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Installation contactors Installation contactors

Installation contactors are electromagnetic switching devices for switching of all kind of electric loads. They have one position of rest, capable of making, carrying and breaking currents under normal circuit conditions including operating overload conditions.





Installation contactors are the most flexible switching devices for use in all types of applications. In electronic system provide reliable, safe and efficient management of electrical equipment.

For universal switching

- All kind of motors
- Electric heating
- Lights and lighting
- Electrical and electronic equipment

Advanced operation

- Remote control
- Manual control

Other benefits

- Silent hum-free AC/DC version with overvoltage protection
- Available also standard AC version
- Fast switching
- Wide application
- Mounting on 35 mm rail
- Sealing terminal covers
- Control voltages up to 400 V



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Installation Contactors up to 32 A



AC-1 acc. to IEC/EN 60947-4-1 (2-pole, 1 module)

Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA20-20	20 A	230 V		30.046.005	130	
IKA20-20	20 A	24 V	Δ1 1 3	30.046.021	130	
IKA225-20	25 A	230 V		30.046.714	130	6
IKA225-20	25 A	24 V	A1 1 3 A2 2 4	30.046.711	130	
IKA232-20	32 A	230 V	AZ 21 41	30.046.833	130	
IKA232-20	32 A	24 V		30.046.834	130	
IKA20-11	20 A	230 V		30.046.009	130	
IKA20-11	20 A	24 V	Δ1 1 R3	30.046.022	130	
IKA225-11	25 A	230 V	A1 1 R3	30.046.715	130	6
IKA225-11	25 A	24 V	A2 2 R4	30.046.712	130	0
IKA232-11	32 A	230 V	A2 21 R41	30.046.835	130	
IKA232-11	32 A	24 V		30.046.836	130	
IKA20-10	20 A	230 V		30.046.457	125	
IKA20-10	20 A	24 V	Λ1 1	30.046.837	125	
IKA225-10	25 A	230 V	A1 1 	30.046.713	125	6
IKA225-10	25 A	24 V		30.046.710	125	0
IKA232-10	32 A	230 V	A2 21	30.046.838	125	
IKA232-10	32 A	24 V		30.046.839	125	
IKA20-01	20 A	230 V		30.046.716	125	
IKA20-01	20 A	24 V	Λ1 D1I	30.046.840	125	
IKA225-01	25 A	230 V	A1 R1	30.046.841	125	6
IKA225-01	25 A	24 V	A2 R2	30.046.842	125	0
IKA232-01	32 A	230 V	AZ RZI	30.046.843	125	
IKA232-01	32 A	24 V		30.046.844	125	
IKA20-02	20 A	230 V		30.046.010	130	
IKA20-02	20 A	24 V	A1 D1 D3	30.046.023	130	
IKA225-02	25 A	230 V	A1 R1 R3	30.046.845	130	6
IKA225-02	25 A	24 V		30.046.846	130	
IKA232-02	32 A	230 V	A2 R2 R4	30.046.847	130	
IKA232-02	32 A	24 V		30.046.848	130	





AC-1 acc. to IEC/EN 60947-4-1 (4-pole, 2 modules

Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA25-40	25 A	230 V	A1 1 3 5 7	30.046.007	230	
IKA25-40	25 A	24 V	A1 1 3 5 7	30.046.027	230	3
IKA432-40	32 A	230 V	A2 2 4 6 8	30.046.849	230	٥
IKA432-40	32 A	24 V	AZ ZI 41 61 81	30.046.850	230	
IKA25-31	25 A	230 V	A1 1 3 5 R7	30.046.013	230	
IKA25-31	25 A	24 V	A1 1 3 5 R7	30.046.028	230	3
IKA432-31	32 A	230 V		30.046.851	230	٥
IKA432-31	32 A	24 V	A2 2 4 6 R8	30.046.852	230	
IKA25-30	25 A	230 V	A1 1 3 5	30.046.282	225	
IKA25-30	25 A	24 V	A1 1 3 5	30.046.853	225	3
IKA432-30	32 A	230 V	A2 2 4 6	30.046.854	225	3
IKA432-30	32 A	24 V	A2 21 41 61	30.046.855	225	
IKA25-22	25 A	230 V	A1 1 R3 R5 7	30.046.014	230	
IKA25-22	25 A	24 V	A	30.046.029	230	3
IKA432-22	32 A	230 V	A2 2 R4 R6 8	30.046.856	230	5
IKA432-22	32 A	24 V	AZ ZIK4IKOI 8I	30.046.857	230	
IKA25-04	25 A	230 V	A1 R1 R3 R5 R7	30.046.015	230	
IKA25-04	25 A	24 V		30.046.030	230	3
IKA432-04	32 A	230 V	12 02 04 05 05	30.046.858	230	ا ع
IKA432-04	32 A	24 V	A2 R2 R4 R6 R8	30.046.859	230	l l

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Installation Contactors

from 20 A up to 63 A

AC-1 acc. to IEC/EN 60947-4-1 (4-pole, 3 modules

Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA40-40	40 A	230 V	A1 1 3 5 7	30.045.518	350	
IKA40-40	40 A	24 V	A1 1 3 5 7	30.045.595	350	5
IKA63-40	63 A	230 V		30.045.522	350	٥
IKA63-40	63 A	24 V	A2 2 4 6 8	30.045.711	350	
IKA40-31	40 A	230 V	A1 1 3 5 R7	30.045.597	350	
IKA40-31	40 A	24 V	A1 1 3 5 R7	30.045.598	350	_
IKA63-31	63 A	230 V		30.045.533	350	5
IKA63-31	63 A	24 V	A2 2 4 6 R8	30.045.599	350	
IKA40-30	40 A	230 V	A1 1 3 5	30.045.517	340	
IKA40-30	40 A	24 V	A1 1 3 5	30.045.600	340	5
IKA63-30	63 A	230 V	T-7-7-7	30.045.521	340	٥
IKA63-30	63 A	24 V	A2 2 4 6	30.045.601	340	
IKA40-22	40 A	230 V	A1 1 R3 R5 7	30.045.519	350	
IKA40-22	40 A	24 V	A1 1 R3 R5 7	30.045.602	350	5
IKA63-22	63 A	230 V	A2 2 R4 R6 8	30.045.523	350	5
IKA63-22	63 A	24 V	A2 2 R4 R6 8	30.045.603	350	
IKA40-04	40 A	230 V	A1 R1 R3 R5 R7	30.045.511	350	
IKA40-04	40 A	24 V		30.045.604	350	5
IKA63-04	63 A	230 V		30.045.605	350] 3
IKA63-04	63 A	24 V	A2 R2 R4 R6 R8	30.045.606	350	



AC-1 acc. to IEC/EN 60947-4-1 (4-pole, 2 modules

Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IK21-10	20 A	220-240 V	A1 1 3 5 13	30.041.246	170	10
IK21-10	20 A	24 V	A2 2 4 6 14	30.041.289	170	10
IK21-01	20 A	220-240 V	A1 1 3 5 21	30.041.245	170	10
IK21-01	20 A	24 V	A2 2 4 6 22	30.041.249	170	10





AC-1 acc. to IEC/EN 60947-4-1 (2-pole, 1 module)

Туре	Rated current l _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKD20-20	20 A	230 V AC 220 V DC		30.046.006	130	
IKD20-20	20 A	24 V AC/DC		30.046.024	130	
IKD225-20	25 A	230 V AC 220 V DC	A1 1 3	30.046.860	130	6
IKD225-20	25 A	24 V AC/DC	A2 2 4	30.046.861	130	
IKD232-20	32 A	230 V AC 220 V DC		30.046.862	130	
IKD232-20	32 A	24 V AC/DC		30.046.863	130	
IKD20-11	20 A	230 V AC 220 V DC		30.046.011	130	
IKD20-11	20 A	24 V AC/DC		30.046.025	130	
IKD225-11	25 A	230 V AC 220 V DC	A1 1 R3	30.046.864	130	6
IKD225-11	25 A	24 V AC/DC	A2 2 R4	30.046.865	130	1
IKD232-11	32 A	230 V AC 220 V DC		30.046.866	130	
IKD232-11	32 A	24 V AC/DC		30.046.867	130]

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Installation Contactors up to 32 A



AC-1 acc. to IEC/EN 60947-4-1 (2-pole, 1 module)

