leakage current < 100μA
- No load power consumption < 0.15W
- Energy efficiency Level VI
- Comply with EISA 2007/DoE, NRCAN, AU/NZ MEPS, EU ErP and meet CoC Version 5
- Built-in active PFC function
- High efficiency up to 94.5%
- Fanless design, high operating temperature up to +70°C
- Class II (without earth Pin)
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Fully enclosed plastic case
- LED indicator for power on
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Order No.                                               |       | GSM120B                                                                                                             | GSM160B                                                                    | GSM220B                   |
|---------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------|
| AC input voltage range                                  |       | 80~264VAC; 113~370VDC                                                                                               |                                                                            |                           |
| AC inrush current (max.)                                |       | Cold start,70A at 230VAC                                                                                            | Cold start, 120A at 230VAC                                                 |                           |
| Overload protection                                     | Range | 105%~160% rated output power                                                                                        | 105%~135% rated output power                                               |                           |
|                                                         | Type  | Hiccup mode, auto-recovery                                                                                          |                                                                            |                           |
| Over voltage protection                                 | Range | 105%~135% rated output voltage                                                                                      |                                                                            |                           |
|                                                         | Type  | Shut down o/p voltage, re-power on to recover                                                                       |                                                                            |                           |
| Setup, rise, hold up time                               |       | 1500ms, 30ms, 20ms                                                                                                  | 2000ms, 20ms, 20ms                                                         | 2000ms, 50ms, 20ms        |
| Withstand voltage                                       |       | I/P-O/P: 4kVAC                                                                                                      |                                                                            |                           |
| Working temperature                                     |       | -30~+60°C                                                                                                           | -30~+70°C (refer to output derating curve)                                 |                           |
| Safety standards                                        |       | ANSI/AAMI ES60601-1 / ES60601-1-11, TUV EN60601-1 / EN60601-1-11 approved                                           |                                                                            |                           |
| EMC standards                                           |       | EN55011 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN60601-1-2 medical level, FCC Part 15 class B |                                                                            |                           |
| Length of output cable                                  |       | 100cm of UL2464, 18AWGx4C for 12V;<br>120cm of UL2464, 18AWGx4C for 15~48V                                          | 100cm of UL2464, 16AWGx4C for 12V;<br>120cm of UL2464, 18AWGx4C for 15~48V | 100cm of UL2464, 18AWGx4C |
| Standard DC plug<br>(refer to page 61 for DC plug list) |       | R7B: power DIN 4P with lock type                                                                                    |                                                                            |                           |
| Dimension (LxWxH)(mm)                                   |       | 167x 67x 35                                                                                                         | 175x 72x 35                                                                | 210x 85x 46               |

## Desktop (IEC 320-C8 / Class II) — 120W

| Order No.     | Output       | Tol.  | R&N   | Effi. |
|---------------|--------------|-------|-------|-------|
| GSM120B12-R7B | 12V, 0~8.5A  | ±5%   | 120mV | 88.0% |
| GSM120B15-R7B | 15V, 0~7.00A | ±5%   | 150mV | 89.0% |
| GSM120B20-R7B | 20V, 0~6.00A | ±5%   | 180mV | 89.0% |
| GSM120B24-R7B | 24V, 0~5.00A | ±3%   | 200mV | 90.0% |
| GSM120B48-R7B | 48V, 0~2.50A | ±2.5% | 240mV | 91.5% |

## Desktop (IEC 320-C8 / Class II) — 220W

| Order No.     | Output       | Tol. | R&N   | Effi. |
|---------------|--------------|------|-------|-------|
| GSM220B12-R7B | 12V, 0~15.0A | ±5%  | 80mV  | 90.0% |
| GSM220B15-R7B | 15V, 0~13.4A | ±5%  | 100mV | 90.0% |
| GSM220B20-R7B | 20V, 0~11.0A | ±4%  | 150mV | 92.5% |
| GSM220B24-R7B | 24V, 0~9.20A | ±3%  | 180mV | 93.5% |
| GSM220B48-R7B | 48V, 0~4.60A | ±2%  | 240mV | 94.5% |

## Desktop (IEC 320-C8 / Class II) — 160W

| Order No.     | Output       | Tol. | R&N   | Effi. |
|---------------|--------------|------|-------|-------|
| GSM160B12-R7B | 12V, 0~11.5A | ±5%  | 80mV  | 90.0% |
| GSM160B15-R7B | 15V, 0~9.6A  | ±5%  | 100mV | 91.0% |
| GSM160B20-R7B | 20V, 0~8.0A  | ±4%  | 150mV | 93.0% |
| GSM160B24-R7B | 24V, 0~6.67A | ±3%  | 180mV | 93.0% |
| GSM160B48-R7B | 48V, 0~3.34A | ±3%  | 240mV | 94.0% |



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# Moistureproof Adaptor

60~120W Single Output



## Features

- IP67 design for power body
- Universal AC input / Full range (except for OWA-120E)  
AC input 180~264VAC only (OWA-120E)
- No load power consumption <0.15W
- Energy efficiency Level VI
- E-Type: meet CoC Version 5 (OWA-60E/90E);  
comply with EU ErP
- U-Type: Comply with EISA 2007/DoE and NRCAN
- Built-in active PFC function (OWA-90/120)
- Class II power (without earth pin)
- High efficiency up to 91%
- Fanless design, cooling by free air convection
- Fully enclosed plastic case
- Protections: Short circuit / Over current /  
Over voltage / Over temperature
- Suitable for household appliances or the electronic  
applications at highly dusty or damp environment
- 5 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                   | OWA-60 □                                                                                                     | OWA-90 □                                                                                                                                   | OWA-120 □                                                                                                    |
|-----------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| AC input voltage range      | 90~264VAC; 127~370VDC (180~264VAC ; 254~370VDC for OWA-120E)                                                 |                                                                                                                                            |                                                                                                              |
| AC inrush current (max.)    | Cold start, 65A at 230VAC                                                                                    |                                                                                                                                            |                                                                                                              |
| Overload protection         | E-Type: 105~115% hiccup mode, auto-recovery; U-Type: 95~108% constant current limiting, auto-recovery        |                                                                                                                                            |                                                                                                              |
| Over voltage protection     | 110%~140% rated output voltage, re-power on to recover                                                       |                                                                                                                                            |                                                                                                              |
| Over temperature protection | Shut down output voltage, re-power on to recover                                                             |                                                                                                                                            |                                                                                                              |
| Withstand voltage           | I/P-O/P: 3.75KVAC                                                                                            |                                                                                                                                            |                                                                                                              |
| Working temperature         | -35~+70°C                                                                                                    |                                                                                                                                            |                                                                                                              |
| Safety standards            | E-Type: DEKRA EN60335-1(except for 48~54V), EN61558-1, EN61558-2-16 approved; U-Type: UL8750 listed approved | E-Type: TUV EN60335-1(except for 42~54V), EN61558-1, EN61558-2-16 approved; U-Type: UL8750 listed approved                                 | E-Type: DEKRA EN60335-1(except for 48~54V), EN61558-1, EN61558-2-16 approved; U-Type: UL8750 listed approved |
| EMC standards               | E-Type: EN55022 class B, EN55014, EN61000-3-2,-3; U-Type: FCC Part 15                                        |                                                                                                                                            |                                                                                                              |
| Standard plug               | Input                                                                                                        | E-Type: CEE 7/7 EU plug; U-Type: NEMA 1-15P plug                                                                                           |                                                                                                              |
|                             | Output                                                                                                       | E-Type: XLR 4P, male type;<br>U-Type: P1M, 2.5øx5.5øx11mm / C+, tuning fork type (OWA-90U 20~54V only) or R7B, Power DIN 4P with lock type |                                                                                                              |
| Length of cable             | Input                                                                                                        | E-Type: 150cm of H05RN-F 1.0mm <sup>2</sup> x2C; U-Type: 150cm of SVT 18AWGx2C                                                             |                                                                                                              |
|                             | Output                                                                                                       | E-Type: 30cm of H05RN-F 1.0mm <sup>2</sup> x2C<br>U-Type: 30cm of UL1185 16AWG x2C                                                         | E-Type: 30cm of H07RN-F 1.5mm <sup>2</sup> x2C<br>U-Type: 30cm of UL2464 18AWG x4C                           |
| Dimension (LxWxH)(mm)       | 130x 53x 35                                                                                                  | 171x 63x 37.5                                                                                                                              | 191x 63x 37.5                                                                                                |

## OWA-60 Series

| Model No.    | Output       | Tol.  | R&N   | Effi. |
|--------------|--------------|-------|-------|-------|
| OWA-60 □ -12 | 12V, 0~5A    | ±4.0% | 150mV | 88%   |
| OWA-60 □ -15 | 15V, 0~4A    | ±4.0% | 150mV | 89%   |
| OWA-60 □ -20 | 20V, 0~3A    | ±4.0% | 150mV | 89%   |
| OWA-60 □ -24 | 24V, 0~2.5A  | ±3.0% | 150mV | 90%   |
| OWA-60 □ -30 | 30V, 0~2A    | ±3.0% | 200mV | 90%   |
| OWA-60 □ -36 | 36V, 0~1.67A | ±2.0% | 200mV | 90%   |
| OWA-60 □ -42 | 42V, 0~1.5A  | ±1.0% | 250mV | 90%   |
| OWA-60 □ -48 | 48V, 0~1.25A | ±1.0% | 250mV | 91%   |
| OWA-60 □ -54 | 54V, 0~1.12A | ±1.0% | 350mV | 91%   |

□ = E / U ; E: European 2P, U: American 2P

## OWA-90 Series

| Model No.      | Output       | Tol.  | R&N   | Effi. |
|----------------|--------------|-------|-------|-------|
| OWA-90 □ -12   | 12V, 0~7.5A  | ±4.0% | 150mV | 89%   |
| OWA-90 □ -15   | 15V, 0~6A    | ±4.0% | 150mV | 90%   |
| OWA-90 □ -20-▲ | 20V, 0~4.5A  | ±4.0% | 150mV | 90%   |
| OWA-90 □ -24-▲ | 24V, 0~3.75A | ±3.0% | 150mV | 90%   |

|                |              |       |       |     |
|----------------|--------------|-------|-------|-----|
| OWA-90 □ -30-▲ | 30V, 0~3A    | ±3.0% | 200mV | 90% |
| OWA-90 □ -36-▲ | 36V, 0~2.5A  | ±2.0% | 200mV | 91% |
| OWA-90 □ -42-▲ | 42V, 0~2.15A | ±1.0% | 250mV | 91% |
| OWA-90 □ -48-▲ | 48V, 0~1.88A | ±1.0% | 250mV | 91% |
| OWA-90 □ -54-▲ | 54V, 0~1.67A | ±1.0% | 350mV | 91% |

□ = E / U ; E: European 2P, U: American 2P ; ▲=Blank(R7B)/P1M

## OWA-120 Series

| Model No.     | Output      | Tol.  | R&N   | Effi. |
|---------------|-------------|-------|-------|-------|
| OWA-120E-12   | 12V, 0~9.6A | ±4.0% | 150mV | 87.5% |
| OWA-120U-12   | 12V, 0~10A  | ±4.0% | 150mV | 87.5% |
| OWA-120 □ -15 | 15V, 0~8A   | ±4.0% | 150mV | 89.0% |
| OWA-120 □ -20 | 20V, 0~6A   | ±4.0% | 150mV | 90.0% |
| OWA-120 □ -24 | 24V, 0~5A   | ±4.0% | 150mV | 90.5% |
| OWA-120 □ -30 | 30V, 0~4A   | ±3.0% | 200mV | 90.0% |
| OWA-120 □ -36 | 36V, 0~3.4A | ±2.0% | 200mV | 90.0% |
| OWA-120 □ -42 | 42V, 0~2.9A | ±1.0% | 250mV | 90.5% |
| OWA-120 □ -48 | 48V, 0~2.5A | ±1.0% | 250mV | 90.5% |
| OWA-120 □ -54 | 54V, 0~2.3A | ±1.0% | 350mV | 90.5% |

□ = E / U ; E: European 2P, U: American 2P



## 30W Green Adaptor with Charging Function

- Universal AC input / Full range
- Class II power (without earth pin)
- **No load power consumption < 1W**
- Constant current and voltage (CC, CV mode)
- High reliability
- Suitable for high surge current equipment
- Protections: Short circuit / Overload / Over voltage / Over temp.
- 2 color LED indicator for charging status
- Fully enclosed plastic case
- 2 years warranty



AC input voltage range ..... 90~264VAC; 127~370VDC  
 Overload protection ..... 90%~110% constant current mode and over 300% pulsing mode  
 Over voltage protection ..... 110%~135% rated output voltage  
 Withstand voltage ..... I/P-O/P: 3kVAC, 1minute  
 Working temperature ..... 0~+50°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, CSA 22.2, TUV EN60950-1 approved  
 EMC standards ..... EN55014-1, EN61000-3-2,3, EN61000-4-2,3,4,5,6,11  
 Length of output cable ..... 120cm of UL1185, 16AWG for 4.2~8.4V  
 180cm of UL1185, 18AWG for 14.3~28.6V  
 Standard DC plug ..... P1J: 2.1øx5.5øx11mm / C+, tuning fork type

| Order No.   | Output         | R&N   | Effi. |
|-------------|----------------|-------|-------|
| GC30□-0P1J  | 4.2V, 0~4.00A  | 50mV  | 55%   |
| GC30□-1P1J  | 5.6V, 0~3.99A  | 50mV  | 70%   |
| GC30□-11P1J | 7.2V, 0~3.00A  | 80mV  | 74%   |
| GC30□-2P1J  | 8.4V, 0~3.00A  | 80mV  | 76%   |
| GC30□-4P1J  | 14.3V, 0~2.09A | 100mV | 78%   |
| GC30□-5P1J  | 16.8V, 0~1.60A | 100mV | 78%   |
| GC30□-6P1J  | 28.6V, 0~1.04A | 150mV | 80%   |

□ = B / U / E ; B: IEC320-C8, U: American 2P, E: European 2P

## 160W Green Adaptor with Charging Function



- Universal AC input / Full range
- Built-in active PFC function
- **No load power consumption < 1W**
- High efficiency up to 94%
- 2 stage charging characteristic
- Cooling by free air convection
- 3 pole AC inlet IEC320-C14
- Class I power (with earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Fully enclosed plastic case
- 2 color LED indicator for charging status
- 2 years warranty

AC input voltage range ..... 85~264VAC; 120~370VDC  
 Overload protection ..... 90%~110% constant current, auto-recovery  
 Over voltage protection ..... 105%~135% rated output voltage, re-power on to recover  
 Withstand voltage ..... I/P-O/P: 3kVAC  
 Working temperature ..... -30~+70°C (refer to derating curve)  
 Safety standards ..... UL1012(GC160Axx-AD1 only), EN60950-1 approved  
 EMC standards ..... EN55022 class B, FCC part 15 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Length of output cable ..... 120cm of UL2464, 18AWGx 4C  
 Standard DC plug ..... Power DIN 4P with lock type (R7B)

| Model No.  | Output       | Effi. |
|------------|--------------|-------|
| GC160A12-□ | 13.6V, 10.0A | 89.0% |
| GC160A24-□ | 27.2V, 5.89A | 92.5% |
| GC160A48-□ | 54.4V, 2.95A | 94.0% |

□ = R7B / AD1 ; R7B= 4 pin power din, AD1= Anderson connector

## 218W & 326W Green Adaptor with Charging Function



- Universal AC input / Full range
- Built-in active PFC function
- **No load power consumption < 1W**
- High efficiency up to 93.5%
- 2 stage charging characteristic
- Cooling by free air convection
- 3 pole AC inlet IEC320-C14
- Class I power (with earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Fully enclosed plastic case
- 2 color LED indicator for charging status
- 2 years warranty

|           | GC220     | GC330     |
|-----------|-----------|-----------|
| Case (mm) | 210x85x46 | 220x95x46 |
| Connector |           |           |

AC input voltage range ..... 90~264VAC; 127~370VDC  
 Overload protection ..... 90%~110% constant current, auto-recovery  
 Over voltage protection ..... 105%~135% rated output voltage, re-power on to recover  
 Withstand voltage ..... I/P-O/P: 3kVAC  
 Working temperature ..... -30~+60°C (refer to output derating curve)  
 Safety standards ..... GC220: TUV EN60950-1, UL1012 (GC220Axx-AD1 only) approved  
 GC330: TUV EN60950-1, UL60950-1 approved  
 EMC standards ..... EN55022 class B, FCC part 15 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Length of output cable ..... 100cm of UL2464, 16AWGx 4C  
 Standard DC plug ... GC220: Power DIN 4P with lock type (R7B)  
 GC330: 4P/6.35mm pitch, AMP 1-480702-0 (power supply side); AMP 1-480703-0 (customer side)

### GC220 Series

| Model No.  | Output       | Effi. |
|------------|--------------|-------|
| GC220A12-□ | 13.6V, 13.5A | 89.0% |
| GC220A24-□ | 27.2V, 8A    | 92.5% |
| GC220A48-□ | 54.4V, 4A    | 93.0% |

□ = R7B / AD1 ; R7B= 4 pin power din, AD1= Anderson connector

### GC330 Series

| Model No.    | Output    | Effi. |
|--------------|-----------|-------|
| GC330A36-C4P | 40.8V, 8A | 93.5% |
| GC330A48-C4P | 54.4V, 6A | 93.5% |

## 120W Green Adaptor with Charging Function



- Universal AC input / Full range
- Built-in active PFC function
- **No load power consumption < 0.5W**
- High efficiency up to 91%
- 2 stage charging characteristic
- Cooling by free air convection
- 3 pole AC inlet IEC320-C14
- Class I power (with earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Fully enclosed plastic case
- 2 color LED indicator for charging status
- 2 years warranty

AC input voltage range ..... 85~264VAC; 120~370VDC  
 Overload protection ..... 90~110% constant current, auto-recovery  
 Over voltage protection ..... 105%~135% shut down O/P voltage, re-power on to recover  
 Withstand voltage ..... I/P-O/P: 3kVAC  
 Working temperature ..... -30~+70°C (refer to derating curve)  
 Safety standards ..... UL1012 (GC120Axx-AD1 only), EN60950-1 approved  
 EMC standards ..... EN55022 class B, FCC part 15 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Length of output cable ..... 120cm of UL2464, 18AWGx 4C  
 Standard DC plug ..... Power DIN 4P with lock type (R7B)

| Model No.  | Output       | Effi. |
|------------|--------------|-------|
| GC120A12-□ | 13.6V, 7.5A  | 86.5% |
| GC120A24-□ | 27.2V, 4.42A | 90.0% |
| GC120A48-□ | 54.4V, 2.21A | 91.0% |

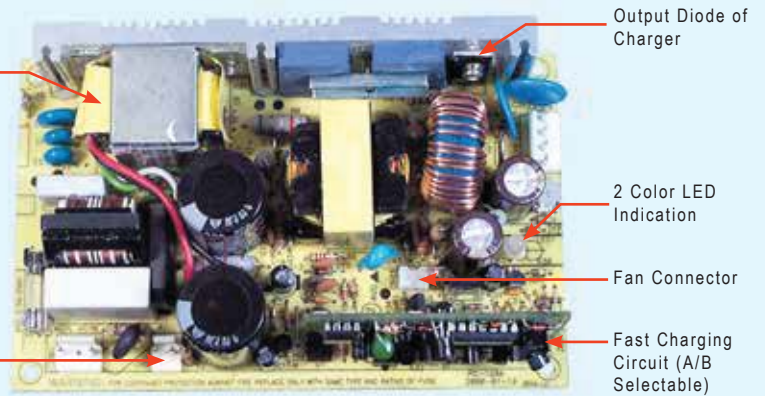
□ = R7B / AD1 ; R7B= 4 pin power din, AD1= Anderson connector



PCB Type: 144x 90x 35 mm  
External Case Type: 180x 96x 49 mm

Power Factor  
Correction Choke

115 / 230  
Selectable



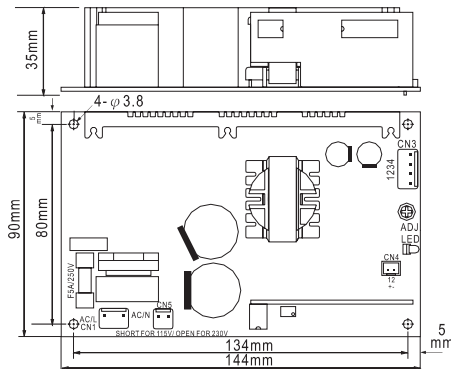
Output Diode of  
Charger

2 Color LED  
Indication

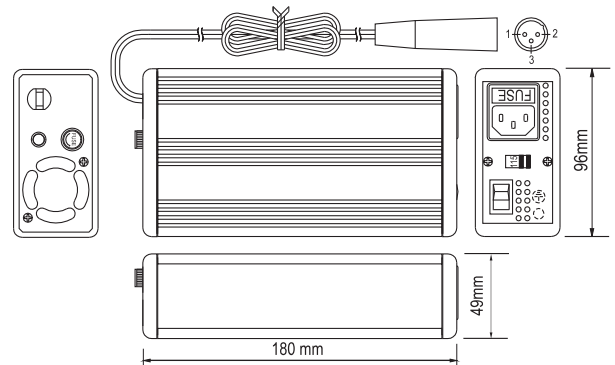
Fan Connector

Fast Charging  
Circuit (A/B  
Selectable)

### P.C.B. Dimension



### Case Drawing



### Features

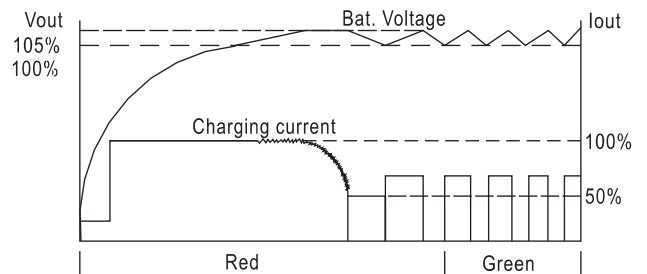
- AC input range selectable by switch
- Passive PFC, PF> 0.65(option)
- Protection for deeply discharged battery
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Charger for lead-acid batteries
- Built-in ON/OFF power switch
- 3 poles AC inlet with fuse holder
- Charging type can be selected (option)
- 2 color LED loading indicator
- EN60335 approved
- Low cost, high reliability
- Open frame models available (without safety approval)
- 2 years warranty

### General Specification

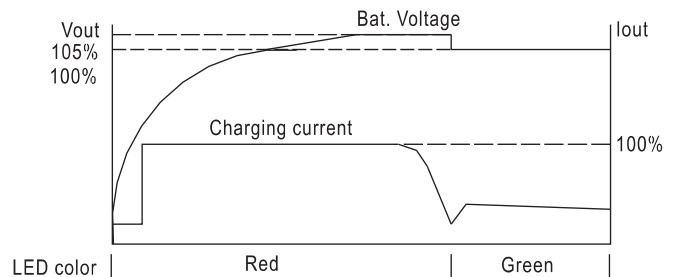
AC input voltage range ..... 88~132VAC/ 176~264VAC selectable by switch  
AC inrush current (max.) .... Cold start, 25A at 115VAC, 50A at 230VAC  
Overload protection ..... 90%~110% constant current limiting, auto-recovery  
Over voltage protection ..... 108%~127% rated output voltage  
Setup, rise, hold up time .... 1000ms, 50ms, 16ms at full load and 230VAC  
Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC, 1 minute  
Working temperature ..... -10~+45°C, derating curve may vary for different models  
Safety standards ..... UL60950-1, TUV EN60950-1, EN60335-1, EN60335-2-29(except for 55.2V) approved  
EMC standards ..... EN55022 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3  
DC output cable ..... 6 ft. of SPT-2, 18AWGx2C  
Standard output connector ... XLR 3P, male type  
Packing ..... 1.1kg / 16pcs / 17.9kg / 1.47CUFT (without PFC)  
1.24kg / 16pcs / 20.1kg / 1.47CUFT (with PFC)

| Model No.   | Output        | Tol.     | R&N   | Effi. |
|-------------|---------------|----------|-------|-------|
| P□-120□-13□ | 13.8V, 0~7.2A | ±3~±8.5% | 150mV | 73%   |
| P□-120□-27□ | 27.6V, 0~4.3A | ±1~±8.0% | 200mV | 79%   |
| P□-120□-54□ | 55.2V, 0~2.2A | ±1~±7.5% | 250mV | 79%   |

### Charging Curve



Type A: pulse charger (detect on bat. voltage)



Type B: 2 section voltage charger (detect on charging current)

### Order Information

P **A** - 120 P - 13 C

A: Pulse charge  
B: 2 section voltage charge

P: With PFC  
N: None PFC

P : Open P.C.B.  
C : With case

13: 13.8V  
27: 27.6V  
54: 55.2V

### 108W~216W Desktop Power Supply or Charger



- AC input range selectable by switch
- Protections: Short circuit / Overload / Over voltage / Over temp.
- 3 color LED loading indicator
- Battery under / over voltage and polarity protection (ESC only)
- Cooling by free air convection (120W)
- Built-in DC fan with fan ON/OFF auto control at 50°C (240W)
- 2 years warranty

AC input voltage range ..... 88~132VAC / 176~264VAC selectable by switch  
 AC inrush current ..... Cold start, 40A at 230VAC  
 DC adjustment range ..... 13.5V: 12~15V, 27V: 24~30V, 54V: 48~56V  
 Overload protection ..... 105%~135% fold back current limiting, auto-recovery  
 Over voltage protection ..... 115%~135% rated output voltage  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, 1minute  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standards ..... CSA 61010-1 approved  
 EMC standards ..... EN55022/B, EN61000-3-2,3, EN61000-4-2,3,4  
 Packing ..... 1.38kg ; 8pcs / 12.0kg / 1.1CUFT (120W)  
 ..... 1.5kg ; 8pcs / 13.0kg / 1.1CUFT (240W)

#### ◆ ESC/P-120 Series

| Model No.    | Output      | Tol. | R&N   | Effi. |
|--------------|-------------|------|-------|-------|
| ESC-120-13.5 | 13.5V, 0~8A | ±2%  | 120mV | 81%   |
| ESC-120-27   | 27V, 0~4A   | ±1%  | 150mV | 83%   |
| ESC-120-54   | 54V, 0~2A   | ±1%  | 400mV | 84%   |
| ESP-120-13.5 | 13.5V, 0~8A | ±2%  | 120mV | 81%   |
| ESP-120-27   | 27V, 0~4A   | ±1%  | 150mV | 83%   |
| ESP-120-54   | 54V, 0~2A   | ±1%  | 400mV | 84%   |

#### ◆ ESC/P-240 Series

| Model No.    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|
| ESC-240-13.5 | 13.5V, 0~16A | ±2%  | 120mV | 81%   |
| ESC-240-27   | 27V, 0~8A    | ±1%  | 150mV | 84%   |
| ESC-240-54   | 54V, 0~4A    | ±1%  | 400mV | 85%   |
| ESP-240-13.5 | 13.5V, 0~16A | ±2%  | 120mV | 81%   |
| ESP-240-27   | 27V, 0~8A    | ±1%  | 150mV | 84%   |
| ESP-240-54   | 54V, 0~4A    | ±1%  | 400mV | 85%   |

### 230W Single Output Battery Charger



- 3 stage charging
- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Over voltage / Over temperature
- 2 color LED loading indicator
- Built-in remote ON-OFF control
- Fan ON/OFF control
- Low cost, high reliability
- 2 years warranty

AC input voltage range ..... 90~264VAC; 127~370VDC  
 AC inrush current (max.) .. Cold start, 50A at 230VAC  
 Over voltage protection ..... 102%~125% shut off, re-power on to recover  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC  
 Working temperature ..... -20~+50°C (refer to output derating curve)  
 Safety standards ..... UL1012(PB-230xx-AD1 only), EN60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3  
 Packing ..... 1.21Kg ; 12pcs / 15.5kg / 1.29CUFT

| Model No.  | Output       | Effi. |
|------------|--------------|-------|
| PB-230-12□ | 14.4V, 0~16A | 81.5% |
| PB-230-24□ | 28.8V, 0~8A  | 85.5% |
| PB-230-48□ | 57.6V, 0~4A  | 86.0% |

□ = Blank, AD1; Blank= XLR 4P, male type, AD1= Anderson connector

### 300W Single Output Battery Charger



- Optimal 3 stage charging characteristic
- AC input range selectable by switch
- Passive PFC compliance to EN61000-3-2 class A (option)
- Protections: Reverse polarity / Short circuit / Over voltage / Over temperature
- Charger for lead-acid batteries
- Built-in ON/OFF power switch
- 3 poles AC inlet (IEC 320-C14)
- 2 color LED loading indicator
- Built-in remote ON/OFF control
- Cooling by free air convection
- 3 years warranty

AC input voltage range ..... 90~132VAC / 180~264VAC selectable by switch  
 AC inrush current (max.) .. Cold start, 60A at 230VAC  
 Over voltage protection ..... 108%~125% rated output voltage  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, 1 minute  
 Working temperature ..... -10~+50°C (refer to output derating curve)  
 Safety standards ..... IEC60335-2-29 CB approval by TUV (except for 48V), UL60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3 (P type)  
 Packing ..... 1.45kg ; 6pcs / 9.7kg / 0.95CUFT

| Model No.  | Output (20 min.) / (Continuous at 25°C) | Effi. |
|------------|-----------------------------------------|-------|
| PB-300□-12 | 14.4V, 20.85A / 12.5A                   | 85%   |
| PB-300□-24 | 28.8V, 10.50A / 6.25A                   | 86%   |
| PB-300□-48 | 57.6V, 5.3A / 3.20A                     | 88%   |

□ = P: with PFC; N: non PFC

### 360W Single Output Battery Charger



- Optimal 3 stage charging characteristic
- AC input range selectable by switch
- Passive PFC compliance to EN61000-3-2 class A (option)
- Protections: Reverse polarity / Short circuit / Over voltage / Over temperature
- Charger for lead-acid batteries
- Built-in ON/OFF power switch
- 3 poles AC inlet (IEC 320-C14)
- 2 color LED loading indicator
- Built-in remote ON/OFF control
- Cooling by built-in DC fan
- 3 years warranty

AC input voltage range ..... 90~132VAC / 180~264VAC selectable by switch  
 AC inrush current (max.) .. Cold start, 60A at 230VAC  
 Over voltage protection ..... 108%~125% rated output voltage  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, 1 minute  
 Working temperature ..... -20~+60°C (refer to output derating curve)  
 Safety standards ..... IEC60335-2-29 CB approval by TUV (except for 48V), UL60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3 (P type)  
 Packing ..... 1.5kg ; 6pcs / 10kg / 0.95CUFT

| Model No.  | Output       | Effi. |
|------------|--------------|-------|
| PB-360□-12 | 14.4V, 24.3A | 85%   |
| PB-360□-24 | 28.8V, 12.5A | 86%   |
| PB-360□-48 | 57.6V, 6.25A | 87%   |

□ = P: with PFC; N: non PFC



### 600W Single Output Battery Charger



CASE: 805C 230x 158x 67 mm

- 2/3/8 stage smart charger for lead-acid batteries
- Microprocessor controlled power management
- Universal AC input / Full range
- Built-in active PFC function
- Protections: Reverse polarity / Short circuit / Over voltage / Over temperature
- Built-in temp. compensation function
- Status signal sent by relay contacts
- 3 color LED loading indicator
- Built-in remote ON-OFF control
- Fan speed control (depend on charging current)
- Charging curve can be modified for different battery applications (optional)
- 3 years warranty

AC input voltage range ..... 90~264VAC; 127~370VDC  
 AC inrush current (max.) ... Cold start, 50A at 230VAC  
 Over voltage protection .... 112%~125% shut off, re-power on to recover  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC  
 Working temperature ..... -20~+60°C (refer to output derating curve)  
 Safety standards ..... TUV EN60335-1, EN60335-2-29(except for 48V), EN60950-1(48V only), UL1012 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... IEC inlet for input; copper pillars for output  
 Packing ..... 2.2kg ; 6pcs / 14.2kg / 1.76CUFT

| Model No. | Output         | Effi. |
|-----------|----------------|-------|
| PB-600-12 | 14.4V, 0~40.0A | 86%   |
| PB-600-24 | 28.8V, 0~21.0A | 87%   |
| PB-600-48 | 57.6V, 0~10.5A | 89%   |

### 600W Single Output Battery Charger



CASE: 228A 280x 144x 48.5 mm

- 3 stage charger for lead-acid batteries
- Universal AC input 90~305VAC
- Built-in active PFC function
- No load power consumption < 0.5W at remote OFF
- High efficiency up to 95.5%
- Fanless design, cooling by free air convection
- Aluminum case and filling with heat-conducted silicone
- Withstand 10G vibration test
- Operating altitude up to 5000 meters
- Vo and Io can be adjusted through internal potentiometer
- Protections: Short circuit / OVP / OTP
- 3 color LED loading indicator
- 6 years warranty

AC input voltage range ..... 90~305VAC; 127~431VDC  
 AC inrush current (max.) ... Cold start, 70A at 230VAC  
 DC adjustment range ..... -20%~+5% rated output voltage  
 Current adjustment range ..... 50%~100% rated output current  
 Over voltage protection .... 112%~142% shut off, re-power on to recover  
 Withstand voltage ..... I/P-O/P: 3.75kVAC, I/P-FG: 2kVAC, O/P-FG: 1.5kVAC  
 Working temperature ..... -40~+70°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55022 conduction class B, radiation class A, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... 3+7P/11mm pitch terminal block with cover

| Model No.   | Output         | Effi. |
|-------------|----------------|-------|
| HEP-600C-12 | 14.4V, 0~35.0A | 93.5% |
| HEP-600C-24 | 28.8V, 0~21.0A | 94.5% |
| HEP-600C-48 | 57.6V, 0~10.5A | 95.5% |

### 1000W Single Output Battery Charger



CASE: 804B 300x 184x 70 mm

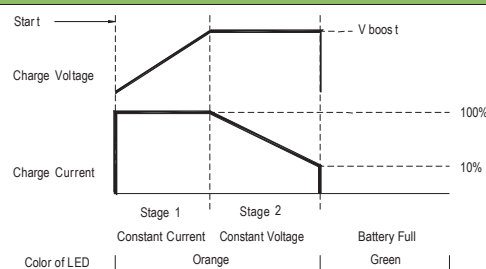
- 2/3/8 stage smart charger for lead-acid batteries
- Microprocessor controlled power management
- Universal AC input / Full range
- Built-in active PFC function
- Protections: Reverse polarity / Short circuit / Over voltage / Over temperature
- Built-in temp. compensation function
- Can be connected to 2 battery banks
- Status signal sent by relay contacts
- 3 color LED loading indicator
- Built-in remote ON/OFF control
- Fan speed control
- Charging curve can be modified for different battery applications (optional)
- 3 years warranty

AC input voltage range ..... 90~264VAC; 127~370VDC  
 AC inrush current (max.) .... Cold start, 50A at 230VAC  
 Over voltage protection ..... 110%~125% shut off, re-power on to recover  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 2kVAC, 1 minute  
 Working temperature ..... -20~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55022 class B conducted, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3  
 Connection ..... IEC inlet for input; copper pillars for output  
 Packing ..... 3.5kg ; 4pcs / 15kg / 1.83CUFT

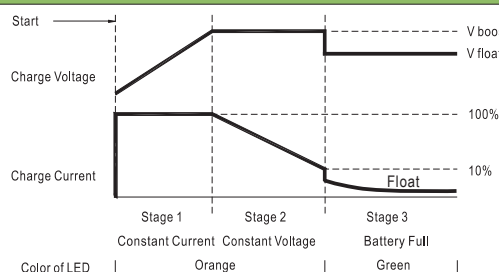
| Model No.  | Output       | Effi. |
|------------|--------------|-------|
| PB-1000-12 | 14.4V, 60.0A | 85%   |
| PB-1000-24 | 28.8V, 34.7A | 88%   |
| PB-1000-48 | 57.6V, 17.4A | 89%   |

### Built-in Charging Curves for PB-600 and PB-1000

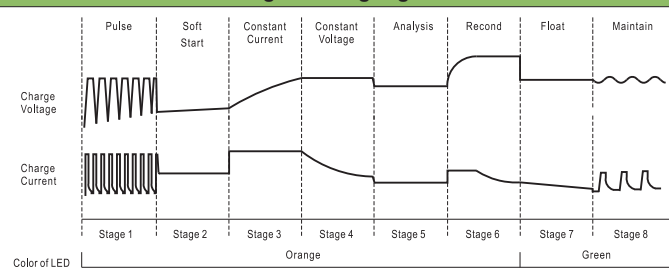
#### 2-Stage Charging Curve



#### 3-Stage Charging Curve



#### 8-Stage Charging Curve







### Features

- Universal AC input / Full range
- Withstand 300VAC surge for 5 seconds (RCP-1600)
- Built-in auxiliary power
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- High power density up to 25W/inch<sup>3</sup> (RCP-1600)
- 1U low profile
- Vo can be trimmed by external resistor (RCP-1000) or external control signal (RCP-1600)
- Io can be trimmed by external control signal (RCP-1600)
- Active current sharing up to 3 units (RCP-1000) or 5 units (RCP-1600) in one 19" rack, 3 racks max. can be operated in parallel (up to 8 units for RCP-1000 or 15 units for RCP-1600)
- Built-in remote ON/OFF control
- Built-in remote sense function
- Internal DR-ing diode, **hot-swap operation**
- AC OK (RCP-1000) and DC OK signal output
- Optional I<sup>2</sup>C serial data bus (RCP-1000); built-in PMBus serial communication (RCP-2000)
- 3 years warranty for RCP-1000, 5 years warranty for RCP-1600