HUM-FREE

Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKD20-10	20 A	230 V AC		30.046.868	125	
IKD20-10	20 A	220 V DC 24 V AC/DC		30.046.590	125	
IKD225-10	25 A	230 V AC 220 V DC	A1 1	30.046.869	125	6
IKD225-10	25 A	24 V AC/DC	A2 2	30.046.870	125	6
IKD232-10	32 A	230 V AC 220 V DC		30.046.871	125	
IKD232-10	32 A	24 V AC/DC		30.046.872	125	
IKD20-01	20 A	230 V AC 220 V DC		30.046.873	125	
IKD20-01	20 A	24 V AC/DC		30.046.874	125	
IKD225-01	25 A	230 V AC 220 V DC	A1 R1 /	30.046.875	125	6
IKD225-01	25 A	24 V AC/DC	A2 R2	30.046.876	125	
IKD232-01	32 A	230 V AC 220 V DC		30.046.877	125	
IKD232-01	32 A	24 V AC/DC		30.046.878	125	
IKD20-02	20 A	230 V AC 220 V DC		30.046.012	130	
IKD20-02	20 A	24 V AC/DC		30.046.026	130	
IKD225-02	25 A	230 V AC 220 V DC	A1 R1 R3	30.046.879	130	6
IKD225-02	25 A	24 V AC/DC	A2 R2 R4	30.046.880	130	
IKD232-02	32 A	230 V AC 220 V DC		30.046.881	130	
IKD232-02	32 A	24 V AC/DC		30.046.882	130	



AC-1 acc. to IEC/EN 60947-4-1 (4-pole, 2 modules)

HUM-FREE

Туре	Rated current I	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKD25-40	25 A	230 V AC 220 V DC	A1 1 3 5 7	30.046.008	250	
IKD25-40	25 A	24 V AC/DC	A1 1 3 5 7	30.046.031	250	3
IKD432-40	32 A	230 V AC 220 V DC	A2 2 4 6 8	30.046.883	250	5
IKD432-40	32 A	24 V AC/DC		30.046.884	250	
IKD25-31	25 A	230 V AC 220 V DC	A4 41 21 51 D71	30.046.016	250	
IKD25-31	25 A	24 V AC/DC	A1 1 3 5 R7	30.046.032	250	3
IKD432-31	32 A	230 V AC 220 V DC	A2 2 4 6 R8	30.046.885	250	3
IKD432-31	32 A	24 V AC/DC		30.046.886	250	
IKD25-30	25 A	230 V AC 220 V DC	A4 41 21 E1	30.046.887	245	
IKD25-30	25 A	24 V AC/DC	A1 1 3 5	30.046.888	245	3
IKD432-30	32 A	230 V AC 220 V DC	A2 2 4 6	30.046.889	245	3
IKD432-30	32 A	24 V AC/DC		30.046.890	245	





Installation Contactors

from 32 A up to 63 A

AC-1 acc. to IEC/EN 60947-4-1 (4-pole, 2 modules)

Туре	Rated current l _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKD25-22	25 A	230 V AC		30.046.017	250	
111023-22	23 A	220 V DC	A1 1 R3 R5 7	30.040.017	230	
IKD25-22	25 A	24 V AC/DC		30.046.033	250	3
IKD432-22	32 A	230 V AC	A2 2 R4 R6 8	30.046.891	250	3
11/10432-22		220 V DC		30.040.031	230	
IKD432-22	32 A	24 V AC/DC		30.046.892	250	
II/Dae o/	25.4	230 V AC		20.07.6.010	350	
IKD25-04	25 A	220 V DC	A1 R1 R3 R5 R7	30.046.018	250	
IKD25-04	25 A	24 V AC/DC		30.046.034	250	3
IKD432-04	32 A	230 V AC		30.046.893	250] 3
IND432-04	32 A	220 V DC	A2 R2 R4 R6 R8	30.040.893	250	
IKD432-04	32 A	24 V AC/DC		30 0/16 89/1	250	1





AC-1 acc. to IEC/EN 60947-4-1 (4-pole, 3 modules

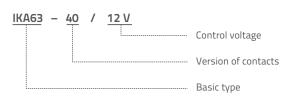
Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IK40-40	40 A	230 V AC 220 V DC		30.045.010	420	
IK40-40	40 A	24 V AC/DC	A1 1 3 5 /	30.045.022	420	5
IK63-40	63 A	230 V AC 220 V DC	A1 1 3 5 7 A2 2 4 6 8	30.045.011	420	5
IK63-40	63 A	24 V AC/DC		30.045.187	420	1
IK40-31	40 A	230 V AC 220 V DC	04 41 31 FLDTI	30.045.086	420	
IK40-31	40 A	24 V AC/DC	A1 1 3 5 R7	30.045.485	420	5
IK63-31	63 A	230 V AC 220 V DC	A2 2 4 6 R8	30.045.087	420	5
IK63-31	63 A	24 V AC/DC		30.045.234	420	
IK40-30	40 A	230 V AC 220 V DC	a. d. 3. 5.	30.045.268	410	5
IK40-30	40 A	24 V AC/DC	A1 1 3 5	30.045.607	410	
IK63-30	63 A	230 V AC 220 V DC	A1 1 3 5 A2 2 4 6	30.045.608	410	
IK63-30	63 A	24 V AC/DC		30.045.609	410	
IK40-22	40 A	230 V AC 220 V DC		30.045.150	420	
IK40-22	40 A	24 V AC/DC	A1 1 R3 R5 7	30.045.172	420	5
IK63-22	63 A	230 V AC 220 V DC	A2 2 R4 R6 8	30.045.235	420	5
IK63-22	63 A	24 V AC/DC		30.045.233	420	
IK40-04	40 A	230 V AC 220 V DC	A4 P4 P2 PF P7	30.045.145	420	
IK40-04	40 A	24 V AC/DC	A1 R1 R3 R5 R7	30.045.232	420	5
IK63-04	50 A	230 V AC 220 V DC	A2 R2 R4 R6 R8	30.045.610	420	
IK63-04	50 A	24 V AC/DC		30.045.611	420	1

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Other control voltages are on request - define type and voltage

Ordering data



Installation Contactors with Manual Control up to 32 A





IKA*-R and IKD*-R are upgraded version of basic types of contactors. Besides basic functions they enable manual control with a handle.

Description of the handle position:

- A: the contactor functions as an installation contactor without manual control
- **0**: permanently switched off control voltage
- I: at manual shifting the handle from position A to I causes the contactor to close; when control voltage is applied, the handle is automatically set to position A.

Contactor with manual control enable:

- switching demending on tariff (selection of the most convenient tariff)
- switching when control voltage is not applied

AC-1 acc. to IEC/EN 60947-4-1 (2-pole, 1 module

Туре	Rated current l _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA20-20-R	20 A	230 V	-	30.046.265	130	
IKA20-20-R	20 A	24 V	Λ1 1I 3I	30.046.268	130]
IKA225-20-R	25 A	230 V	A1 1 3	30.046.895	130	6
IKA225-20-R	25 A	24 V		30.046.896	130]
IKA232-20-R	32 A	230 V	A2 2 4	30.046.897	130	
IKA232-20-R	32 A	24 V		30.046.898	130	
IKA20-11-R	20 A	230 V		30.046.266	130	
IKA20-11-R	20 A	24 V	A1 1 R3	30.046.269	130]
IKA225-11-R	25 A	230 V		30.046.899	130	6
IKA225-11-R	25 A	24 V		30.046.900	130] 6
IKA232-11-R	32 A	230 V	A2 2 R4	30.046.901	130]
IKA232-11-R	32 A	24 V		30.046.902	130	
IKA20-10-R	20 A	230 V		30.046.496	125	
IKA20-10-R	20 A	24 V	A1 1	30.046.903	125	
IKA225-10-R	25 A	230 V		30.046.904	125	6
IKA225-10-R	25 A	24 V		30.046.905	125]
IKA232-10-R	32 A	230 V	A2 2	30.046.906	125]
IKA232-10-R	32 A	24 V		30.046.907	125	
IKA20-01-R	20 A	230 V		30.046.908	125	
IKA20-01-R	20 A	24 V	Λ1 D1I	30.046.909	125	1
IKA225-01-R	25 A	230 V	A1 R1	30.046.910	125	6
IKA225-01-R	25 A	24 V	\	30.046.911	125] 6
IKA232-01-R	32 A	230 V	A2 R2	30.046.912	125]
IKA232-01-R	32 A	24 V		30.046.913	125	
IKA20-02-R	20 A	230 V		30.046.267	130	
IKA20-02-R	20 A	24 V	Λ1 D1 D3	30.046.270	130	1
IKA225-02-R	25 A	230 V	A1 R1 R3	30.046.914	130	6
IKA225-02-R	25 A	24 V	\ \	30.046.915	130]
IKA232-02-R	32 A	230 V	A2 R2 R4	30.046.916	130]
IKA232-02-R	32 A	24 V		30.046.917	130	1

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Installation Contactors with Manual Control up to 32 A

AC-1 acc. to IEC/EN 60947-4-1 (4-pole, 2 module)

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Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA25-40-R	25 A	230 V	A1 1 3 5 7	30.046.271	230	
IKA25-40-R	25 A	24 V	A1 1 3 5 7	30.046.275	230	_
IKA432-40-R	32 A	230 V		30.046.918	230	3
IKA432-40-R	32 A	24 V	A2 2 4 6 8	30.046.919	230	
IKA25-31-R	25 A	230 V	A1 1 3 5 R7	30.046.272	230	
IKA25-31-R	25 A	24 V		30.046.276	230	3
IKA432-31-R	32 A	230 V	T 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	30.046.920	230	5
IKA432-31-R	32 A	24 V	A2 2 4 6 R8	30.046.921	230	
IKA25-30-R	25 A	230 V	A1 1 3 5	30.046.922	225	
IKA25-30-R	25 A	24 V		30.046.923	225	3
IKA432-30-R	32 A	230 V		30.046.924	225	
IKA432-30-R	32 A	24 V	A2 2 4 6	30.046.925	225	
IKA25-22-R	25 A	230 V	A1 1 R3 R5 7	30.046.273	230	
IKA25-22-R	25 A	24 V		30.046.277	230	3
IKA432-22-R	32 A	230 V		30.046.926	230	5
IKA432-22-R	32 A	24 V	A2 2 R4 R6 8	30.046.927	230	
IKA25-04-R	25 A	230 V	A1 R1 R3 R5 R7	30.046.274	230	
IKA25-04-R	25 A	24 V		30.046.278	230	3
IKA432-04-R	32 A	230 V	12 P2 P4 P5 P0	30.046.928	230	
IKA432-04-R	32 A	24 V	A2 R2 R4 R6 R8	30.046.929	230	



AC-1 acc. to IEC/EN 60947-4-1 (2-pole, 1 module)

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Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKD20-20-R	20 A	230 V AC 220 V DC		30.046.381	130	
IKD20-20-R	20 A	24 V AC/DC		30.046.506	130]
IKD225-20-R	25 A	230 V AC 220 V DC	A1 1 3 A2 2 4	30.046.930	130	6
IKD225-20-R	25 A	24 V AC/DC	A2 2 4	30.046.931	130	1
IKD232-20-R	32 A	230 V AC 220 V DC		30.046.932	130	
IKD232-20-R	32 A	24 V AC/DC		30.046.933	130	1
IKD20-11-R	20 A	230 V AC 220 V DC		30.046.507	130	
IKD20-11-R	20 A	24 V AC/DC		30.046.508	130	6
IKD225-11-R	25 A	230 V AC 220 V DC	A1 1 R3	30.046.934	130	
IKD225-11-R	25 A	24 V AC/DC	A2 2 R4	30.046.935	130	
IKD232-11-R	32 A	230 V AC 220 V DC		30.046.936	130	
IKD232-11-R	32 A	24 V AC/DC		30.046.937	130	1
IKD20-10-R	20 A	230 V AC 220 V DC		30.046.938	125	
IKD20-10-R	20 A	24 V AC/DC		30.046.939	125	1
IKD225-10-R	25 A	230 V AC 220 V DC	A1 1	30.046.940	125	6
IKD225-10-R	25 A	24 V AC/DC	A2 2	30.046.941	125]
IKD232-10-R	32 A	230 V AC 220 V DC		30.046.942	125	
IKD232-10-R	32 A	24 V AC/DC		30.046.943	125]



Installation Contactors with Manual Control up to 32 A



AC-1 acc. to IEC/EN 60947-4-1 (2-pole, 1 module)

HUM-FREE

Туре	Rated current l _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKD20-01-R	20 A	230 V AC	_	30.046.944	125	
IKD20-01-R	20 A	220 V DC 24 V AC/DC		30.046.945	125	
IKD225-01-R	25 A	230 V AC 220 V DC	A1 R1	30.046.946	125	6
IKD225-01-R	25 A	24 V AC/DC	A2 R2	30.046.947	125	6
IKD232-01-R	32 A	230 V AC 220 V DC		30.046.948	125	
IKD232-01-R	32 A	24 V AC/DC		30.046.949	125	
IKD20-02-R	20 A	230 V AC 220 V DC		30.046.950	130	
IKD20-02-R	20 A	24 V AC/DC		30.046.951	130	
IKD225-02-R	25 A	230 V AC 220 V DC	A1 R1 R3	30.046.952	130	6
IKD225-02-R	25 A	24 V AC/DC	A2 R2 R4	30.046.953	130	1
IKD232-02-R	32 A	230 V AC 220 V DC		30.046.954	130	
IKD232-02-R	32 A	24 V AC/DC		30.046.955	130	



AC-1 acc. to IEC/EN 60947-4-1 (4-pole, 2 modules)

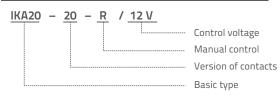
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Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKD25-40-R	25 A	230 V AC 220 V DC	A4 41 21 E1 71	30.046.509	250	
IKD25-40-R	25 A	24 V AC/DC		30.046.510	250	3
IKD432-40-R	32 A	230 V AC 220 V DC	A1 1 3 5 7 A2 2 4 6 8	30.046.956	250	3
IKD432-40-R	32 A	24 V AC/DC		30.046.957	250	
IKD25-31-R	25 A	230 V AC 220 V DC	04 41 31 51 D31	30.046.958	250	
IKD25-31-R	25 A	24 V AC/DC	A1 1 3 5 R/L	30.046.959	250	1 _
IKD432-31-R	32 A	230 V AC 220 V DC	A1 1 3 5 R7 A2 2 4 6 R8	30.046.960	250	3
IKD432-31-R	32 A	24 V AC/DC		30.046.961	250	
IKD25-30-R	25 A	230 V AC 220 V DC	04 41 71 51	30.046.962	245	. 3
IKD25-30-R	25 A	24 V AC/DC	AT 1 3 3	30.046.963	245	
IKD432-30-R	32 A	230 V AC 220 V DC	A1 1 3 5 A2 2 4 6	30.046.964	245	
IKD432-30-R	32 A	24 V AC/DC		30.046.965	245	
IKD25-22-R	25 A	230 V AC 220 V DC	04 4LD2LD5L 7L	30.046.966	250	
IKD25-22-R	25 A	24 V AC/DC	AT 1 R3 R5 /	30.046.967	250] ,
IKD432-22-R	32 A	230 V AC 220 V DC	A1 1 R3 R5 7 A2 2 R4 R6 8	30.046.968	250	3
IKD432-22-R	32 A	24 V AC/DC		30.046.969	250]
IKD25-04-R	25 A	230 V AC 220 V DC	84 P41 P21 P51 P71	30.046.970	250	
IKD25-04-R	25 A	24 V AC/DC	A1 R1 R3 R5 R7	30.046.971	250	3
IKD432-04-R	32 A	230 V AC 220 V DC	A2 R2 R4 R6 R8	30.046.972	250	
IKD432-04-R	32 A	24 V AC/DC		30.046.973	250	



Other control voltages are on request - define type and voltage

Ordering data





Installation Contactors with Manual Momentary Control up to 32 A



IKA*-T and IKD*-T are upgraded version of basic types of contactors. Besides basic functions they enable manual control with a handle.

Description of the handle position:

- A: the contactor functions as an installation contactor
- **0**: permanently switched off control voltage
- I: momentary switch-on depending of manual activation

AC-1 acc. to IEC/EN 60947-4-1 (2-pole, 1 module

Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA20-20-T	20 A	230 V	A1 1 3	30.046.974	130	
IKA225-20-T	25 A	230 V	<u></u>	30.046.975	130	6
IKA232-20-T	32 A	230 V	A2 2 4	30.046.976	130	
IKA20-11-T	20 A	230 V	A1 1 R3	30.046.977	130	
IKA225-11-T	25 A	230 V	<u></u>	30.046.978	130	6
IKA232-11-T	32 A	230 V	A2 2 R4	30.046.979	130	
IKA20-10-T	20 A	230 V	A1 1	30.046.980	125	
IKA225-10-T	25 A	230 V	<u></u>	30.046.981	125	6
IKA232-10-T	32 A	230 V	A2 2	30.046.982	125	
IKA20-01-T	20 A	230 V	A1 R1	30.046.983	125	
IKA225-01-T	25 A	230 V	<u></u> 7	30.046.984	125	6
IKA232-01-T	32 A	230 V	A2 R2	30.046.985	125	
IKA20-02-T	20 A	230 V	A1 R1 R3	30.046.986	130	
IKA225-02-T	25 A	230 V	 <i>-</i> 77	30.046.987	130	6
IKA232-02-T	32 A	230 V	A2 R2 R4	30.046.988	130	1



AC-1 acc. to IEC/EN 60947-4-1 (4-pole, 2 modules)

Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA25-40-T	25 A	230 V	A1 1 3 5 7	30.046.989	230	3
IKA432-40-T	32 A	230 V	A1 1 3 5 7 A2 2 4 6 8	30.046.990	230	5
IKA25-31-T	25 A	230 V	A1 1 3 5 R7	30.046.991	230	3
IKA432-31-T	32 A	230 V	A2 2 4 6 R8	30.046.992	230	5
IKA25-30-T	25 A	230 V	A1 1 3 5	30.046.993	225	3
IKA432-30-T	32 A	230 V	A2 2 4 6	30.046.994	225	5
IKA25-22-T	25 A	230 V	A1 1 R3 R5 7	30.046.995	230	3
IKA432-22-T	32 A	230 V	A2 2 R4 R6 8	30.046.996	230	5
IKA25-04-T	25 A	230 V	A1 R1 R3 R5 R7	30.046.997	230	3
IKA432-04-T	32 A	230 V	A2 R2 R4 R6 R8	30.046.998	230	3