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Order No.                | RCP-1000                                                                                                      | RCP-1600                                                                                                                                                                              |
|--------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC input voltage range   | 90~264VAC, 127~370VDC                                                                                         | 90~264VAC, 127~400VDC                                                                                                                                                                 |
| AC inrush current (max.) | Cold start, 50A at 230VAC                                                                                     | Cold start, 35A at 230VAC                                                                                                                                                             |
| DC adjustment range      | Vo: $\pm 3\%$ by potentiometer, or to 90~110% of rated output voltage by external resistor                    | Vo: -1%~+22.5% by potentiometer, or to 40~125% of rated output voltage by 1~5VDC external control signal<br>Io: to 20%~100% of rated output current by 1~5VDC external control signal |
| Overload protection      | 105%~125% constant current limiting, auto-recovery                                                            | 105%~115% constant current limiting and shut down O/P voltage 5 sec. after O/P voltage is down low, re-power on to recover                                                            |
| Over voltage protection  | 110%~135% shut down o/p voltage, re-power on to recover                                                       | 130%~155% shut down o/p voltage, re-power on to recover                                                                                                                               |
| Withstand voltage        | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-F/G: 0.7kVDC                                                               | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-F/G: 1.5kVDC                                                                                                                                       |
| Working temperature      | -20~+60°C                                                                                                     | -30~+70°C (refer to output derating curve)                                                                                                                                            |
| Safety standards         | UL60950-1, TUV EN60950-1 approved (RCP-1600 pending)                                                          |                                                                                                                                                                                       |
| EMC standards            | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 heavy industry level (RCP-1600 pending) |                                                                                                                                                                                       |
| Connection               | Postronic PCIB24W9M400A1                                                                                      | Postronic PCIM34W13M400A1                                                                                                                                                             |
| Dimension(LxWxH)         | 295x 127x 41mm (483.6x 350.8x 44mm for RCP-1U)                                                                | 300x 85x 41mm (440x 365x 44mm for RHP-1U)                                                                                                                                             |
| Case No.                 | 952A (959A for RCP-1U)                                                                                        | 237A (242A for RHP-1U)                                                                                                                                                                |
| Packing                  | 1.93kg (RCP-1000, single unit);<br>3.9kg (RCP-1U, single empty rack)                                          | 1.75kg (RCP-1600, single unit);<br>4.4kg (RHP-1U, single empty rack)                                                                                                                  |

### Order Information for RCP-1000 and RCP-1U

Single Unit: RCP-1000-12-C

Rack: RCP-1U I

C : with I<sup>2</sup>C interface  
— : without I<sup>2</sup>C interface  
 Output voltage(12V/24V/48V)  
I : AC inlet(IEC320-C14)  
T : Terminal block

### Order Information for RCP-1600 and RHP-1U

Single Unit: RCP-1600-12

Rack: RHP-1U I

Output voltage(12V/24V/48V)  
I : AC inlet(IEC320-C14)  
T : Terminal block

### Single Unit — 1000W

| Model No.   | Output     | Tol.      | R&N   | Effi. |
|-------------|------------|-----------|-------|-------|
| RCP-1000-12 | 12V, 0~60A | $\pm 1\%$ | 150mV | 81.0% |
| RCP-1000-24 | 24V, 0~40A | $\pm 1\%$ | 200mV | 87.0% |
| RCP-1000-48 | 48V, 0~21A | $\pm 1\%$ | 300mV | 89.0% |

### Single Unit — 1600W pending

| Model No.   | Output       | Tol.      | R&N   | Effi. |
|-------------|--------------|-----------|-------|-------|
| RCP-1600-12 | 12V, 0~125A  | $\pm 1\%$ | 150mV | 87.0% |
| RCP-1600-24 | 24V, 0~67A   | $\pm 1\%$ | 200mV | 90.5% |
| RCP-1600-48 | 48V, 0~33.5A | $\pm 1\%$ | 300mV | 93.0% |



RCP-2000



RKP-1U

### Features

- Universal AC input / Full range
- Withstand 300VAC surge for 5 seconds
- Built-in 5V/0.3A, 12V/0.8A auxiliary power
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- High power density 21.4W/inch<sup>3</sup>
- 1U low profile
- Active current sharing up to 6000W (3 units) in one 19" rack, 3 racks max. can be operated in parallel (up to 9 units)
- Built-in remote ON/OFF control
- Built-in remote sense function
- Internal DR-ing FET, **hot-swap operation**
- **Built-in PMBus serial communication**
- AC OK and DC OK signal, fan fail, OTP alarm signal
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



|                           |                                                                                            |
|---------------------------|--------------------------------------------------------------------------------------------|
| Order No.                 | RCP-2000                                                                                   |
| AC input voltage range    | 90~264VAC, 127~370VDC                                                                      |
| AC inrush current (max.)  | Cold start, 50A at 230VAC                                                                  |
| DC adjustment range       | Vo: -12%~+15% by potentiometer                                                             |
| Overload protection       | 105%~125% constant current limiting, shut off after 5 sec., re-power on to recover         |
| Over voltage protection   | 120%~145% shut down o/p voltage, re-power on to recover                                    |
| Setup, rise, hold up time | 1500ms, 60ms, 10ms at full load and 230VAC                                                 |
| Withstand voltage         | I/P-O/P:3kVAC, I/P-FG:2kVAC, O/P-F/G: 0.7kVDC                                              |
| Working temperature       | -40~+70°C (refer to output derating curve)                                                 |
| Safety standards          | UL60950-1, TUV EN60950-1 approved                                                          |
| EMC standards             | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 heavy industry level |
| Connection                | Postronic PCIM34W13M400A                                                                   |
| Dimension(LxWxH)          | 295x 127x 41mm (483.6x 350.8x 44mm for RKP-1U)                                             |
| Case No.                  | 974A (959A for RKP-1U)                                                                     |
| Packing                   | 2kg (RCP-2000, single unit); 4.18kg (RKP-1U, single empty rack)                            |

### Single unit — 2000W

| Model No.   | Output      | Tol. | R&N   | Effi. |
|-------------|-------------|------|-------|-------|
| RCP-2000-12 | 12V, 0~100A | ±2%  | 150mV | 86.0% |
| RCP-2000-24 | 24V, 0~80A  | ±1%  | 200mV | 90.5% |
| RCP-2000-48 | 48V, 0~42A  | ±1%  | 300mV | 92.0% |

### Order Information

Single Unit: RCP-2000-12 — Output voltage(12V/24V/48V)

Rack: RKP-1UI-CMU1 — CMU1: with RKP-CMU1  
 — : without RKP-CMU1  
 I : AC inlet(IEC320-C20)  
 T : Terminal block

### Control and Monitor Unit for RCP-2000



- 1U low profile
- 19-inch rack mounting
- Control and monitor up to 32 RCP-2000 units
- Front panel LCD and buttons for on-site service without PC
- Alarm/event log with time and date
- Easy wire connections on rear side
- Windows-based PC communication software
- USB, RS-232 or Ethernet interface for PC connection locally or remote monitoring and control via GSM modem
- 4 user programmable relay outputs for traditional remote or warning
- 3 years warranty

DC input voltage range ..... 12~15VDC  
 DC input current ..... 1A at 12VDC, 0.8A at 15VDC  
 Output relay contact ..... 4 user programmable relay  
 Working temperature ..... -25~+70°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved for RKP-1U□-CMU1  
 Withstand voltage ..... I/P-O/P:3kVAC, I/P-FG:2kVAC, O/P-FG:0.7kVDC for RKP-1U□-CMU1; O/P-FG:0.7kVDC for RKP-CMU1  
 Isolation resistance ..... I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500VDC for RKP-1U□-CMU1; O/P-FG:100M Ohms/500VDC for RKP-CMU1  
 EMC standards ..... EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-1 light industry level

| Model No.    | Application                                                   |
|--------------|---------------------------------------------------------------|
| RKP-CMU1     | Control and monitor RCP-2000 series (single unit of RKP-CMU1) |
| RKP-1U□-CMU1 | Control and monitor RCP-2000 series (19" rack with RKP-CMU1)  |



**MP450 (450W, 5 SLOT)**

### MP650 (650W, 5 SLOT)

**MP1K0 (1000W, 7 SLOT)**



MS-75

MS-150

MS-210

MS-300

MS-360

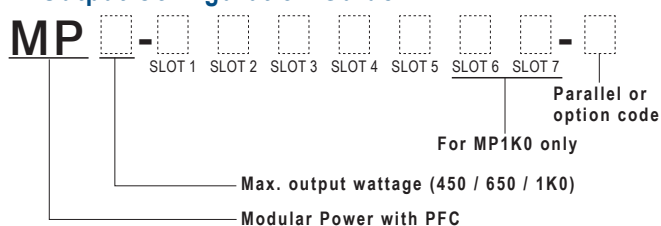
MD-100

### Description

Modular series are switching power supplies with modular design that consist of two stages: front-end PFC and output modules. With the power factor correction, the line input is rectified into high DC voltage (around 390VDC) by the front-end PFC stage, and then the DC output modules will transfer the operating voltage into all kinds of DC output voltages from 1.6V~53V. Right now we offer 75W, 150W, 210W, 300W, 360W single output modules and 100W dual output modules to fulfill all kinds of applications up to 14 isolated outputs.

There are millions of combinations available for the Modular Series. Users can configure the DC outputs and get the fastest solution for their own power requirement with safety and EMC certificates. No NRE / safety application charges and long period of waiting for certificates! Providing standard products as usual, MEAN WELL offers you a revolutionary standard power solution that fulfills your custom-made request!

## ■ Output Configuration Guide



Example:

**MP650-1A 2 E H U**

SLOT 1-O/P: 2V@35A

SLOT2,3-O/P: 12V@25A

SLOT4-O/P: 24V@6.5A

SLOT5-O/P: 24V@2.5A, 5V@8A

## ■ Features

- Millions of output configuration is available
- Universal AC input / Full range
- Built-in active PFC compliance to EN61000-3-2
- Built-in constant current limiting circuit for single output modules
- Remote control on each output module
- Remote sense on each single output module  
(MS-75 / 150 / 210 / 300 / 360)
- Short circuit / Overload / Over voltage protections for all modules
- Parallel function for MS-210 (up to 5 units), MS-300/360 (up to 3 units)
- Margining control function (MS-210 / 360)
- Cooling by built-in DC fan with fan alarm function
- Additional 12V/0.1A auxiliary output for remote control
- 3 years warranty

**■ General Specification** (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



|                                    |                                                                                                    |                           |                           |
|------------------------------------|----------------------------------------------------------------------------------------------------|---------------------------|---------------------------|
| <b>Model No.</b>                   | <b>MP450</b>                                                                                       | <b>MP650</b>              | <b>MP1K0</b>              |
| <b>AC input voltage range</b>      | 85~264VAC or 120~370VDC                                                                            |                           |                           |
| <b>Power Factor</b>                | PF >0.95 / 230VAC, PF > 0.98 / 115VAC at full load                                                 |                           |                           |
| <b>AC inrush current (max.)</b>    | Cold start, 40A at 230VAC                                                                          | Cold start, 50A at 230VAC | Cold start, 40A at 230VAC |
| <b>Max output voltage</b>          | 450W                                                                                               | 650W                      | 1000W                     |
| <b>Efficiency (typical)</b>        | 82.5%                                                                                              | 84%                       | 84%                       |
| <b>Over temperature protection</b> | Output shutdown, auto-recovery                                                                     |                           |                           |
| <b>Fan alarm</b>                   | Output shutdown when fan malfunctions                                                              |                           |                           |
| <b>Withstand voltage</b>           | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC, 1 minute                                           |                           |                           |
| <b>Working temperature</b>         | -20~+50°C@100%, +70°C @ 50% load                                                                   |                           |                           |
| <b>Safety standards</b>            | UL60950-1, TUV EN60950-1 approved                                                                  |                           |                           |
| <b>EMC standards</b>               | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN55024 light industry level, criteria A |                           |                           |
| <b>Connection</b>                  | Input side: 3P/10mm pitch terminal block & JST B3B-XH                                              |                           |                           |
| <b>Dimension (LxWxH)(mm)</b>       | 254x 127x 63.5                                                                                     | 278x 127x 63.5            | 278x 177.8x 63.5          |

## MS-75: 1-SLOT single output (75W max.)

| Item Code | Output      | ★Peak I | Vdc adj.   | Tol. | R&N.  |
|-----------|-------------|---------|------------|------|-------|
| L         | 3.3V, 0~15A | 17.3A   | 2.6~4.0V   | ±2%  | 80mV  |
| M         | 5V, 0~15A   | 17.3A   | 4.0~6.0V   | ±2%  | 80mV  |
| N         | 12V, 0~6.3A | 7.30A   | 9.0~13.2V  | ±1%  | 150mV |
| O         | 15V, 0~5.0A | 5.80A   | 13.2~16.8V | ±1%  | 150mV |
| P         | 24V, 0~3.2A | 3.70A   | 20.0~26.4V | ±1%  | 150mV |
| Q         | 48V, 0~1.6A | 1.80A   | 40.0~53.0V | ±1%  | 250mV |

## MS-150: 1-SLOT single output (150W max.)

| Item Code | Output      | ★Peak I | Vdc adj.   | Tol. | R&N.  |
|-----------|-------------|---------|------------|------|-------|
| A         | 2V, 0~25A   | 30.0A   | 1.6~2.6V   | ±3%  | 50mV  |
| B         | 3.3V, 0~25A | 30.0A   | 2.6~4.0V   | ±2%  | 80mV  |
| C         | 5V, 0~25A   | 30.0A   | 4.0~6.0V   | ±2%  | 80mV  |
| D         | 7.5V, 0~18A | 20.7A   | 6.0~9.0V   | ±2%  | 100mV |
| E         | 12V, 0~13A  | 15.0A   | 9.0~13.2V  | ±1%  | 150mV |
| F         | 15V, 0~10A  | 11.5A   | 13.2~16.8V | ±1%  | 150mV |
| G         | 18V, 0~8.5A | 9.80A   | 16.8~20.0V | ±1%  | 150mV |
| H         | 24V, 0~6.5A | 7.50A   | 20.0~26.4V | ±1%  | 150mV |
| I         | 27V, 0~5.8A | 6.70A   | 25.0~31.0V | ±1%  | 150mV |
| J         | 33V, 0~4.7A | 5.40A   | 30.0~40.0V | ±1%  | 250mV |
| K         | 48V, 0~3.2A | 3.68A   | 40.0~53.0V | ±1%  | 250mV |

## MS-210: 1-SLOT parallelable single output (210W max.)

| Item Code | Output       | ★Peak I | Vdc adj.   | Tol. | R&N.  |
|-----------|--------------|---------|------------|------|-------|
| 1A        | 2V, 0~35A    | 38.5A   | 1.6~2.6V   | ±3%  | 70mV  |
| 1B        | 3.3V, 0~35A  | 38.5A   | 2.6~4.0V   | ±2%  | 80mV  |
| 1C        | 5V, 0~35A    | 38.5A   | 4.0~6.0V   | ±2%  | 80mV  |
| 1D        | 7.5V, 0~28A  | 32.2A   | 6.0~9.0V   | ±2%  | 100mV |
| 1E        | 12V, 0~17.5A | 20.1A   | 9.0~13.2V  | ±1%  | 150mV |
| 1F        | 15V, 0~14A   | 16.1A   | 13.2~16.8V | ±1%  | 150mV |
| 1G        | 18V, 0~11.6A | 13.4A   | 16.8~20.0V | ±1%  | 150mV |
| 1H        | 24V, 0~8.75A | 10.1A   | 20.0~26.4V | ±1%  | 150mV |
| 1I        | 27V, 0~7.8A  | 9.00A   | 25.0~31.0V | ±1%  | 150mV |
| 1J        | 33V, 0~6.4A  | 7.40A   | 30.0~40.0V | ±1%  | 250mV |
| 1K        | 48V, 0~4.4A  | 5.10A   | 40.0~53.0V | ±1%  | 250mV |

## MS-300: 2-SLOT parallelable single output (300W max.)

| Item Code | Output       | ★Peak I | Vdc adj.   | Tol. | R&N.  |
|-----------|--------------|---------|------------|------|-------|
| 2A        | 2V, 0~50A    | 57.5A   | 1.6~2.6V   | ±3%  | 80mV  |
| 2B        | 3.3V, 0~50A  | 57.5A   | 2.6~4.0V   | ±2%  | 80mV  |
| 2C        | 5V, 0~50A    | 57.5A   | 4.0~6.0V   | ±2%  | 80mV  |
| 2D        | 7.5V, 0~40A  | 46.0A   | 6.0~9.0V   | ±2%  | 100mV |
| 2E        | 12V, 0~25A   | 29.0A   | 9.0~13.2V  | ±1%  | 150mV |
| 2F        | 15V, 0~20A   | 23.0A   | 13.2~16.8V | ±1%  | 150mV |
| 2G        | 18V, 0~16.7A | 19.2A   | 16.8~20.0V | ±1%  | 150mV |
| 2H        | 24V, 0~12.5A | 14.4A   | 20.0~26.4V | ±1%  | 150mV |
| 2I        | 27V, 0~11.2A | 12.9A   | 25.0~31.0V | ±1%  | 200mV |
| 2J        | 33V, 0~9.1A  | 10.5A   | 30.0~40.0V | ±1%  | 250mV |
| 2K        | 48V, 0~6.3A  | 7.2A    | 40.0~53.0V | ±1%  | 300mV |

## MS-360: 2-SLOT parallelable single output (360W max.)

| Item Code | Output       | ★Peak I | Vdc adj.   | Tol. | R&N.  |
|-----------|--------------|---------|------------|------|-------|
| 3A        | 2V, 0~60A    | 69.0A   | 1.6~2.6V   | ±3%  | 80mV  |
| 3B        | 3.3V, 0~60A  | 69.0A   | 2.6~4.0V   | ±2%  | 100mV |
| 3C        | 5V, 0~60A    | 69.0A   | 4.0~6.0V   | ±2%  | 100mV |
| 3D        | 7.5V, 0~48A  | 55.2A   | 6.0~9.0V   | ±2%  | 100mV |
| 3E        | 12V, 0~30A   | 34.5A   | 9.0~13.2V  | ±1%  | 150mV |
| 3F        | 15V, 0~24A   | 27.6A   | 13.2~16.8V | ±1%  | 150mV |
| 3G        | 18V, 0~20A   | 23.0A   | 16.8~20.0V | ±1%  | 150mV |
| 3H        | 24V, 0~15A   | 17.3A   | 20.0~26.4V | ±1%  | 150mV |
| 3I        | 27V, 0~13.4A | 15.5A   | 25.0~31.0V | ±1%  | 200mV |
| 3J        | 33V, 0~11A   | 12.7A   | 30.0~40.0V | ±1%  | 250mV |
| 3K        | 48V, 0~7.5A  | 8.7A    | 40.0~53.0V | ±1%  | 300mV |

## MD-100: 1-SLOT isolated dual output (100W max.)

| Item Code | Output        | Vdc adj.   | Tol. | R&N.  | Max.   |
|-----------|---------------|------------|------|-------|--------|
| R         | 5V, 2.0~10A   | 4.75~5.5V  | ±3%  | 100mV | 90.0W  |
|           | 5V, 0.0~8.0A  | 4.75~5.5V  | ±3%  | 100mV |        |
| S         | 5V, 2.0~10A   | 4.75~5.5V  | ±3%  | 100mV | 100.4W |
|           | 12V, 0.0~5.8A | 11.4~13.2V | ±3%  | 150mV |        |
| T         | 5V, 2.0~10A   | 4.75~5.5V  | ±3%  | 100mV | 101.0W |
|           | 15V, 0.0~4.7A | 14.2~16.5V | ±3%  | 150mV |        |
| U         | 24V, 0.5~3.0A | 22.8~26.4V | ±3%  | 200mV | 100.0W |
|           | 5V, 0.0~10A   | 4.75~5.5V  | ±3%  | 100mV |        |
| V         | 24V, 0.6~3.0A | 22.8~26.4V | ±2%  | 240mV | 100.8W |
|           | 12V, 0.0~4.7A | 11.4~13.2V | ±3%  | 120mV |        |
| W         | 12V, 1.0~5.0A | 11.4~13.2V | ±2%  | 120mV | 100.8W |
|           | 12V, 0.0~5.8A | 11.4~13.2V | ±3%  | 120mV |        |
| X         | 15V, 1.0~4.7A | 14.2~16.5V | ±2%  | 150mV | 100.5W |
|           | 15V, 0.0~4.7A | 14.2~16.5V | ±3%  | 150mV |        |

### Parallel Connection Accessory

|                                  |  |
|----------------------------------|--|
| FAP-001<br>(For MS-300, 2 units) |  |
| FAP-002<br>(For MS-300, 3 units) |  |
| FAP-003<br>(For MS-210, 2 units) |  |
| FAP-004<br>(For MS-210, 3 units) |  |
| FAP-005<br>(For MS-210, 4 units) |  |
| FAP-006<br>(For MS-210, 5 units) |  |
| FAP-007<br>(For MS-360, 2 units) |  |
| FAP-008<br>(For MS-360, 3 units) |  |

### Series Connection Accessory

|                                                       |  |
|-------------------------------------------------------|--|
| FAS-001<br>(For 1-slot modules:<br>MS-75/150, MD-100) |  |
| FAS-002<br>(For 2-slot modules:<br>MS-300)            |  |
| FAS-003<br>(For 1-slot modules:<br>MS-210)            |  |
| FAS-004<br>(For 2-slot modules:<br>MS-360)            |  |

★Peak I: 35% duty cycle maximum within every 10 seconds. Average output power should not exceed the rated power.

★Please use MP450-CNPOQ, MP650-1A2EHU, MP1K0-2C2CEKL-1.....etc. as the order code. For more detail information about technical issues, please refer to the user manual.

★Please refer to the user manual for more detail information about parallel connection and the parallel codes. About series connection, please contact us or your local MEAN WELL distributor for more details.



## 350W Single Output

UL US CQC CB  
(except for 12V)



220.4x 130x 48 mm

- AC input 180~264VAC only
- Withstand 300VAC surge input for 5 sec
- **Semi-potted and design against rain splash**
- High efficiency up to 90%
- Protections:  
Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- LED indicator for power on
- **Suitable for channel letter applications**
- 3 years warranty

AC input voltage range ..... 180~264VAC; 254~370VDC  
AC inrush current ..... Cold start, 90A at 230VAC  
DC adjustment range .....  $\pm 10\%$  rated output voltage  
Overload protection ..... 110%~160% hiccup mode, auto-recovery  
Over voltage protection ..... 12V: 13.8~16.2V; 24V: 27.6~32.4V; 36V: 41.4~46.8V;  
48V: 57.6~67.2V hiccup mode, auto-recovery  
Setup, rise, hold up time ..... 1500ms, 200ms, 20ms at full load and 230VAC  
Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC  
Working temperature ..... -30~+60°C (refer to output derating curve)  
Safety standards ..... UL60950-1, CQC GB4943.1 approved

| Model No.  | Output       | Tol.      | R&N   | Effi. |
|------------|--------------|-----------|-------|-------|
| ERP-350-12 | 12V, 0~26.7A | $\pm 1\%$ | 150mV | 87%   |
| ERP-350-24 | 24V, 0~14.6A | $\pm 1\%$ | 150mV | 89%   |
| ERP-350-36 | 36V, 0~9.7A  | $\pm 1\%$ | 240mV | 90%   |
| ERP-350-48 | 48V, 0~7.3A  | $\pm 1\%$ | 240mV | 90%   |

## 200W & 300W Single Output

- 115VAC or 230VAC AC input
- Cooling by conduction
- 1U low profile: 31mm
- **Conformal coating**
- Protections:  
Short circuit / Overload / Over voltage / Over temperature
- LED indicator for power on
- 2 years warranty

UL US



HSN-200  
210x 62x 31 mm

HSN-300  
210x 81x 31 mm

AC input voltage range ..... 90~132VAC(A-Type); 180~264VAC(B-Type)  
AC inrush current ..... Cold start, 80A(HSN-200); 90A(HSN-300) at 230VAC  
DC adjustment range ..... 4.2V: 3.6~4.4V; 5V: 4.5~5.5V  
Overload protection ..... 105%~185% hiccup mode, auto-recovery  
Over voltage protection ..... 4.2V: 4.6~5.4V, 5V: 5.7~7.0V for HSN-200;  
4.2V: 4.7~5.7V, 5V: 5.7~7.0V for HSN-300  
Setup, rise, hold up time ..... 1500ms, 100ms, 20ms at 230VAC and full load (HSN-200)  
2500ms, 100ms, 10ms at 230VAC and full load (HSN-300)  
Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC  
Working temperature ..... -25~+70°C (HSN-200); -20~+70°C (HSN-300)  
Safety standards ..... UL60950-1 approved

### ✦ HSN-200 Series

| Model No.    | Output      | Tol.      | R&N   | Effi. |
|--------------|-------------|-----------|-------|-------|
| HSN-200-4.2A | 4.2V, 0~30A | $\pm 2\%$ | 150mV | 86.5% |
| HSN-200-4.2B | 4.2V, 0~40A | $\pm 2\%$ | 150mV | 88%   |
| HSN-200-5A   | 5V, 0~30A   | $\pm 2\%$ | 150mV | 86.5% |
| HSN-200-5B   | 5V, 0~40A   | $\pm 2\%$ | 150mV | 88%   |

### ✦ HSN-300 Series

| Model No.    | Output      | Tol.      | R&N   | Effi. |
|--------------|-------------|-----------|-------|-------|
| HSN-300-4.2A | 4.2V, 0~50A | $\pm 3\%$ | 150mV | 85%   |
| HSN-300-4.2B | 4.2V, 0~60A | $\pm 3\%$ | 150mV | 85%   |
| HSN-300-5A   | 5V, 0~50A   | $\pm 3\%$ | 150mV | 86%   |
| HSN-300-5B   | 5V, 0~60A   | $\pm 3\%$ | 150mV | 86%   |

## 200W Single Output

UL US



215x 115x 30 mm

- AC input 180~264VAC only
- Withstand 300VAC surge input for 5 sec
- **Conformal coating**
- High efficiency up to 87% (NEL-200)
- Protections:  
Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- 1U low profile: 30mm
- LED indicator for power on
- **Suitable for moving sign applications**
- 2 years warranty

AC input voltage range ..... 180~264VAC; 254~370VDC  
AC inrush current ..... Cold start, 70A at 230VAC  
DC adjustment range ..... 2.8V: 2.5~3V; 4.2V: 3.6~4.4V; 5V: 4.5~5.5V  
Overload protection ..... 105%~140% hiccup mode, auto-recovery  
Over voltage protection ..... 2.8V: 3.22~3.78V; 4.2V: 4.6~5.4V; 5V: 5.6~7V  
hiccup mode, auto-recovery  
Setup, rise, hold up time ..... 2500ms, 50ms, 20ms at full load and 230VAC  
Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC  
Working temperature ..... -20~+60°C (refer to output derating curve)  
Safety standards ..... UL60950-1 approved

| Model No.   | Output      | Tol.       | R&N   | Effi. |
|-------------|-------------|------------|-------|-------|
| NEL-200-2.8 | 2.8V, 0~40A | +3%, -4.5% | 150mV | 85%   |
| NEL-200-4.2 | 4.2V, 0~40A | +3%, -4.5% | 150mV | 87%   |
| NEL-200-5   | 5V, 0~40A   | $\pm 3\%$  | 150mV | 87%   |

## 300W & 400W Single Output

- AC input 180~264VAC only
- Withstand 300VAC surge input for 5 seconds
- **Conformal coating**
- High efficiency up to 86% (NEL-300)  
High efficiency up to 84% (NEL-400)
- 1U low profile: 30mm
- Protections:  
Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- LED indicator for power on
- **Suitable for moving sign applications**
- 2 years warranty

UL US



NEL-300  
215x 115x 30 mm

NEL-400  
215x 115x 30 mm

AC input voltage range ..... 180~264VAC; 254~370VDC  
AC inrush current ..... Cold start, 70A at 230VAC  
DC adjustment range ..... 2.8V: 2.5~3V; 4.2V: 3.6~4.4V; 5V: 4.5~5.5V  
Overload protection ..... 105%~140% hiccup mode, auto-recovery  
Over voltage protection ..... 2.8V: 3.22~3.78V; 4.2V: 4.6~5.4V; 5V: 5.6~7V  
hiccup mode, auto-recovery  
Setup, rise, hold up time ..... 2500ms, 50ms, 20ms at full load and 230VAC  
Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC  
Working temperature ..... -20~+60°C (refer to output derating curve)  
Safety standards ..... UL60950-1 approved

### ✦ NEL-300 Series

| Model No.   | Output      | Tol.       | R&N   | Effi. |
|-------------|-------------|------------|-------|-------|
| NEL-300-2.8 | 2.8V, 0~60A | +3%, -4.5% | 150mV | 81%   |
| NEL-300-4.2 | 4.2V, 0~60A | +3%, -4.5% | 150mV | 85%   |
| NEL-300-5   | 5V, 0~60A   | $\pm 3\%$  | 150mV | 86%   |

### ✦ NEL-400 Series

| Model No.   | Output      | Tol.       | R&N   | Effi. |
|-------------|-------------|------------|-------|-------|
| NEL-400-2.8 | 2.8V, 0~80A | +3%, -4.5% | 150mV | 79%   |
| NEL-400-4.2 | 4.2V, 0~80A | +3%, -4.5% | 150mV | 83%   |
| NEL-400-5   | 5V, 0~80A   | $\pm 3\%$  | 150mV | 84%   |

## 150W & 200W Single Output with PFC Function

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds (HSP-150)
- Built-in active PFC function
- **Conformal coating**
- **High efficiency up to 90%**
- Protections:
  - Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection for 150W and 200W with 30CFM forced air(HSP-150); cooling by conduction(HSP-200)
- 1U low profile
- Built-in remote sense(HSP-150)
- LED indicator for power on
- **Suitable for moving sign applications**
- 3 years warranty



|                           |                                                                                                                |
|---------------------------|----------------------------------------------------------------------------------------------------------------|
| AC input voltage range    | 90~264VAC; 127~370VDC                                                                                          |
| AC inrush current         | Cold start, 70A at 230VAC                                                                                      |
| DC adjustment range       | 2.5V: 2.35~2.75V, 3.8V: 3.4~4.2V, 5V: 4.5~5V (HSP-150);<br>4.2V: 3.6~4.4V, 5V: 4.5~5.5V (HSP-200)              |
| Overload protection       | 110%~180% hiccup mode, auto-recovery                                                                           |
| Over voltage protection   | 2.5V: 3.2~3.7V, 3.8V: 4.7~5.7V, 5V: 5.7~7V (HSP-150);<br>4.2V: 4.6~5.4V, 5V: 5.6~7V (HSP-200)                  |
| Setup, rise, hold up time | 2000ms, 100ms, 16ms at full load and 230VAC (HSP-150)<br>2000ms, 200ms, 16ms at full load and 230VAC (HSP-200) |
| Withstand voltage         | I/P - O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                               |
| Working temperature       | -30~+70°C (refer to output derating curve)                                                                     |
| Safety standards          | UL60950-1, TUV EN60950-1, CCC GB4943(HSP-200 only) approved                                                    |
| EMC standards             | EN55022, GB9254(HSP-200 only), class B, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11                                  |

### ◆ HSP-150 Series

| Model No.   | Output(Rated/Peak) | Tol. | R&N   | Effi. |
|-------------|--------------------|------|-------|-------|
| HSP-150-2.5 | 2.5V, 0~30A / 40A  | ±2%  | 80mV  | 86%   |
| HSP-150-3.8 | 3.8V, 0~30A / 40A  | ±2%  | 100mV | 88%   |
| HSP-150-5   | 5V, 0~30A / 40A    | ±2%  | 100mV | 90%   |

### ◆ HSP-200 Series

| Model No.   | Output      | Tol. | R&N   | Effi. |
|-------------|-------------|------|-------|-------|
| HSP-200-4.2 | 4.2V, 0~40A | ±2%  | 150mV | 88.0% |
| HSP-200-5   | 5V, 0~40A   | ±2%  | 150mV | 88.5% |

## 250W Single Output with PFC Function



|                           |                                                                                                     |
|---------------------------|-----------------------------------------------------------------------------------------------------|
| AC input voltage range    | 85~264VAC; 120~370VDC                                                                               |
| DC adjustment range       | 2.5V: 2.3~2.8V; 3.6V: 3.24~3.96V; 5V: 4.5~5.5V                                                      |
| AC inrush current         | Cold start, 70A at 230VAC                                                                           |
| Overload protection       | 105%~135% hiccup mode, auto-recovery                                                                |
| Over voltage protection   | 2.5V: 2.88~3.38V; 3.6V: 4.14~4.86V; 5V: 5.75~6.75V<br>shut down O/P voltage, re-power on to recover |
| Setup, rise, hold up time | 3000ms, 50ms, 16ms at full load and 230VAC                                                          |
| Withstand voltage         | I/P - O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                    |
| Working temperature       | -40~+70°C (refer to output derating curve)                                                          |
| Safety standards          | UL60950-1, TUV EN60950-1 approved                                                                   |
| EMC standards             | EN55022 class B, EN61000-3-2,3, EN55024, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2                      |

| Model No.   | Output      | Tol. | R&N   | Effi. |
|-------------|-------------|------|-------|-------|
| HSP-250-2.5 | 2.5V, 0~50A | ±2%  | 100mV | 79%   |
| HSP-250-3.6 | 3.6V, 0~50A | ±2%  | 100mV | 83%   |
| HSP-250-5   | 5V, 0~50A   | ±2%  | 100mV | 87%   |

## 300W Single Output with PFC Function



- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Built-in active PFC function
- **Conformal coating**
- **High efficiency up to 87%**
- Protections:
  - Short circuit / Overload / Over voltage / Over temperature
- Cooling by conduction
- 1U low profile: 31mm
- LED indicator for power on
- **Suitable for moving sign applications**
- 3 years warranty

|                           |                                                                                                 |
|---------------------------|-------------------------------------------------------------------------------------------------|
| AC input voltage range    | 180~264VAC; 254~370VDC or 90~135VAC; 127~190VDC                                                 |
| DC adjustment range       | 2.8V: 2.5~3V; 4.2V: 3.6~4.4V; 5V: 4.5~5.5V                                                      |
| AC inrush current         | Cold start, 60A at 230VAC                                                                       |
| Overload protection       | 105%~150% hiccup mode, auto-recovery                                                            |
| Over voltage protection   | 2.8V: 3.22~3.78V; 4.2V: 4.6~5.4V; 5V: 5.7~7.0V<br>shut down O/P voltage, re-power on to recover |
| Setup, rise, hold up time | 2000ms, 100ms, 8ms at full load and 230VAC                                                      |
| Withstand voltage         | I/P - O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                |
| Working temperature       | -30~+70°C (refer to output derating curve)                                                      |
| Safety standards          | UL60950-1, TUV EN60950-1, CCC GB4943 approved                                                   |
| EMC standards             | EN55022, GB9254, class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11                               |

| Model No.   | Output      | Tol. | R&N   | Effi. |
|-------------|-------------|------|-------|-------|
| HSP-300-2.8 | 2.8V, 0~60A | ±2%  | 110mV | 80%   |
| HSP-300-4.2 | 4.2V, 0~60A | ±2%  | 150mV | 85%   |
| HSP-300-5   | 5V, 0~60A   | ±2%  | 150mV | 87%   |

## 190W & 240W Dual Output with PFC Function



- Universal AC input / Full range
- Built-in active PFC function
- **Conformal coating**
- **High efficiency up to 86%**
- Protections:
  - Short circuit / Overload / Over voltage / Over temperature
- Fanless design (HDP-190); Forced air cooling by built-in DC fan (HDP-240)
- 1U low profile: 36mm
- **Suitable for moving sign applications**
- 3 years warranty

|                           |                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------|
| AC input voltage range    | 90~264VAC, 127~370VDC                                                               |
| DC adjustment range       | V1: 3.6~4V; V2: 2.5~3V                                                              |
| AC inrush current         | Cold start, 45A at 230VAC                                                           |
| Overload protection       | V1+V2: 105%~150%, V2: 125%~170% hiccup mode, auto-recovery                          |
| Over voltage protection   | V1: 4.37~5.13V, V2: 3.22~3.78V<br>shut down O/P voltage, re-power on to recover     |
| Setup, rise, hold up time | 1000ms, 50ms, 16ms at full load and 230VAC                                          |
| Withstand voltage         | I/P - O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                    |
| Working temperature       | -30~+70°C (refer to output derating curve)                                          |
| Safety standards          | UL60950-1, TUV EN60950-1, CCC GB4943 approved                                       |
| EMC standards             | EN55022, GB9254, class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2      |
| Packing                   | 0.95kg; 15pcs / 15.3kg / 0.7CUFT (HDP-190)<br>1kg; 15pcs / 16kg / 0.7CUFT (HDP-240) |