Installation Contactors with Manual Momentary Control up to 32 A



AC-1 acc. to IEC/EN 60947-4-1 (2-pole, 1 module)

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Туре	Rated current l _e	Control voltage at 50 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKD20-20-T	20 A	230 V AC 220 V DC	Δ1 1 3	30.046.999	130	
IKD225-20-T	25 A	230 V AC 220 V DC	A1 1 3 A2 A2 A	30.047.000	130	6
IKD232-20-T	32 A	230 V AC 220 V DC	AZ ZI 4I	30.047.001	130	
IKD20-11-T	20 A	230 V AC 220 V DC	A1 1 D2	30.047.002	130	
IKD225-11-T	25 A	230 V AC 220 V DC	A1 1 R3 	30.047.003	130	6
IKD232-11-T	32 A	230 V AC 220 V DC	A2 2 R4	30.047.004	130	
IKD20-10-T	20 A	230 V AC 220 V DC	Λ1 1	30.047.005	125	
IKD225-10-T	25 A	230 V AC 220 V DC	A1 1 	30.047.006	125	6
IKD232-10-T	32 A	230 V AC 220 V DC	AZ ZI	30.047.007	125	
IKD20-01-T	20 A	230 V AC 220 V DC	Λ1 D1I	30.047.008	125	
IKD225-01-T	25 A	230 V AC 220 V DC	A1 R1 / A2 R2	30.047.009	125	6
IKD232-01-T	32 A	230 V AC 220 V DC	AZ RZI	30.047.010	125	
IKD20-02-T	20 A	230 V AC 220 V DC	Λ1 D1 D3	30.047.011	130	
IKD225-02-T	25 A	230 V AC 220 V DC	A1 R1 R3 A2 R2 R4	30.047.012	130	6
IKD232-02-T	32 A	230 V AC 220 V DC	AZ KZI K4I	30.047.013	130	



AC-1 acc. to IEC/EN 60947-4-1 (4-pole, 2 modules)

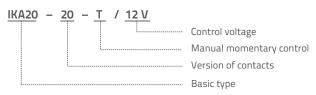
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Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKD25-40-T	25 A	230 V AC 220 V DC	A1 1 3 5 7	30.047.014	250	3
IKD432-40-T	32 A	230 V AC 220 V DC	A2 2 4 6 8	30.047.015	250	5
IKD25-31-T	25 A	230 V AC 220 V DC	A1 1 3 5 R7	30.047.016	250	
IKD432-31-T	32 A	230 V AC 220 V DC	A2 2 4 6 R8	30.047.017	250	3
IKD25-30-T	25 A	230 V AC 220 V DC	A1 1 3 5	30.047.018	245	
IKD432-30-T	32 A	230 V AC 220 V DC	A2 2 4 6	30.047.019	245	3
IKD25-22-T	25 A	230 V AC 220 V DC	A1 1 R3 R5 7	30.047.020	250	2
IKD432-22-T	32 A	230 V AC 220 V DC	A2 2 R4 R6 8	30.047.021	250	3
IKD25-04-T	25 A	230 V AC 220 V DC	A1 1 R3 R5 7	30.047.022	250	2
IKD432-04-T	32 A	230 V AC 220 V DC	A2 2 R4 R6 8	30.047.023	250	3



Other control voltages are on request - define type and voltage

Ordering data





from 20 A up to 63 A



Special designed installation contactors for markets who required UL and CSA approval.





General Use acc. to UL 60947-4-1 (2-pole, 1 module)

Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA220-20		230 V	A1 1 3	30.046.825	130	
IKA220-20	20 A	120 V	☐ -//	30.047.024	130	6
IKA220-20		24 V	A2 2 4	30.047.025	130	
IKA220-11		230 V	A1 1 R3	30.047.289	130	
IKA220-11	20 A	120 V	□ \	30.047.026	130	6
IKA220-11		24 V	A2 2 R4	30.047.027	130	
IKA220-10		230 V	A1 1	30.047.290	130	
IKA220-10	20 A	120 V	<u></u>	30.047.028	125	6
IKA220-10		24 V	A2 2	30.047.029	125	
IKA220-01		230 V	A1 R1	30.047.291	130	
IKA220-01	20 A	120 V	□ 7	30.047.030	125	6
IKA220-01		24 V	A2 R2	30.047.031	125	
IKA220-02		230 V	A1 R1 R3	30.047.291	130	
IKA220-02	20 A	120 V		30.047.032	130	6
IKA220-02		24 V	A2 R2 R4	30.047.033	130	





General Use acc. to UL 60947-4-1 (4-pole, 2 modules

Туре	Rated current l _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA425-40		230 V	A1 1 3 5 7	30.046.827	230	
IKA425-40	25 A	120 V		30.047.034	230	3
IKA425-40		24 V	A2 2 4 6 8	30.047.035	230	
IKA425-31		230 V	A1 1 3 5 R7	30.047.293	230	
IKA425-31	25 A	120 V	<u> </u>	30.047.036	230	3
IKA425-31		24 V	A2 2 4 6 R8	30.047.037	230	
IKA425-30		230 V	A1 1 3 5	30.047.294	225	
IKA425-30	25 A	120 V		30.047.038	225	3
IKA425-30		24 V	A2 2 4 6	30.047.039	225	
IKA425-22		230 V	A1 1 R3 R5 7	30.047.295	230	
IKA425-22	25 A	120 V	<u></u>	30.047.040	230	3
IKA425-22		24 V	A2 2 R4 R6 8	30.047.041	230	
IKA425-04		230 V	A1 R1 R3 R5 R7	30.047.296	230	
IKA425-04	25 A	120 V	<u> </u>	30.047.042	230	3
IKA425-04		24 V	A2 R2 R4 R6 R8	30.047.043	230	

AC 25



from 20 A up to 63 A



General Use acc. to UL 60947-4-1 (4-pole, 3 modules

Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKA440-40	40 A	230 V		30.045.700	350	
IKA440-40	40 A	120 V	Δ1 1 3 5 7	30.045.612	350	
IKA440-40	40 A	24 V		30.045.613	350	5
IKA463-40	63 A	230 V	A1 1 3 5 7 A2 2 4 6 8	30.045.592	350]
IKA463-40	63 A	120 V	AZ 21 41 61 81	30.045.614	350	
IKA463-40	63 A	24 V		30.045.615	350	
IKA440-31	40 A	230 V		30.045.701	350	
IKA440-31	40 A	120 V	Λ1 1 3 5 D7	30.045.616	350	
IKA463-31	40 A	24 V	A1 1 3 5 R7 A2 2 4 6 R8	30.045.617	350	5
IKA463-31	63 A	230 V		30.045.702	350	5
IKA463-31	63 A	120 V	AZ ZI 4I 6I RBI	30.045.618	350	
IKA463-31	63 A	24 V		30.045.619	350	
IKA440-30	40 A	230 V		30.045.703	340	5
IKA440-30	40 A	120 V	Λ1 1 D E	30.045.620	340	
IKA463-30	40 A	24 V	A1 1 3 5 A2 2 4 6	30.045.621	340	
IKA463-30	63 A	230 V		30.045.704	340	2
IKA463-30	63 A	120 V	AZ ZI 4I 6I	30.045.622	340	
IKA463-30	63 A	24 V		30.045.623	340	
IKA440-22	40 A	230 V		30.045.705	350	
IKA440-22	40 A	120 V	A4 41 D21 DE1 - 71	30.045.624	350	
IKA463-22	40 A	24 V	A1 1 R3 R5 7 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -	30.045.625	350	5
IKA463-22	63 A	230 V	12 2 D(DC	30.045.706	350	5
IKA463-22	63 A	120 V	AZ ZIR4IR6I 6I	30.045.626	350	
IKA463-22	63 A	24 V		30.045.627	350	
IKA440-04	40 A	230 V		30.045.707	350	
IKA440-04	40 A	120 V	A1 D1 D2 D5 D7	30.045.628	350	
IKA463-04	40 A	24 V	A1 R1 R3 R5 R7	30.045.629	350	5
IKA463-04	63 A	230 V	A2 R2 R4 R6 R8	30.045.708	350) ⁵
IKA463-04	63 A	120 V	AZ KZI K4I K6I K8I	30.045.630	350	
IKA463-04	63 A	24 V		30.045.631	350	



General Use acc. to UL 60947-4-1 (2-pole, 1 module)

Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKD220-20	20 A	230 V AC 220 V DC	A1 1 3	30.046.826	130	
IKD220-20	20 A	120 V AC 110 V DC	A2 2 4	30.047.044	130	6
IKD220-20	20 A	24 V AC/DC		30.047.045	130	
IKD220-11	20 A	230 V AC 220 V DC	A1 1 R3 A2 2 R4	30.047.297	130	
IKD220-11	20 A	120 V AC 110 V DC		30.047.046	130	6
IKD220-11	20 A	24 V AC/DC		30.047.047	130	
IKD220-10	20 A	230 V AC 220 V DC	A1 1	30.047.298	125	
IKD220-10	20 A	120 V AC 110 V DC	A2 2	30.047.048	125	6
IKD220-10	20 A	24 V AC/DC		30.047.049	125	
IKD220-01	20 A	230 V AC 220 V DC	A1 R1	30.047.299	125	
IKD220-01	20 A	120 V AC 110 V DC	A2 R2	30.047.050	125	6
IKD220-01	20 A	24 V AC/DC		30.047.051	125	
IKD220-02	20 A	230 V AC 220 V DC	A1 R1 R3	30.047.300	130	
IKD220-02	20 A	120 V AC 110 V DC	A2 R2 R4	30.047.052	130	6
IKD220-02	20 A	24 V AC/DC		30.047.053	130	1

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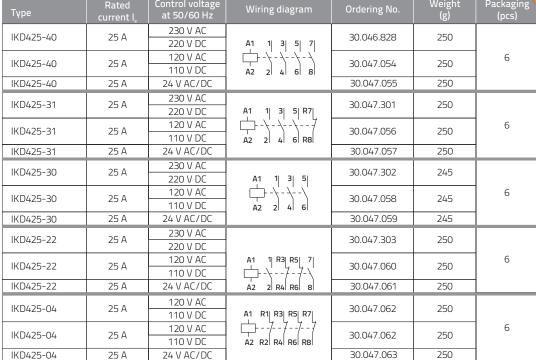


from 20 A up to 63 A

General Use acc. to UL 60947-4-1 (4-pole, 2 modules



HUM-FREE





General Use acc. to UL 60947-4-1 (4-pole, 3 modules



Туре	Rated current l _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKD440-40	40 A	230 V AC 220 V DC		30.045.709	420	
IKD440-40	40 A	120 V AC 110 V DC	A1 1 2 5 7	30.045.632	420	
IKD440-40	40 A	24 V AC/DC		30.045.633	420	5
IKD463-40	63 A	230 V AC 220 V DC	A1 1 3 5 7 A2 2 4 6 8	30.045.593	420	5
IKD463-40	63 A	120 V AC 110 V DC		30.045.634	420	
IKD463-40	63 A	24 V AC/DC		30.045.635	420	
IKD440-31	40 A	230 V AC 220 V DC		30.045.710	420	5
IKD440-31	40 A	120 V AC 110 V DC		30.045.636	420	
IKD440-31	40 A	24 V AC/DC	A1 1 3 5 R/L	30.045.637	420	
IKD463-31	63 A	230 V AC 220 V DC	A1 1 3 5 R7 A2 2 4 6 R8	30.045.711	420	
IKD463-31	63 A	120 V AC 110 V DC		30.045.638	420	
IKD463-31	63 A	24 V AC/DC		30.045.639	420	1
IKD440-30	40 A	230 V AC 220 V DC		30.045.712	410	
IKD440-30	40 A	120 V AC 110 V DC	04 41 71 51	30.045.640	410	
IKD440-30	40 A	24 V AC/DC	A1 1 3 5 A2 2 4 6	30.045.641	410	_
IKD463-30	63 A	230 V AC 220 V DC		30.045.713	410	5
IKD463-30	63 A	120 V AC 110 V DC		30.045.642	410	
IKD463-30	63 A	24 V AC/DC		30.045.643	410	1



from 20 A up to 63 A



General Use acc. to UL 60947-4-1 (4-pole, 3 modules)

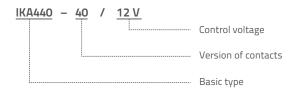
Туре	Rated current I _e	Control voltage at 50/60 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKD440-22	40 A	230 V AC		30.045.714	420	
IND440-22	40 A	220 V DC	A1 1 R3 R5 7	30.043.714	420	
IKD440-22	40 A	120 V AC		30.045.644	420	
IND440-22	40 A	110 V DC		30.043.044	420	
IKD440-22	40 A	24 V AC/DC		30.045.645	420	5
IKD463-22	63 A	230 V AC		30.045.715	420	
IND403-22	05 A	220 V DC	AZ ZIR4IR6I 8I			
IKD463-22	63 A	120 V AC		30.045.646	420	
IND403-22	05 A	110 V DC	30.043.040 420	420		
IKD463-22	63 A	24 V AC/DC		30.045.647	420	
IKD440-04	40 A	230 V AC		30.045.594	420	
IKD440-04	40 A	220 V DC	A1 R1 R3 R5 R7 //// A2 R2 R4 R6 R8	30.045.594	420	
IKD440-04	40 A	120 V AC		30.045.648	/20	5
IND440-04	40 A	110 V DC		30.045.648	420	
IKD440-04	40 A	24 V AC/DC		30.045.649	420	





Other control voltages are on request - define type and voltage

Ordering data



Installation Contactors

Accessories

Sealing cover for 2-pole, 1 module

Туре	Ordering No.	Weight (g)	Packaging (pcs)
IK20-PP	37.425.061	1	2



Sealing cover for 4-pole, 2 modules

Туре	Ordering No.	Weight (g)	Packaging (pcs)
IK25-PP	37.425.062	2	2



Sealing cover for 4-pole, 3 modules

Туре	Ordering No.	Weight (g)	Packaging (pcs)
IK40/63-PP	37.423.463	3	2



Installation Contactors

Accessories

Ventilation modu

Туре	Ordering No.	Weight (g)	Packaging (pcs)
IKV	37.425.296	13	1



Auxilliary switch

AC-15 acc. to IEC/EN 60947-5-1 (2-pole,½ module)

Type	Rated		Wiring diagram Ordering No.		Weight	Packaging			
Туре	current l _e	-20	-11	-01	-10	-02		(g)	(pcs)
IKN20	6 A						38.046.002	30	
IKN11	6 A	33 43	31 43	31	33	31 41	38.046.004	30	
IKN10	6 A	//	7-\	7	\	77	38.046.036	25	1
IKN01	6 A	34 44	32 44	32	34	32 42	38.046.037	30	
IKN02	6 A						38.046.003	30	



Auxilliary switch

Ratings acc. to UL 508 (2-pole, ½ module)

Туре	Rating code	-20	Wiring diagra	am -02	Ordering No.	Weight (g)	Packaging (pcs)
IKN20UL	C300, Q300	33 43	31 43	31 41	38.046.050	30	
IKN11UL	C300, Q300] / / ,	7- \	7 7	38.046.049	30	1
IKN02UL	C300, Q300	34 44	32 44	32 42	38.046.051	30	



4-phase busbars for installation contactors up to 32 μ

- insulated

Туре	Module width	Lenght Ordering No.		Weight (g)	Packaging (pcs)
L/32-8P	4	66	38.046.061	60	
L/32-12P	6	98	38.046.062	86	
L/32-16P	8	138	38.046.063	114	10
L/32-20P	10	173	38.046.064	141	
L/32-24P	12	208	38.046.065	169	



Single pin terminals for installation contactors up to 32 F

- insulated

Туре	Pin lenght	Cross-section rigid/flexible (mm²)	Screw	Ordering No.	Weight (g)	Packaging (pcs)
S/32-1P	13 5/32 (total)	6-25//-16	D72	38 0/16 066	12	25

Double pin terminals for installation contactors 40 -63 i

- insulated terminals for parallel connection

Туре	Pin lenght	Cross-section rigid/flexible (mm²)	Screw	Ordering No.	Weight (g)	Packaging (pcs)
S/63-2P	15	6-50/4-35	P72	38.046.067	22	25

Installation Switches and Installation Momentary Switches



IKS-R installation switches are designed for manual switching of loads with a handle in the same look as the installation contactors.

AC-21 acc. to IEC/EN 60947-3 (2-pole, 1 module)

Туре	Rated current I _e	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKS220-20-R	20 A	1 3	30.047.064	55	
IKS225-20-R	25 A		30.047.065	55	6
IKS232-20-R	32 A	2 4	30.047.066	55	
IKS220-11-R	20 A	1 3	30.047.067	55	
IKS225-11-R	25 A		30.047.068	55	6
IKS232-11-R	32 A	2 4	30.047.069	55	



AC-21 acc. to IEC/EN 60947-3 (4-pole, 2 modules

Туре	Rated current I _e	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKS420-40-R	20 A	1 3 5 7	30.047.070	105	
IKS425-40-R	25 A	F-////	30.047.071	105	3
IKS432-40-R	32 A	2 4 6 8	30.047.072	105	
IKS420-31-R	20 A	1 3 5 7	30.047.073	105	
IKS425-31-R	25 A	F-///	30.047.074	105	3
IKS432-31-R	32 A	2 4 6 8	30.047.075	105	
IKS420-22-R	20 A	1 3 5 7	30.047.076	105	
IKS425-22-R	25 A		30.047.077	105	3
IKS432-22-R	32 A	2 4 6 8	30.047.078	105	



IKS-T installation momentary switches are designed for manual momentary switching of loads with a handle in the same look as the installation contactors.