### ◆ HDP-190 Series

| Model No. | Output                     | Tol.       | R&N            | Effi. | Max. |
|-----------|----------------------------|------------|----------------|-------|------|
| HDP-190   | 3.8V, 0~40A<br>2.8V, 0~22A | ±2%<br>±2% | 100mV<br>100mV | 86%   | 192W |

### ◆ HDP-240 Series

| Model No. | Output                       | Tol.       | R&N            | Effi. | Max. |
|-----------|------------------------------|------------|----------------|-------|------|
| HDP-240   | 3.8V, 0~50A<br>2.8V, 0~27.5A | ±2%<br>±2% | 100mV<br>100mV | 84%   | 241W |



### Features

- Universal AC input 90~305VAC
- Built-in active PFC function
- High efficiency up to 94%
- Fanless design, cooling by free air convection
- -55~+70°C wide operating range
- Meet 6kV surge immunity level
- Withstand 10G vibration test
- Operating altitude up to 5000 meters
- Protections:
  - Short circuit / Overload / Over voltage / Over temperature
- Multiple models for choice:
  - A-Type: **IP65 rated**, Vo and Io can be adjusted through internal potentiometer
  - Blank-Type(option): **IP68 rated**, Vo and Io fixed
- Suitable for general industrial applications at high/low temperature, high dust, high moisture, high vibration, high salt or outdoor environment
- 6 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                 | HEP-100                                                                                                                          | HEP-150                       | HEP-185                                                                                                               |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| AC input voltage range    | 90~305VAC, 127~431VDC                                                                                                            |                               |                                                                                                                       |
| AC inrush current (max.)  | Cold start, 60A at 230VAC                                                                                                        |                               | Cold start, 65A at 230VAC                                                                                             |
| DC adjustment range       | Vo: -10%~+10% by potentiometer (A-Type only)<br>Io: to 60%~100% of rated output current adjustment by potentiometer(A-Type only) |                               | Vo: -10%~+10% by potentiometer (A-Type only)<br>Io: to 50%~100% of rated output current by potentiometer(A-Type only) |
| Overload protection       | 105%~125% constant current limiting, auto-recovery                                                                               |                               |                                                                                                                       |
| Over voltage protection   | 108%~135% rated output voltage                                                                                                   |                               |                                                                                                                       |
| Setup, rise, hold up time | 500ms, 50ms, 16ms at full load and 230VAC                                                                                        |                               |                                                                                                                       |
| Withstand voltage         | I/P-O/P: 3.75kVAC, I/P-FG: 2kVAC, O/P-FG: 1.5kVAC                                                                                |                               |                                                                                                                       |
| Working temperature       | -55~+70°C (refer to output derating curve)                                                                                       |                               |                                                                                                                       |
| Safety standards          | UL60950-1 approved ; Design refer to TUV EN60950-1                                                                               |                               |                                                                                                                       |
| EMC standards             | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11                                                                         |                               |                                                                                                                       |
| Connection                | Input                                                                                                                            | UL rated, SJTW 18AWGx3C(30cm) |                                                                                                                       |
|                           | Output                                                                                                                           | SJTW 14AWGx2C(30cm)           |                                                                                                                       |
| Dimension (LxWxH)(mm)     | 220x 68x 38.8                                                                                                                    |                               | 228x 68x 38.8                                                                                                         |

### 100W HEP-100

| Model No.   | Output       | Tol.  | R&N   | Effi. |
|-------------|--------------|-------|-------|-------|
| HEP-100-12A | 12V, 0~8.34A | ±1.0% | 120mV | 92%   |
| HEP-100-15A | 15V, 0~6.67A | ±1.0% | 150mV | 92%   |
| HEP-100-24A | 24V, 0~4.00A | ±1.0% | 150mV | 93%   |
| HEP-100-36A | 36V, 0~2.65A | ±1.0% | 200mV | 93%   |
| HEP-100-48A | 48V, 0~2.00A | ±1.0% | 200mV | 93%   |
| HEP-100-54A | 54V, 0~1.77A | ±1.0% | 200mV | 93%   |

□ = A or Blank, A: standard model(IP65), Blank: optional model(IP68)

### 185W HEP-185

| Model No.   | Output       | Tol.  | R&N   | Effi. |
|-------------|--------------|-------|-------|-------|
| HEP-185-12A | 12V, 0~13.0A | ±2.5% | 150mV | 91.5% |
| HEP-185-15A | 15V, 0~11.5A | ±2.0% | 150mV | 92.0% |
| HEP-185-24A | 24V, 0~7.80A | ±1.0% | 150mV | 93.5% |
| HEP-185-36A | 36V, 0~5.20A | ±1.0% | 200mV | 93.5% |
| HEP-185-48A | 48V, 0~3.90A | ±1.0% | 200mV | 94.0% |
| HEP-185-54A | 54V, 0~3.45A | ±1.0% | 200mV | 94.0% |

□ = A or Blank, A: standard model(IP65), Blank: optional model(IP68)

### 150W HEP-150

| Model No.   | Output       | Tol.  | R&N   | Effi. |
|-------------|--------------|-------|-------|-------|
| HEP-150-12A | 12V, 0~12.5A | ±2.5% | 150mV | 91.5% |
| HEP-150-15A | 15V, 0~10.0A | ±2.0% | 150mV | 92.0% |
| HEP-150-24A | 24V, 0~6.30A | ±1.0% | 150mV | 93.0% |
| HEP-150-36A | 36V, 0~4.20A | ±1.0% | 200mV | 93.5% |
| HEP-150-48A | 48V, 0~3.20A | ±1.0% | 200mV | 94.0% |
| HEP-150-54A | 54V, 0~2.80A | ±1.0% | 200mV | 94.0% |

□ = A or Blank, A: standard model(IP65), Blank: optional model(IP68)



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### Features

- Universal AC input 90~305VAC
- Built-in active PFC function
- No load power consumption <0.5W at remote OFF(HEP-600)
- High efficiency up to 96%
- Fanless design, cooling by free air convection
- -55~+70°C wide operating range (HEP-240/320);  
-40~+70°C wide operating range (HEP-600)
- Meet 6kV surge immunity level (HEP-240/320)
- Withstand 10G vibration test
- Operating altitude up to 5000 meters
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Multiple models for choice (HEP-240/320):  
A-Type: **IP65 rated**, Vo and Io can be adjusted through internal potentiometer  
Blank-Type(option): **IP68 rated**, Vo and Io fixed
- Suitable for general industrial applications at high/low temperature, high dust, high moisture, high vibration, high salt or outdoor environment
- 6 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                 | HEP-240                                                                                                                | HEP-320                        | HEP-600                                                                                   |
|---------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------------|
| AC input voltage range    | 90~305VAC; 127~431VDC                                                                                                  |                                |                                                                                           |
| AC inrush current (max.)  | Cold start, 75A at 230VAC                                                                                              |                                | Cold start, 70A at 230VAC                                                                 |
| DC adjustment range       | Vo: -10%~+10% by potentiometer (A-Type only)<br>Io: to 50%~100% of rated output current by potentiometer (A-Type only) |                                | Vo: -15%~+5% by potentiometer<br>Io: to 50%~100% of rated output current by potentiometer |
| Overload protection       | 105%~125% hiccup mode, auto-recovery                                                                                   |                                | 105%~125% constant current limiting, auto-recovery                                        |
| Over voltage protection   | 108%~135% rated output voltage                                                                                         |                                |                                                                                           |
| Setup, rise, hold up time | 500ms, 80ms, 15ms at full load and 230VAC                                                                              |                                |                                                                                           |
| Withstand voltage         | I/P-O/P: 3.75kVAC, I/P-FG: 2kVAC, O/P-FG: 1.5kVAC                                                                      |                                |                                                                                           |
| Working temperature       | -55~+70°C (refer to output derating curve)                                                                             |                                | -40~+70°C(refer to output derating curve)                                                 |
| Safety standards          | UL60950-1 approved ; Design refer to TUV EN60950-1                                                                     |                                | UL60950-1, TUV EN60950-1 approved                                                         |
| EMC standards             | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11                                                               |                                |                                                                                           |
| Connection                | Input                                                                                                                  | UL rated, SJTW 18AWGx3C (30cm) |                                                                                           |
|                           | Output                                                                                                                 | SJTW 14AWGx2C (30cm)           |                                                                                           |
| Dimension (LxWxH)(mm)     | 244.2x 68x 38.8                                                                                                        | 252x 90x 43.8                  | 280x 144x 48.5                                                                            |

### HEP-240 Series



| Model No.     | Output       | Tol.  | R&N   | Effi. |
|---------------|--------------|-------|-------|-------|
| HEP-240-12(A) | 12V, 0~16.0A | ±2.5% | 150mV | 90.0% |
| HEP-240-15(A) | 15V, 0~15.0A | ±2.0% | 150mV | 90.0% |
| HEP-240-24(A) | 24V, 0~10.0A | ±1.0% | 150mV | 92.5% |
| HEP-240-36(A) | 36V, 0~6.70A | ±1.0% | 250mV | 92.5% |
| HEP-240-48(A) | 48V, 0~5.00A | ±1.0% | 250mV | 93.0% |
| HEP-240-54(A) | 54V, 0~4.45A | ±1.0% | 350mV | 93.5% |

□ = A or Blank, A: standard model(IP65), Blank: optional model(IP68)

### HEP-320 Series



| Model No.     | Output        | Tol.  | R&N   | Effi. |
|---------------|---------------|-------|-------|-------|
| HEP-320-12(A) | 12V, 0~22.0A  | ±3.0% | 150mV | 91.0% |
| HEP-320-15(A) | 15V, 0~19.0A  | ±2.0% | 150mV | 92.5% |
| HEP-320-24(A) | 24V, 0~13.34A | ±1.0% | 150mV | 94.0% |
| HEP-320-36(A) | 36V, 0~8.90A  | ±1.0% | 250mV | 94.0% |
| HEP-320-48(A) | 48V, 0~6.70A  | ±1.0% | 250mV | 94.5% |
| HEP-320-54(A) | 54V, 0~5.95A  | ±1.0% | 350mV | 94.5% |

□ = A or Blank, A: standard model(IP65), Blank: optional model(IP68)

### HEP-600 Series



| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| HEP-600-12 | 12V, 0~40A   | ±3.0% | 150mV | 93.0% |
| HEP-600-15 | 15V, 0~36A   | ±2.0% | 150mV | 94.0% |
| HEP-600-20 | 20V, 0~28A   | ±1.5% | 150mV | 95.0% |
| HEP-600-24 | 24V, 0~25A   | ±1.0% | 150mV | 95.0% |
| HEP-600-30 | 30V, 0~20A   | ±1.0% | 200mV | 95.5% |
| HEP-600-36 | 36V, 0~16.7A | ±1.0% | 250mV | 95.5% |
| HEP-600-42 | 42V, 0~14.3A | ±1.0% | 250mV | 96.0% |
| HEP-600-48 | 48V, 0~12.5A | ±1.0% | 250mV | 96.0% |
| HEP-600-54 | 54V, 0~11.2A | ±1.0% | 350mV | 96.0% |



To satisfy customers is our goal —

- High Quality
- Low Cost
- Prompt Delivery
- Best Service





### Features

- Single output with battery charger (UPS function)
- Universal AC input / Full range
- Can be installed on DIN rail TS-35/7.5 or 15
- Protections: Short circuit / Overload / Over voltage / Battery low protection / Battery reverse polarity protection by fuse
- Alarm signal for AC OK and battery low
- Cooling by free air convection
- Pass LPS (DRC-40/60)
- LED indicator for power on
- 100% full load burn-in test
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                       | DRC-40                                                   | DRC-60 | DRC-100                                    |
|---------------------------------|----------------------------------------------------------|--------|--------------------------------------------|
| AC input voltage range          | 90~264VAC; 127~370VDC                                    |        |                                            |
| AC inrush current (max.)        | Cold start, 30A at 115VAC, 60A at 230VAC                 |        |                                            |
| DC adjustment range             | CH1, 13.8V: 12~15V; 27.6V: 24~30V                        |        |                                            |
| Overload protection             | 105%~150% hiccup mode, auto-recovery                     |        |                                            |
| Over voltage protection         | 105%~135% rated output voltage                           |        |                                            |
| Setup, rise, hold up time       | 400ms, 50ms, 50ms at full load and 230VAC                |        | 2400ms, 50ms, 50ms at full load and 230VAC |
| Withstand voltage               | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC           |        |                                            |
| Working temperature             | -30~+70°C (refer to output derating curve)               |        |                                            |
| Safety standards                | UL60950-1, TUV EN60950-1 approved                        |        |                                            |
| EMC standards                   | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 |        |                                            |
| Connection (screw DIN terminal) | I/P: 3 poles, O/P: 8 poles                               |        | I/P: 3 poles, O/P: 10 poles                |
| Case No.                        | 962A                                                     |        | 973A                                       |
| Dimension (LxWxH)(mm)           | 40x 90x 100                                              |        | 55x 90x 100                                |

### 40W DRC-40

| Model No. | Output                  | Tol. | R&N   | Effi. | Max. |
|-----------|-------------------------|------|-------|-------|------|
| DRC-40A   | 13.8V, 0~2.9A           | ±1%  | 120mV | 86%   | 40W  |
|           | 13.8V, 0~1.0A (Charger) |      |       |       |      |
| DRC-40B   | 27.6V, 0~1.45A          | ±1%  | 200mV | 87%   | 40W  |
|           | 27.6V, 0~0.5A (Charger) |      |       |       |      |

### 60W DRC-60

| Model No. | Output                   | Tol. | R&N   | Effi. | Max. |
|-----------|--------------------------|------|-------|-------|------|
| DRC-60A   | 13.8V, 0~4.3A            | ±1%  | 120mV | 86%   | 59W  |
|           | 13.8V, 0~1.5A (Charger)  |      |       |       |      |
| DRC-60B   | 27.6V, 0~2.15A           | ±1%  | 200mV | 88%   | 59W  |
|           | 27.6V, 0~0.75A (Charger) |      |       |       |      |

### 100W NEW DRC-100

| Model No. | Output                   | Tol. | R&N   | Effi. | Max. |
|-----------|--------------------------|------|-------|-------|------|
| DRC-100A  | 13.8V, 0~7A              | ±1%  | 120mV | 87%   | 97W  |
|           | 13.8V, 0~2.5A (Charger)  |      |       |       |      |
| DRC-100B  | 27.6V, 0~3.5A            | ±1%  | 240mV | 89%   | 97W  |
|           | 27.6V, 0~1.25A (Charger) |      |       |       |      |



#### Customer Satisfaction —

Today's effort, tomorrow's reward. Continuously improve CQTS to satisfy customer is our goal.



#### Products —

- One Stop Shopping
- Total Solution



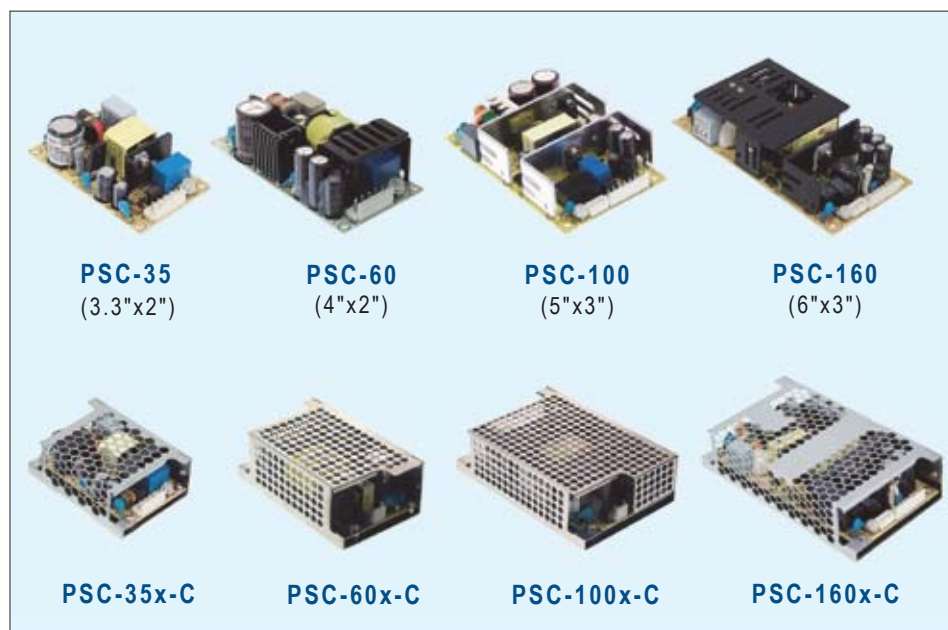
#### Best products also need best services.

We have authorized distributors all over the world. They have sufficient stock for your prompt delivery. Also they can offer you technical support & RMA services. Please contact your local distributors for more product information. You can also contact us at [info@meanwell.com](mailto:info@meanwell.com) for information of your local distributors.



#### 48hrs delivery—

We keep enough stock for 95% of standard models at our 2400m<sup>2</sup> warehouse. We can arrange prompt delivery within 48hrs.



### Features

- Single output with battery charger (UPS function)
- Universal AC input / Full range
- PCB and enclosed type with metal case available
- Compact size
- Built-in active PFC function (PSC-160)
- Protections:
  - Short circuit / Overload / Over voltage
- Battery low protection / Battery reverse polarity protection by fuse
- Alarm signal for AC OK and battery low
- Cooling by free air convection
- 100% full load, burn-in test
- 2 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |               | PSC-35 <input type="checkbox"/>                          | PSC-60 <input type="checkbox"/>            | PSC-100 <input type="checkbox"/>                           | PSC-160 <input type="checkbox"/>       |
|--------------------------|---------------|----------------------------------------------------------|--------------------------------------------|------------------------------------------------------------|----------------------------------------|
| AC input voltage range   |               | 90~264VAC; 127~370VDC                                    |                                            |                                                            |                                        |
| AC inrush current (max.) |               | Cold start, 40A at 230VAC                                | 60A at 230VAC                              | 70A at 230VAC                                              |                                        |
| DC adjustment range      |               | CH1, 13.8V: 12~15V; 27.6V: 24~29V                        |                                            |                                                            |                                        |
| Overload protection      |               | 105%~150% hiccup mode, auto-recovery                     |                                            |                                                            |                                        |
| Over voltage protection  |               | CH1, 105%~135%, shut off, re-power on to recover         | CH1, 105%~135%, hiccup mode, auto recovery | CH1, 105%~135%, shut off, re-power on to recover           |                                        |
| Withstand voltage        |               | I/P-O/P:3kVAC, I/P-FG: 2kVAC, 1 minute                   | I/P-O/P:3kVAC, I/P-FG: 1.5kVAC, 1 minute   |                                                            | I/P-O/P:3kVAC, I/P-FG: 2kVAC, 1 minute |
| Working temperature      |               | -30~+70°C                                                | -20~+70°C (refer to output derating curve) |                                                            |                                        |
| Safety standards         |               | UL60950-1, TUV EN60950-1 approved                        |                                            |                                                            |                                        |
| EMC standards            |               | EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 |                                            |                                                            |                                        |
| Connection               |               | 3+6P/3.96mm pitch, JST: B3P/B6P-VH                       |                                            | 3+8P/3.96mm pitch, 4P/2.5mm pitch, JST: B3P/B8P-VH, B4B-XH |                                        |
| Dimension (LxWxH)(mm)    | PCB Type      | 84.6x 50.8x 24                                           | 101.6x 50.8x 29                            | 127x 76.2x 31                                              | 152.4x 76.2x 32                        |
|                          | Enclosed Type | 86.4x 59.6x 30                                           | 103.4x 62x 37                              | 130x 85x 37                                                | 155.4x 85x 37                          |

| 35W                                                                       |                          | PSC-35 |       |       |      |
|---------------------------------------------------------------------------|--------------------------|--------|-------|-------|------|
| Model No.                                                                 | Output                   | Tol.   | R&N   | Effi. | Max. |
| PSC-35A <input type="checkbox"/>                                          | 13.8V, 0~2.6A            | ±1%    | 120mV | 84%   | 36W  |
|                                                                           | 13.8V, 0~0.9A (Charger)  |        |       |       |      |
| PSC-35B <input type="checkbox"/>                                          | 27.6V, 0~1.3A            | ±1%    | 240mV | 86%   | 36W  |
|                                                                           | 27.6V, 0~0.45A (Charger) |        |       |       |      |
| <input type="checkbox"/> = blank, -C ; Blank: PCB Type, -C: Enclosed Type |                          |        |       |       |      |

| 100W                                                                      |                          | PSC-100 |       |       |      |
|---------------------------------------------------------------------------|--------------------------|---------|-------|-------|------|
| Model No.                                                                 | Output                   | Tol.    | R&N   | Effi. | Max. |
| PSC-100A <input type="checkbox"/>                                         | 13.8V, 0~7.0A            | ±1%     | 100mV | 86%   | 100W |
|                                                                           | 13.8V, 0~2.5A (Charger)  |         |       |       |      |
| PSC-100B <input type="checkbox"/>                                         | 27.6V, 0~3.50A           | ±1%     | 100mV | 88%   | 101W |
|                                                                           | 27.6V, 0~1.25A (Charger) |         |       |       |      |
| <input type="checkbox"/> = blank, -C ; Blank: PCB Type, -C: Enclosed Type |                          |         |       |       |      |

| 60W                                                                       |                          | PSC-60 |       |       |      |
|---------------------------------------------------------------------------|--------------------------|--------|-------|-------|------|
| Model No.                                                                 | Output                   | Tol.   | R&N   | Effi. | Max. |
| PSC-60A <input type="checkbox"/>                                          | 13.8V, 0~4.3A            | ±1%    | 120mV | 84%   | 59W  |
|                                                                           | 13.8V, 0~1.50A (Charger) |        |       |       |      |
| PSC-60B <input type="checkbox"/>                                          | 27.6V, 0~2.15A           | ±1%    | 240mV | 84%   | 59W  |
|                                                                           | 27.6V, 0~0.75A (Charger) |        |       |       |      |
| <input type="checkbox"/> = blank, -C ; Blank: PCB Type, -C: Enclosed Type |                          |        |       |       |      |

| 160W                                                                      |                       | PSC-160 |       |       |      |
|---------------------------------------------------------------------------|-----------------------|---------|-------|-------|------|
| Model No.                                                                 | Output                | Tol.    | R&N   | Effi. | Max. |
| PSC-160A <input type="checkbox"/>                                         | 13.8V, 0~11.6A        | ±1%     | 150mV | 88%   | 160W |
|                                                                           | 13.8V, 0~4A (Charger) |         |       |       |      |
| PSC-160B <input type="checkbox"/>                                         | 27.6V, 0~5.8A         | ±1%     | 240mV | 90%   | 160W |
|                                                                           | 27.6V, 0~2A (Charger) |         |       |       |      |
| <input type="checkbox"/> = blank, -C ; Blank: PCB Type, -C: Enclosed Type |                       |         |       |       |      |

# Security Series 55~155W Single and Dual Output



## 55W 1~2 Output with Battery Charger



CASE: 901 159x 97x 38 mm

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Battery low protection (except for ADS series)
- DC alarm signal (optional)
- Cooling by free air convection
- Fixed switching frequency at 45kHz
- Approvals: UL / CUL / TUV / CB / CE
- 100% full load burn-in test
- 2 years warranty

AC input voltage range ..... 88~264VAC; 124~370VDC  
 AC inrush current ..... Cold start, 20A at 115VAC, 40A at 230VAC  
 DC adjustment range ..... 12V, 24V:  $\pm 10\%$   
 13.8V: 12~14.5V; 27.6V: 24~29V  
 Overload protection ..... 105%~150% hiccup mode, auto-recovery  
 Over voltage protection ..... CH1: 105%~135% rated output voltage  
 Setup, rise, hold up time ..... 800ms, 50ms, 80ms at full load and 230VAC  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, 1minute  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,8,11  
 Connection ..... 8P/ 8.25mm pitch terminal block  
 Packing ..... 0.57kg ; 24pcs / 13.7kg / 0.75CUFT

### Single Output with 5V, 4A DC-DC Converter

| Model No. | Output      | Tol.      | R&N   | Effi. | Max. |
|-----------|-------------|-----------|-------|-------|------|
| ADS-5512  | 12V, 0~4.0A | $\pm 1\%$ | 100mV | 76%   | 51W  |
|           | 5V, 0~4.0A  | $\pm 3\%$ | 100mV |       |      |
| ADS-5524  | 24V, 0~2.5A | $\pm 1\%$ | 100mV | 79%   | 58W  |
|           | 5V, 0~4.0A  | $\pm 3\%$ | 100mV |       |      |

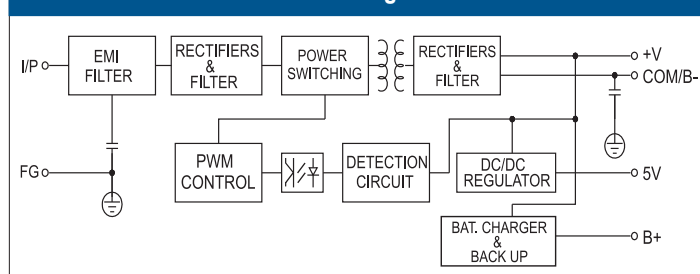
### Single Output with Battery Charger (UPS Function)

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| AD-55A    | 13.8V, 0~4.0A  | $\pm 1\%$ | 100mV | 71%   | 51W  |
|           | 13.4V, 0~0.23A | (Charger) |       |       |      |
| AD-55B    | 27.6V, 0~2.0A  | $\pm 1\%$ | 100mV | 74%   | 54W  |
|           | 26.5V, 0~0.16A | (Charger) |       |       |      |

### Dual Output with Battery Charger (UPS Function)

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| ADD-55A   | 13.8V, 0~3.50A | $\pm 1\%$ | 100mV | 71%   | 53W  |
|           | 5V, 0~4.00A    | $\pm 3\%$ | 100mV |       |      |
|           | 13.4V, 0~0.23A | (Charger) |       |       |      |
| ADD-55B   | 27.6V, 0~2.00A | $\pm 1\%$ | 150mV | 74%   | 55W  |
|           | 5V, 0~4.00A    | $\pm 3\%$ | 150mV |       |      |
|           | 26.5V, 0~0.16A | (Charger) |       |       |      |

## Block Diagram



## 155W 1~2 Output with Battery Charger and PFC Function



CASE: 906B 199x 110x 50 mm

- Universal AC input / Full range
- PF>0.92@230VAC and full load
- Protections: Short circuit / Overload / Over voltage
- Battery low protection (except for ADS series)
- Cooling by free air convection
- Fixed switching frequency at 134kHz
- Approvals: UL / CUL / TUV / CB / CE
- 100% full load burn-in test
- 2 years warranty

AC input voltage range ..... 88~264VAC; 124~370VDC  
 AC inrush current ..... Cold start, 20A at 115VAC, 40A at 230VAC  
 DC adjustment range ..... 12V, 24V, 48V:  $\pm 10\%$   
 13.8V: 12~14.5V; 27.6V: 24~29V; 54V: 48~58V  
 Overload protection ..... CH1,2: 105%~135%, charger: 0.51~0.9A;  
 constant current limiting, auto-recovery  
 Over voltage protection ..... CH1: 115%~135% rated output voltage  
 Setup, rise, hold up time ..... 1000ms, 90ms, 24ms at full load and 230VAC  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, 1minute  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,8,11  
 Connection ..... 8P/ 9.5mm pitch terminal block  
 Packing ..... 1.0kg ; 16pcs / 16.0kg / 0.95CUFT

### Single Output with 5V, 3A DC-DC Converter

| Model No. | Output       | Tol.      | R&N   | Effi. | Max. |
|-----------|--------------|-----------|-------|-------|------|
| ADS-15512 | 12V, 0~12.5A | $\pm 2\%$ | 150mV | 77%   | 153W |
|           | 5V, 0~3.00A  | $\pm 3\%$ | 100mV |       |      |
| ADS-15524 | 24V, 0~6.50A | $\pm 1\%$ | 150mV | 82%   | 154W |
|           | 5V, 0~3.00A  | $\pm 3\%$ | 100mV |       |      |
| ADS-15548 | 48V, 0~3.20A | $\pm 1\%$ | 240mV | 82%   | 154W |
|           | 5V, 0~3.00A  | $\pm 5\%$ | 100mV |       |      |

### Single Output with Battery Charger (UPS Function)

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| AD-155A   | 13.8V, 0~11.5A | $\pm 2\%$ | 150mV | 80%   | 152W |
|           | 13.3V, 0~0.50A | (Charger) |       |       |      |
| AD-155B   | 27.6V, 0~5.50A | $\pm 1\%$ | 150mV | 84%   | 152W |
|           | 27.1V, 0~0.50A | (Charger) |       |       |      |
| AD-155C   | 54.0V, 0~2.70A | $\pm 1\%$ | 240mV | 84%   | 157W |
|           | 53.5V, 0~0.50A | (Charger) |       |       |      |

### Dual Output with Battery Charger (UPS Function)

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| ADD-155A  | 13.8V, 0~10.5A | $\pm 1\%$ | 150mV | 78%   | 153W |
|           | 5V, 0~3.00A    | $\pm 3\%$ | 100mV |       |      |
|           | 13.3V, 0~0.50A | (Charger) |       |       |      |
| ADD-155B  | 27.6V, 0~5.00A | $\pm 1\%$ | 200mV | 81%   | 153W |
|           | 5V, 0~3.00A    | $\pm 3\%$ | 100mV |       |      |
|           | 27.1V, 0~0.50A | (Charger) |       |       |      |
| ADD-155C  | 54.0V, 0~2.50A | $\pm 1\%$ | 240mV | 81%   | 150W |
|           | 5V, 0~3.00A    | $\pm 5\%$ | 100mV |       |      |
|           | 53.5V, 0~0.20A | (Charger) |       |       |      |

# Security Series/ATX Power



## 35~75W Single Output

- Universal AC input / Full range
- Protections:
  - Short circuit / Overload / Over voltage / Battery reverse polarity protection by fuse
- Cooling by free air convection
- No load power consumption <0.75W
- Suitable for installation in metallic or non-metallic system enclosure
- Temperature compensation function
- LED indicator for power on
- 2 years warranty



AC input voltage range ..... 85~264VAC; 120~370VDC  
 DC adjustment range ..... 95%~115% rated output voltage  
 Overload protection ..... 120%~165%, hiccup mode, auto-recovery  
 Over voltage protection ..... 120%~140%, rated output voltage  
 Setup, rise, hold up time .... 500ms, 30ms, 50ms at full load and 230VAC  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG:1.5kVAC, 1minute  
 Working temperature ..... -20~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,8,11  
 Connection ..... I/P: 3 poles, O/P: 2 poles screw terminal

### ◆ SCP-35 Series

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| SCP-35-12 | 13.8V, 0~2.6A | ±2%  | 120mV | 83%   | 36W  |
| SCP-35-24 | 27.6V, 0~1.4A | ±1%  | 200mV | 86%   | 39W  |

### ◆ SCP-50 Series

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| SCP-50-12 | 13.8V, 0~3.6A | ±2%  | 120mV | 81%   | 50W  |
| SCP-50-24 | 27.6V, 0~1.8A | ±1%  | 200mV | 85%   | 50W  |

### ◆ SCP-75 Series

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| SCP-75-12 | 13.8V, 0~5.4A | ±2%  | 120mV | 81%   | 75W  |
| SCP-75-24 | 27.6V, 0~2.7A | ±1%  | 200mV | 85%   | 75W  |

## 250~300W Industrial ATX PC Power Supply



- Universal AC input / Full range
- Low profile for 1U/2U rack system
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage
- With power good and fail signal output
- Forced air cooling by built-in DC fan
- PS-ON signal input
- 2 years warranty

AC input voltage range ..... 90~264VAC, 127~370VDC  
 Setup, rise, hold up time ... 800ms, 20ms, 16ms at 230VAC  
 Overload protection ..... 105%~150% shut off, re-power on to recover  
 Over voltage protection ..... 110%~140% rated output voltage for CH1~CH3  
 Withstand voltage ..... I/P-O/P: 1.5kVAC, I/P-FG:2kVAC, 1minute  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,-3,  
 EN61000-4-2,3,4,5,6,8,11

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| IPC-250   | 3.3V, 0~20A    | ±5%  | 50mV  | 75%   | 250W |
|           | 5V, 1~25A      | ±5%  | 50mV  |       |      |
|           | 12V, 1~15A     | ±7%  | 120mV |       |      |
|           | -5V, 0~0.5A    | ±8%  | 100mV |       |      |
|           | -12V, 0.1~1.0A | ±10% | 120mV |       |      |
|           | 5VSB, 0~2.0A   | ±5%  | 50mV  |       |      |
| IPC-300A  | 3.3V, 0~20A    | ±5%  | 50mV  | 75%   | 300W |
|           | 5V, 1~30A      | ±5%  | 50mV  |       |      |
|           | 12V, 1~18A     | ±7%  | 120mV |       |      |
|           | -5V, 0~0.5A    | ±8%  | 100mV |       |      |
|           | -12V, 0.1~1.0A | ±10% | 120mV |       |      |
|           | 5VSB, 0~2.0A   | ±5%  | 50mV  |       |      |
| IPC-300B  | 24V, 0~3.0A    | ±5%  | 240mV | 80%   | 300W |
|           | 5V, 1~30A      | ±5%  | 50mV  |       |      |
|           | 12V, 1~18A     | ±7%  | 120mV |       |      |
|           | -5V, 0~0.5A    | ±8%  | 100mV |       |      |
|           | -12V, 0.1~1.0A | ±10% | 120mV |       |      |
|           | 5VSB, 0~2.0A   | ±5%  | 50mV  |       |      |



### Best products also need best service.

We have authorized distributors all over the world. They have sufficient stock for your prompt delivery. Also they can offer you technical support & RMA services. Please contact your local distributors for more product information. You can also contact us at [info@meanwell.com](mailto:info@meanwell.com) for information of your local distributors.



We provide specification, drawing, test report and more information, please visit our website — <http://www.meanwell.com>



### 48hrs delivery—

We keep enough stock for 95% of standard models at our 2400m² warehouse. We can arrange prompt delivery within 48hrs.



### 0.5W DC-DC Regulated Single Output



0.89"x 0.39"x 0.33"

- 1000VDC I/O isolation
- Internal SMD technology
- Built-in EMI filter
- Protection: Short circuit
- Cooling by free air convection
- Non-conductive plastic case
- Dual in line package
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

### 1W DC-DC Unregulated Single Output



0.89"x 0.39"x 0.33"

- 1000VDC I/O isolation
- Internal SMD technology
- Built-in EMI filter
- Protection: Short circuit
- Cooling by free air convection
- Non-conductive plastic case
- Dual in line package
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

| Mechanism | Pin Configuration                                                                                                                                                                                                                                                                    |         |        |        |      |        |       |        |       |       |      |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|--------|------|--------|-------|--------|-------|-------|------|
|           | <table border="1"> <thead> <tr> <th>Pin No.</th><th>Output</th></tr> </thead> <tbody> <tr> <td>1 &amp; 16</td><td>+Vin</td></tr> <tr> <td>6 &amp; 11</td><td>-Vout</td></tr> <tr> <td>7 &amp; 10</td><td>+Vout</td></tr> <tr> <td>8 &amp; 9</td><td>-Vin</td></tr> </tbody> </table> | Pin No. | Output | 1 & 16 | +Vin | 6 & 11 | -Vout | 7 & 10 | +Vout | 8 & 9 | -Vin |
| Pin No.   | Output                                                                                                                                                                                                                                                                               |         |        |        |      |        |       |        |       |       |      |
| 1 & 16    | +Vin                                                                                                                                                                                                                                                                                 |         |        |        |      |        |       |        |       |       |      |
| 6 & 11    | -Vout                                                                                                                                                                                                                                                                                |         |        |        |      |        |       |        |       |       |      |
| 7 & 10    | +Vout                                                                                                                                                                                                                                                                                |         |        |        |      |        |       |        |       |       |      |
| 8 & 9     | -Vin                                                                                                                                                                                                                                                                                 |         |        |        |      |        |       |        |       |       |      |

Voltage set point accuracy.... $\pm 2\%$  (typical)  
 Line regulation .....  $\pm 1\%$  (max.)  
 Load regulation .....  $\pm 1\%$  (max.)@10~100% load  
 Input reflected ripple ..... 120mVp-p  
 Efficiency ..... 60% (typical)  
 Short circuit protection ..... Continuous, auto-recovery  
 Switching frequency ..... 50kHz (min.)  
 I/O isolation voltage ..... 1000VDC (min.)  
 I/O isolation resistance ..... 100M $\Omega$  (min.)@ 500VDC  
 Isolation capacitance ..... 80pF (max.)  
 Working temperature ..... -25°C to +60°C (no derating), +71°C@80% load  
 Storage temperature ..... -25°C to +105°C  
 Temp. Coefficient .....  $\pm 0.03\%$  / °C (max.)  
 Case material ..... non-conductive plastic  
 EMC ..... Compliance to EN55022 class B,  
 EN61000-4-2,3,4,5,6,8, FCC part15 class B

| Mechanism | Pin Configuration                                                                                                                                                                                                                                                                    |         |        |        |      |        |       |        |       |       |      |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|--------|------|--------|-------|--------|-------|-------|------|
|           | <table border="1"> <thead> <tr> <th>Pin No.</th><th>Output</th></tr> </thead> <tbody> <tr> <td>1 &amp; 16</td><td>+Vin</td></tr> <tr> <td>6 &amp; 11</td><td>-Vout</td></tr> <tr> <td>7 &amp; 10</td><td>+Vout</td></tr> <tr> <td>8 &amp; 9</td><td>-Vin</td></tr> </tbody> </table> | Pin No. | Output | 1 & 16 | +Vin | 6 & 11 | -Vout | 7 & 10 | +Vout | 8 & 9 | -Vin |
| Pin No.   | Output                                                                                                                                                                                                                                                                               |         |        |        |      |        |       |        |       |       |      |
| 1 & 16    | +Vin                                                                                                                                                                                                                                                                                 |         |        |        |      |        |       |        |       |       |      |
| 6 & 11    | -Vout                                                                                                                                                                                                                                                                                |         |        |        |      |        |       |        |       |       |      |
| 7 & 10    | +Vout                                                                                                                                                                                                                                                                                |         |        |        |      |        |       |        |       |       |      |
| 8 & 9     | -Vin                                                                                                                                                                                                                                                                                 |         |        |        |      |        |       |        |       |       |      |

Voltage set point accuracy ... $\pm 2\%$  (max.)  
 Line regulation .....  $\pm 1.2\%$  (max.) for 1% input variation  
 Load regulation .....  $\pm 8\%$  (max.)@20~100% load  
 Input reflected ripple ..... 120mVp-p  
 Efficiency ..... 83% (typical)  
 Short circuit protection ..... Momentary  
 Switching frequency ..... 50kHz (min.)  
 I/O isolation voltage ..... 1000VDC (min.)  
 I/O isolation resistance ..... 100M $\Omega$  (min.)@ 500VDC  
 Isolation capacitance ..... 80pF (max.)  
 Working temperature ..... -25°C to +60°C (no derating), +71°C@80% load  
 Storage temperature ..... -25°C to +105°C  
 Temp. Coefficient .....  $\pm 0.03\%$  / °C (max.)  
 Case material ..... non-conductive plastic  
 EMC ..... Compliance to EN55022 class B,  
 EN61000-4-2,3,4,5,6,8, FCC part15 class B

| Model No. | Input (VDC)   | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|---------------|--------------|--------------|-------------|
| SRS-0505  | 5 $\pm 10\%$  | 5            | 100          | 100         |
| SRS-0509  | 5 $\pm 10\%$  | 9            | 56           | 100         |
| SRS-0512  | 5 $\pm 10\%$  | 12           | 42           | 100         |
| SRS-0515  | 5 $\pm 10\%$  | 15           | 34           | 100         |
| SRS-1205  | 12 $\pm 10\%$ | 5            | 100          | 100         |
| SRS-1209  | 12 $\pm 10\%$ | 9            | 56           | 100         |
| SRS-1212  | 12 $\pm 10\%$ | 12           | 42           | 100         |
| SRS-1215  | 12 $\pm 10\%$ | 15           | 34           | 100         |
| SRS-2405  | 24 $\pm 10\%$ | 5            | 100          | 100         |
| SRS-2409  | 24 $\pm 10\%$ | 9            | 56           | 100         |
| SRS-2412  | 24 $\pm 10\%$ | 12           | 42           | 100         |
| SRS-2415  | 24 $\pm 10\%$ | 15           | 34           | 100         |
| SRS-4805  | 48 $\pm 10\%$ | 5            | 100          | 100         |
| SRS-4809  | 48 $\pm 10\%$ | 9            | 56           | 100         |
| SRS-4812  | 48 $\pm 10\%$ | 12           | 42           | 100         |
| SRS-4815  | 48 $\pm 10\%$ | 15           | 34           | 100         |

| Model No. | Input (VDC)   | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|---------------|--------------|--------------|-------------|
| SUS01L-05 | 5 $\pm 10\%$  | 5            | 200          | 100         |
| SUS01L-09 | 5 $\pm 10\%$  | 9            | 111          | 100         |
| SUS01L-12 | 5 $\pm 10\%$  | 12           | 84           | 100         |
| SUS01L-15 | 5 $\pm 10\%$  | 15           | 67           | 100         |
| SUS01M-05 | 12 $\pm 10\%$ | 5            | 200          | 100         |
| SUS01M-09 | 12 $\pm 10\%$ | 9            | 111          | 100         |
| SUS01M-12 | 12 $\pm 10\%$ | 12           | 84           | 100         |
| SUS01M-15 | 12 $\pm 10\%$ | 15           | 67           | 100         |
| SUS01N-05 | 24 $\pm 10\%$ | 5            | 200          | 100         |
| SUS01N-09 | 24 $\pm 10\%$ | 9            | 111          | 100         |
| SUS01N-12 | 24 $\pm 10\%$ | 12           | 84           | 100         |
| SUS01N-15 | 24 $\pm 10\%$ | 15           | 67           | 100         |
| SUS01O-05 | 48 $\pm 10\%$ | 5            | 200          | 100         |
| SUS01O-09 | 48 $\pm 10\%$ | 9            | 111          | 100         |
| SUS01O-12 | 48 $\pm 10\%$ | 12           | 84           | 100         |
| SUS01O-15 | 48 $\pm 10\%$ | 15           | 67           | 100         |

### 1W DC-DC Unregulated Single Output



0.50"x 0.30"x 0.24"

- 1000VDC I/O isolation
- Internal SMD technology
- Protection: Short circuit
- Cooling by free air convection
- Non-conductive plastic case
- SMD package style
- 100% full load burn-in test
- Low cost, high reliability
- 1 year warranty

| Mechanism             | Pin Configuration                                                                                                                                                                                                                                                                                                                                                         |         |        |   |      |   |      |   |    |   |       |   |       |   |    |   |    |   |    |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|---|------|---|------|---|----|---|-------|---|-------|---|----|---|----|---|----|
| <p>Unit: mm(inch)</p> | <table border="1"> <thead> <tr> <th>Pin No.</th><th>Output</th></tr> </thead> <tbody> <tr><td>1</td><td>-Vin</td></tr> <tr><td>2</td><td>+Vin</td></tr> <tr><td>3</td><td>NC</td></tr> <tr><td>4</td><td>-Vout</td></tr> <tr><td>5</td><td>+Vout</td></tr> <tr><td>6</td><td>NC</td></tr> <tr><td>7</td><td>NC</td></tr> <tr><td>8</td><td>NC</td></tr> </tbody> </table> | Pin No. | Output | 1 | -Vin | 2 | +Vin | 3 | NC | 4 | -Vout | 5 | +Vout | 6 | NC | 7 | NC | 8 | NC |
| Pin No.               | Output                                                                                                                                                                                                                                                                                                                                                                    |         |        |   |      |   |      |   |    |   |       |   |       |   |    |   |    |   |    |
| 1                     | -Vin                                                                                                                                                                                                                                                                                                                                                                      |         |        |   |      |   |      |   |    |   |       |   |       |   |    |   |    |   |    |
| 2                     | +Vin                                                                                                                                                                                                                                                                                                                                                                      |         |        |   |      |   |      |   |    |   |       |   |       |   |    |   |    |   |    |
| 3                     | NC                                                                                                                                                                                                                                                                                                                                                                        |         |        |   |      |   |      |   |    |   |       |   |       |   |    |   |    |   |    |
| 4                     | -Vout                                                                                                                                                                                                                                                                                                                                                                     |         |        |   |      |   |      |   |    |   |       |   |       |   |    |   |    |   |    |
| 5                     | +Vout                                                                                                                                                                                                                                                                                                                                                                     |         |        |   |      |   |      |   |    |   |       |   |       |   |    |   |    |   |    |
| 6                     | NC                                                                                                                                                                                                                                                                                                                                                                        |         |        |   |      |   |      |   |    |   |       |   |       |   |    |   |    |   |    |
| 7                     | NC                                                                                                                                                                                                                                                                                                                                                                        |         |        |   |      |   |      |   |    |   |       |   |       |   |    |   |    |   |    |
| 8                     | NC                                                                                                                                                                                                                                                                                                                                                                        |         |        |   |      |   |      |   |    |   |       |   |       |   |    |   |    |   |    |

Voltage set point accuracy .....  $\pm 8\%$  (max.)  
 Line regulation .....  $\pm 1.2\%$  (max.) for 1% input variation  
 Load regulation .....  $\pm 8\%$  (max.)@20~100% load  
 Input reflected ripple ..... 100mVp-p  
 Efficiency ..... 75% (typical)  
 Short circuit protection ..... Momentary  
 Switching frequency ..... 100kHz (typical)  
 I/O isolation voltage ..... 1000VDC (min.)  
 I/O isolation resistance ..... 100M $\Omega$  (min.)@ 500VDC  
 Working temperature ..... -40°C to +85°C  
 Storage temperature ..... -40°C to +105°C  
 Temp. Coefficient .....  $\pm 0.03\%$  / °C (max.)  
 Case material ..... non-conductive plastic  
 Safety standards ..... UL60950-1 approved

| Model No. | Input (VDC)   | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|---------------|--------------|--------------|-------------|
| SBT01L-05 | 5 $\pm 10\%$  | 5            | 200          | 100         |
| SBT01L-09 | 5 $\pm 10\%$  | 9            | 111          | 100         |
| SBT01L-12 | 5 $\pm 10\%$  | 12           | 84           | 100         |
| SBT01L-15 | 5 $\pm 10\%$  | 15           | 67           | 100         |
|           |               |              |              |             |
| SBT01M-05 | 12 $\pm 10\%$ | 5            | 200          | 100         |
| SBT01M-09 | 12 $\pm 10\%$ | 9            | 111          | 100         |
| SBT01M-12 | 12 $\pm 10\%$ | 12           | 84           | 100         |
| SBT01M-15 | 12 $\pm 10\%$ | 15           | 67           | 100         |

### 1W DC-DC Unregulated Single and Dual Output



0.60"x 0.295"x 0.255"

- 3000VDC I/O isolation
- Internal SMD technology
- Protection: Short circuit
- Cooling by free air convection
- Non-conductive plastic case
- SMD package style
- 100% full load burn-in test
- Low cost, high reliability
- 1 year warranty

## Mechanism

Unit: mm(inch)

The image shows the mechanical drawing of the SFT01L-05 component. The top view is a rectangle with a width of 15.24 mm and a height of 11.2 MAX mm. The distance between the centers of the pins is 12.7 mm. The pin pitch is 2.54 mm. The pin diameter is 0.6 ± 0.05 mm. The side view shows a height of 6.5 mm and a width of 4.25 mm. The distance between the pins is 1.27 mm. The component is labeled "TOP VIEW".

## Pin Configuration

| Pin No. | Output |       |
|---------|--------|-------|
|         | Single | Dual  |
| 1       | -Vin   | -Vin  |
| 2       | +Vin   | +Vin  |
| 3       | NC     | NC    |
| 5       | -Vout  | COM   |
| 6       | NC     | -Vout |
| 7       | NC     | NC    |
| 8       | +Vout  | +Vout |
| 10      | NC     | NC    |
| 11      | NC     | NC    |
| 12      | NC     | NC    |

Voltage set point accuracy .....  $\pm 8\%$  (max.)  
 Line regulation .....  $\pm 1.2\%$  (max.) for 1% input variation  
 Load regulation .....  $\pm 8\%$  (max.)@20~100% load  
 Efficiency ..... 79% (typical)  
 Short circuit protection ..... Momentary  
 Switching frequency ..... 100kHz (typical)  
 I/O isolation voltage ..... 3000VDC (min.)  
 I/O isolation resistance ..... 100M $\Omega$  (min.)@ 500VDC  
 Working temperature ..... -40°C to +85°C  
 Storage temperature ..... -40°C to +105°C  
 Temp. Coefficient .....  $\pm 0.03\%$  / °C (max.)  
 Case material ..... non-conductive plastic  
 Safety standards ..... UL60950-1, CSA C22.2 approved

| Model No. | Input (VDC)   | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|---------------|--------------|--------------|-------------|
| SFT01L-05 | 5 $\pm 10\%$  | 5            | 200          | 100         |
| SFT01L-09 | 5 $\pm 10\%$  | 9            | 111          | 100         |
| SFT01L-12 | 5 $\pm 10\%$  | 12           | 84           | 100         |
| SFT01L-15 | 5 $\pm 10\%$  | 15           | 67           | 100         |
|           |               |              |              |             |
| SFT01M-05 | 12 $\pm 10\%$ | 5            | 200          | 100         |
| SFT01M-12 | 12 $\pm 10\%$ | 12           | 84           | 100         |
| SFT01M-15 | 12 $\pm 10\%$ | 15           | 67           | 100         |

| Model No. | Input (VDC)   | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|---------------|--------------|--------------|-------------|
| DET01L-05 | 5 $\pm 10\%$  | $\pm 5$      | $\pm 100$    | 100         |
| DET01L-09 | 5 $\pm 10\%$  | $\pm 9$      | $\pm 56$     | 100         |
| DET01L-12 | 5 $\pm 10\%$  | $\pm 12$     | $\pm 42$     | 100         |
| DET01L-15 | 5 $\pm 10\%$  | $\pm 15$     | $\pm 33$     | 100         |
|           |               |              |              |             |
| DET01M-15 | 12 $\pm 10\%$ | $\pm 15$     | $\pm 33$     | 100         |



We provide specification, drawing, test report and more information, please visit our website —  
<http://www.meanwell.com>



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 Today's effort, tomorrow's reward. Continuously improve CQTS to satisfy customer is our goal.

### 1W DC-DC Regulated Single Output



0.77"x 0.28"x 0.4"

- 1000VDC I/O isolation
- Internal SMD technology
- Built-in EMI filter
- Protection: Short circuit / Overload
- Cooling by free air convection
- Non-conductive plastic case
- Single in line package
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

| Mechanism                                                   | Pin Configuration                                                                                                                                                                                                                                  |         |        |   |       |   |      |   |       |   |       |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|---|-------|---|------|---|-------|---|-------|
| <p>Unit: mm (inch)</p> <p>FRONT VIEW</p> <p>BOTTOM VIEW</p> | <table border="1"> <thead> <tr> <th>Pin No.</th><th>Output</th></tr> </thead> <tbody> <tr> <td>1</td><td>+Vout</td></tr> <tr> <td>2</td><td>-Vin</td></tr> <tr> <td>4</td><td>-Vout</td></tr> <tr> <td>6</td><td>+Vout</td></tr> </tbody> </table> | Pin No. | Output | 1 | +Vout | 2 | -Vin | 4 | -Vout | 6 | +Vout |
| Pin No.                                                     | Output                                                                                                                                                                                                                                             |         |        |   |       |   |      |   |       |   |       |
| 1                                                           | +Vout                                                                                                                                                                                                                                              |         |        |   |       |   |      |   |       |   |       |
| 2                                                           | -Vin                                                                                                                                                                                                                                               |         |        |   |       |   |      |   |       |   |       |
| 4                                                           | -Vout                                                                                                                                                                                                                                              |         |        |   |       |   |      |   |       |   |       |
| 6                                                           | +Vout                                                                                                                                                                                                                                              |         |        |   |       |   |      |   |       |   |       |

Voltage set point accuracy ...  $\pm 2\%$  (typical)

Line regulation ...  $\pm 1\%$  (max.)

Load regulation ...  $\pm 1\%$  (max.) @ 10~100% load

Efficiency ... 65% (typical)

Overload protection ... >110% hiccup mode, auto-recovery

Short circuit protection ... Continuous, auto-recovery

Switching frequency ... 50kHz (min.)

I/O isolation voltage ... 1000VDC (min.)

I/O isolation resistance ... 100M $\Omega$  (min.)

Isolation capacitance ... 80pF (max.)

Working temperature ... -25~+71°C (refer to output derating curve)

Storage temperature ... -25°C to +105°C

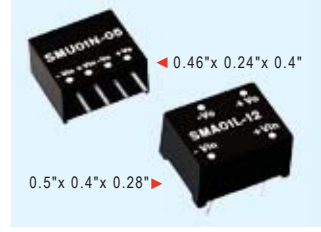
Temp. Coefficient ...  $\pm 0.03\%$  / °C (max.)

Case material ... non-conductive plastic

EMC ... Compliance to EN55022 class B, EN61000-4-2,3,4,5,6,8, FCC part15 class B

| Model No. | Input (VDC)   | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|---------------|--------------|--------------|-------------|
| SPR01L-05 | 5 $\pm 10\%$  | 5            | 200          | 100         |
| SPR01L-09 | 5 $\pm 10\%$  | 9            | 100          | 100         |
| SPR01L-12 | 5 $\pm 10\%$  | 12           | 84           | 100         |
| SPR01L-15 | 5 $\pm 10\%$  | 15           | 67           | 100         |
| SPR01M-05 | 12 $\pm 10\%$ | 5            | 200          | 100         |
| SPR01M-09 | 12 $\pm 10\%$ | 9            | 100          | 100         |
| SPR01M-12 | 12 $\pm 10\%$ | 12           | 84           | 100         |
| SPR01M-15 | 12 $\pm 10\%$ | 15           | 67           | 100         |
| SPR01N-05 | 24 $\pm 10\%$ | 5            | 200          | 100         |
| SPR01N-09 | 24 $\pm 10\%$ | 9            | 100          | 100         |
| SPR01N-12 | 24 $\pm 10\%$ | 12           | 84           | 100         |
| SPR01N-15 | 24 $\pm 10\%$ | 15           | 67           | 100         |
| SPR01O-05 | 48 $\pm 10\%$ | 5            | 200          | 100         |
| SPR01O-09 | 48 $\pm 10\%$ | 9            | 100          | 100         |
| SPR01O-12 | 48 $\pm 10\%$ | 12           | 84           | 100         |
| SPR01O-15 | 48 $\pm 10\%$ | 15           | 67           | 100         |

### 1W DC-DC Unregulated Single Output



0.5"x 0.4"x 0.28"

- 1500VDC I/O isolation
- Operating temperature range -40~+85°C without derating
- Internal SMD technology
- Built-in EMI filter
- Protection: Short circuit
- Cooling by free air convection
- Non-conductive plastic case
- Dual in line package for SMA01
- 100% full load burn-in test
- Industry standard pinout
- 2 years warranty

| Mechanism                                                   | Pin Configuration                                                                                                                                                                                                                                 |         |        |   |      |   |      |   |       |   |       |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|---|------|---|------|---|-------|---|-------|
| <p>Unit: mm (inch)</p> <p>FRONT VIEW</p> <p>BOTTOM VIEW</p> | <table border="1"> <thead> <tr> <th>Pin No.</th><th>Output</th></tr> </thead> <tbody> <tr> <td>1</td><td>-Vin</td></tr> <tr> <td>2</td><td>+Vin</td></tr> <tr> <td>3</td><td>-Vout</td></tr> <tr> <td>4</td><td>+Vout</td></tr> </tbody> </table> | Pin No. | Output | 1 | -Vin | 2 | +Vin | 3 | -Vout | 4 | +Vout |
| Pin No.                                                     | Output                                                                                                                                                                                                                                            |         |        |   |      |   |      |   |       |   |       |
| 1                                                           | -Vin                                                                                                                                                                                                                                              |         |        |   |      |   |      |   |       |   |       |
| 2                                                           | +Vin                                                                                                                                                                                                                                              |         |        |   |      |   |      |   |       |   |       |
| 3                                                           | -Vout                                                                                                                                                                                                                                             |         |        |   |      |   |      |   |       |   |       |
| 4                                                           | +Vout                                                                                                                                                                                                                                             |         |        |   |      |   |      |   |       |   |       |
| <p>Unit: mm (inch)</p> <p>SIDE VIEW</p> <p>BOTTOM VIEW</p>  | <table border="1"> <thead> <tr> <th>Pin No.</th><th>Output</th></tr> </thead> <tbody> <tr> <td>1</td><td>-Vin</td></tr> <tr> <td>4</td><td>+Vin</td></tr> <tr> <td>5</td><td>+Vout</td></tr> <tr> <td>7</td><td>-Vout</td></tr> </tbody> </table> | Pin No. | Output | 1 | -Vin | 4 | +Vin | 5 | +Vout | 7 | -Vout |
| Pin No.                                                     | Output                                                                                                                                                                                                                                            |         |        |   |      |   |      |   |       |   |       |
| 1                                                           | -Vin                                                                                                                                                                                                                                              |         |        |   |      |   |      |   |       |   |       |
| 4                                                           | +Vin                                                                                                                                                                                                                                              |         |        |   |      |   |      |   |       |   |       |
| 5                                                           | +Vout                                                                                                                                                                                                                                             |         |        |   |      |   |      |   |       |   |       |
| 7                                                           | -Vout                                                                                                                                                                                                                                             |         |        |   |      |   |      |   |       |   |       |

Voltage set point accuracy ...  $\pm 2\%$  (max.)

Line regulation ...  $\pm 1.2\%$  (max.) for 1% input variation

Load regulation ...  $\pm 8\%$  (max.) @ 20~100% load

Input reflected ripple ... 100mVp-p

Efficiency ... 80% (typical)

Short circuit protection ... Momentary

Switching frequency ... 100kHz (min.)

I/O isolation voltage ... 1500VDC (min.)

I/O isolation resistance ... 100M $\Omega$  (min.) @ 500VDC

Isolation capacitance ... 80pF (max.)

Working temperature ... -40~+85°C (no derating)

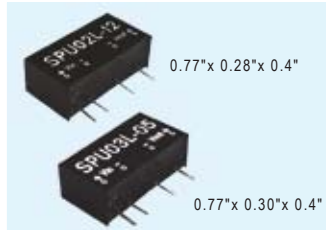
Storage temperature ... -55°C to +125°C

EMC ... Compliance to EN55022 class B, EN61000-4-2,3,4,5,6,8, FCC part15 class B

| Model No. | Input (VDC)   | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|---------------|--------------|--------------|-------------|
| SMU01L-05 | 5 $\pm 10\%$  | 5            | 200          | 100         |
| SMU01L-09 | 5 $\pm 10\%$  | 9            | 110          | 100         |
| SMU01L-12 | 5 $\pm 10\%$  | 12           | 84           | 100         |
| SMU01L-15 | 5 $\pm 10\%$  | 15           | 67           | 100         |
| SMU01M-05 | 12 $\pm 10\%$ | 5            | 200          | 100         |
| SMU01M-09 | 12 $\pm 10\%$ | 9            | 110          | 100         |
| SMU01M-12 | 12 $\pm 10\%$ | 12           | 84           | 100         |
| SMU01M-15 | 12 $\pm 10\%$ | 15           | 67           | 100         |
| SMU01N-05 | 24 $\pm 10\%$ | 5            | 200          | 100         |
| SMU01N-09 | 24 $\pm 10\%$ | 9            | 110          | 100         |
| SMU01N-12 | 24 $\pm 10\%$ | 12           | 84           | 100         |
| SMU01N-15 | 24 $\pm 10\%$ | 15           | 67           | 100         |

| Model No. | Input (VDC)   | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|---------------|--------------|--------------|-------------|
| SMA01L-05 | 5 $\pm 10\%$  | 5            | 200          | 100         |
| SMA01L-09 | 5 $\pm 10\%$  | 9            | 110          | 100         |
| SMA01L-12 | 5 $\pm 10\%$  | 12           | 84           | 100         |
| SMA01L-15 | 5 $\pm 10\%$  | 15           | 67           | 100         |
| SMA01M-05 | 12 $\pm 10\%$ | 5            | 200          | 100         |
| SMA01M-09 | 12 $\pm 10\%$ | 9            | 110          | 100         |
| SMA01M-12 | 12 $\pm 10\%$ | 12           | 84           | 100         |
| SMA01M-15 | 12 $\pm 10\%$ | 15           | 67           | 100         |
| SMA01N-05 | 24 $\pm 10\%$ | 5            | 200          | 100         |
| SMA01N-09 | 24 $\pm 10\%$ | 9            | 110          | 100         |
| SMA01N-12 | 24 $\pm 10\%$ | 12           | 84           | 100         |
| SMA01N-15 | 24 $\pm 10\%$ | 15           | 67           | 100         |

### 2~3W DC-DC Unregulated Single Output



- 3000VDC I/O isolation
- Internal SMD technology
- Built-in EMI filter
- Protection: Short circuit
- Cooling by free air convection
- Non-conductive plastic case
- Single in line package
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

| Mechanism                                                  | Pin Configuration                                                                                                                                                                                    |         |        |   |      |   |      |   |       |   |       |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|---|------|---|------|---|-------|---|-------|
| <p>Unit: mm(inch)</p> <p>FRONT VIEW</p> <p>BOTTOM VIEW</p> | <table> <tr> <th>Pin No.</th><th>Output</th></tr> <tr> <td>1</td><td>+Vin</td></tr> <tr> <td>2</td><td>-Vin</td></tr> <tr> <td>5</td><td>-Vout</td></tr> <tr> <td>7</td><td>+Vout</td></tr> </table> | Pin No. | Output | 1 | +Vin | 2 | -Vin | 5 | -Vout | 7 | +Vout |
| Pin No.                                                    | Output                                                                                                                                                                                               |         |        |   |      |   |      |   |       |   |       |
| 1                                                          | +Vin                                                                                                                                                                                                 |         |        |   |      |   |      |   |       |   |       |
| 2                                                          | -Vin                                                                                                                                                                                                 |         |        |   |      |   |      |   |       |   |       |
| 5                                                          | -Vout                                                                                                                                                                                                |         |        |   |      |   |      |   |       |   |       |
| 7                                                          | +Vout                                                                                                                                                                                                |         |        |   |      |   |      |   |       |   |       |

Voltage set point accuracy ...  $\pm 2\%$  (max.)

Line regulation .....  $\pm 1.2\%$  (max.) for 1% input variation

Load regulation .....  $\pm 8\%$  (max.) @20~100% load

Efficiency ..... 83% (typical) for SPU02; 88% (typical) for SPU03

Short circuit protection ..... Momentary

Switching frequency ..... 100kHz (min.) for SPU02; 60kHz (min.) for SPU03

I/O isolation voltage ..... 3000VDC (min.)

I/O isolation resistance ..... 100M $\Omega$  (min.)

Isolation capacitance ..... 80pF (max.)

Working temperature ..... -40~+71°C (refer to output derating curve) for SPU02  
-40~+90°C (refer to output derating curve) for SPU03

Storage temperature ..... -40°C to +105°C

Temp. Coefficient .....  $\pm 0.03\%$  / °C (max.)

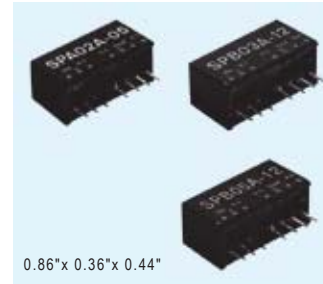
Case material ..... non-conductive plastic

EMC ..... Compliance to EN55022 class B,  
EN61000-4-2,3,4,5,6,8, FCC part15 class B

| Model No. | Input (VDC)   | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|---------------|--------------|--------------|-------------|
| SPU02L-05 | 5 $\pm 10\%$  | 5            | 400          | 100         |
| SPU02L-12 | 5 $\pm 10\%$  | 12           | 167          | 100         |
| SPU02L-15 | 5 $\pm 10\%$  | 15           | 133          | 100         |
| SPU02M-05 | 12 $\pm 10\%$ | 5            | 400          | 100         |
| SPU02M-12 | 12 $\pm 10\%$ | 12           | 167          | 100         |
| SPU02M-15 | 12 $\pm 10\%$ | 15           | 133          | 100         |
| SPU02N-05 | 24 $\pm 10\%$ | 5            | 400          | 100         |
| SPU02N-12 | 24 $\pm 10\%$ | 12           | 167          | 100         |
| SPU02N-15 | 24 $\pm 10\%$ | 15           | 133          | 100         |

| Model No. | Input (VDC)   | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|---------------|--------------|--------------|-------------|
| SPU03L-05 | 5 $\pm 10\%$  | 5            | 600          | 50          |
| SPU03L-12 | 5 $\pm 10\%$  | 12           | 250          | 50          |
| SPU03L-15 | 5 $\pm 10\%$  | 15           | 200          | 50          |
| SPU03M-05 | 12 $\pm 10\%$ | 5            | 600          | 50          |
| SPU03M-12 | 12 $\pm 10\%$ | 12           | 250          | 50          |
| SPU03M-15 | 12 $\pm 10\%$ | 15           | 200          | 50          |
| SPU03N-05 | 24 $\pm 10\%$ | 5            | 600          | 50          |
| SPU03N-12 | 24 $\pm 10\%$ | 12           | 250          | 50          |
| SPU03N-15 | 24 $\pm 10\%$ | 15           | 200          | 50          |

### 2~5W DC-DC Regulated Single Output



- 2:1 wide input range
- 4:1 wide input range (option) for 2W
- 1000VDC I/O isolation for 2W/3W
- 1500VDC I/O isolation for 5W
- Built-in remote ON/OFF control
- Built-in EMI filter
- Protection: Short circuit / Overload
- Cooling by free air convection
- Non-conductive plastic case
- Single in line package
- 100% full load burn-in test
- Modified models available: output 3.3V / 9V (except for 5W)
- 2 years warranty

| Mechanism                                                  | Pin Configuration                                                                                                                                                                                                                                                                                          |         |        |   |      |   |      |   |      |   |      |   |       |   |       |   |      |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|---|------|---|------|---|------|---|------|---|-------|---|-------|---|------|
| <p>Unit: mm(inch)</p> <p>FRONT VIEW</p> <p>BOTTOM VIEW</p> | <table> <tr> <th>Pin No.</th><th>Output</th></tr> <tr> <td>1</td><td>-Vin</td></tr> <tr> <td>2</td><td>+Vin</td></tr> <tr> <td>3</td><td>R.C.</td></tr> <tr> <td>5</td><td>N.C.</td></tr> <tr> <td>6</td><td>+Vout</td></tr> <tr> <td>7</td><td>-Vout</td></tr> <tr> <td>8</td><td>N.C.</td></tr> </table> | Pin No. | Output | 1 | -Vin | 2 | +Vin | 3 | R.C. | 5 | N.C. | 6 | +Vout | 7 | -Vout | 8 | N.C. |
| Pin No.                                                    | Output                                                                                                                                                                                                                                                                                                     |         |        |   |      |   |      |   |      |   |      |   |       |   |       |   |      |
| 1                                                          | -Vin                                                                                                                                                                                                                                                                                                       |         |        |   |      |   |      |   |      |   |      |   |       |   |       |   |      |
| 2                                                          | +Vin                                                                                                                                                                                                                                                                                                       |         |        |   |      |   |      |   |      |   |      |   |       |   |       |   |      |
| 3                                                          | R.C.                                                                                                                                                                                                                                                                                                       |         |        |   |      |   |      |   |      |   |      |   |       |   |       |   |      |
| 5                                                          | N.C.                                                                                                                                                                                                                                                                                                       |         |        |   |      |   |      |   |      |   |      |   |       |   |       |   |      |
| 6                                                          | +Vout                                                                                                                                                                                                                                                                                                      |         |        |   |      |   |      |   |      |   |      |   |       |   |       |   |      |
| 7                                                          | -Vout                                                                                                                                                                                                                                                                                                      |         |        |   |      |   |      |   |      |   |      |   |       |   |       |   |      |
| 8                                                          | N.C.                                                                                                                                                                                                                                                                                                       |         |        |   |      |   |      |   |      |   |      |   |       |   |       |   |      |

Voltage set point accuracy ....  $\pm 2\%$  (max.)

Line regulation .....  $\pm 0.5\%$  (max.)

Load regulation .....  $\pm 0.5\%$  (max.) @10~100% load

Efficiency ..... 85% (typical)

Short circuit protection ..... Continuous, auto-recovery

Overload protection ..... 150%~250%, auto-recovery

I/O isolation voltage ..... 1000VDC (min.) for 2W/3W, 1500VDC (min.) for 5W

I/O isolation resistance ..... 100M $\Omega$  (min.)