AC-21 acc. to IEC/EN 60947-3 (2-pole, 1 module

Туре	Rated current l _e	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKS220-20-T	20 A	1 3	30.047.079	55	
IKS225-20-T	25 A	E - / /	30.047.080	55	6
IKS232-20-T	32 A	2 4	30.047.081	55	
IKS220-11-T	20 A	1 3	30.047.082	55	
IKS225-11-R	25 A	E-\7	30.047.083	55	6
IKS232-11-T	32 A	2 4	30.047.084	55	



AC-21 acc. to IEC/EN 60947-3 (4-pole, 2 modules)

Туре	Rated current I _e	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
IKS420-40-T	20 A	1 3 5 7	30.047.085	105	
IKS425-40-T	25 A	E-///	30.047.086	105	3
IKS432-40-T	32 A	2 4 6 8	30.047.087	105	
IKS420-31-T	20 A	1 3 5 7	30.047.088	105	
IKS425-31-T	25 A	E-/-///	30.047.089	105	3
IKS432-31-T	32 A	2 4 6 8	30.047.090	105	
IKS420-22-T	20 A	1 3 5 7	30.047.091	105	
IKS425-22-T	25 A	E - \ 7 7 - \	30.047.092	105	3
IKS432-22-T	32 A	2 4 6 8	30.047.093	105	







Technical characteristics mensions

Installation Contactors up to 25 A



					IKA20	IKD20	IKA225	IKD225
14	ype	Symbol	Unit	IK21	IKA20-R IKA20-T ¹⁾	IKD20-R IKD20-T 1)	IKA225-R IKA225-T ¹⁾	IKD225-R IKD225-T 1)
St	itandards			IE		Z/EN 60947-4-1,	_	
A	pprovals			CE, EAC	CE, CB,	NF, EAC	C	ΞE
М	Module width			2			1	
N	lumber of poles			4		-	2	
De	Degree of protection			IP20 (IP	40 when installe	ed in installation	box - distributio	n board)
Po	Pollution degree					3		
CI	limatic conditions				95	% relative humid	lity	
₹ Ai	imbient temperature (open)		°C			-15 +55 ⁴⁾		
St St	torage temperature		°C			-30 +80		
₩ M	Maximum altitude		m			2000		
_	, and U _e is reduced for 1.2 % and I _e for 0.4 % for every additional 100 m					2000		
	lumber of contactors or switches side-by-side:							
	40 °C			no limitation		ma	x. 3	
	40 55) °C					1	x. 2	
	Joise level (operation)		dB	30	30	20	30	20
	ibration resistance according to IEC/EN 60068-2-6	a	g			axis) / switched c		
	hock resistance according to IEC/EN 6068-2-27	a	g	switched	off: 10 (Z and X a	axis) / switched c	n: 15 (Z axis) and	d 2 (X axis)
	Maximum operating frequency with no load		op. c./h			3.000	ı	
	Mechanical endurance		op. c.	3.000		10.000.000	3.000.000	10.000.000
	Veight		g	170	130	130	130	130
	ontact reliability					≥17 V; ≥50 mA		
	Minimum distance of open contacts		mm			3.6		
	Power dissipation per pole		W	2.0	1.7	1.7	2.0	2.0
	Overload current withstand capability:					_	_	
	0s		А	40		/	2	1
	Maximum back-up fuse for short-circuit protection gL and gG:						25	25
	oordination type 1	I _v	Α	20	20	70	25	25
	oordination type 2	U:		20	20	20	(0)	
	Rated insulation voltage Rated impulse withstand voltage	U _{imp}	V kV	415			40	
	Rated impulse withstand voltage	U _{imp}	V V	400		4 400	2)3)	
	Rated operational voltage Rated frequency	f	Hz	400		50/60)	
	hermal current	I _{th}	A		20	30760	-	
	Rated operational current for AC-1, AC-7a and AC-21	'th	A		20			. <u> </u>
	Operational power for AC-1, AC-7a and AC-21:	*e	_		20			.5
	ingle-phase 230 V				4		5	.4
	hree-phase 230 V	P _e	kW	7.5				· -
	hree-phase 400 V			13				
	Maximum operating frequency for AC-1, AC-7a and AC-21		op. c./h	15		600		
2 5	Electrical endurance for AC-1, AC-7a and AC-21		op. c.			200.000		
	Rated operational current for AC-2	I.	A	10	1	12	1	4
3 0	perational power for AC-2:	-				· -		
	ingle-phase 230 V	_		1.5	1	.8	2	.0
	hree-phase 230 V	P _e	kW	2.5				
th	hree-phase 400 V			4.5				
M	Maximum operating frequency for AC-2		op. c./h			120		
	Electrical endurance for AC-2		op. c.			100.000		
R	Rated operational current for AC-22	I,	А		20		2	25
0	perational power for AC-22:							
si	ingle-phase 230 V	_	1347		3.7		4	.6
th	hree-phase 230 V	P _e	kW					
th	hree-phase 400 V							
	Maximum operating frequency for AC-22		op. c./h			300	-	
EI	Electrical endurance for AC-22		op. c.			50.000		
R	Rated operational current for AC-3, AC-7b and AC-23	l _e	Α	5		NO: 9	/ NC: 6	
	perational power for AC-3, AC-7b and AC-23:							
si	ingle-phase 230 V	p	1.147	0.37		NO: 1.3 /	′ NC: 0.75	
th	hree-phase 230 V	P _e	kW	1.1				
th	hree-phase 400 V			2.2				
N /	Maximum operating frequency for AC-3, AC-7b and AC-23		op. c./h			600		
	Electrical endurance for AC-3, AC-7b and AC-23							

¹⁾ Available approvals only CE

 $^{^{\}mbox{\tiny 2)}}$ Rated operational voltage between two line (phase) conductors

 $^{^{\}mbox{\tiny 3)}}$ Rated operational voltage for versions of contacts -10 and-01 is 230 V

 $^{^{\}mbox{\tiny 4l}}$ Ambient temperature (open) -25...+55 °C for version with 2NO and 4NO contacts



Installation Contactors up to 25 A

Т	ECHNICAL DATA							
	Туре	Symbol	Unit	IK21	IKA20 IKA20-R IKA20-T	IKD20 IKD20-R IKD20-T	IKA225 IKA225-R IKA225-T	IKD225 IKD225-R IKD225-T
	Rated operational current for AC-5a (at 230 V)	l _e	А		8.8		1	1.2
	Maximum operating frequency for AC-5a		op. c./h			600		
	Electrical endurance for AC-5a		op. c.			100.000		
	Rated operational current for AC-5b (at 230 V)	l _e	А		8.8		9	.7
	Maximum operating frequency for AC-5b		op. c./h			600		
	Electrical endurance for AC-5b		op. c.			100.000	,	
	Rated operational current for AC-6a (at 230 V)	l _e	А		4		4	.8
	Maximum operating frequency for AC-6a		op. c./h			600		
	Electrical endurance for AC-6a		op. c.			100.000	1	
	Switching of capacitors AC-6b and AC-7c (at 230 V)	С	μF		30		3	86
	Maximum operating frequency for AC-6b and AC-7c		op. c./h			600		
	Electrical endurance for AC-6b and AC-7c		op. c.			100.000	1	
	Rated operational current for DC-1 (L/R ≤ 1 ms):			20 142 15 12 10 5	20/45/	1015105	25/20/	15106
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			20/12/6/2/0.5		10/6/0.6		15/6/0,6
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC 3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	l _e	А	20/15/10/4/1.5	20/18/	15/10/6	25/25/	20/10/6
_	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/220 V DC							
CIRCUIT	Maximum operating frequency for DC-1		on c /h	20/20/20/6/3.5		200		
쯢	Electrical endurance for DC-1		op. c./h op. c.			300		
Z	Rated operational current for DC-3 (L/R ≤ 2 ms):		υр. с.			100.000		
MAIN	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC				10/E/2/1/01		15/0//	/1 2 /0 2
_	2 poles in series 24 V DC/48 V DC/60 V DC/710 V DC/7220 V DC	I.	A		10/5/2/1/0.1 20/10/8/4/0.4			/1.3/0.2 2/5.5/0.6
	3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/220 V DC	l _e	A	20/20/15/6/2.5	20/10/6/4/0.4		23/10/1	2/3.3/0.0
	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			20/20/15/6/3.5				
	Maximum operating frequency for DC-3		op. c./h	20/20/13/0/3.3		300		
	Electrical endurance for DC-3		op. c.///			100.000		
	Rated operational current for DC-5 (L/R ≤ 7.5 ms):					100.000		
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC				10/4/1/0.3/0.06		15/5/3	/0.5/0.1
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	I,	A		20/8/6/2/0.2		+	10/4/0.4
	3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	·e		20/20/15/5/1.5	20/0/0/2/0.2		23/13/	107 47 0.4
	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			20/20/15/5/3				
	Maximum operating frequency for DC-5		op. c./h	20/20/13/3/3		300		
	Electrical endurance for DC-5		op. c.			100.000		
	Terminal capacity:							
	rigid (solid and stranded)	S	mm²	1 2.5		1.	10	
	flexible			1 2.5		1	6	
	Length of removed wire insulation		mm			9		
	Screw					M3.5		
	Screw head			PZ2		F	PZ1	
	Tightening torque		Nm			1.2		
	Contact reliability					≥17 V; ≥50 mA		
	Minimum distance of open contacts		mm			3.6		
	Power dissipation per pole		W	2	1.7	1.7	2	2
	Overload current withstand capability:							
	10 s		А	40			72	
	Maximum back-up fuse for short-circuit protection gL and gG:							
	coordination type 1	I,	Α				25	25
	coordination type 2			20	20	20		
Ė	Rated insulation voltage	U _i	V	415			40	
CIRCUIT	Rated impulse withstand voltage	U _{imp}	kV			4		
	Rated operational voltage	U _e	V			230/400		
AUXILIARY	Rated frequency	f	Hz			50/60	T	
TI.	Thermal current	l _{th}	А		20			25
Š	Rated operational current for AC-15:					-		
٧	single-phase 230 V	l _e	A			6		
	single-phase 400 V		op = //-	1200		4	.00	
	Maximum operating frequency for AC-15 Electrical endurance for AC-15		op. c./h	1200			500	
		-	op. c.	200.000		300	0.000	
	Rated operational current for DC-13:					C11.14.10.3.10.00	_	
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC		,			6/4/1/0.3/0.05)	
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	I _e	Α			6/6/4/1/0.1		
	3 notes in series 2/, V DC //, 9 V DC /60 V DC /110 V DC / 220 V DC		'	6/6/6/7/4				
	3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC 4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			6/6/6/3/1 6/6/6/4/2				