Working temperature ..... -40~+85°C (refer to output derating curve)

Case material ..... non-conductive plastic

EMC ..... Compliance to EN55022 class B,  
EN61000-4-2,3,4,5,6,8, FCC part15 class B

| Model No. | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|-------------|--------------|--------------|-------------|
| SPA02E-05 | 4.5~9       | 5            | 400          | 60          |
| SPA02E-12 | 4.5~9       | 12           | 150          | 60          |
| SPA02E-15 | 4.5~9       | 15           | 120          | 60          |
| SPA02A-05 | 9~18        | 5            | 400          | 60          |
| SPA02A-12 | 9~18        | 12           | 167          | 60          |
| SPA02A-15 | 9~18        | 15           | 133          | 60          |
| SPA02B-05 | 18~36       | 5            | 400          | 60          |
| SPA02B-12 | 18~36       | 12           | 167          | 60          |
| SPA02B-15 | 18~36       | 15           | 133          | 60          |
| SPA02C-05 | 36~72       | 5            | 400          | 60          |
| SPA02C-12 | 36~72       | 12           | 167          | 60          |
| SPA02C-15 | 36~72       | 15           | 133          | 60          |

| Model No. | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|-------------|--------------|--------------|-------------|
| SPB03E-05 | 4.5~9       | 5            | 600          | 50          |
| SPB03E-12 | 4.5~9       | 12           | 250          | 60          |
| SPB03E-15 | 4.5~9       | 15           | 200          | 60          |
| SPB03A-05 | 9~18        | 5            | 600          | 50          |
| SPB03A-12 | 9~18        | 12           | 250          | 60          |
| SPB03A-15 | 9~18        | 15           | 200          | 60          |
| SPB03B-05 | 18~36       | 5            | 600          | 50          |
| SPB03B-12 | 18~36       | 12           | 250          | 60          |
| SPB03B-15 | 18~36       | 15           | 200          | 60          |
| SPB03C-05 | 36~72       | 5            | 600          | 50          |
| SPB03C-12 | 36~72       | 12           | 250          | 60          |
| SPB03C-15 | 36~72       | 15           | 200          | 60          |

| Model No. | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|-------------|--------------|--------------|-------------|
| SPB05A-05 | 9~18        | 5            | 1000         | 80          |
| SPB05A-12 | 9~18        | 12           | 417          | 90          |
| SPB05A-15 | 9~18        | 15           | 333          | 90          |
| SPB05B-05 | 18~36       | 5            | 1000         | 80          |
| SPB05B-12 | 18~36       | 12           | 417          | 90          |
| SPB05B-15 | 18~36       | 15           | 333          | 90          |
| SPB05C-05 | 36~72       | 5            | 1000         | 80          |
| SPB05C-12 | 36~72       | 12           | 417          | 90          |
| SPB05C-15 | 36~72       | 15           | 333          | 90          |





### 5W DC-DC Regulated Single and Dual Output



2"x 1"x 0.44"

- 2:1 wide input range
- 4:1 wide input range(option)
- 1000VDC I/O isolation
- 3000VDC I/O isolation(option)
- Built-in EMI filter
- Protection: Short circuit / Overload
- Cooling by free air convection
- Six-sided shield metal case
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

Voltage set point accuracy ... $\pm 2\%$  (max.)  
 Line regulation ..... $\pm 0.2\%$  (max.)  
 Load regulation ..... $\pm 0.5\%$  (max.)@10~100% load  
 Efficiency ..... 85% (typical)  
 Short circuit protection ..... Continuous, auto-recovery  
 Overload protection ..... 160%~250%, auto-recovery  
 I/O isolation voltage ..... 1000VDC (min.)  
 I/O isolation resistance ..... 100M $\Omega$  (min.)@ 500VDC  
 Working temperature ..... -25~+71°C (refer to output derating curve)  
 Storage temperature ..... -25°C to +105°C  
 Temp. Coefficient .....  $\pm 0.03\%$  / °C (max.)  
 Case material ..... Six-sided shield metal case  
 EMC ..... Compliance to EN55022 class B,  
 EN61000-4-2,3,4,5,6,8, FCC part15 class B

#### Single Output

| Model No. | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|-------------|--------------|--------------|-------------|
| SLW05A-05 | 9~18        | 5            | 1000         | 50          |
| SLW05A-09 | 9~18        | 9            | 556          | 60          |
| SLW05A-12 | 9~18        | 12           | 417          | 60          |
| SLW05A-15 | 9~18        | 15           | 333          | 60          |
| SLW05B-05 | 18~36       | 5            | 1000         | 50          |
| SLW05B-09 | 18~36       | 9            | 556          | 60          |
| SLW05B-12 | 18~36       | 12           | 417          | 60          |
| SLW05B-15 | 18~36       | 15           | 333          | 60          |
| SLW05C-05 | 36~72       | 5            | 1000         | 50          |
| SLW05C-09 | 36~72       | 9            | 556          | 60          |
| SLW05C-12 | 36~72       | 12           | 417          | 60          |
| SLW05C-15 | 36~72       | 15           | 333          | 60          |

#### Dual Output

| Model No. | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|-------------|--------------|--------------|-------------|
| DLW05A-05 | 9~18        | $\pm 5$      | $\pm 500$    | 50          |
| DLW05A-12 | 9~18        | $\pm 12$     | $\pm 208$    | 60          |
| DLW05A-15 | 9~18        | $\pm 15$     | $\pm 167$    | 60          |
| DLW05B-05 | 18~36       | $\pm 5$      | $\pm 500$    | 50          |
| DLW05B-12 | 18~36       | $\pm 12$     | $\pm 208$    | 60          |
| DLW05B-15 | 18~36       | $\pm 15$     | $\pm 167$    | 60          |
| DLW05C-05 | 36~72       | $\pm 5$      | $\pm 500$    | 50          |
| DLW05C-12 | 36~72       | $\pm 12$     | $\pm 208$    | 60          |
| DLW05C-15 | 36~72       | $\pm 15$     | $\pm 167$    | 60          |

### 8W DC-DC Regulated Single and Dual Output



1.25"x 0.8"x 0.48"

- 2:1 wide input range
- 1000VDC I/O isolation
- Built-in EMI filter
- Protection: Short circuit / Overload
- Cooling by free air convection
- Five-sided shield metal case
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

Voltage set point accuracy ....  $\pm 2\%$  (max.)  
 Line regulation .....  $\pm 0.5\%$  (max.)  
 Load regulation .....  $\pm 0.5\%$  (max.)@20~100% load  
 Efficiency ..... 82% (typical)  
 Short circuit protection ..... Continuous, auto-recovery  
 Overload protection ..... 110%~250%, auto-recovery  
 I/O isolation voltage ..... 1000VDC (min.)  
 I/O isolation resistance ..... 100M $\Omega$  (min.)@ 500VDC  
 Isolation capacitance ..... 250pF (max.)  
 Working temperature ..... -40~+71°C (refer to output derating curve)  
 Storage temperature ..... -40°C to +105°C  
 Temp. Coefficient .....  $\pm 0.03\%$  / °C (max.)  
 Case material ..... Five-sided shield metal case  
 EMC ..... Compliance to EN55022 class B,  
 EN61000-4-2,3,4,5,6,8, FCC part15 class B

#### Single Output

| Model No. | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|-------------|--------------|--------------|-------------|
| SCW08A-05 | 9~18        | 5            | 1600         | 50          |
| SCW08A-12 | 9~18        | 12           | 670          | 60          |
| SCW08A-15 | 9~18        | 15           | 533          | 60          |
| SCW08B-05 | 18~36       | 5            | 1600         | 50          |
| SCW08B-12 | 18~36       | 12           | 670          | 60          |
| SCW08B-15 | 18~36       | 15           | 533          | 60          |
| SCW08C-05 | 36~72       | 5            | 1600         | 50          |
| SCW08C-12 | 36~72       | 12           | 670          | 60          |
| SCW08C-15 | 36~72       | 15           | 533          | 60          |

#### Dual Output

| Model No. | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|-------------|--------------|--------------|-------------|
| DCW08A-05 | 9~18        | $\pm 5$      | $\pm 800$    | 50          |
| DCW08A-12 | 9~18        | $\pm 12$     | $\pm 335$    | 60          |
| DCW08A-15 | 9~18        | $\pm 15$     | $\pm 267$    | 60          |
| DCW08B-05 | 18~36       | $\pm 5$      | $\pm 800$    | 50          |
| DCW08B-12 | 18~36       | $\pm 12$     | $\pm 335$    | 60          |
| DCW08B-15 | 18~36       | $\pm 15$     | $\pm 267$    | 60          |
| DCW08C-05 | 36~72       | $\pm 5$      | $\pm 800$    | 50          |
| DCW08C-12 | 36~72       | $\pm 12$     | $\pm 335$    | 60          |
| DCW08C-15 | 36~72       | $\pm 15$     | $\pm 267$    | 60          |



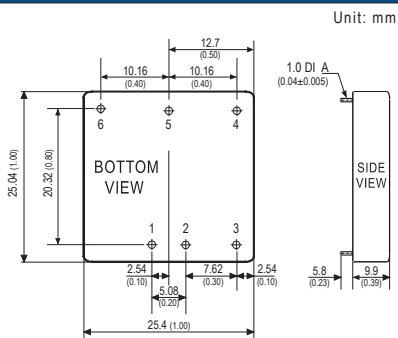
### 15W DC-DC Regulated Single Output



1"x 1"x 0.39"

- 1"x1" compact size
- 2:1 wide input range
- 1500VDC I/O isolation
- High efficiency up to 88%
- Built-in remote ON/OFF control
- Built-in EMI filter
- Trimming output ( $\pm 10\%$ )
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

#### Mechanism



#### Pin Configuration

| Pin No. | Output |
|---------|--------|
| 1       | +Vin   |
| 2       | -Vin   |
| 3       | R.C    |
| 4       | -Vout  |
| 5       | Trim   |
| 6       | +Vout  |

- Voltage set point accuracy ...  $\pm 2\%$  (max.)
- Line regulation .....  $\pm 0.5\%$  (max.)
- Load regulation .....  $\pm 0.5\%$  (max.) @10%~100% load
- Overload protection ..... 110%~180%, auto-recovery
- Over voltage protection ..... Clamp by TVS diode
- Efficiency ..... 88% (typical)
- I/O isolation voltage ..... 1500VDC(min.)
- I/O isolation resistance ..... 100M $\Omega$ (min.) @500VDC
- Working temperature ..... -40~+80°C (refer to output derating curve)
- Storage temperature ..... -55°C to 100°C
- Case Material ..... Six-sided shield metal case
- EMC ..... Compliance to EN55022 class A,  
EN61000-4-2,3,4,5,6,8, FCC part15 class A

| Model No. | Input (VDC) | Output (VDC) | Current (A) | R&N (mVp-p) |
|-----------|-------------|--------------|-------------|-------------|
| SKM15A-05 | 9~18        | 5            | 3.00        | 50          |
| SKM15A-12 | 9~18        | 12           | 1.25        | 60          |
| SKM15A-15 | 9~18        | 15           | 1.00        | 60          |
| SKM15B-05 | 18~36       | 5            | 3.00        | 50          |
| SKM15B-12 | 18~36       | 12           | 1.25        | 60          |
| SKM15B-15 | 18~36       | 15           | 1.00        | 60          |
| SKM15C-05 | 36~75       | 5            | 3.00        | 50          |
| SKM15C-12 | 36~75       | 12           | 1.25        | 60          |
| SKM15C-15 | 36~75       | 15           | 1.00        | 60          |

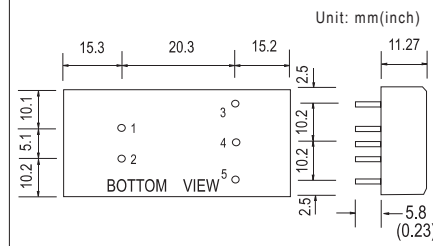
### 15W DC-DC Regulated Single and Dual Output



2"x 1"x 0.44"

- 2:1 wide input range
- 4:1 wide input range(option)
- 1000VDC I/O isolation
- 3000VDC I/O isolation (option)
- Built-in EMI filter
- Protection: Short circuit / Overload
- Cooling by free air convection
- Six-sided shield metal case
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

#### Mechanism



#### Pin Configuration

| Pin No. | Output |       |
|---------|--------|-------|
|         | Single | Dual  |
| 1       | +Vin   | +Vin  |
| 2       | -Vin   | -Vin  |
| 3       | +Vout  | +Vout |
| 4       | No Pin | COM   |
| 5       | -Vout  | -Vout |

- Voltage set point accuracy ...  $\pm 2\%$  (max.)
- Line regulation .....  $\pm 0.2\%$  (max.)
- Load regulation .....  $\pm 0.5\%$  (max.)@10~100% load
- Efficiency ..... 82% (typical)
- Short circuit protection ..... Continuous, auto-recovery
- Overload protection ..... 110%~250%, auto-recovery
- I/O isolation voltage ..... 1000VDC (min.)
- I/O isolation resistance ..... 100M $\Omega$  (min.)@ 500VDC
- Working temperature ..... -40~+71°C (refer to output derating curve)
- Storage temperature ..... -40°C to +105°C
- Temp. Coefficient .....  $\pm 0.03\%$  / °C (max.)
- Case material ..... Six-sided shield metal case
- EMC ..... Compliance to EN55022 class B,  
EN61000-4-2,3,4,5,6,8, FCC part15 class B

#### Single Output

| Model No.  | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|------------|-------------|--------------|--------------|-------------|
| SKA15A-033 | 9~18        | 3.3          | 3000         | 50          |
| SKA15A-05  | 9~18        | 5            | 3000         | 50          |
| SKA15A-12  | 9~18        | 12           | 1250         | 60          |
| SKA15A-15  | 9~18        | 15           | 1000         | 60          |
| SKA15B-033 | 18~36       | 3.3          | 3000         | 50          |
| SKA15B-05  | 18~36       | 5            | 3000         | 50          |
| SKA15B-12  | 18~36       | 12           | 1250         | 60          |
| SKA15B-15  | 18~36       | 15           | 1000         | 60          |
| SKA15C-033 | 36~72       | 3.3          | 3000         | 50          |
| SKA15C-05  | 36~72       | 5            | 3000         | 50          |
| SKA15C-12  | 36~72       | 12           | 1250         | 60          |
| SKA15C-15  | 36~72       | 15           | 1000         | 60          |

#### Dual Output

| Model No. | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|-------------|--------------|--------------|-------------|
| DKA15A-05 | 9~18        | $\pm 5$      | $\pm 1500$   | 50          |
| DKA15A-12 | 9~18        | $\pm 12$     | $\pm 625$    | 60          |
| DKA15A-15 | 9~18        | $\pm 15$     | $\pm 500$    | 60          |
| DKA15B-05 | 18~36       | $\pm 5$      | $\pm 1500$   | 50          |
| DKA15B-12 | 18~36       | $\pm 12$     | $\pm 625$    | 60          |
| DKA15B-15 | 18~36       | $\pm 15$     | $\pm 500$    | 60          |
| DKA15C-05 | 36~72       | $\pm 5$      | $\pm 1500$   | 50          |
| DKA15C-12 | 36~72       | $\pm 12$     | $\pm 625$    | 60          |
| DKA15C-15 | 36~72       | $\pm 15$     | $\pm 500$    | 60          |



To Satisfy our customers is our goal —

- High Quality
- Low Cost
- Prompt Delivery
- Best Service



# DC/DC Converter

15~30W Module Type



## 15W DC-DC Regulated Single and Dual Output



2" x 2" x 0.43"

- 2:1 wide input range
- 4:1 wide input range(option)
- 1000VDC I/O isolation
- 3000VDC I/O isolation(option)
- Built-in EMI filter
- Protections: Short circuit / Overload
- Cooling by free air convection
- Six-sided shield metal case
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

| Mechanism | Pin Configuration                                                                                                                                                                                                                                                                                                                                                                                                      |         |        |  |        |      |   |      |      |   |      |      |   |       |       |   |        |     |   |       |       |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|--|--------|------|---|------|------|---|------|------|---|-------|-------|---|--------|-----|---|-------|-------|
|           | <table border="1"> <thead> <tr> <th rowspan="2">Pin No.</th><th colspan="2">Output</th></tr> <tr> <th>Single</th><th>Dual</th></tr> </thead> <tbody> <tr> <td>1</td><td>+Vin</td><td>+Vin</td></tr> <tr> <td>2</td><td>-Vin</td><td>-Vin</td></tr> <tr> <td>3</td><td>+Vout</td><td>+Vout</td></tr> <tr> <td>4</td><td>No Pin</td><td>COM</td></tr> <tr> <td>5</td><td>-Vout</td><td>-Vout</td></tr> </tbody> </table> | Pin No. | Output |  | Single | Dual | 1 | +Vin | +Vin | 2 | -Vin | -Vin | 3 | +Vout | +Vout | 4 | No Pin | COM | 5 | -Vout | -Vout |
| Pin No.   | Output                                                                                                                                                                                                                                                                                                                                                                                                                 |         |        |  |        |      |   |      |      |   |      |      |   |       |       |   |        |     |   |       |       |
|           | Single                                                                                                                                                                                                                                                                                                                                                                                                                 | Dual    |        |  |        |      |   |      |      |   |      |      |   |       |       |   |        |     |   |       |       |
| 1         | +Vin                                                                                                                                                                                                                                                                                                                                                                                                                   | +Vin    |        |  |        |      |   |      |      |   |      |      |   |       |       |   |        |     |   |       |       |
| 2         | -Vin                                                                                                                                                                                                                                                                                                                                                                                                                   | -Vin    |        |  |        |      |   |      |      |   |      |      |   |       |       |   |        |     |   |       |       |
| 3         | +Vout                                                                                                                                                                                                                                                                                                                                                                                                                  | +Vout   |        |  |        |      |   |      |      |   |      |      |   |       |       |   |        |     |   |       |       |
| 4         | No Pin                                                                                                                                                                                                                                                                                                                                                                                                                 | COM     |        |  |        |      |   |      |      |   |      |      |   |       |       |   |        |     |   |       |       |
| 5         | -Vout                                                                                                                                                                                                                                                                                                                                                                                                                  | -Vout   |        |  |        |      |   |      |      |   |      |      |   |       |       |   |        |     |   |       |       |

|                            |                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------|
| Voltage set point accuracy | ... ±2% (max.)                                                                    |
| Line regulation            | ..... ±0.3% (max.)                                                                |
| Load regulation            | ..... ±0.5% (max.)@10~100% load                                                   |
| Efficiency                 | ..... 85% (typical)                                                               |
| Short circuit protection   | ..... Continuous, auto-recovery                                                   |
| Overload protection        | ..... 160%~250%, auto-recovery                                                    |
| I/O isolation voltage      | ..... 1000VDC (min.)                                                              |
| I/O isolation resistance   | ..... 100MΩ (min.)@ 500VDC                                                        |
| Working temperature        | ..... -25~+71°C (refer to output derating curve)                                  |
| Storage temperature        | ..... -25°C to +105°C                                                             |
| Temp. Coefficient          | ..... ±0.03% / °C (max.)                                                          |
| Case material              | ..... Six-sided shield metal case                                                 |
| EMC                        | ..... Compliance to EN55022 class B,<br>EN61000-4-2,3,4,5,6,8, FCC part15 class B |

### ◆ Single Output

| Model No. | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|-------------|--------------|--------------|-------------|
| SKE15A-05 | 9~18        | 5            | 3000         | 50          |
| SKE15A-12 | 9~18        | 12           | 1250         | 60          |
| SKE15A-15 | 9~18        | 15           | 1000         | 60          |
| SKE15A-24 | 9~18        | 24           | 625          | 80          |
| SKE15B-05 | 18~36       | 5            | 3000         | 50          |
| SKE15B-12 | 18~36       | 12           | 1250         | 60          |
| SKE15B-15 | 18~36       | 15           | 1000         | 60          |
| SKE15B-24 | 18~36       | 24           | 625          | 80          |
| SKE15C-05 | 36~72       | 5            | 3000         | 50          |
| SKE15C-12 | 36~72       | 12           | 1250         | 60          |
| SKE15C-15 | 36~72       | 15           | 1000         | 60          |
| SKE15C-24 | 36~72       | 24           | 625          | 80          |

### ◆ Dual Output

| Model No. | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|-------------|--------------|--------------|-------------|
| DKE15A-05 | 9~18        | ±5           | ±1500        | 50          |
| DKE15A-12 | 9~18        | ±12          | ±625         | 60          |
| DKE15A-15 | 9~18        | ±15          | ±500         | 60          |
| DKE15A-24 | 9~18        | ±24          | ±313         | 80          |
| DKE15B-05 | 18~36       | ±5           | ±1500        | 50          |
| DKE15B-12 | 18~36       | ±12          | ±625         | 60          |
| DKE15B-15 | 18~36       | ±15          | ±500         | 60          |
| DKE15B-24 | 18~36       | ±24          | ±313         | 80          |
| DKE15C-05 | 36~72       | ±5           | ±1500        | 50          |
| DKE15C-12 | 36~72       | ±12          | ±625         | 60          |
| DKE15C-15 | 36~72       | ±15          | ±500         | 60          |
| DKE15C-24 | 36~72       | ±24          | ±313         | 80          |

## 20~30W DC-DC Regulated Single Output



SKA20  
2" x 1" x 0.44"

SKM30  
2" x 1" x 0.44"

- 2" x 1" compact size
- 2:1 wide input range
- 1500VDC I/O isolation
- Built-in remote ON/OFF control
- Built-in EMI filter
- Trimming output (±10%)
- Protections:  
Short circuit / Overload /  
Input and output over voltage
- Cooling by free air convection
- Six-sided shield metal case
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

## Mechanism

Unit: mm(inch)

**Bottom View:**

- Overall width: 20.4 (0.80)
- Overall height: 50.8 (2.00)
- Pin 1: 7.62 (0.30) from top edge, 5.08 (0.20) from left edge.
- Pin 2: 5.08 (0.20) from top edge, 10.2 (0.40) from left edge.
- Pin 3: 10.2 (0.40) from left edge.
- Pin 4: 10.2 (0.40) from left edge.
- Pin 5: 10.2 (0.40) from left edge.
- Pin 6: 10.2 (0.40) from left edge.
- Overall width of pin area: 25.4 (1.00)

**Side View:**

- Overall height: 20.32 (0.80)
- Pin 1: 5.8 (0.23) from top edge.
- Pin 2: 15.24 (0.60) from top edge.
- Pin 3: 11.2 (0.44) from top edge.
- Pin 4: 11.2 (0.44) from top edge.
- Pin 5: 11.2 (0.44) from top edge.
- Pin 6: 11.2 (0.44) from top edge.
- Overall width of pin area: 11.2 (0.44)

**SKA20**

## Pin Configuration

| Pin No. | Output |       |
|---------|--------|-------|
|         | SKA20  | SKM30 |
| 1       | +Vin   | +Vin  |
| 2       | -Vin   | -Vin  |
| 3       | +Vout  | R.C.  |
| 4       | Trim   | +Vout |
| 5       | -Vout  | -Vout |
| 6       | R.C.   | Trim  |

**Side View:**

- Overall width: 50.8 (2.00)
- Overall height: 11.2 (0.44)
- Pin 1: 5.8 (0.23) from top edge.
- Pin 2: 5.8 (0.23) from top edge.
- Pin 3: 5.8 (0.23) from top edge.
- Overall width of pin area: 45.72 (1.8)

**Bottom View:**

- Overall width: 25.4 (1.0)
- Overall height: 25.4 (1.0)
- Pin 1: 10.16 (0.40) from top edge, 5.08 (0.20) from left edge.
- Pin 2: 10.16 (0.40) from top edge, 10.16 (0.40) from left edge.
- Pin 3: 10.16 (0.40) from top edge, 15.24 (0.60) from left edge.
- Pin 4: 10.16 (0.40) from top edge, 20.32 (0.80) from left edge.
- Pin 5: 10.16 (0.40) from top edge, 25.4 (1.0) from left edge.
- Pin 6: 10.16 (0.40) from top edge, 30.48 (1.2) from left edge.
- Overall width of pin area: 30.48 (1.2)

**SKM30**

|                            |                                                                                                                    |
|----------------------------|--------------------------------------------------------------------------------------------------------------------|
| Voltage set point accuracy | ... ±2% (max.)                                                                                                     |
| Line regulation            | ..... ±0.2% (max.)                                                                                                 |
| Load regulation            | ..... ±0.5% (max.)@10~100% load                                                                                    |
| Efficiency                 | ..... 89.5% (typical) for SKA20<br>90% (typical) for SKM30                                                         |
| Short circuit protection   | ..... Continuous, auto-recovery                                                                                    |
| Overload protection        | ..... 110%~180%, auto-recovery                                                                                     |
| I/O isolation voltage      | ..... 1500VDC (min.)                                                                                               |
| I/O isolation resistance   | ..... 100MΩ (min.)@ 500VDC                                                                                         |
| Working temperature        | ..... -40~+85°C (refer to output derating curve) for SKA20<br>-40~+75°C (refer to output derating curve) for SKM30 |
| EMC                        | ..... Compliance to EN55022 class A,<br>EN61000-4-2,3,4,5,6,8, FCC part15 class A                                  |

### ◆ SKA20 Series

| Model No. | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-----------|-------------|--------------|--------------|-------------|
| SKA20A-05 | 9~18        | 5            | 4000         | 50          |
| SKA20A-12 | 9~18        | 12           | 1666         | 60          |
| SKA20A-15 | 9~18        | 15           | 1333         | 60          |
| SKA20B-05 | 18~36       | 5            | 4000         | 50          |
| SKA20B-12 | 18~36       | 12           | 1666         | 60          |
| SKA20B-15 | 18~36       | 15           | 1333         | 60          |
| SKA20C-05 | 36~75       | 5            | 4000         | 50          |
| SKA20C-12 | 36~75       | 12           | 1666         | 60          |
| SKA20C-15 | 36~75       | 15           | 1333         | 60          |

### ◆ SKM30 Series

| Model No. | Input (VDC) | Output (VDC) | Current (A) | R&N (mVp-p) |
|-----------|-------------|--------------|-------------|-------------|
| SKM30A-05 | 9~18        | 5            | 6           | 90          |
| SKM30A-12 | 9~18        | 12           | 2.5         | 120         |
| SKM30A-15 | 9~18        | 15           | 2           | 120         |
| SKM30B-05 | 18~36       | 5            | 6           | 90          |
| SKM30B-12 | 18~36       | 12           | 2.5         | 120         |
| SKM30B-15 | 18~36       | 15           | 2           | 120         |
| SKM30C-05 | 36~75       | 5            | 6           | 90          |
| SKM30C-12 | 36~75       | 12           | 2.5         | 120         |
| SKM30C-15 | 36~75       | 15           | 2           | 120         |



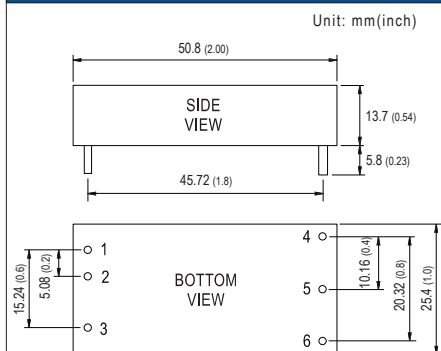
### 50W DC-DC Regulated Single Output



2"x 1"x 0.54"

- 2"x1" compact size
- 2:1 wide input range
- 1500VDC I/O isolation
- High efficiency up to 92%
- Built-in remote ON/OFF control
- Built-in EMI filter
- Trimming output ( $\pm 10\%$ )
- Protections:
  - Short circuit / Overload / Input and output over voltage
- Cooling by free air convection
- Six-sided shield metal case
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

#### Mechanism



#### Pin Configuration

| Pin No. | Output |
|---------|--------|
| 1       | +Vin   |
| 2       | -Vin   |
| 3       | R.C.   |
| 4       | +Vout  |
| 5       | -Vout  |
| 6       | Trim   |

Voltage set point accuracy ....  $\pm 2\%$  (max.)

Line regulation .....  $\pm 0.2\%$  (max.)

Load regulation .....  $\pm 0.5\%$  (max.) @ 10~100% load

Efficiency ..... 92% (typical)

Short circuit protection ..... Continuous, auto-recovery

Overload protection ..... 110%~180%, auto-recovery

I/O isolation voltage ..... 1500VDC (min.)

I/O isolation resistance ..... 100M $\Omega$  (min.)@ 500VDC

Working temperature ..... -40~+75°C (refer to output derating curve)

Storage temperature ..... -55°C to +125°C

Temp. Coefficient .....  $\pm 0.03\%$  / °C (max.)

Case material ..... Six-sided shield metal case

EMC ..... Compliance to EN55022 class A, EN61000-4-2,3,4,5,6,8, FCC part15 class A

| Model No. | Input (VDC) | Output (VDC) | Current (A) | R&N (mVp-p) |
|-----------|-------------|--------------|-------------|-------------|
| SKM50B-05 | 18~36       | 5            | 10          | 60          |
| SKM50B-12 | 18~36       | 12           | 4.17        | 80          |
| SKM50B-15 | 18~36       | 15           | 3.33        | 100         |
| SKM50C-05 | 36~75       | 5            | 10          | 60          |
| SKM50C-12 | 36~75       | 12           | 4.17        | 80          |
| SKM50C-15 | 36~75       | 15           | 3.33        | 100         |

### 40~60W DC-DC Regulated Single Output

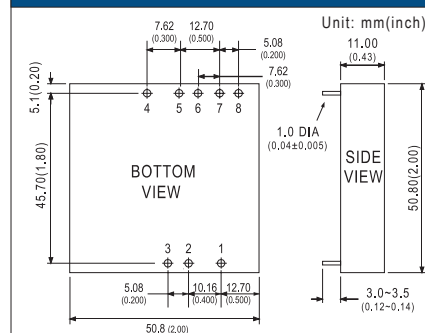


SKA40  
2"x 2"x 0.43"

SKA60  
2"x 2"x 0.43"

- 2"x2" compact size
- 2:1 wide input range
- 1500VDC I/O isolation
- High efficiency up to 93%
- Built-in remote ON/OFF control
- Built-in remote sense
- Built-in EMI filter
- Trimming output ( $\pm 10\%$ )
- Protections:
  - Short circuit / Overload / Input and output over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, high reliability
- Output 3.3V/9V models available for SKA40
- Output 3.3V available for SKA60
- 2 years warranty

#### Mechanism



#### Pin Configuration

| Pin No. | Output |
|---------|--------|
| 1       | R.C.   |
| 2       | -Vin   |
| 3       | +Vin   |
| 4       | -R.S   |
| 5       | +R.S   |
| 6       | +Vout  |
| 7       | -Vout  |
| 8       | Trim   |

Voltage set point accuracy ....  $\pm 2\%$  (max.)

Line regulation .....  $\pm 0.5\%$  (max.)

Load regulation .....  $\pm 0.5\%$  (max.) @ 10~100% load

Overload protection ..... 110%~180%, auto-recovery

Over voltage protection ..... Clamp by TVS diode

Efficiency (typical)..... 92% for SKA40; 93% for SKA60

I/O isolation voltage ..... 1500VDC(min.)

I/O isolation resistance ..... 100M $\Omega$ (min.) @500VDC

Working temperature ..... -40~+80°C(refer to output derating curve) for SKA40  
-40~+70°C(refer to output derating curve) for SKA60

Storage temperature ..... -55°C to +105°C

Case Material ..... Six-sided shield metal case

EMC ..... Compliance to EN55022 class A, EN61000-4-2,3,4,5,6,8, FCC part15 class A

| Model No. | Input (VDC) | Output (VDC) | Current (A) | R&N (mVp-p) |
|-----------|-------------|--------------|-------------|-------------|
| SKA40A-05 | 9~18        | 5            | 7.00        | 60          |
| SKA40A-12 | 9~18        | 12           | 3.33        | 80          |
| SKA40A-15 | 9~18        | 15           | 2.67        | 100         |
| SKA40B-05 | 18~36       | 5            | 7.00        | 60          |
| SKA40B-12 | 18~36       | 12           | 3.33        | 80          |
| SKA40B-15 | 18~36       | 15           | 2.67        | 100         |
| SKA40C-05 | 36~75       | 5            | 7.00        | 60          |
| SKA40C-12 | 36~75       | 12           | 3.33        | 80          |
| SKA40C-15 | 36~75       | 15           | 2.67        | 100         |

| Model No. | Input (VDC) | Output (VDC) | Current (A) | R&N (mVp-p) |
|-----------|-------------|--------------|-------------|-------------|
| SKA60A-05 | 9~18        | 5            | 12          | 60          |
| SKA60A-12 | 9~18        | 12           | 5           | 80          |
| SKA60A-15 | 9~18        | 15           | 4           | 100         |
| SKA60B-05 | 18~36       | 5            | 12          | 60          |
| SKA60B-12 | 18~36       | 12           | 5           | 80          |
| SKA60B-15 | 18~36       | 15           | 4           | 100         |
| SKA60C-05 | 36~75       | 5            | 12          | 60          |
| SKA60C-12 | 36~75       | 12           | 5           | 80          |
| SKA60C-15 | 36~75       | 15           | 4           | 100         |



#### Customer Satisfaction —

Today's effort, tomorrow's reward. Continuously improve CQTS to satisfy customer is our goal.

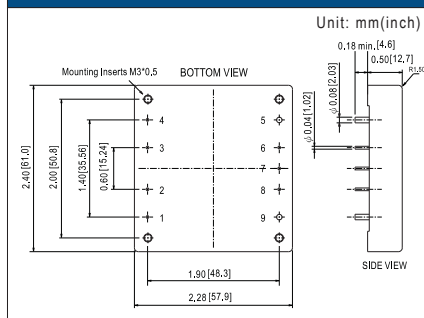
### 75W DC-DC Half-Brick Regulated Single Output



2.28"x 2.4"x 0.5"

- Half-brick size (2.28"x 2.4"x 0.5") with industry standard pin out
- 2:1 wide input range
- 1500VDC I/O isolation
- High efficiency up to 89%
- Built-in remote ON/OFF control
- Built-in remote sense
- Trimming output ( $\pm 10\%$ )
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Five-sided shield metal case
- Output 2.5V / 3.3V / 15V available
- Optional heatsink available
- 3 years warranty

#### Mechanism



#### Pin Configuration

| Pin No. | Output |
|---------|--------|
| 1       | +Vin   |
| 2       | R.C.   |
| 3       | Case   |
| 4       | -Vin   |
| 5       | -Vout  |
| 6       | -R.S.  |
| 7       | Trim   |
| 8       | +R.S.  |
| 9       | +Vout  |

|                             |                                                                                                                        |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------|
| Voltage set point accuracy  | ... $\pm 1\%$ (max.)                                                                                                   |
| Line regulation             | ..... $\pm 0.2\%$ (max.)                                                                                               |
| Load regulation             | ..... $\pm 0.2\%$ (max.)                                                                                               |
| Over current protection     | ..... 110%~150%, auto-recovery                                                                                         |
| Over voltage protection     | ..... 115%~140% rated output voltage, clamp by TVS diode                                                               |
| Over temperature protection | ..... $100^{\circ}\text{C} \pm 5^{\circ}\text{C}$ of case temperature                                                  |
| Efficiency                  | ..... 89% (typical)                                                                                                    |
| I/O isolation voltage       | ..... 1500VDC(min.)                                                                                                    |
| I/O isolation resistance    | ..... 100M $\Omega$ (min.) @500VDC                                                                                     |
| Working temperature         | ..... $-40 \sim +100^{\circ}\text{C}$ of case temp.(refer to output derating curve)                                    |
| Storage temperature         | ..... $-55 \sim +105^{\circ}\text{C}$                                                                                  |
| Safety standards            | ..... UL60950-1 approved                                                                                               |
| Case Material               | ..... Five-sided shield metal case                                                                                     |
| EMC                         | ..... Compliance to EN55022 class A with external components(refer to "EMC suggestion circuit"), EN61000-4-2,3,4,5,6,8 |

| Model No.   | Input (VDC) | Output (VDC) | Current (A) | R&N (mVp-p) |
|-------------|-------------|--------------|-------------|-------------|
| MHB75-12S05 | 9~18        | 5            | 15          | 75          |
| MHB75-12S12 | 9~18        | 12           | 6.25        | 100         |
| MHB75-12S24 | 9~18        | 24           | 3.13        | 240         |
| MHB75-24S05 | 18~36       | 5            | 15          | 75          |
| MHB75-24S12 | 18~36       | 12           | 6.25        | 100         |
| MHB75-24S24 | 18~36       | 24           | 3.13        | 240         |
| MHB75-48S05 | 36~75       | 5            | 15          | 75          |
| MHB75-48S12 | 36~75       | 12           | 6.25        | 100         |
| MHB75-48S24 | 36~75       | 24           | 3.13        | 240         |

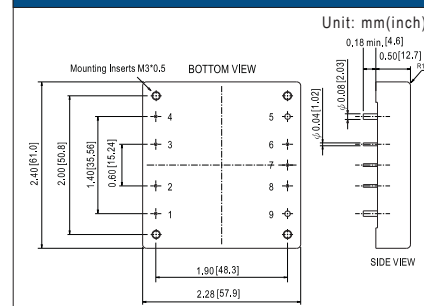
### 100W DC-DC Half-Brick Regulated Single Output



2.28"x 2.4"x 0.5"

- Half-brick size (2.28"x 2.4"x 0.5") with industry standard pin out
- 2:1 wide input range
- 1500VDC I/O isolation
- High efficiency up to 89%
- Built-in remote ON/OFF control
- Built-in remote sense
- Trimming output ( $\pm 10\%$ )
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Five-sided shield metal case
- Output 2.5V / 3.3V / 15V available
- Optional heatsink available
- 3 years warranty

#### Mechanism



#### Pin Configuration

| Pin No. | Output |
|---------|--------|
| 1       | +Vin   |
| 2       | R.C.   |
| 3       | Case   |
| 4       | -Vin   |
| 5       | -Vout  |
| 6       | -R.S.  |
| 7       | Trim   |
| 8       | +R.S.  |
| 9       | +Vout  |

|                             |                                                                                                                        |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------|
| Voltage set point accuracy  | ... $\pm 1\%$ (max.)                                                                                                   |
| Line regulation             | ..... $\pm 0.2\%$ (max.)                                                                                               |
| Load regulation             | ..... $\pm 0.2\%$ (max.)                                                                                               |
| Over current protection     | ..... 110%~140%, auto-recovery                                                                                         |
| Over voltage protection     | ..... 115%~140% rated output voltage, clamp by TVS diode                                                               |
| Over temperature protection | ..... $100^{\circ}\text{C} \pm 5^{\circ}\text{C}$ of case temperature                                                  |
| Efficiency                  | ..... 89% (typical)                                                                                                    |
| I/O isolation voltage       | ..... 1500VDC(min.)                                                                                                    |
| I/O isolation resistance    | ..... 100M $\Omega$ (min.) @500VDC                                                                                     |
| Working temperature         | ..... $-40 \sim +100^{\circ}\text{C}$ of case temp.(refer to output derating curve)                                    |
| Storage temperature         | ..... $-55 \sim +105^{\circ}\text{C}$                                                                                  |
| Safety standards            | ..... UL60950-1 approved                                                                                               |
| Case Material               | ..... Five-sided shield metal case                                                                                     |
| EMC                         | ..... Compliance to EN55022 class A with external components(refer to "EMC suggestion circuit"), EN61000-4-2,3,4,5,6,8 |

| Model No.    | Input (VDC) | Output (VDC) | Current (A) | R&N (mVp-p) |
|--------------|-------------|--------------|-------------|-------------|
| MHB100-24S05 | 18~36       | 5            | 20          | 100         |
| MHB100-24S12 | 18~36       | 12           | 8.3         | 150         |
| MHB100-24S24 | 18~36       | 24           | 4.17        | 240         |
| MHB100-48S05 | 36~75       | 5            | 20          | 100         |
| MHB100-48S12 | 36~75       | 12           | 8.3         | 150         |
| MHB100-48S24 | 36~75       | 24           | 4.17        | 240         |

### Heat Sink for MHB Series

| Order No.  | M-C308<br>(Vertical Fins) | M-C091<br>(Horizontal Fins) | M-C092<br>(Horizontal Fins) |
|------------|---------------------------|-----------------------------|-----------------------------|
| Mechanical |                           |                             |                             |

Note: Power module and heat sink should be ordered separately; The heat sinks can be used with MHB75/100/150 series.