Installation Contactors up to 25 A



Type	TE	CHNICAL DATA							
Page Control working Con		Туре	Symbol	Unit	IK21	IKA20-R	IKD20-R	IKA225-R	IKD225-R
Section Sect	늘	Maximum operating frequency for DC-13		op. c./h			300	•	
Section Sect	湿	Electrical endurance for DC-13		op. c.			200.000		
Screw Pack		Terminal capacity:							
Screw Pack	AR)	rigid (solid and stranded)	S	mm²	1 2.5		1.	10	
Screw Pack		flexible			1 2.5		1	6	
Screw Pack	Ì	Length of removed wire insulation		mm			9		
Tightening torque	4	Screw					M3.5		
Range of control voltage for switch-on		Screw head		mm	PZ2		P	PZ1	
Range of control voltage for drop out U ₂ % AC 75 20 / DC 75 10 (where is applicable)		Tightening torque					1.2		
Number of perating torque National Process Na		Range of control voltage for switch-on	U _c	%			85 110		
Number of perating torque National Process Na		Range of control voltage for drop out	U _c	%		AC: 75 20 / [DC: 75 10 (whe	re is applicable)	
Frequency of AC control voltage		Kind of voltage			А			1	AC/DC
Frequency of AC control voltage		Standard control voltages	U _c	V			12, 24, 48	3, 120, 230	
Control mode		Frequency of AC control voltage	f	Hz		/60	40 500	50/60	40 500
minimum maximum maxim									-R and -T
minimum maximum maxim		Impulse duration of control voltage:							
Minimum duration between two impulses of control voltage ms AC:150 / DC:500 (where is applicable)							permanent		
Surge immunity withstand voltage 1.2/50 µs acc. to standard IEC/EN 61000-4-5 RV 2 2 2 2 2 2 2 2 2		maximum					permanent		
Surge immunity withstand voltage 1.2/50 µs act. to standard IEC/EN 61000-4-5 RV 30/25 12/10 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1 2.1/2.1		Minimum duration between two impulses of control voltage		ms		AC: 150 / [DC: 500 (where is	applicable)	
Coil consumption: switch-on operation VA/W 30/25 12/10 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.5 2.1/2.1 2.8/1.5 2.1/2.1 2.8/1.5 2.1/2.1 2.8/1.5 2.1/2.1 2.8/1.5 2.1/2.1 2.8/1.5 2.1/2.1 2.8/1.5 2.1/2.1 2.8/1.5 2.1/2.1 2.8/1.2 2.1/2.1 2.8/1.2 2.1				kV					
switch-on operation VA/W 30/25 12/10 2.1/2.1 12/10 2.1/2.1 Delays: make brake ms 7 20 15 25 15 45 16 25 15 45 17 20	8								
Operation 5/1.5 2.8/1.2 2.1/2.1 2.8/1.2 2.1/2.1 Delays: make ms 7 20 15 25 15 45 15 25 15 45 brake 10 20 10 30 20 50 10 30 20 50 Terminal capacity: rigid (solid and stranded) mm² 1 2.5 10 20 10 30 20 50 10 30 10 30 10 30 10 30 10 30 10 30 10 30 10 30 10 30 </td <td></td> <td>·</td> <td></td> <td>VA/W</td> <td>30/25</td> <td>12/10</td> <td>21/21</td> <td>12/10</td> <td>21/21</td>		·		VA/W	30/25	12/10	21/21	12/10	21/21
Delays: make ms 7 20 15 25 15 45 15 25 15 45 Terminal capacity: rigid (solid and stranded) flexible mm² 1 2.5 <								+	
make brake ms 720 1525 1545 1525 1545 Terminal capacity: rigid (solid and stranded) flexible mm² 12.5 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2 12.2		'			37 113	2.07 1.12	2, 2	2.07 1.2	2117211
brake 10 20 10 30 20 50 10 30 20 50				ms	7 20	15 25	15 45	15 25	15 45
Terminal capacity: rigid (solid and stranded) mm² 1 2.5 Length of removed wire insulation mm 9 7 Screw M3.5 M3 Screw head PZ2 PZ1 Tightening torque Nm 1.2 0.6 MTTF - Mean time to failure h AC-1:5.000 MTTF ₃ - Mean time to failure dangerous h AC-3:7.500 MTTF ₄ - Mean time to failure dangerous h AC-3:10.000 MTTF ₄ - Mean time to failure dangerous h AC-3:25.000 MTTF ₄ - Number of operating cycles until 10 % of devices fail op. c. B10 ₄ - Number of operating cycles until 10 % of device dangerous B10 ₄ - B10/ratio of dangerous failures AC-1:0.0002 λ - Failure rate λ = (0.1 n _{ss})/B10 ₄ AC-3:0.00013 λ ₄ - Failure rate dangerous A ₄ - C-1:0.00015 λ ₄ - Failure rate dangerous failures % AC-3:0.00011 Ratio of dangerous failures % AC-3:0.00011 AC-3:0.00011 AC-3:0.00011 AC-3:0.00012 AC-3:0.00011 AC-3:0.00012 AC-3:0.00011 AC-3:0.00013 AC-3:0.00011 AC-3:0.00013 AC-3:0.00011 AC-3:0.00011 AC-3:0.00011 AC-3:0.00012 AC-3:0.00011 AC-3:0.00013 AC-3:0.00011						10 30	20 50	10 30	20 50
rigid (solid and stranded) mm² 1 2.5 Length of removed wire insulation mm 9 7 Screw M3.5 M3 Screw head PZ2 PZ1 Tightening torque Nm 1.2 0.6 MTTF - Mean time to failure h AC-1:5.000 MTTF _a - Mean time to failure dangerous MTTF _a - Mean time to failure dangerous h AC-3:7.500 MTTF _b - Mean time to failure dangerous h AC-3:10.000 B10 - Number of operating cycles until 10 % of devices fail Op. c. B10 _a - Number of operating cycles until 10 % of device dangerous B10 _a = B10/ratio of dangerous failures AC-3: 300.000 AC-3: 300.000 AC-3: 300.000 AC-3: 300.000 AC-3: 300.000 AC-3: 300.000 AC-3: 300.000 AC-3: 300.000 AC-3: 300.000 AC-3: 0.000133 AC-3: 0.00013 A _c - Failure rate dangerous A _c - (0.1 n _{op})/B10 _d AC-3: 0.0001 Ratio of dangerous failures % 75									
Flexible				mm²			1 2.5		
Length of removed wire insulation mm 9 7 7 7 7 7 7 7 7 7		9 1							
Screw head PZ2 PZ1		Length of removed wire insulation		mm	9			7	
Screw head					M3.5		N	ИЗ	
Tightening torque		Screw head							
$ \begin{array}{ c c c c c } \hline MTTF = 1/\lambda = B10/(0.1 \; n_{op}) & h & AC-3:7.500 \\ \hline MTTF_d - Mean time to failure dangerous & AC-1:6.666 \\ \hline MTTFd = 1/\lambda_d = B10_a/(0.1 \; n_{op}) & h & AC-3:10.000 \\ \hline B10 - Number of operating cycles until 10 % of devices fail & op. c. & AC-1:150.000 \\ \hline B10_d - Number of operating cycles until 10 % of device dangerous & AC-1:200.000 \\ \hline A - Failure rate & AC-1:0.0002 \\ \hline A - Failure rate dangerous & AC-3:0.000133 \\ \hline A_d - Failure rate dangerous failures & AC-3:0.0001 \\ \hline Ratio of dangerous failures & % & 75 \\ \hline $		Tightening torque		Nm	1.2		C).6	
$ \begin{array}{ c c c c c } \hline MTTF = 1/\lambda = B10/(0.1 \; n_{op}) & h & AC-3:7.500 \\ \hline MTTF_d - Mean time to failure dangerous & AC-1:6.666 \\ \hline MTTFd = 1/\lambda_d = B10_a/(0.1 \; n_{op}) & h & AC-3:10.000 \\ \hline B10 - Number of operating cycles until 10 % of devices fail & op. c. & AC-1:150.000 \\ \hline B10_d - Number of operating cycles until 10 % of device dangerous & AC-1:200.000 \\ \hline A - Failure rate & AC-1:0.0002 \\ \hline A - Failure rate dangerous & AC-3:0.000133 \\ \hline A_d - Failure rate dangerous failures & AC-3:0.0001 \\ \hline Ratio of dangerous failures & % & 75 \\ \hline $		MTTF - Mean time to failure					AC-1: 5.000		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				h					
MTTFd = 1/λ _d = B10 _a /(0.1 n _{op}) B10 - Number of operating cycles until 10 % of devices fail B10 _a - Number of operating cycles until 10 % of device dangerous B10 _d - Number of operating cycles until 10 % of device dangerous B10 _d = B10/ratio of dangerous failures A - Failure rate λ = (0.1 n _{op})/B10 λ _d - Failure rate dangerous λ _d = (0.1 n _{op})/B10 _d Ratio of dangerous failures N - C-3: 0.0001 AC-3: 10.000 AC-1: 150.000 AC-1: 200.000 AC-1: 200.000 AC-1: 0.0002 AC-1: 0.00015 AC-3: 0.00015 AC-3: 0.0001									
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				h					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				on c					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				υρ. с.					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Ē.	B10 _d - Number of operating cycles until 10 % of device dangerous		on c					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	AF			υρ. с.					
$\lambda_d = (0.1 \ n_{op})/B10$ AC-3: 0.000133 $\lambda_d = \text{Failure rate dangerous}$ AC-1: 0.00015 $\lambda_d = (0.1 \ n_{op})/B10_d$ 1/h AC-3: 0.0001 Ratio of dangerous failures % 75	S			4.45			AC-1: 0.0002		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		$\lambda = (0.1 n_{op}) / B10$		1/h					
$\lambda_d = (0.1 n_{sp})/B10_d$ AC-3: 0.0001 Ratio of dangerous failures % 75				4.45					
Ratio of dangerous failures % 75		$\lambda_{d} = (0.1 n_{op}) / B10_{d}$		1/h			AC-3: 0.0001		
n₀ - Operating cycles (operating cycles/h) op. c./h 300		Ratio of dangerous failures		%					
		n _{op} - Operating cycles (operating cycles/h)		op. c./h			300		