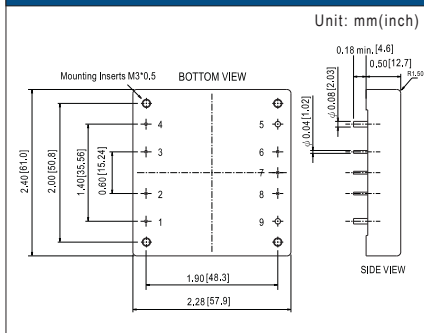
### 150W DC-DC Half-Brick Regulated Single Output



2.28"x 2.4"x 0.5"

- Half-brick size (2.28"x 2.4"x 0.5") with industry standard pin out
- 2:1 wide input range
- 1500VDC I/O isolation
- High efficiency up to 89%
- Built-in remote ON/OFF control
- Built-in remote sense
- Trimming output ( $\pm 10\%$ )
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Five-sided shield metal case
- Output 2.5V / 3.3V / 15V available
- Optional heatsink available
- 3 years warranty

#### Mechanism



#### Pin Configuration

| Pin No. | Output |
|---------|--------|
| 1       | +Vin   |
| 2       | R.C.   |
| 3       | Case   |
| 4       | -Vin   |
| 5       | -Vout  |
| 6       | -R.S.  |
| 7       | Trim   |
| 8       | +R.S.  |
| 9       | +Vout  |

- Voltage set point accuracy ... $\pm 1\%$  (max.)
- Line regulation ..... $\pm 0.2\%$  (max.)
- Load regulation ..... $\pm 0.2\%$  (max.)
- Over current protection ..... 110%~150%, auto-recovery
- Over voltage protection ..... 115%~140% rated output voltage, clamp by TVS diode
- Over temperature protection .....  $100^{\circ}\text{C} \pm 5^{\circ}\text{C}$  of case temperature
- Efficiency ..... 89% (typical)
- I/O isolation voltage ..... 1500VDC(min.)
- I/O isolation resistance ..... 100M $\Omega$ (min.) @500VDC
- Working temperature .....  $-40^{\circ}\text{C} \sim 100^{\circ}\text{C}$  of case temp.(refer to output derating curve)
- Storage temperature .....  $-55^{\circ}\text{C} \sim 105^{\circ}\text{C}$
- Safety standards ..... UL60950-1 approved
- Case Material ..... Five-sided shield metal case
- EMC ..... Compliance to EN55022 class A with external components(refer to "EMC suggestion circuit"), EN61000-4-2,3,4,5,6,8

| Model No.    | Input (VDC) | Output (VDC) | Current (A) | R&N (mVp-p) |
|--------------|-------------|--------------|-------------|-------------|
| MHB150-48S05 | 36~75       | 5            | 30          | 100         |
| MHB150-48S12 | 36~75       | 12           | 12.5        | 150         |
| MHB150-48S24 | 36~75       | 24           | 6.25        | 240         |

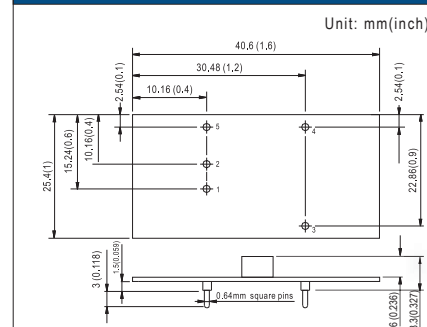
### 5W DC-DC Regulated Single Output



1.6"x 1"x 0.327"

- 4:1 wide input range
- 1000VDC I/O isolation
- Built-in EMI filter
- Protections: Short circuit / Overload / Over voltage
- Built-in remote ON/OFF control
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

#### Mechanism



#### Pin Configuration

| Pin No. | Output      |
|---------|-------------|
| 1       | +Input      |
| 2       | -Input(GND) |
| 3       | +Vout       |
| 4       | -Vout       |
| 5       | Control     |

- Voltage set point accuracy ... $\pm 2.0\%$  (max.)
- Line regulation ..... $\pm 1.0\%$  (max.)
- Load regulation ..... $\pm 1 \sim 2\%$  (max.)@10~100% load
- Efficiency ..... 85% (typical)
- Short circuit protection ..... Continuous, auto-recovery
- Overload protection ..... Over 105% power limiting, auto-recovery
- I/O isolation voltage ..... 1000VDC
- I/O isolation resistance ..... 100M $\Omega$  (min.)@ 500VDC
- Working temperature .....  $-25^{\circ}\text{C} \sim 70^{\circ}\text{C}$  (refer to output derating curve)
- Storage temperature .....  $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$
- Temp. Coefficient ..... $\pm 0.03\%$  /  $^{\circ}\text{C}$
- Safety standards ..... IEC60950-1 CB approved by TUV
- EMC standards ..... EN55022 class B, EN61000-4-2,3,4,5,6,8
- Packing ..... 0.007kg ; 700pcs / 5.9kg / 0.97CUFT

| Model No.   | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-------------|-------------|--------------|--------------|-------------|
| NSD05-12S3  | 9.2~36      | 3.3          | 1200         | 75          |
| NSD05-12S5  | 9.2~36      | 5            | 1000         | 75          |
| NSD05-12S12 | 9.2~36      | 12           | 420          | 75          |
| NSD05-12S15 | 9.2~36      | 15           | 330          | 75          |
| NSD05-48S3  | 18~72       | 3.3          | 1200         | 75          |
| NSD05-48S5  | 18~72       | 5            | 1000         | 75          |
| NSD05-48S12 | 18~72       | 12           | 420          | 75          |
| NSD05-48S15 | 18~72       | 15           | 330          | 75          |



We provide specification, drawing, test report and more information, please visit our website —

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### 10W DC-DC Regulated Single and Dual Output



- 4:1 wide input range
- 1000VDC I/O isolation
- Protections: Short circuit / Overload / Over voltage
- Built-in EMI filter
- Built-in remote ON/OFF control
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

2"x 1"x 0.394"

## Mechanism

Unit: mm(inch)

The drawing shows the mechanical specifications of the 10W DC-DC converter module. The top view includes dimensions for the overall size (50.8 [2] mm), mounting hole positions (15.24 [0.6] mm), and pin locations (1, 2, 3, 4, 5, 6). The side view shows the module's profile with dimensions for the mounting hole offset (10.16 [0.4] mm), mounting hole diameter (3.81 [0.15] mm), mounting hole spacing (1.52 [0.04] mm), mounting hole diameter (1.78 [0.07] mm), and mounting hole offset (1.52 [0.04] mm). The module is shown with a mounting bracket and a mounting hole.

## Pin Configuration

| Pin No. | Output       |              |
|---------|--------------|--------------|
|         | Single       | Dual         |
| 1       | +Input       | +Input       |
| 2       | -Input (GND) | -Input (GND) |
| 3       | +Out         | +Out         |
| 4       | NC           | Common       |
| 5       | -Out         | -Out         |
| 6       | Control      | Control      |

Voltage set point accuracy .....  $\pm 2\%$  (max.)  
 Line regulation .....  $\pm 1\%$  @10~100% load  
 Load regulation .....  $\pm 1 \sim \pm 3\%$  @10~100% load  
 Efficiency ..... 80% (typical)  
 Short circuit protection ..... Continuous, auto-recovery  
 Over voltage protection ..... Clamp@115~150%  
 Shutdown idle current ..... 20mA  
 I/O isolation voltage ..... 1000VDC  
 I/O isolation resistance ..... 100M $\Omega$  (min.) @500VDC  
 Working temperature ..... -25~+70°C  
 Storage temperature ..... -40~+85°C  
 Temp. coefficient .....  $\pm 0.03\%$  / °C  
 Safety standards ..... UL60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8  
 Packing ..... 0.02kg ; 300pcs / 7.0kg / 0.97CUFT

#### ◆ Single Output

| Model No.   | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-------------|-------------|--------------|--------------|-------------|
| NSD10-12S3  | 9.8~36      | 3.3          | 2500         | 75          |
| NSD10-12S5  | 9.8~36      | 5            | 2000         | 75          |
| NSD10-12S9  | 9.8~36      | 9            | 1100         | 75          |
| NSD10-12S12 | 9.8~36      | 12           | 830          | 75          |
| NSD10-12S15 | 9.8~36      | 15           | 670          | 75          |
| NSD10-48S3  | 22~72       | 3.3          | 2500         | 75          |
| NSD10-48S5  | 22~72       | 5            | 2000         | 75          |
| NSD10-48S9  | 22~72       | 9            | 1100         | 75          |
| NSD10-48S12 | 22~72       | 12           | 830          | 75          |
| NSD10-48S15 | 22~72       | 15           | 670          | 75          |

#### ◆ Dual Output

| Model No.   | Input (VDC) | Output (VDC) | Current (mA)       | R&N (mVp-p) |
|-------------|-------------|--------------|--------------------|-------------|
| NSD10-12D5  | 9.8~36      | $\pm 5$      | $\pm 50 \sim 1000$ | 75          |
| NSD10-12D12 | 9.8~36      | $\pm 12$     | $\pm 20 \sim 420$  | 75          |
| NSD10-12D15 | 9.8~36      | $\pm 15$     | $\pm 16 \sim 330$  | 75          |
| NSD10-48D5  | 22~72       | $\pm 5$      | $\pm 50 \sim 1000$ | 75          |
| NSD10-48D12 | 22~72       | $\pm 12$     | $\pm 20 \sim 420$  | 75          |
| NSD10-48D15 | 22~72       | $\pm 15$     | $\pm 16 \sim 330$  | 75          |

### 15W DC-DC Regulated Single and Dual Output



- 4:1 wide input range
- 1500VDC I/O isolation
- Protections: Short circuit / Overload / Over voltage
- Built-in EMI filter
- Output voltage trimming function
- Built-in remote ON/OFF control
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

2"x 1.5"x 0.387"

## Mechanism

Unit: mm(inch)

Dimensions (mm [inch]):

- Overall width: 50.8 [2]
- Top mounting hole spacing: 13.3 [0.52]
- Top mounting hole diameter: 10.8 [0.425]
- Top mounting hole offset: 1.8 [0.071]
- Top mounting hole diameter: 10.0 [0.39]
- Top mounting hole offset: 5.5 [0.21]
- Top mounting hole offset: 6.2 [0.38]
- Overall height: 38.1 [1.5]
- Pin 1 to Pin 2 spacing: 5.08 [0.2]
- Pin 1 to Pin 4 spacing: 10.16 [0.4]
- Pin 1 to Pin 6 spacing: 6.35 [0.25]
- Pin 1 to Pin 8 spacing: 45.72 [1.8]
- Pin 1 to Pin 10 spacing: 50.8 [2]
- Pin 1 to Pin 12 spacing: 45.72 [1.8]
- Pin 1 to Pin 14 spacing: 38.1 [1.5]

Pin Locations:

- Pin 1: +VIN
- Pin 2: -VIN
- Pin 3: No Pin
- Pin 4: CONTROL
- Pin 5: No Pin
- Pin 6: +VOUT
- Pin 7: -VOUT
- Pin 8: TRIM
- Pin 9: No Pin
- Pin 10: +VOUT
- Pin 11: -VOUT
- Pin 12: TRIM
- Pin 13: No Pin
- Pin 14: +VOUT
- Pin 15: -VOUT

## Pin Configuration

| Pin No. | Output  |         |
|---------|---------|---------|
|         | Single  | Dual    |
| 1       | +Vin    | +Vin    |
| 2       | -Vin    | -Vin    |
| 3       | No Pin  | No Pin  |
| 4       | Control | Control |
| 5       | No Pin  | +Vout   |
| 6       | +Vout   | Common  |
| 7       | -Vout   | -Vout   |
| 8       | Trim    | Trim    |

Voltage set point accuracy .....  $\pm 2\%$  (max.)  
 Line regulation .....  $\pm 1\%$  @10~100% load  
 Load regulation .....  $\pm 1 \sim \pm 3\%$  @10~100% load  
 Efficiency ..... 85% (typical)  
 Short circuit protection ..... Continuous, auto-recovery  
 Over voltage protection ..... Clamp@115~150%  
 Shutdown idle current ..... 20mA  
 I/O isolation voltage ..... 1500VDC  
 I/O isolation resistance ..... 100M $\Omega$  (min.) @500VDC  
 Working temperature ..... -25~+70°C  
 Storage temperature ..... -40~+85°C  
 Temp. coefficient .....  $\pm 0.03\%$  / °C  
 Safety standards ..... UL60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8  
 Packing ..... 0.03kg ; 180pcs / 6.4kg / 0.97CUFT

#### ◆ Single Output

| Model No.   | Input (VDC) | Output (VDC) | Current (mA) | R&N (mVp-p) |
|-------------|-------------|--------------|--------------|-------------|
| NSD15-12S3  | 9.4~36      | 3.3          | 3750         | 100         |
| NSD15-12S5  | 9.4~36      | 5            | 3000         | 75          |
| NSD15-12S12 | 9.4~36      | 12           | 1250         | 75          |
| NSD15-12S15 | 9.4~36      | 15           | 1000         | 75          |
| NSD15-48S3  | 18~72       | 3.3          | 3750         | 100         |
| NSD15-48S5  | 18~72       | 5            | 3000         | 75          |
| NSD15-48S12 | 18~72       | 12           | 1250         | 75          |
| NSD15-48S15 | 18~72       | 15           | 1000         | 75          |

#### ◆ Dual Output

| Model No.   | Input (VDC) | Output (VDC) | Current (mA)       | R&N (mVp-p) |
|-------------|-------------|--------------|--------------------|-------------|
| NSD15-12D5  | 9.4~36      | $\pm 5$      | $\pm 70 \sim 1500$ | 100         |
| NSD15-12D12 | 9.4~36      | $\pm 12$     | $\pm 30 \sim 620$  | 100         |
| NSD15-12D15 | 9.4~36      | $\pm 15$     | $\pm 20 \sim 500$  | 100         |
| NSD15-48D5  | 18~72       | $\pm 5$      | $\pm 70 \sim 1500$ | 100         |
| NSD15-48D12 | 18~72       | $\pm 12$     | $\pm 30 \sim 620$  | 100         |
| NSD15-48D15 | 18~72       | $\pm 15$     | $\pm 20 \sim 500$  | 100         |

# DC/DC Converter 12.5~60W On Board Type / 5~15W PCB Type



## 12.5~60W Single Output Non-isolated DC-DC Converter

- Non-isolated, fix-frequency at 250kHz
- 3:1 wide input range for 5~15V output
- ±2% output voltage accuracy
- High efficiency up to 96%
- Built-in remote ON/OFF control
- Compact size
- Cooling by free air convection
- Economical open frame design
- Protections: Short circuit / Overload / Over voltage
- 2 years warranty



### ◆ NID30 Series

| Mechanism                                                                                                                                                                                                                             | Pin Configuration                                                                                                                                                                                                                                        |         |        |            |       |      |     |      |      |       |      |    |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|------------|-------|------|-----|------|------|-------|------|----|------|
| <p>Unit: mm(inch)</p> <p>50.8(2)</p> <p>4.5(0.18)</p> <p>10.2(0.402)</p> <p>0.64(0.025)</p> <p>25.4(1)</p> <p>2.54(0.1)</p> <p>1.3(0.051)</p> <p>4(0.16)</p> <p>10.7(0.421)max.</p> <p>8(0.315)</p> <p>13(0.512)</p> <p>SIDE VIEW</p> | <table> <tr> <th>Pin No.</th><th>Output</th></tr> <tr> <td>1, 2, 3, 4</td><td>+Vout</td></tr> <tr> <td>5, 6</td><td>COM</td></tr> <tr> <td>7, 8</td><td>+Vin</td></tr> <tr> <td>9, 10</td><td>N.C.</td></tr> <tr> <td>11</td><td>R.C.</td></tr> </table> | Pin No. | Output | 1, 2, 3, 4 | +Vout | 5, 6 | COM | 7, 8 | +Vin | 9, 10 | N.C. | 11 | R.C. |
| Pin No.                                                                                                                                                                                                                               | Output                                                                                                                                                                                                                                                   |         |        |            |       |      |     |      |      |       |      |    |      |
| 1, 2, 3, 4                                                                                                                                                                                                                            | +Vout                                                                                                                                                                                                                                                    |         |        |            |       |      |     |      |      |       |      |    |      |
| 5, 6                                                                                                                                                                                                                                  | COM                                                                                                                                                                                                                                                      |         |        |            |       |      |     |      |      |       |      |    |      |
| 7, 8                                                                                                                                                                                                                                  | +Vin                                                                                                                                                                                                                                                     |         |        |            |       |      |     |      |      |       |      |    |      |
| 9, 10                                                                                                                                                                                                                                 | N.C.                                                                                                                                                                                                                                                     |         |        |            |       |      |     |      |      |       |      |    |      |
| 11                                                                                                                                                                                                                                    | R.C.                                                                                                                                                                                                                                                     |         |        |            |       |      |     |      |      |       |      |    |      |

### ◆ NID60 Series

| Mechanism                                                                                                                                                                                                                                     | Pin Configuration                                                                                                                                                                                                                                        |         |        |            |       |      |     |      |      |       |      |    |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|------------|-------|------|-----|------|------|-------|------|----|------|
| <p>Unit: mm(inch)</p> <p>50.8(2.00)</p> <p>4.5(0.18)</p> <p>10.2(0.402)</p> <p>0.64(0.025)</p> <p>25.4(1.00)</p> <p>2.54(0.100)</p> <p>1.3(0.051)</p> <p>4(0.16)</p> <p>10.7(0.421)max.</p> <p>8(0.315)</p> <p>26(1.024)</p> <p>SIDE VIEW</p> | <table> <tr> <th>Pin No.</th><th>Output</th></tr> <tr> <td>1, 2, 3, 4</td><td>+Vout</td></tr> <tr> <td>5, 6</td><td>COM</td></tr> <tr> <td>7, 8</td><td>+Vin</td></tr> <tr> <td>9, 10</td><td>N.C.</td></tr> <tr> <td>11</td><td>R.C.</td></tr> </table> | Pin No. | Output | 1, 2, 3, 4 | +Vout | 5, 6 | COM | 7, 8 | +Vin | 9, 10 | N.C. | 11 | R.C. |
| Pin No.                                                                                                                                                                                                                                       | Output                                                                                                                                                                                                                                                   |         |        |            |       |      |     |      |      |       |      |    |      |
| 1, 2, 3, 4                                                                                                                                                                                                                                    | +Vout                                                                                                                                                                                                                                                    |         |        |            |       |      |     |      |      |       |      |    |      |
| 5, 6                                                                                                                                                                                                                                          | COM                                                                                                                                                                                                                                                      |         |        |            |       |      |     |      |      |       |      |    |      |
| 7, 8                                                                                                                                                                                                                                          | +Vin                                                                                                                                                                                                                                                     |         |        |            |       |      |     |      |      |       |      |    |      |
| 9, 10                                                                                                                                                                                                                                         | N.C.                                                                                                                                                                                                                                                     |         |        |            |       |      |     |      |      |       |      |    |      |
| 11                                                                                                                                                                                                                                            | R.C.                                                                                                                                                                                                                                                     |         |        |            |       |      |     |      |      |       |      |    |      |

Voltage set point accuracy ..... ±2% (max.)

Line regulation ..... ±0.5%

Load regulation ..... ±0.5% @ 10~100% load

Efficiency ..... 96% (typical)

Short circuit protection ..... Continuous, auto-recovery

Overload protection ..... 120%~300%, auto-recovery

Over voltage protection ..... Clamp by TVS Diode

Working temperature ..... -25~+65°C (refer to derating curve)

Storage temperature ..... -25~+105°C

Temp. coefficient ..... ±0.03% / °C

### ◆ NID30 Series

| Model No.   | Input  | Output       | R&N   | Effi |
|-------------|--------|--------------|-------|------|
| NID30S24-05 | 20~53V | 5V, 0~2.50A  | 100mV | 91%  |
| NID30S24-12 | 20~53V | 12V, 0~2.50A | 120mV | 95%  |
| NID30S24-15 | 20~53V | 15V, 0~2.00A | 150mV | 96%  |
| NID30S48-24 | 30~53V | 24V, 0~1.25A | 200mV | 93%  |

### ◆ NID60 Series

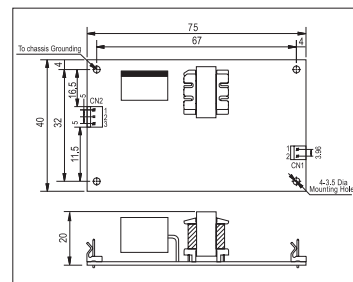
| Model No.   | Input  | Output      | R&N   | Effi |
|-------------|--------|-------------|-------|------|
| NID60S24-05 | 20~53V | 5V, 0~4.0A  | 100mV | 90%  |
| NID60S24-12 | 20~53V | 12V, 0~4.0A | 120mV | 95%  |
| NID60S24-15 | 20~53V | 15V, 0~4.0A | 150mV | 96%  |
| NID60S48-24 | 30~53V | 24V, 0~2.5A | 200mV | 95%  |

## 5W Single Output DC-DC Converter

- 2:1 wide input range
- 2000VAC I/O isolation
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty



75x 40x 20 mm



Line and load regulation ..... ±1.0% (max.)

Overload protection ..... >105% fold back current limiting, auto-recovery

Over voltage protection ..... 115%~135% rated output voltage

Withstand voltage ..... I/P-O/P: 2kVAC, I/P-FG: 1.5kVAC, 1 minute

Isolation resistance ..... 100MΩ (min.) @500VDC

Working temperature ..... -10~+60°C (refer to output derating curve)

Safety standards ..... Meet LVD

EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8

Connection ..... 3P, 2P / 3.96mm pitch, Molex 5285-03, 5273-02

Packing ..... 0.05kg ; 120pcs / 6.25kg / 1.0CUFT

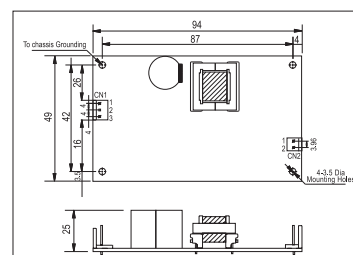
| Model No. | Input  | Output       | R&N   | Effi. |
|-----------|--------|--------------|-------|-------|
| PSD-05-5  | 36~72V | 5V, 0~1.0A   | 50mV  | 75%   |
| PSD-05-12 | 36~72V | 12V, 0~0.45A | 100mV | 78%   |
| PSD-05-24 | 36~72V | 24V, 0~0.22A | 150mV | 78%   |

## 15W Single Output DC-DC Converter

- 2:1 wide input range
- 2000VAC I/O isolation
- Protections: Short circuit / Overload / Over voltage / Polarity
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty



94x 49x 25 mm



Line and load regulation ..... ±1.0% (max.)

Overload protection ..... 105%~150% hiccup mode, auto-recovery

Over voltage protection ..... 115%~135% rated output voltage

Withstand voltage ..... I/P-O/P: 2kVAC, I/P-FG: 1.5kVAC, 1 minute

Isolation resistance ..... 100MΩ (min.) @500VDC

Working temperature ..... -10~+60°C (refer to output derating curve)

Safety standards ..... Meet LVD

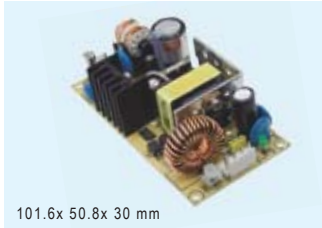
EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8

Connection ..... 3P, 2P / 3.96mm pitch, JST B3P/B2P-VH

Packing ..... 0.081kg ; 120pcs / 10.72kg

| Model No.  | Input   | Output       | R&N   | Effi. |
|------------|---------|--------------|-------|-------|
| PSD-15A-5  | 9.2~18V | 5V, 0~3.0A   | 50mV  | 74%   |
| PSD-15A-12 | 9.2~18V | 12V, 0~1.25A | 100mV | 67%   |
| PSD-15A-24 | 9.2~18V | 24V, 0~0.6A  | 100mV | 72%   |
| PSD-15B-5  | 18~36V  | 5V, 0~3.0A   | 50mV  | 78%   |
| PSD-15B-12 | 18~36V  | 12V, 0~1.25A | 100mV | 78%   |
| PSD-15B-24 | 18~36V  | 24V, 0~0.6A  | 100mV | 78%   |
| PSD-15C-5  | 36~72V  | 5V, 0~3.0A   | 50mV  | 78%   |
| PSD-15C-12 | 36~72V  | 12V, 0~1.25A | 100mV | 78%   |
| PSD-15C-24 | 36~72V  | 24V, 0~0.6A  | 100mV | 79%   |

## 30W Single Output DC-DC Converter



101.6x 50.8x 30 mm

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage / Reverse polarity
- 1500VAC I/O isolation
- Cooling by free air convection
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

DC adjustment range ..... 5V: 4.5~5.5V, 12V: 11~13.5V, 24V: 22~26V

Line and load regulation ..  $\pm 1\%$  (max.)

Overload protection ..... 105%~150% hiccup mode, auto-recovery

Over voltage protection ... 115%~150% rated output voltage

Withstand voltage ..... I/P-O/P: 1.5kVAC, I/P-FG: 1.5kVAC, 1 minute

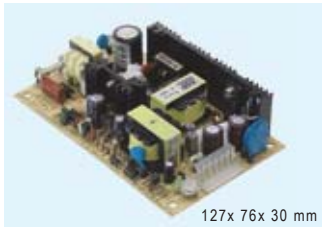
Working temperature ..... -20~+60°C (refer to output derating curve)

EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8, EN55024

Connection ..... 3P, 4P / 3.96mm pitch, JST B3P/B4P-VH-B

| Model No.  | Input  | Output       | R&N   | Effi. |
|------------|--------|--------------|-------|-------|
| PSD-30A-05 | 9~18V  | 5V, 0~5.0A   | 100mV | 77%   |
| PSD-30A-12 | 9~18V  | 12V, 0~2.5A  | 120mV | 77%   |
| PSD-30A-24 | 9~18V  | 24V, 0~1.25A | 150mV | 78%   |
| PSD-30B-05 | 18~36V | 5V, 0~5.0A   | 100mV | 79%   |
| PSD-30B-12 | 18~36V | 12V, 0~2.5A  | 120mV | 80%   |
| PSD-30B-24 | 18~36V | 24V, 0~1.25A | 150mV | 83%   |
| PSD-30C-05 | 36~72V | 5V, 0~5.0A   | 100mV | 80%   |
| PSD-30C-12 | 36~72V | 12V, 0~2.5A  | 120mV | 82%   |
| PSD-30C-24 | 36~72V | 24V, 0~1.25A | 150mV | 83%   |

## 45W Single Output DC-DC Converter



127x 76x 30 mm

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage / Reverse polarity
- Cooling by free air convection
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Fixed switching frequency at 96kHz
- Low cost
- 2 years warranty

DC adjustment range ..... 5V: 4.5~5.5V, 12V: 10.8~13.2V,

24V: 21.6~26.4V

Line and load regulation ....  $\pm 1\%$  (max.)

Overload protection ..... 105%~160% shut down, re-power on to recover

Over voltage protection ..... 115%~135% rated output voltage

Withstand voltage ..... I/P-O/P: 1.5kVAC, I/P-FG: 1.5kVAC, 1 minute

Working temperature ..... -10~+60°C (refer to output derating curve)

Safety standards ..... EN60950-1 CB approved by TUV

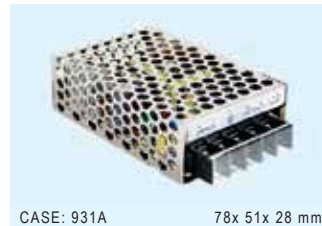
EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8, EN55024

Connection ..... 2P, 6P / 3.96mm pitch, Molex 5277-02, 5273-06

Packing ..... 0.19kg ; 72pcs / 15.6kg / 1.35CUFT

| Model No.  | Input   | Output        | R&N   | Effi. |
|------------|---------|---------------|-------|-------|
| PSD-45A-05 | 9.2~18V | 5V, 0~6.0A    | 100mV | 74%   |
| PSD-45A-12 | 9.2~18V | 12V, 0~2.5A   | 120mV | 78%   |
| PSD-45A-24 | 9.2~18V | 24V, 0~1.25A  | 150mV | 79%   |
| PSD-45B-05 | 18~36V  | 5V, 0~9.0A    | 100mV | 77%   |
| PSD-45B-12 | 18~36V  | 12V, 0~3.75A  | 120mV | 82%   |
| PSD-45B-24 | 18~36V  | 24V, 0~1.875A | 150mV | 85%   |
| PSD-45C-05 | 37~72V  | 5V, 0~9.0A    | 100mV | 80%   |
| PSD-45C-12 | 37~72V  | 12V, 0~3.75A  | 120mV | 83%   |
| PSD-45C-24 | 37~72V  | 24V, 0~1.875A | 150mV | 86%   |

## 15W Single Output DC-DC Converter



CASE: 931A

78x 51x 28 mm

- 2:1 wide input range
- 2000VAC I/O isolation
- Cooling by free air convection
- Protections: Short circuit / Over load / Over voltage
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

DC adjustment range ..... 5V: 4.75~5.5V, 12V: 10.8~13.2V,

24V: 21.6~26.4V

Line and load regulation ....  $\pm 0.5\%$  (max.)

Overload protection ..... 105%~160% hiccup mode, auto-recovery

Over voltage protection ..... 115%~135% rated output voltage

Withstand voltage ..... I/P-O/P: 2kVAC, I/P-FG: 1.5kVAC, 1 minute

Working temperature ..... -10~+60°C (refer to output derating curve)

Safety standard ..... Meet LVD

EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8

Packing ..... 0.18kg ; 60pcs / 11.8kg

| Model No. | Input   | Output        | R&N   | Effi. |
|-----------|---------|---------------|-------|-------|
| SD-15A-5  | 9.2~18V | 5V, 0~3.0A    | 100mV | 68%   |
| SD-15A-12 | 9.2~18V | 12V, 0~1.25A  | 120mV | 72%   |
| SD-15A-24 | 9.2~18V | 24V, 0~0.625A | 150mV | 70%   |
| SD-15B-5  | 18~36V  | 5V, 0~3.0A    | 100mV | 76%   |
| SD-15B-12 | 18~36V  | 12V, 0~1.25A  | 120mV | 76%   |
| SD-15B-24 | 18~36V  | 24V, 0~0.625A | 150mV | 77%   |
| SD-15C-5  | 36~72V  | 5V, 0~3.0A    | 100mV | 75%   |
| SD-15C-12 | 36~72V  | 12V, 0~1.25A  | 120mV | 79%   |
| SD-15C-24 | 36~72V  | 24V, 0~0.625A | 150mV | 78%   |

## 25W Single Output DC-DC Converter



CASE: 905

99x 97x 36 mm

- 2:1 wide input range
- 1500VAC I/O isolation
- Protections: Short circuit / Overload / Over voltage
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

DC adjustment range ..... 5V: 4.5~5.5V, 12V: 11~16V, 24V: 23~30V

Line and load regulation ....  $\pm 0.5\%$  (max.)

Overload protection ..... 105%~150% hiccup mode, auto-recovery

Over voltage protection ..... 115%~165% rated output voltage

Withstand voltage ..... I/P-O/P: 2kVAC, I/P-FG: 1.5kVAC, 1 minute

Isolation resistance ..... 100M $\Omega$  (min.) @500VDC

Working temperature ..... -10~+60°C (refer to output derating curve)

Safety standards ..... Meet LVD

EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8

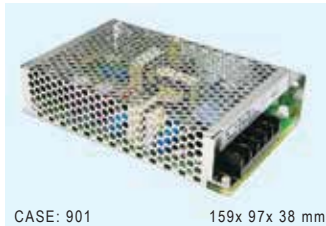
Packing ..... 0.38kg ; 45pcs / 17.8kg / 0.9CUFT

| Model No. | Input   | Output      | R&N   | Effi. |
|-----------|---------|-------------|-------|-------|
| SD-25A-5  | 9.2~18V | 5V, 0~5.0A  | 100mV | 71%   |
| SD-25A-12 | 9.2~18V | 12V, 0~2.1A | 120mV | 72%   |
| SD-25A-24 | 9.2~18V | 24V, 0~1.1A | 150mV | 75%   |
| SD-25B-5  | 19~36V  | 5V, 0~5.0A  | 100mV | 72%   |
| SD-25B-12 | 19~36V  | 12V, 0~2.1A | 120mV | 75%   |
| SD-25B-24 | 19~36V  | 24V, 0~1.1A | 150mV | 78%   |
| SD-25C-5  | 36~72V  | 5V, 0~5.0A  | 100mV | 74%   |
| SD-25C-12 | 36~72V  | 12V, 0~2.1A | 120mV | 78%   |
| SD-25C-24 | 36~72V  | 24V, 0~1.1A | 150mV | 81%   |



### 50W Single Output DC-DC Converter

CE



CASE: 901

159x 97x 38 mm

- 2:1 wide input range
- 1500VAC I/O isolation
- Protections: Short circuit / Over load / Over voltage
- Built-in EMI filter, low ripple noise
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

DC adjustment range ..... 5V: 4.5~5.5V, 12V: 11~16V, 24V: 23~30V  
 Line and load regulation .....  $\pm 0.5\%$  (max.)  
 Overload protection ..... 105%~150% hiccup mode, auto-recovery  
 Over voltage protection ..... 115%~165% rated output voltage  
 Withstand voltage ..... I/P-O/P: 1.5kVAC, I/P-FG: 1.5kVAC, 1 minute  
 Isolation resistance ..... 100M $\Omega$  (min.) @500VDC  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standard ..... Meet LVD  
 EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8  
 Packing ..... 0.53kg ; 24pcs / 12.7kg / 0.75CUFT

| Model No. | Input   | Output      | R&N   | Effi. |
|-----------|---------|-------------|-------|-------|
| SD-50A-5  | 9.2~18V | 5V, 0~10A   | 100mV | 70%   |
| SD-50A-12 | 9.2~18V | 12V, 0~4.2A | 120mV | 72%   |
| SD-50A-24 | 9.2~18V | 24V, 0~2.1A | 150mV | 74%   |
| SD-50B-5  | 19~36V  | 5V, 0~10A   | 100mV | 73%   |
| SD-50B-12 | 19~36V  | 12V, 0~4.2A | 120mV | 75%   |
| SD-50B-24 | 19~36V  | 24V, 0~2.1A | 150mV | 80%   |
| SD-50C-5  | 36~72V  | 5V, 0~10A   | 100mV | 76%   |
| SD-50C-12 | 36~72V  | 12V, 0~4.2A | 120mV | 78%   |
| SD-50C-24 | 36~72V  | 24V, 0~2.1A | 150mV | 83%   |

### 100W Single Output DC-DC Converter

CBCE

(D type)



CASE: 902

199x 98x 38 mm

- 2:1 wide input range
- 1500VAC I/O isolation
- Protections: Short circuit / Overload / Over voltage
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

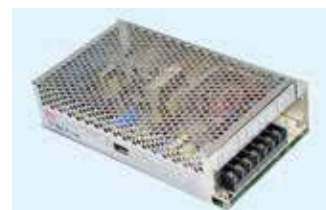
DC adjustment range ..... 5V: 4.5~5.5V, 12V: 11~16V, 24V: 23~30V  
 Line regulation .....  $\pm 0.5\%$  (max.)  
 Load regulation .....  $\pm 0.5\%$  (max.)  
 Overload protection ..... 105%~135% hiccup mode, auto-recovery  
 Over voltage protection ..... 115%~165% rated output voltage  
 Withstand voltage ..... I/P-O/P: 1.5kVAC, I/P-FG: 1.5kVAC, 1 minute  
 Isolation resistance ..... 100M $\Omega$  (min.) @500VDC  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standards ..... Meet LVD, EN60950-1 CB approved by TUV (D type only)  
 EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8  
 Packing ..... 0.65kg ; 20pcs / 13.8kg / 0.8CUFT

| Model No.  | Input   | Output      | R&N   | Effi. |
|------------|---------|-------------|-------|-------|
| SD-100B-5  | 19~36V  | 5V, 0~20A   | 100mV | 74%   |
| SD-100B-12 | 19~36V  | 12V, 0~8.5A | 120mV | 75%   |
| SD-100B-24 | 19~36V  | 24V, 0~4.2A | 150mV | 78%   |
| SD-100C-5  | 36~72V  | 5V, 0~20A   | 100mV | 75%   |
| SD-100C-12 | 36~72V  | 12V, 0~8.5A | 120mV | 77%   |
| SD-100C-24 | 36~72V  | 24V, 0~4.2A | 150mV | 81%   |
| SD-100D-5  | 72~144V | 5V, 0~20A   | 100mV | 76%   |
| SD-100D-12 | 72~144V | 12V, 0~8.5A | 120mV | 80%   |
| SD-100D-24 | 72~144V | 24V, 0~4.2A | 150mV | 83%   |

### 150W Single Output DC-DC Converter

CBCE

(D type)



CASE: 906

199x 110x 50 mm

- 2:1 wide input range
- 1500VAC I/O isolation
- Protections: Short circuit / Over load / Over voltage
- Built-in EMI filter, low ripple noise
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

DC adjustment range ..... 12V: 11~16V, 24V: 23~30V  
 Line regulation .....  $\pm 0.5\%$  (max.)  
 Load regulation .....  $\pm 0.5\%$  (max.)  
 Overload protection ..... 105%~135% hiccup mode, auto-recovery  
 Over voltage protection ..... 130%~165% rated output voltage  
 Withstand voltage ..... I/P-O/P: 1.5kVAC, I/P-FG: 1.5kVAC, 1 minute  
 Isolation resistance ..... 100M $\Omega$  (min.) @500VDC  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standards ..... Meet LVD, EN60950-1 CB approved by TUV (D type only)  
 EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8  
 Packing ..... 0.86kg ; 16pcs / 14.5kg / 0.95CUFT

| Model No.  | Input   | Output       | R&N   | Effi. |
|------------|---------|--------------|-------|-------|
| SD-150B-12 | 19~36V  | 12V, 0~12.5A | 120mV | 75%   |
| SD-150B-24 | 19~36V  | 24V, 0~6.3A  | 150mV | 77%   |
| SD-150C-12 | 36~72V  | 12V, 0~12.5A | 120mV | 77%   |
| SD-150C-24 | 36~72V  | 24V, 0~6.3A  | 150mV | 80%   |
| SD-150D-12 | 72~144V | 12V, 0~12.5A | 120mV | 79%   |
| SD-150D-24 | 72~144V | 24V, 0~6.3A  | 150mV | 82%   |

### 200W Single Output DC-DC Converter

CBCE

(SD-200C-24) (D type)



CASE: 912H

215x 115x 50 mm

- 2:1 wide input range
- 1500VAC I/O isolation
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Cooling by free air convection
- 100% full load burn-in test
- 2 years warranty

DC adjustment range ..... 5V: 4.5~5.5V, 12V: 11~16V, 24V: 23~30V, 48V: 43~53V  
 Voltage tolerance .....  $\pm 2\%$  (max.)  
 Overload protection ..... 105%~135% shut off, re-power on to recover  
 Over voltage protection ..... 110%~167% rated output voltage  
 Withstand voltage ..... I/P-O/P: 1.5kVAC, I/P-FG: 2kVAC, 1 minute  
 Working temperature ..... -20~+60°C (refer to output derating curve)  
 Safety standards ..... Meet LVD, EN60950-1 CB approved by TUV (D type only)  
 EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8  
 Packing ..... 1.1kg ; 12pcs / 14.4kg / 0.92CUFT

| Model No.  | Input   | Output       | R&N   | Effi. |
|------------|---------|--------------|-------|-------|
| SD-200B-5  | 19~36V  | 5V, 0~34.0A  | 100mV | 79%   |
| SD-200B-12 | 19~36V  | 12V, 0~16.7A | 120mV | 82%   |
| SD-200B-24 | 19~36V  | 24V, 0~8.40A | 150mV | 85%   |
| SD-200B-48 | 19~36V  | 48V, 0~4.20A | 200mV | 86%   |
| SD-200C-5  | 36~72V  | 5V, 0~40.0A  | 100mV | 81%   |
| SD-200C-12 | 36~72V  | 12V, 0~16.7A | 120mV | 84%   |
| SD-200C-24 | 36~72V  | 24V, 0~8.40A | 150mV | 86%   |
| SD-200C-48 | 36~72V  | 48V, 0~4.20A | 200mV | 86%   |
| SD-200D-5  | 72~144V | 5V, 0~40.0A  | 100mV | 82%   |
| SD-200D-12 | 72~144V | 12V, 0~16.7A | 120mV | 82%   |
| SD-200D-24 | 72~144V | 24V, 0~8.40A | 150mV | 84%   |
| SD-200D-48 | 72~144V | 48V, 0~4.20A | 200mV | 90%   |

### 350W Single Output DC-DC Converter

**CBCE**

(D type)



CASE: 912B 215x 115x 50 mm

- 2:1 wide input range
- 1500VAC I/O isolation
- Protections: Short circuit / Over load / Over voltage / Over temp.
- Forced air cooling by built-in DC fan
- 100% full load burn-in test
- 2 years warranty

DC adjustment range ..... 5V: 4.5~5.5V, 12V: 11~16V, 24V: 23~30V, 48V: 43~53V

Voltage tolerance .....  $\pm 2\%$  (max.)

Overload protection ..... 105%~135% shut off, re-power on to recover

Over voltage protection ..... 110%~167% rated output voltage

Withstand voltage ..... I/P-O/P: 1.5kVAC, I/P-FG: 2kVAC, 1 minute

Working temperature ..... -20~+60°C (refer to output derating curve)

Safety standards ..... Meet LVD, EN60950-1 CB approved by TUV (D type only)

EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8

Packing ..... 1.1kg ; 12pcs / 14.4kg / 0.92CUFT

| Model No.  | Input   | Output       | R&N   | Effi. |
|------------|---------|--------------|-------|-------|
| SD-350B-5  | 19~36V  | 5V, 0~57.0A  | 100mV | 74%   |
| SD-350B-12 | 19~36V  | 12V, 0~27.5A | 120mV | 80%   |
| SD-350B-24 | 19~36V  | 24V, 0~14.6A | 150mV | 80%   |
| SD-350B-48 | 19~36V  | 48V, 0~7.30A | 200mV | 84%   |
| SD-350C-5  | 36~72V  | 5V, 0~60.0A  | 100mV | 76%   |
| SD-350C-12 | 36~72V  | 12V, 0~27.5A | 120mV | 81%   |
| SD-350C-24 | 36~72V  | 24V, 0~14.6A | 150mV | 81%   |
| SD-350C-48 | 36~72V  | 48V, 0~7.30A | 200mV | 82%   |
| SD-350D-5  | 72~144V | 5V, 0~60.0A  | 100mV | 78%   |
| SD-350D-12 | 72~144V | 12V, 0~29.2A | 120mV | 83%   |
| SD-350D-24 | 72~144V | 24V, 0~14.6A | 150mV | 87%   |
| SD-350D-48 | 72~144V | 48V, 0~7.30A | 200mV | 89%   |

### 500W Single Output DC-DC Converter

**CBCE**



CASE: 912A 215x 115x 50 mm

- 4:1 & 2:1 DC input range
- DC input active surge current limiting
- Protections: Short circuit / Overload / Over voltage / Over temp. / Input polarity
- 2000VAC I/O Isolation
- Forced air cooling by built-in DC fan with fan speed control function
- Output OK signal
- Built-in remote ON/OFF control
- Built-in remote sense function
- 3 years warranty

DC adjustment range ..... 12V: 11~15V, 24V: 23~30V, 48V: 46~60V

Line regulation .....  $\pm 0.5\%$  (max.)

Load regulation .....  $\pm 0.5\%$  (max.)

Overload protection ..... 105%~125% constant current limiting, shut off after 5 sec., re-power on to recover

Over voltage protection ..... 130%~160% rated output voltage

Withstand voltage ..... I/P-O/P: 2kV, I/P-FG: 2kV, 1 minute

Isolation resistance ..... 100M $\Omega$  (min.) @500VDC

Working temperature ..... -20~+60°C (refer to output derating curve)

Safety standards ..... IEC60950-1 CB approved by TUV

EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8

Packing ..... 1.15kg ; 12pcs / 14.8kg / 0.92CUFT

| Model No.  | Input   | Output       | R&N   | Effi. |
|------------|---------|--------------|-------|-------|
| SD-500L-12 | 19~72V  | 12V, 0~40A   | 150mV | 86%   |
| SD-500L-24 | 19~72V  | 24V, 0~21A   | 150mV | 88%   |
| SD-500L-48 | 19~72V  | 48V, 0~10.5A | 150mV | 89%   |
| SD-500H-12 | 72~144V | 12V, 0~40A   | 150mV | 87%   |
| SD-500H-24 | 72~144V | 24V, 0~21A   | 150mV | 89%   |
| SD-500H-48 | 72~144V | 48V, 0~10.5A | 150mV | 90%   |

### 1000W Single Output DC-DC Converter

**CBCE**



CASE: 952B 295x 127x 41 mm

- 4:1 & 2:1 wide input range
- 2000VAC I/O Isolation
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Forced air cooling by built-in DC fan
- High power density 10.7W/inch<sup>3</sup>
- 1U low profile 41mm
- Output OK signal
- 12V / 0.25A auxiliary output
- Built-in remote ON/OFF control
- Built-in remote sense function
- 3 years warranty

DC adjustment range ..... 12V: 11~15V, 24V: 23~30V, 48V: 46~60V

Line regulation .....  $\pm 0.5\%$  (max.)

Load regulation .....  $\pm 0.5\%$  (max.)

Overload protection ..... 105%~125% constant current limiting, shut off after 5 sec., re-power on to recover

Over voltage protection ..... 130%~160% rated output voltage

Withstand voltage ..... I/P-O/P: 2kV, I/P-FG: 1.5kV, 1 minute

Isolation resistance ..... 100M $\Omega$  (min.) @500VDC

Working temperature ..... -20~+60°C (refer to output derating curve)

Safety standards ..... IEC60950-1 CB approved by TUV

EMC standards ..... EN55022 class B, EN61000-4-2,3,4,6,8

Packing ..... 1.94kg ; 6pcs / 12.6kg / 0.99CUFT

| Model No.   | Input   | Output     | R&N   | Effi. |
|-------------|---------|------------|-------|-------|
| SD-1000L-12 | 19~72V  | 12V, 0~60A | 150mV | 84%   |
| SD-1000L-24 | 19~72V  | 24V, 0~40A | 150mV | 88%   |
| SD-1000L-48 | 19~72V  | 48V, 0~21A | 150mV | 90%   |
| SD-1000H-12 | 72~144V | 12V, 0~60A | 150mV | 85%   |
| SD-1000H-24 | 72~144V | 24V, 0~40A | 150mV | 89%   |
| SD-1000H-48 | 72~144V | 48V, 0~21A | 150mV | 92%   |

**Under Development**

**RPB-1600 Series**  
1600W AC/DC Battery Charger

- 3 stage charging
- Universal AC input / Full range
- 1U low profile 41mm
- Built-in active PFC function
- High efficiency up to 93%
- Forced air cooling by built-in DC fan with fan speed control
- Vo and Io can be adjusted
- Protections: Short circuit / Over voltage / Over temperature
- Built-in remote ON-OFF control
- Built-in CANBus interface
- Output models: 14.4V/28.8V/57.6V
- Dimension(LxWxH): 300x 85x 41mm
- 5 years warranty

# DC/DC Converter 100~300W Railway Single Output



RSD-300

RSD-200

RSD-150

RSD-100

## Features

- Compliance to EN50155 and EN45545-2 railway standard
- 2:1 wide input range
- 4000VDC I/O isolation
- Protections:
  - Short circuit / Overload / Over voltage /
  - Input reverse polarity / Over temp.(RSD-150/200/300)
- Cooling by free air convection
- Built-in constant current limiting circuit
- 1U low profile
- All using 105°C long life electrolytic capacitors
- Half encapsulated
- 100% full load burn-in test
- 3 years warranty



## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.               | RSD-100                                                    | RSD-150                                                                            | RSD-200        | RSD-300        |
|-------------------------|------------------------------------------------------------|------------------------------------------------------------------------------------|----------------|----------------|
| Line regulation (max.)  | ±0.5%                                                      |                                                                                    |                |                |
| Load regulation (max.)  | ±1%                                                        |                                                                                    |                |                |
| Overload protection     | Range                                                      | 105%~135%                                                                          |                |                |
|                         | Type                                                       | Constant current limiting, recovers automatically after fault condition is removed |                |                |
| Over voltage protection | 115%~135% Shut down O/P voltage, re-power on to recover    |                                                                                    |                | 115%~140%      |
| Withstand voltage       | I/P-O/P: 4kVDC, I/P-FG: 2.5kVDC, O/P-FG: 2.5kVDC, 1 minute |                                                                                    |                |                |
| Isolation resistance    | 100MΩ( min.) @500VDC                                       |                                                                                    |                |                |
| Working temperature     | -40~+70°C (refer to output derating curve)                 |                                                                                    |                |                |
| Safety standards        | Meet IEC60950-1(LVD)                                       |                                                                                    |                |                |
| EMC standards           | EN55022 class B, EN50121-3-2, EN61000-4-2,3,4,5,6,8        |                                                                                    |                |                |
| Railway standard        | EN50155 / IEC60571; EN45545-2                              |                                                                                    |                |                |
| Dimension (LxWxH)(mm)   | 161x68x36                                                  | 189x77x36                                                                          | 191x86x40      | 216x97x40      |
| Packing                 | 24pcs / 15.4kg                                             | 15pcs / 13kg                                                                       | 12pcs / 12.3kg | 12pcs / 15.3kg |

## 100W

### RSD-100

| Model No.   | Input<br>(1 sec / continuous) | Output      | R&N   | Effi. |
|-------------|-------------------------------|-------------|-------|-------|
| RSD-100B-5  | 14.4~33.6V / 16.8~31.2V       | 5V, 0~20A   | 100mV | 88.0% |
| RSD-100B-12 | 14.4~33.6V / 16.8~31.2V       | 12V, 0~8.4A | 120mV | 89.0% |
| RSD-100B-24 | 14.4~33.6V / 16.8~31.2V       | 24V, 0~4.2A | 150mV | 89.0% |
| RSD-100C-5  | 28.8~67.2V / 33.6~62.4V       | 5V, 0~20A   | 100mV | 89.0% |
| RSD-100C-12 | 28.8~67.2V / 33.6~62.4V       | 12V, 0~8.4A | 120mV | 91.0% |
| RSD-100C-24 | 28.8~67.2V / 33.6~62.4V       | 24V, 0~4.2A | 150mV | 91.0% |
| RSD-100D-5  | 57.6~154V / 67.2~143V         | 5V, 0~20A   | 100mV | 89.5% |
| RSD-100D-12 | 57.6~154V / 67.2~143V         | 12V, 0~8.4A | 120mV | 91.0% |
| RSD-100D-24 | 57.6~154V / 67.2~143V         | 24V, 0~4.2A | 150mV | 90.0% |

## 150W

### RSD-150

| Model No.   | Input<br>(1 sec / continuous) | Output       | R&N   | Effi. |
|-------------|-------------------------------|--------------|-------|-------|
| RSD-150B-5  | 14.4~33.6V / 16.8~31.2V       | 5V, 0~30A    | 100mV | 89%   |
| RSD-150B-12 | 14.4~33.6V / 16.8~31.2V       | 12V, 0~12.5A | 120mV | 90%   |
| RSD-150B-24 | 14.4~33.6V / 16.8~31.2V       | 24V, 0~6.3A  | 150mV | 90%   |
| RSD-150C-5  | 28.8~67.2V / 33.6~62.4V       | 5V, 0~30A    | 100mV | 90%   |
| RSD-150C-12 | 28.8~67.2V / 33.6~62.4V       | 12V, 0~12.5A | 120mV | 92%   |
| RSD-150C-24 | 28.8~67.2V / 33.6~62.4V       | 24V, 0~6.3A  | 150mV | 91%   |
| RSD-150D-5  | 57.6~154V / 67.2~143V         | 5V, 0~30A    | 100mV | 90%   |
| RSD-150D-12 | 57.6~154V / 67.2~143V         | 12V, 0~12.5A | 120mV | 92%   |
| RSD-150D-24 | 57.6~154V / 67.2~143V         | 24V, 0~6.3A  | 150mV | 91%   |

## 200W

### RSD-200

| Model No.   | Input<br>(1 sec / continuous) | Output       | R&N   | Effi. |
|-------------|-------------------------------|--------------|-------|-------|
| RSD-200B-12 | 14.4~33.6V / 16.8~31.2V       | 12V, 0~16.7A | 120mV | 89%   |
| RSD-200B-24 | 14.4~33.6V / 16.8~31.2V       | 24V, 0~8.4A  | 150mV | 89%   |
| RSD-200B-48 | 14.4~33.6V / 16.8~31.2V       | 48V, 0~4.2A  | 180mV | 89%   |
| RSD-200C-12 | 28.8~67.2V / 33.6~62.4V       | 12V, 0~16.7A | 120mV | 91%   |
| RSD-200C-24 | 28.8~67.2V / 33.6~62.4V       | 24V, 0~8.4A  | 150mV | 91%   |

| Model No.   | Input<br>(1 sec / continuous) | Output       | R&N   | Effi. |
|-------------|-------------------------------|--------------|-------|-------|
| RSD-200C-48 | 28.8~67.2V / 33.6~62.4V       | 48V, 0~4.2A  | 180mV | 91%   |
| RSD-200D-12 | 57.6~154V / 67.2~143V         | 12V, 0~16.7A | 120mV | 91%   |
| RSD-200D-24 | 57.6~154V / 67.2~143V         | 24V, 0~8.4A  | 150mV | 91%   |
| RSD-200D-48 | 57.6~154V / 67.2~143V         | 48V, 0~4.2A  | 180mV | 91%   |

## 300W

### RSD-300

| Model No.   | Input<br>(1 sec / continuous) | Output       | R&N   | Effi. |
|-------------|-------------------------------|--------------|-------|-------|
| RSD-300B-5  | 14.4~33.6V / 16.8~31.2V       | 5V, 0~42A    | 100mV | 89.0% |
| RSD-300B-12 | 14.4~33.6V / 16.8~31.2V       | 12V, 0~22.5A | 120mV | 89.5% |
| RSD-300B-24 | 14.4~33.6V / 16.8~31.2V       | 24V, 0~11.3A | 150mV | 90.0% |
| RSD-300B-48 | 14.4~33.6V / 16.8~31.2V       | 48V, 0~5.7A  | 180mV | 91.5% |
| RSD-300C-5  | 28.8~67.2V / 33.6~62.4V       | 5V, 0~42A    | 100mV | 90.5% |
| RSD-300C-12 | 28.8~67.2V / 33.6~62.4V       | 12V, 0~25A   | 120mV | 91.0% |
| RSD-300C-24 | 28.8~67.2V / 33.6~62.4V       | 24V, 0~12.5A | 150mV | 91.5% |
| RSD-300C-48 | 28.8~67.2V / 33.6~62.4V       | 48V, 0~6.3A  | 180mV | 92.0% |
| RSD-300D-5  | 57.6~154V / 67.2~143V         | 5V, 0~42A    | 100mV | 90.0% |
| RSD-300D-12 | 57.6~154V / 67.2~143V         | 12V, 0~25A   | 120mV | 91.5% |
| RSD-300D-24 | 57.6~154V / 67.2~143V         | 24V, 0~12.5A | 150mV | 91.5% |
| RSD-300D-48 | 57.6~154V / 67.2~143V         | 48V, 0~6.3A  | 180mV | 91.5% |
| RSD-300E-5  | 21.6~50.4V / 25.2~46.8V       | 5V, 0~42A    | 100mV | 88.0% |
| RSD-300E-12 | 21.6~50.4V / 25.2~46.8V       | 12V, 0~25A   | 120mV | 90.0% |
| RSD-300E-24 | 21.6~50.4V / 25.2~46.8V       | 24V, 0~12.5A | 150mV | 91.0% |
| RSD-300E-48 | 21.6~50.4V / 25.2~46.8V       | 48V, 0~6.3A  | 180mV | 91.0% |
| RSD-300F-5  | 43.2~100.8V / 50.4~93.6V      | 5V, 0~42A    | 100mV | 89.0% |
| RSD-300F-12 | 43.2~100.8V / 50.4~93.6V      | 12V, 0~25A   | 120mV | 91.0% |
| RSD-300F-24 | 43.2~100.8V / 50.4~93.6V      | 24V, 0~12.5A | 150mV | 91.0% |
| RSD-300F-48 | 43.2~100.8V / 50.4~93.6V      | 48V, 0~6.3A  | 180mV | 91.5% |



## LED Power Family



### ■ Outdoor Lighting

- 40~600W
- HLG, HVG, CLG series, etc.



### ■ Indoor Lighting

- 8~150W
- AP, LP, NPF, PLM, HLP, GSC\*, OWA\* series, etc.

\* External power supply



### ■ Intelligent Lighting

- 25~240W
- LCM, ELG, WPD series, etc.



### ■ Bay Lighting

- 60~240W
- HBG series

### ■ Strip Lighting

- 40~120W
- PWM series

► Please contact with our sales representative for new LED catalog or visit our website: [www.meanwell.com/product/led/led.html](http://www.meanwell.com/product/led/led.html)

## Inverter Family



### ■ Solar Grid Electrical System



GSI Series  
(3000~5000W)

### ■ Off-Grid Electrical System



Battery Bank



TS/TN/ISI Series  
(100~3000W)

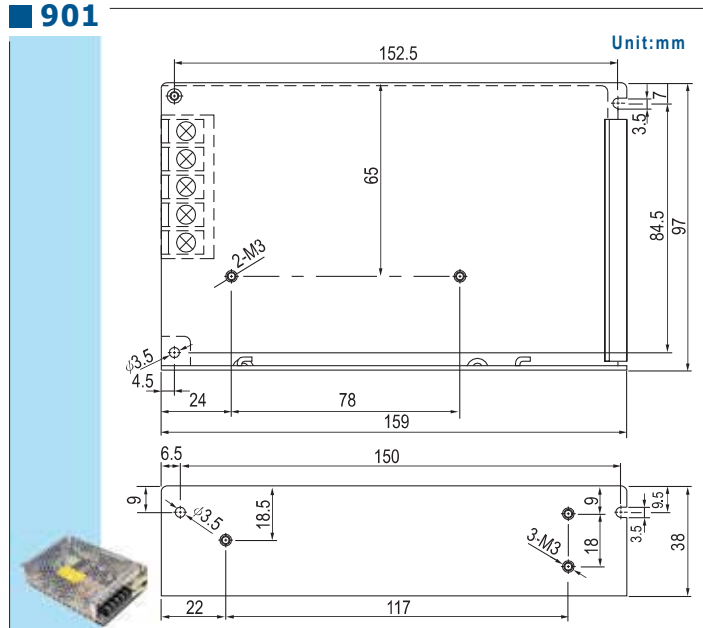


► Please contact with our sales representative for new inverter catalog or visit our website: [www.meanwell.com/product/inverter/inverter01.html](http://www.meanwell.com/product/inverter/inverter01.html)

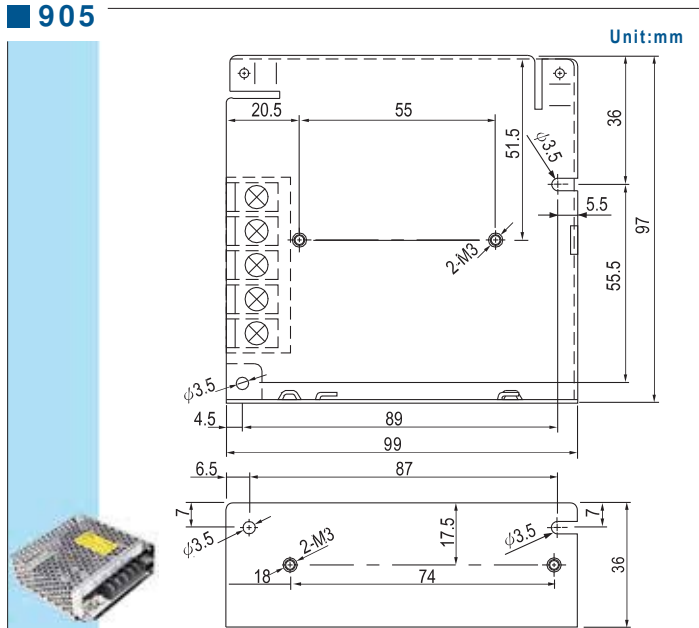


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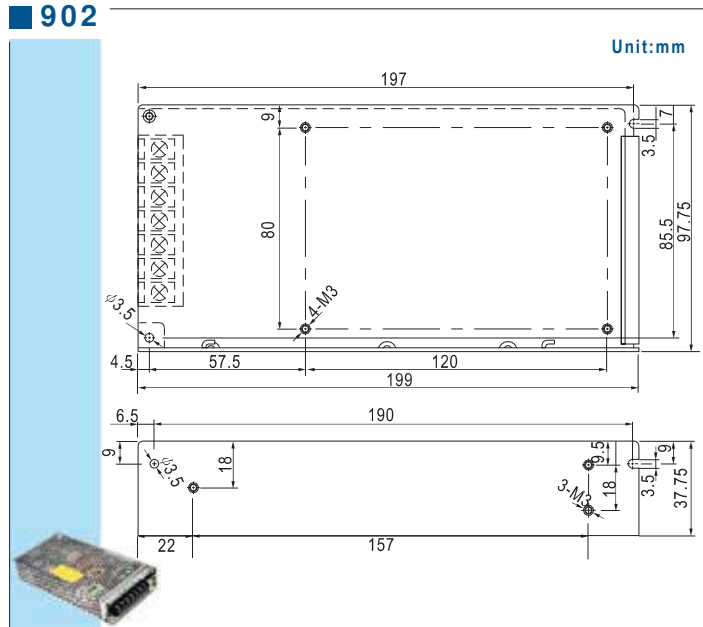
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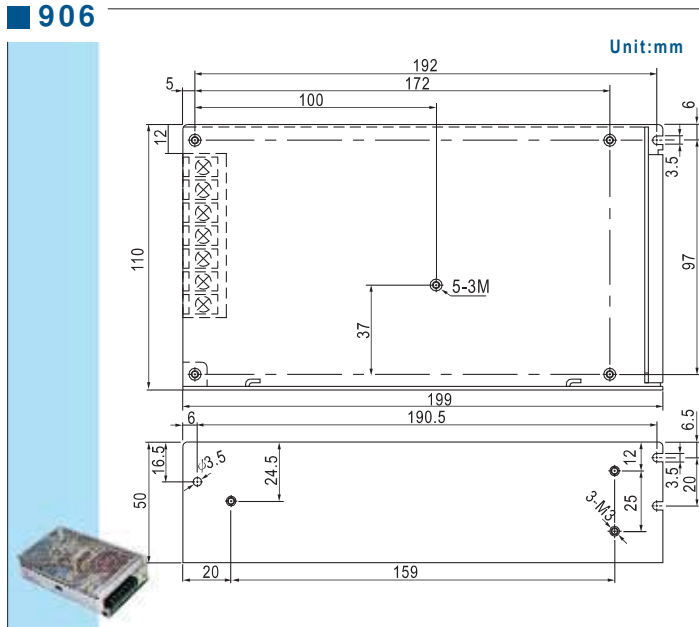
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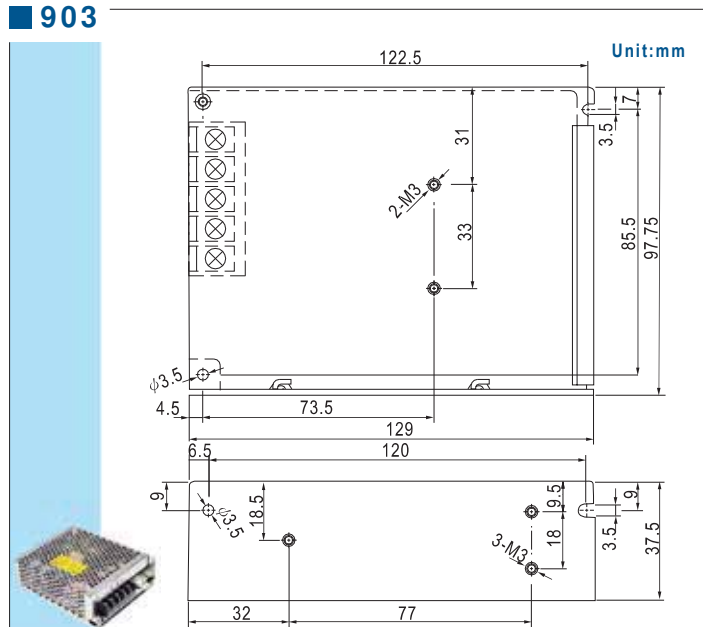
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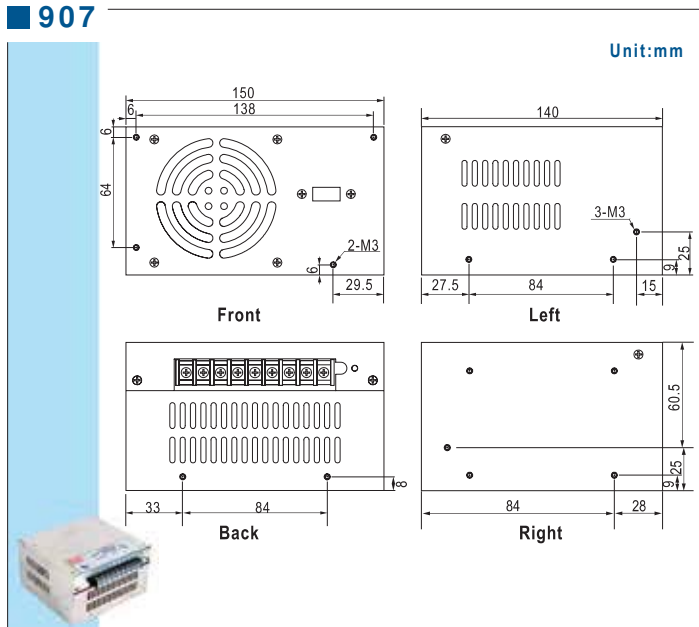
■ 906



■ 903

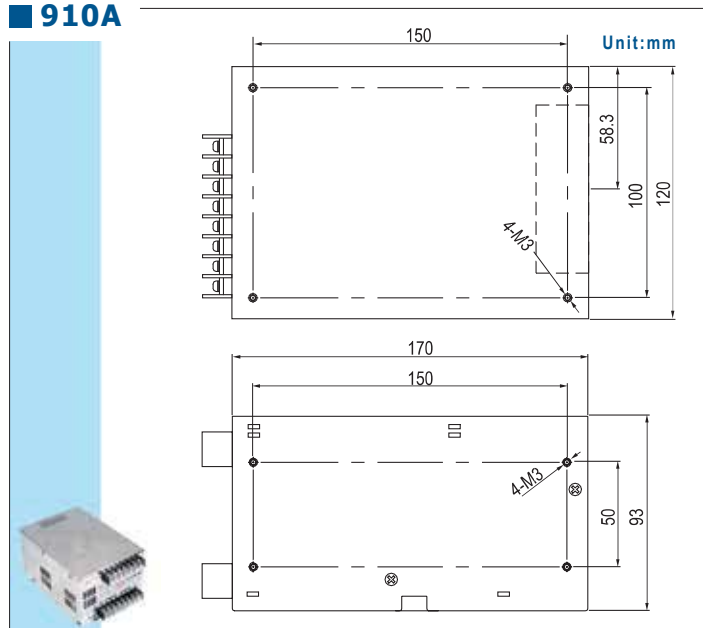


■ 907

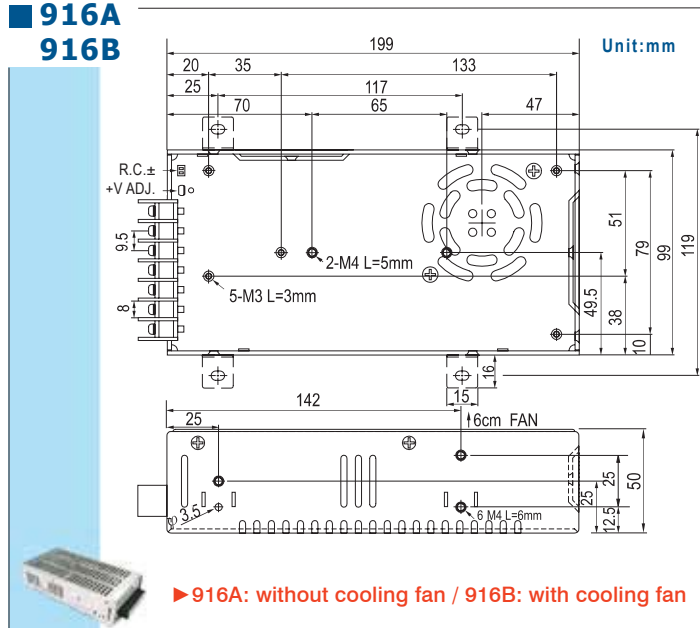


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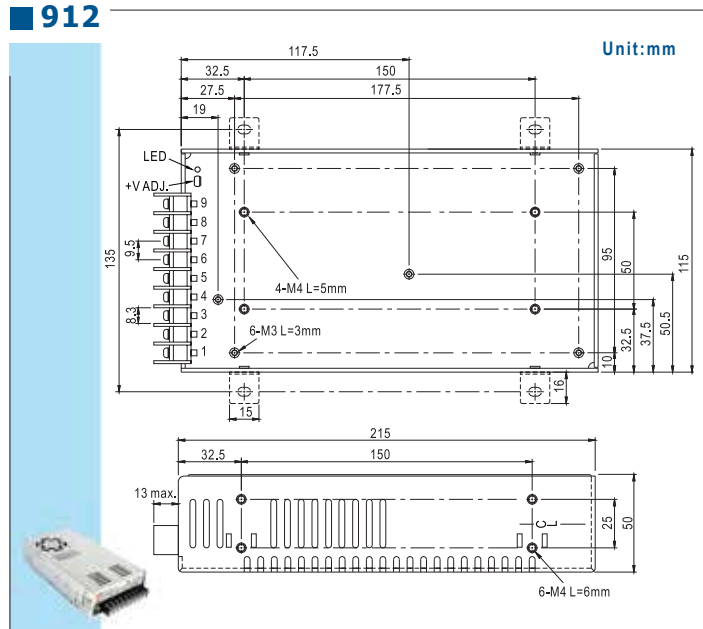
## 910A



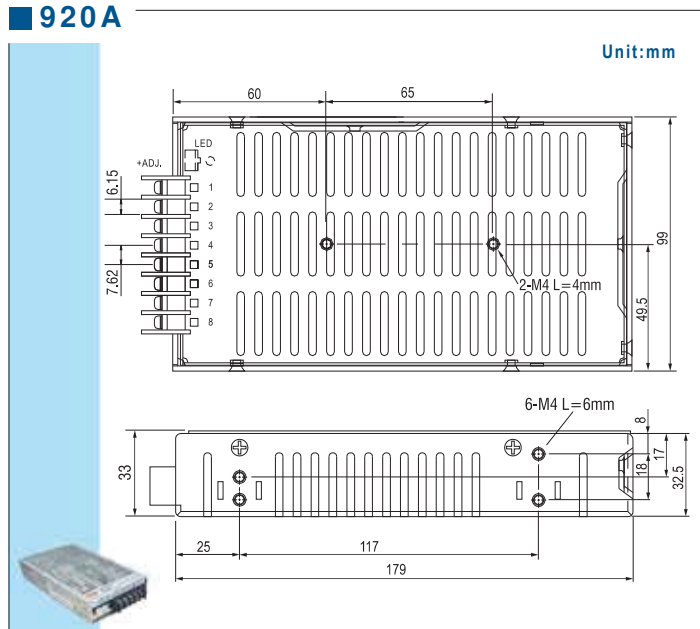
## 916A 916B



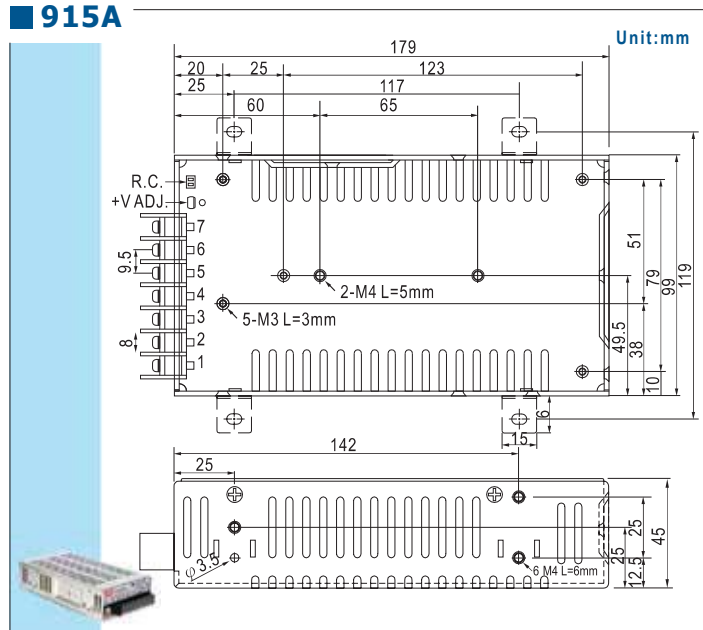
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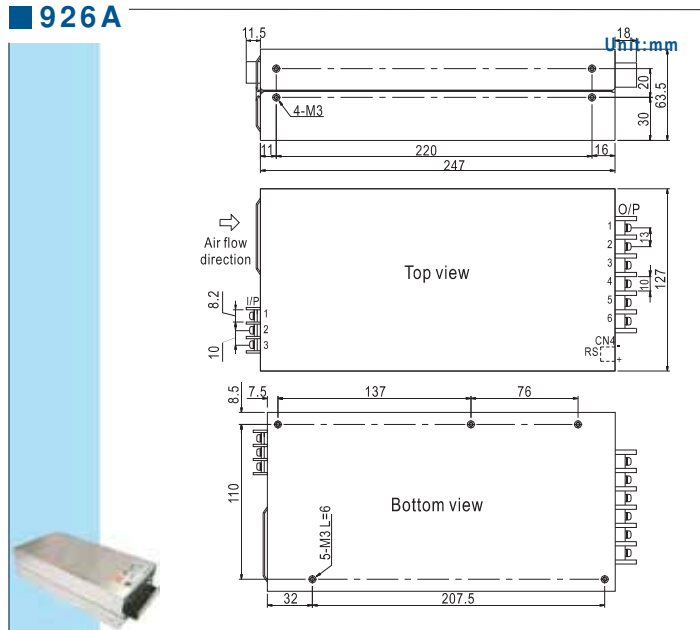
## 920A



## 915A



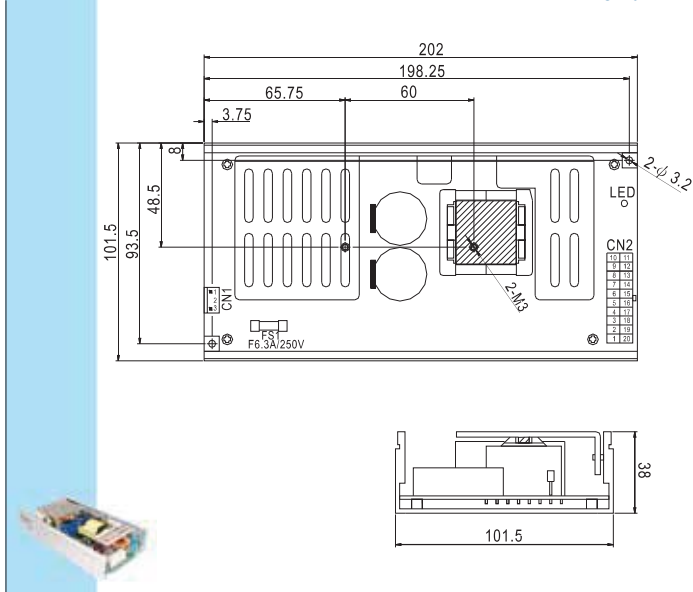
## 926A



# Case Drawing

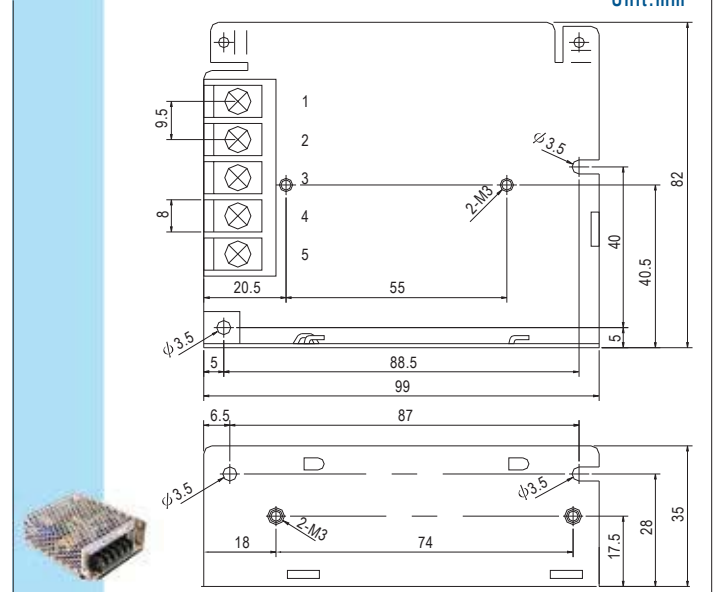
## ■ 928A

Unit:mm



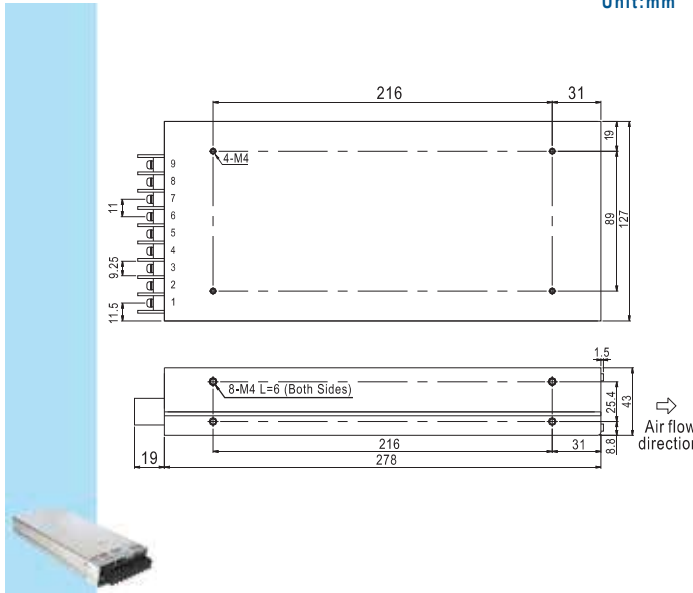
## ■ 932A

Unit:mm



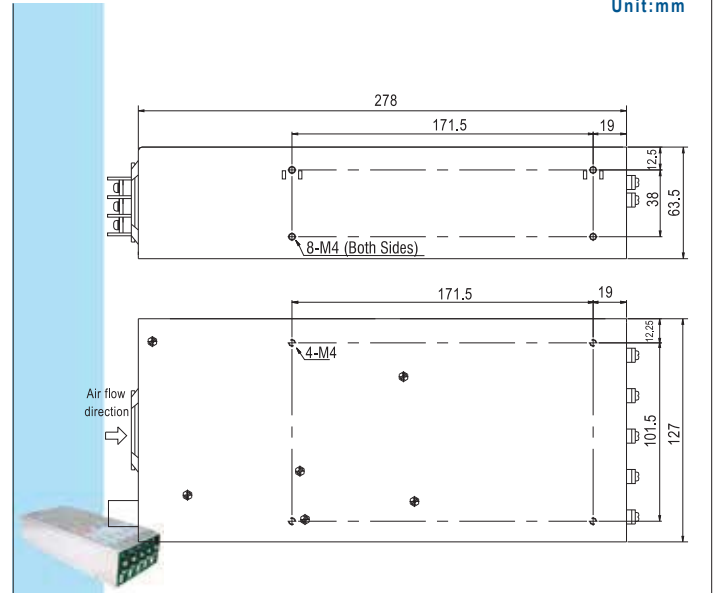
## ■ 929A

Unit:mm



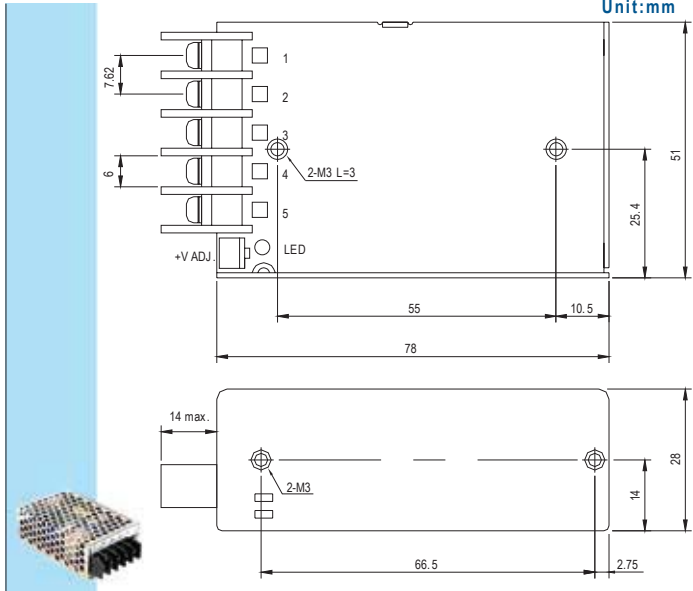
## ■ 935A

Unit:mm



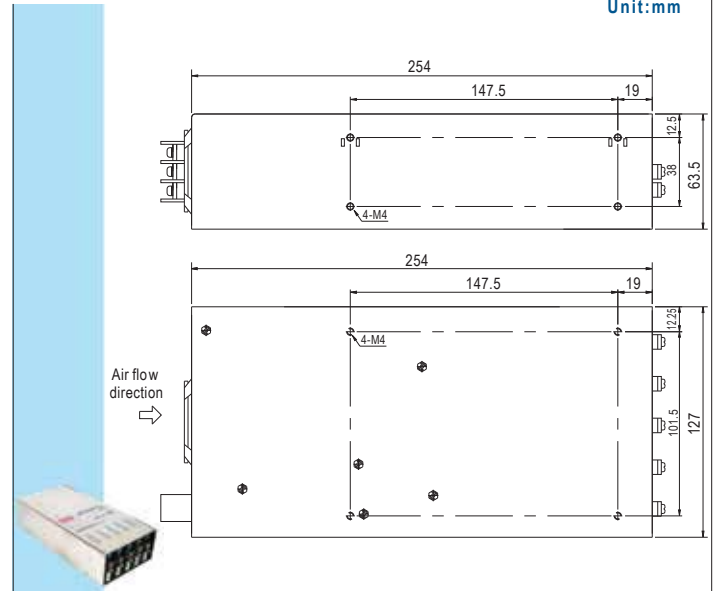
## ■ 931A

Unit:mm



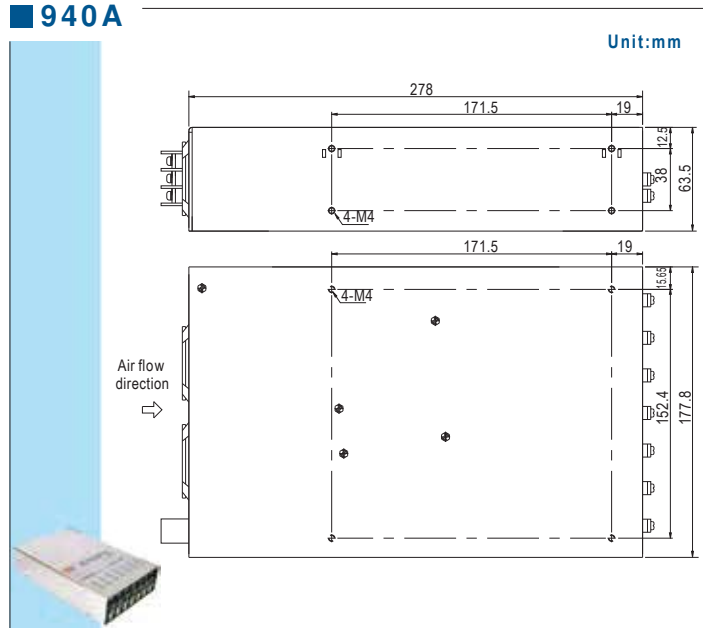
## ■ 939A

Unit:mm

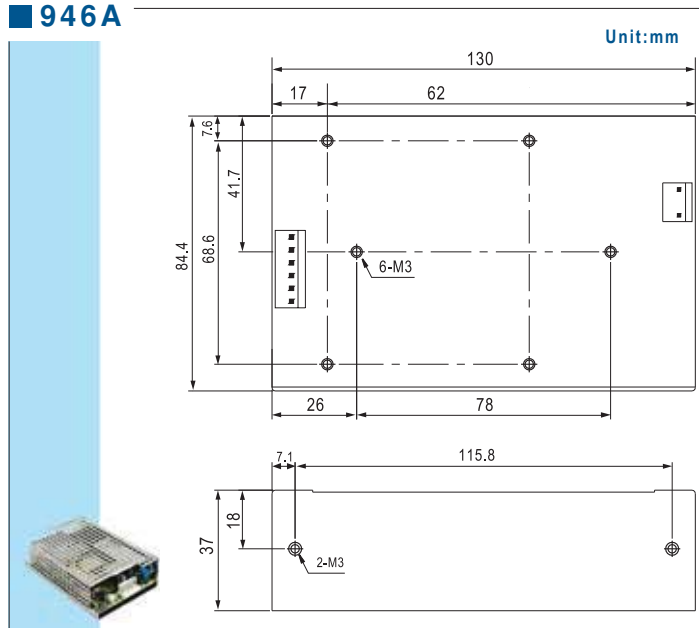


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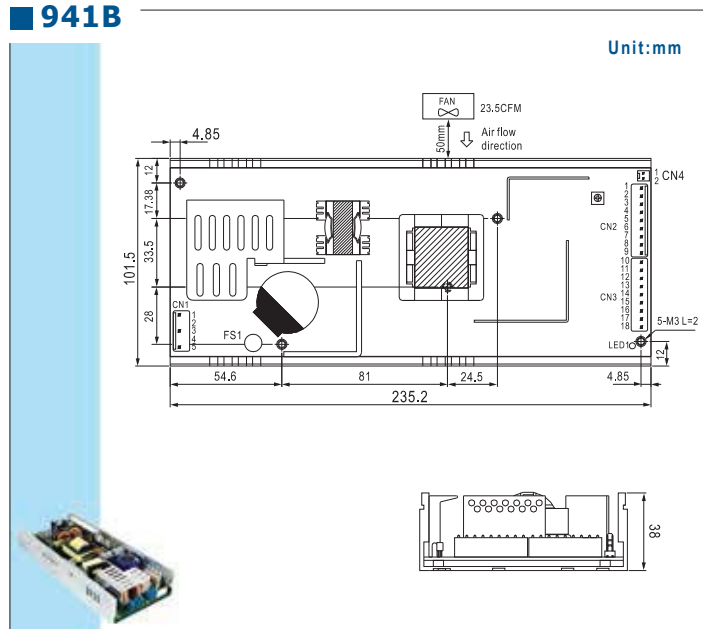
■ 940A



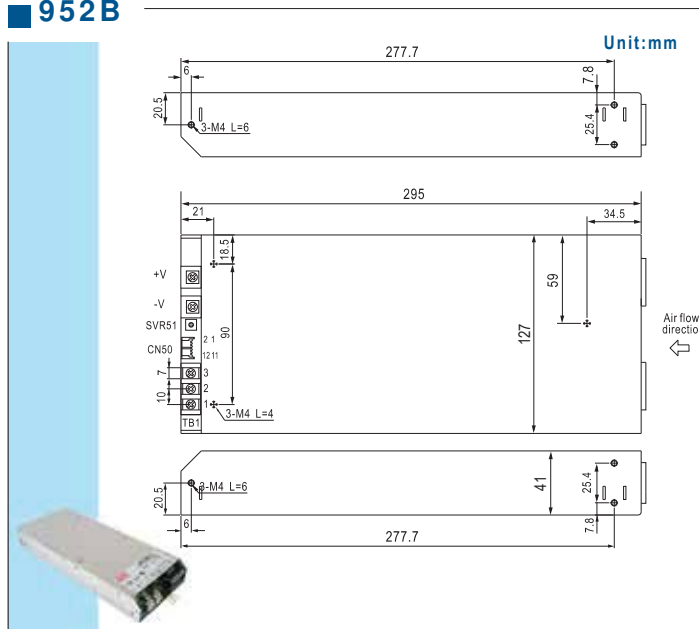
■ 946A



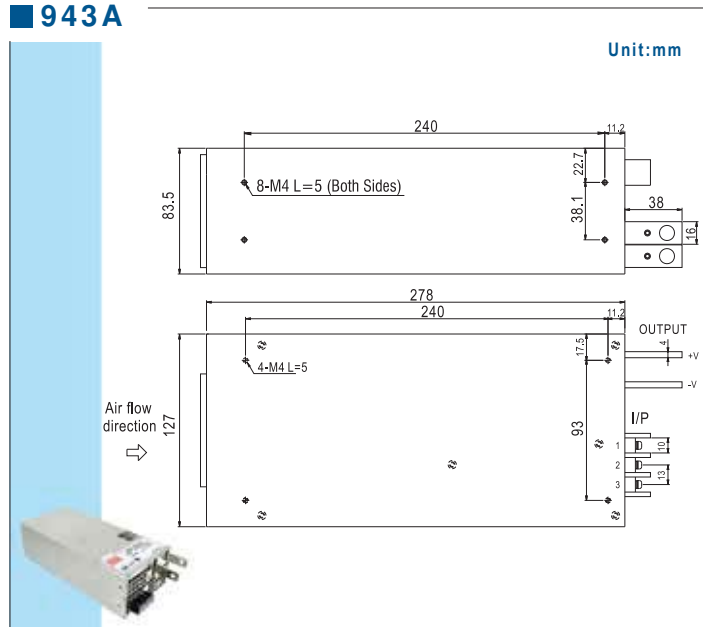
■ 941B



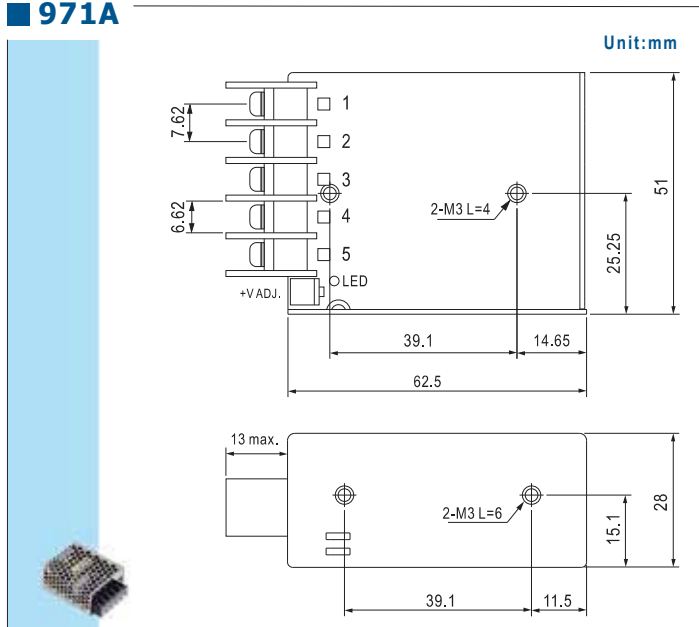
■ 952B



■ 943A



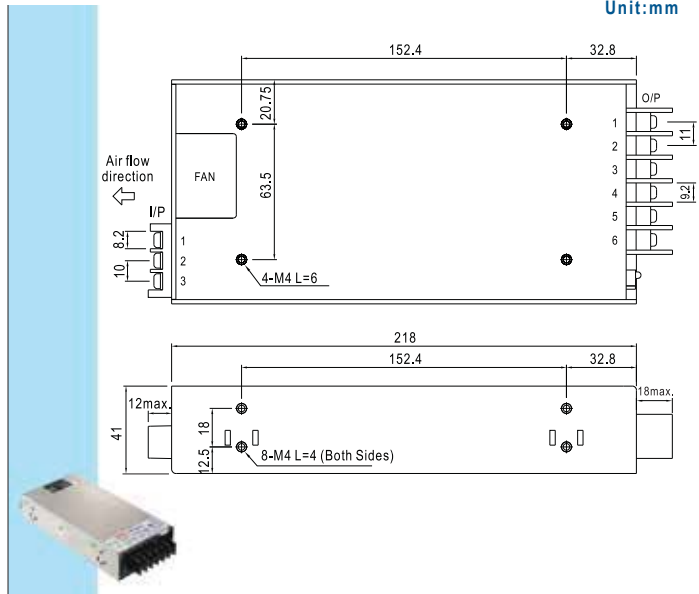
■ 971A





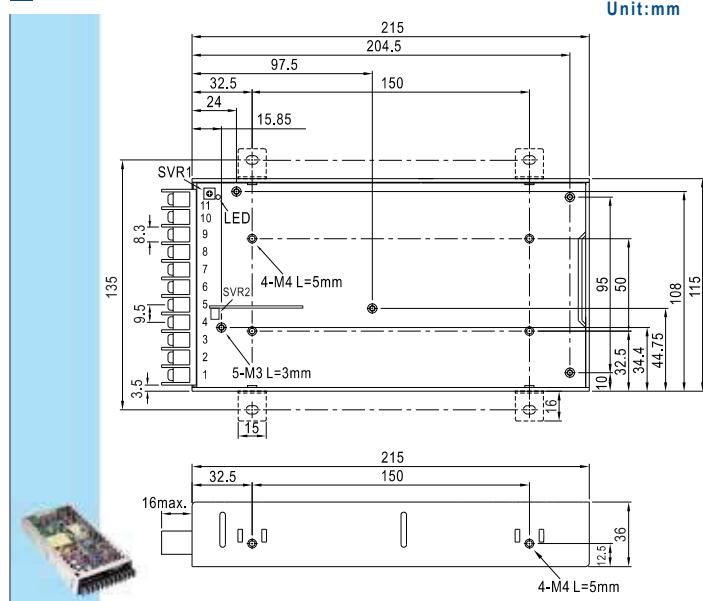


Unit:mm

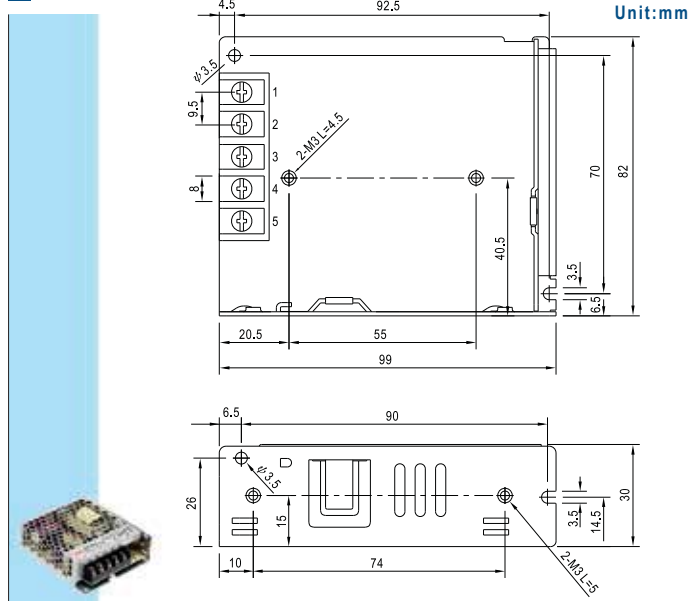


# Case Drawing

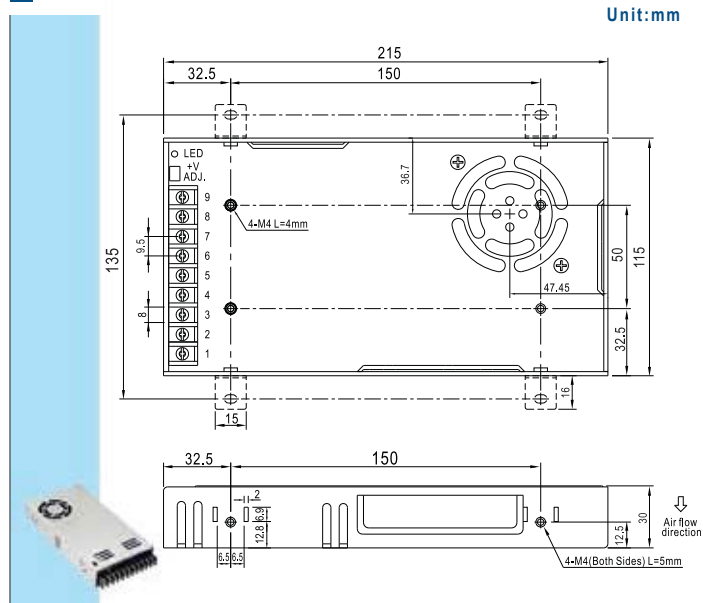
## 206A



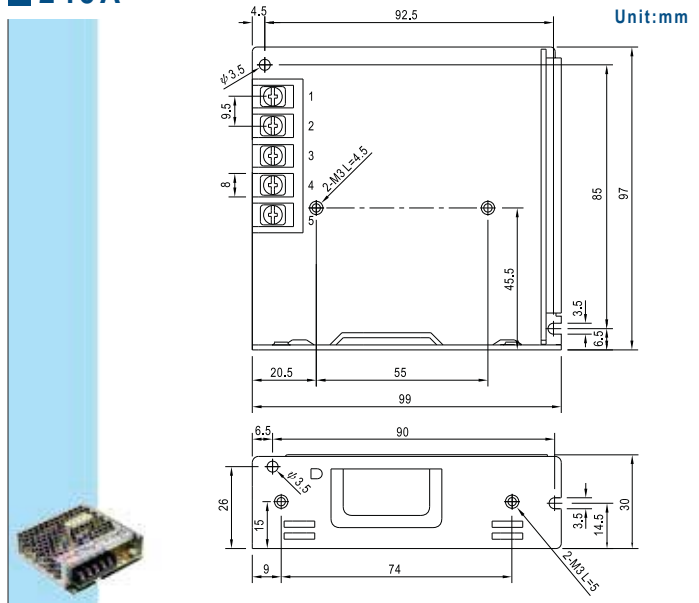
## 239A



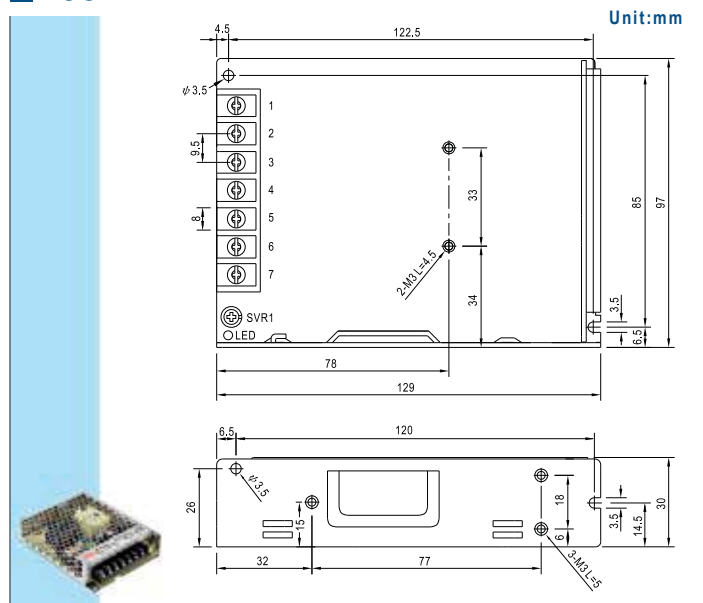
## 207A



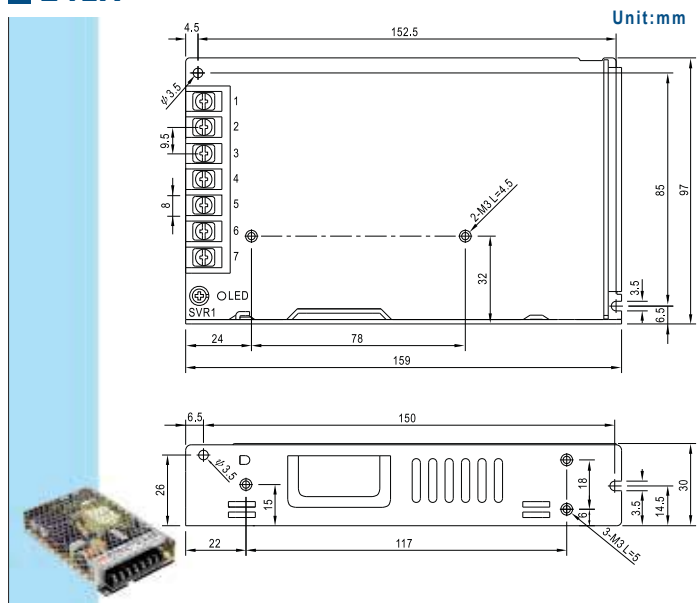
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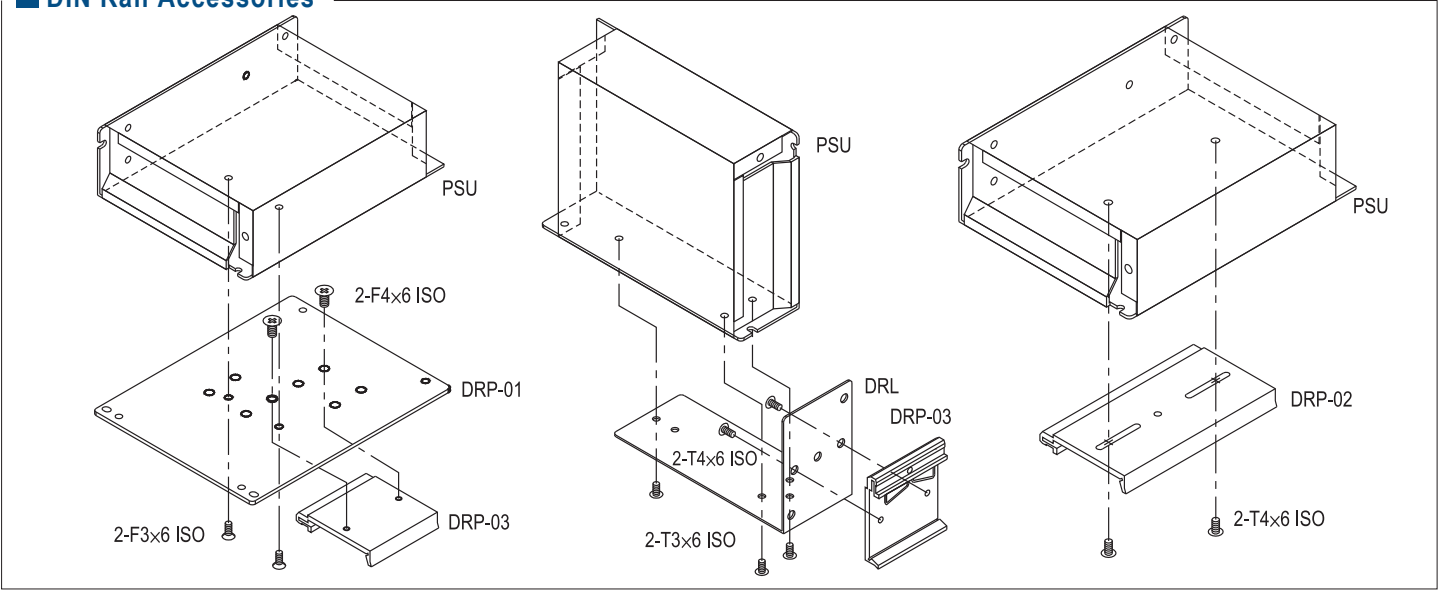
## 238A



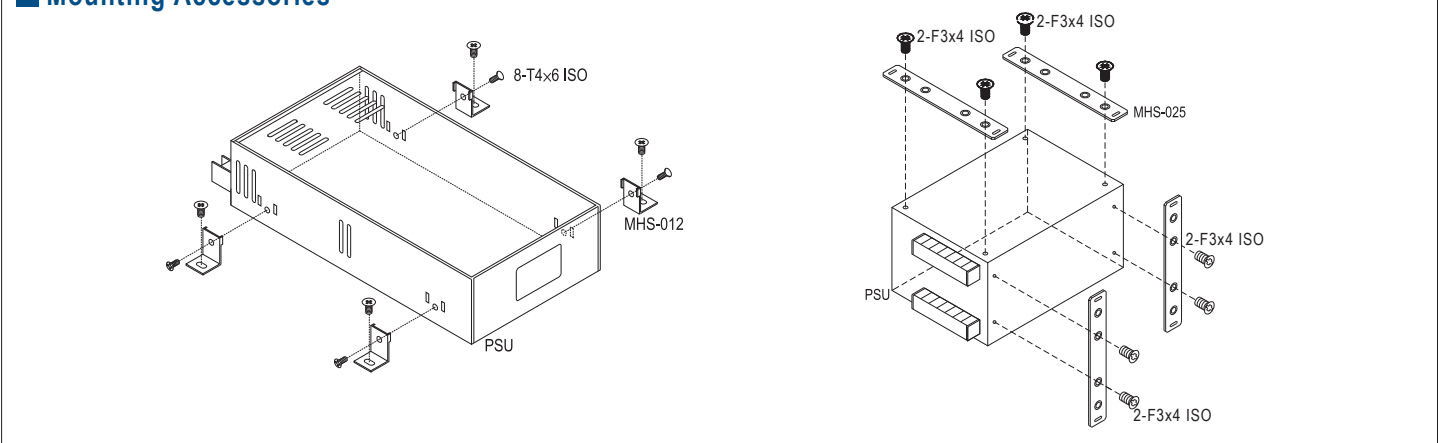
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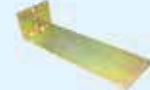


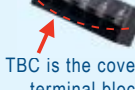
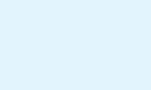
DIN Rail Accessories



Mounting Accessories



| ITEM                                                                               | Order No. | Case                                                   | Model                                                                                                                                                           |
|------------------------------------------------------------------------------------|-----------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | DRL-01    | 238, 239, 240<br>903<br>905<br>931<br>932<br>971       | LRS-35/50/75/100<br>S-40, D-30, T-30, .....<br>S-15, S-25, .....<br>RS-25, NES-15<br>RS-35, NES-25<br>RS-15                                                     |
|  | DRL-02    | 241<br>901<br>902<br>906<br>915<br>916<br>920          | LRS-150/150F<br>S-50, S-60, D-60, .....<br>S-100, S-100F, SD-100, ....<br>S-150, SD-150, D-120, .....<br>SP-100, .....<br>SP-150, SP-200, .....<br>SP-75, ..... |
|  | DRL-03A   | 980<br>987                                             | SP-240, HRP(G)-300                                                                                                                                              |
|  | DRP-01    | 238, 239, 241<br>901, 902<br>903, 906<br>931, 932, 946 | LRS-35/50/100/150/150F<br>All models                                                                                                                            |
|  | DRP-01A   | 203<br>205<br>978<br>999                               | RSD-100 / 150 / 200 / 300                                                                                                                                       |
|  | DRP-02    | 240<br>905 / 915<br>916 / 920<br>928                   | LRS-75<br>S-15, S-25, ... / SP-100, ...<br>SP-150, SP-200, ... / SP-75, ...<br>USP-225, .....                                                                   |
|  | DRP-03    | DRP-01<br>DRL-01~03                                    | All models                                                                                                                                                      |
|  | DRP-04    | 203<br>205<br>978<br>999                               | RSD-100 / 150 / 200 / 300                                                                                                                                       |

| ITEM                                                                                                                       | Order No. | Case                                                                                     | Model                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                         | MHS012    | 206, 207<br>215A<br>912, 915<br>916, 935<br>939, 940<br>977, 980<br>982, 986<br>987, 995 | HDP-190, RSP-200/320, LRS-200/350<br>RSP-150<br>S-201, S-320,<br>S-350, SP-100,<br>SP-150, SP-200, SP-320,<br>SE-450/1000, MP450/650/1000,<br>SP-240, HRP-300/450/600,<br>RSP-2400/3000                                           |
|                                         | MHS013    | 919<br>926                                                                               | PSP-500, SP-750,<br>SE-600                                                                                                                                                                                                        |
|                                         | MHS014    | 212<br>952                                                                               | RSP-750<br>RSP-1000, SD-1000                                                                                                                                                                                                      |
|                                         | MHS025    | 910                                                                                      | SP-500, PSP-600.....                                                                                                                                                                                                              |
|                                         | MHS026    | 943                                                                                      | RSP-1500                                                                                                                                                                                                                          |
|                                         | MHS027    | 971<br>931                                                                               | RS-15<br>RS-25                                                                                                                                                                                                                    |
| <br>TBC is the cover for terminal block | TBC-05    | 901<br>903<br>905<br>932<br>220<br>239A<br>240A                                          | SD-50, S-60<br>S-40, NES-50, RS-75<br>S-25, SD-25, NES-35, RS-50<br>NES-25, RS-35<br>RSP-75<br>LRS-35/50<br>LRS-75                                                                                                                |
|                                                                                                                            | TBC-07    | 901<br>902<br>903<br>905<br>906<br>215A<br>227A<br>238A<br>241A                          | D//ID-60, NED/T-75, RD-85,<br>NES-100, RS-100, T-60<br>S-100F, RD-125, NES-150,<br>RS-150, SD-100,<br>NED/T-50, RD/RID-65, T-40<br>NED/T-35, RD-50<br>S-150, SC-150, SD-150<br>RSP-150<br>RSP-100<br>LRS-100<br>LRS-150, LRS-150F |
|                                                                                                                            | TBC-08    | 901<br>906                                                                               | AD-155, ADD/ADS-155<br>D/T/Q-120                                                                                                                                                                                                  |
|                                                                                                                            | TBC-09    | 207                                                                                      | RSP-200/320, LRS-200/350                                                                                                                                                                                                          |
|                                                                                                                            |           |                                                                                          |                                                                                                                                                                                                                                   |

## Quotation

- Most of our standard products are available and in stock through our global authorized distributors. Please contact your local distributor for prompt service. Please let us know if you are unable to find Mean Well's distributor information in your local area.
- Written quotations are valid for 60 days from the date quoted unless otherwise specified. Customers are responsible for all banking related charges outside of Taiwan.

## Order

- Orders must be placed to Mean Well by mail, e-mail, or fax. Please do not place your order by phone. For international business, Mean Well will provide order confirmations with scheduled delivery dates. If you fail to receive an order confirmation within 2 working days, please reconfirm your order.
- Minimum order amounts per shipment are determined by our local distributor's stock capability. Please contact our sales representative for details.
- We encourage customers to place long-term orders. However, order cancellations or reschedules must be made 45 days prior to the scheduled shipping date.

## Delivery

- For our standard products, Mean Well usually keeps around 2-8 weeks safety stock (based on the past 3 months sales record) for prompt delivery of small / medium quantity orders. For large quantity or new product orders, 3-5 weeks lead-time is needed.

## Return

- All returned goods must have a RMA (return material authorization) number marked on each carton. Contact Mean Well for a RMA number. All goods must be shipped as "freight prepaid" unless otherwise confirmed by our sales representatives.

## Warranty

- Products found to be defective within 30 days from the date of receipt can be returned for credit or exchange. After the initial 30 days, Mean Well will repair the goods according to our warranty period. Contact Mean Well for further information on credit or a RMA number. Goods should be shipped as "freight prepaid" to Mean Well and Mean Well will repair and return the defective units (freight prepaid) within 7 working days. If the warranty period has expired, a repair fee (depends on the condition of the product) will be charged.
- If customers do the repair by themselves, Mean Well can provide reasonable quantity of free components for repair purpose.
- Apart from the external type power supply, the power supply is in general one component of the final system; particularly, the compatibility between the power supply and the system is closely associated. Should you have any difficulty in normally operating the power supplies, please contact our sales representatives and figure out the root cause. If the problem results from the power supply, the warranty right will be applied; if any issues arise from inappropriate installation or incompatibility between the power supply and the system, MEAN WELL will reserve the right to fulfill the warranty .

## Attention

- We make every effort to ensure the accuracy of information in the catalog. If there is any discrepancy between the data presented in our catalog and the SPEC, the SPEC sheets should take precedence (please refer to [www.meanwell.com](http://www.meanwell.com) for the latest SPEC information). We cannot take any responsibility of any consequence arising due to error or change in specification. We suggest customers conduct a sample test for evaluation and approval before placing a formal order.
- For continuing product improvement, Mean Well reserves the right to revise any information in this catalog without further notification.

## The EMC directive applies to component power supplies

- Mean Well ensures that all of the power supplies with CE declaration are designed to meet EMC directives and are verified by an independent certified lab agent with a test report prepared. However, there are 2 categories for power supplies: One is a stand-alone power supply, such as laboratory power supplies which can be tested under EMC individually. The other category is a component power supply such as an enclosed power supply and open PCB power supply. These power supplies are considered a component which will be installed into a final equipment. Since EMC performance is affected by the final installation of a product, Mean Well cannot guarantee that the final equipment will meet EMC directives. Final product manufacturers must re-confirm that their product meets EMC directives.





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Please Contact Your Local Distributor