Installation Contactors up to 32 A

A	Standards Approvals Module width Number of poles Degree of protection Pollution degree Climatic conditions Ambient temperature (open) Storage temperature Maximum altitude J, and U, is reduced for 1.2 % and I, for 0.4 % for every additional 100 m Number of contactors or switches side-by-side: 640 ° C 640 55) ° C Noise level (operation) Vibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight Contact reliability	a	°C °C m		IKD232-T IEC/EN 6109 EAC 1 2 (IP40 when in	CE, CB, I stalled in inst 3 95 % relativ	allation box - 3 e humidity+55 4)	<u>C</u> 2	IKD432-T 1
A	Approvals Module width Number of poles Degree of protection Pollution degree Climatic conditions Ambient temperature (open) Storage temperature Maximum altitude U, and U, is reduced for 1.2 % and I, for 0.4 % for every additional 100 m Number of contactors or switches side-by-side: 240 °C 440 55) °C Noise level (operation) Vibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight		°C m		EAC 1 2	CE, CB, I stalled in inst 3 95 % relativ -15 -30	NF, EAC 2 Allation box - 3 e humidity+55 4)+80	<u>C</u> 2	
GENERAL O O O O O O O O O O O O O	Module width Number of poles Degree of protection Pollution degree Climatic conditions Ambient temperature (open) Storage temperature Maximum altitude U, and U, is reduced for 1.2 % and I, for 0.4 % for every additional 100 m Number of contactors or switches side-by-side: 140 °C 140 55) °C Noise level (operation) Vibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight		°C m		1 2	stalled in inst 3 95 % relativ -15	allation box - 3 e humidity+55 4)	2	
N	Aumber of poles Degree of protection Pollution degree Climatic conditions Ambient temperature (open) Storage temperature Maximum altitude U, and U, is reduced for 1.2 % and I, for 0.4 % for every additional 100 m Number of contactors or switches side-by-side: 240 °C 440 55) °C Noise level (operation) Vibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight		°C m		2	95 % relativ -15 -30	allation box - 3 e humidity +55 ⁴⁾ .+80	+	oard)
D P C C C C C C C C C	Degree of protection Pollution degree Climatic conditions Ambient temperature (open) Storage temperature Maximum altitude U, and U, is reduced for 1.2 % and I, for 0.4 % for every additional 100 m Number of contactors or switches side-by-side: 140 °C 140 55) °C Noise level (operation) Vibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight		°C m			95 % relativ -15 -30	allation box - 3 e humidity +55 ⁴⁾ +80	•	oard)
P	Pollution degree Climatic conditions Ambient temperature (open) Storage temperature Maximum altitude J, and U, is reduced for 1.2 % and I, for 0.4 % for every additional 100 m Number of contactors or switches side-by-side: 240 °C 440 55) °C Noise level (operation) //ibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight		°C m	IP20	(IP40 when in	95 % relativ -15 -30	8 e humidity +55 ⁴⁾ +80	distribution b	oard)
CGNERAL N N N N N N N N N N N N N	Climatic conditions Ambient temperature (open) Storage temperature Maximum altitude U, and U, is reduced for 1.2 % and I, for 0.4 % for every additional 100 m Number of contactors or switches side-by-side: 240 °C 440 55) °C Noise level (operation) Vibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight		°C m			-15 -30	. +55 ⁴⁾ . +80		
CC N N N N N N N N N	Ambient temperature (open) Storage temperature Maximum altitude Jand U, is reduced for 1.2 % and I, for 0.4 % for every additional 100 m Number of contactors or switches side-by-side: 240 °C 40 55) °C Noise level (operation) Vibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight		°C m			-15 -30	. +55 ⁴⁾ . +80		
Si	Storage temperature Maximum altitude J, and U, is reduced for 1.2 % and I, for 0.4 % for every additional 100 m Number of contactors or switches side-by-side: 240 °C 40 55) °C Noise level (operation) //ibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight		°C m			-30	. +80		
U, N S S S S S S S S S S S S S S S S S S	Maximum altitude Jand U, is reduced for 1.2 % and I, for 0.4 % for every additional 100 m Jumber of contactors or switches side-by-side: 240 °C 40 55) °C Joise level (operation) Jibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight		m dB						
U, N S S S S S S S S S S S S S S S S S S	J, and U, is reduced for 1.2 % and I, for 0.4 % for every additional 100 m. Number of contactors or switches side-by-side: 240 °C 40 55) °C Noise level (operation) Vibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight		dB			20	00		
N	Number of contactors or switches side-by-side: 40 °C 40 55) °C Noise level (operation) //ibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight								
(4 N V S M M W C C O	240 °C 440 55) °C Noise level (operation) Vibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight								
(4 N V S M W W C C	40 55) °C Noise level (operation) /ibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight								
N V S M M W C C M P	Noise level (operation) Vibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight					ma			
VV Si MM W Cc MP P	/ibration resistance according to IEC/EN 60068-2-6 Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight					ma			
S M M W Cc M P	Shock resistance according to IEC/EN 6068-2-27 Maximum operating frequency with no load Mechanical endurance Weight			30	20	30	20	30	20
M W Co M P	Maximum operating frequency with no load Mechanical endurance Veight	a	g		ned off: 2 (Z ar				
M W Co M P O	Mechanical endurance Weight		g /-	SWITCH	ed off: 10 (Z ar			(Z axis) and Z	(X axis)
W Co M P O	Veight		op. c./h	2 000 000	10.000.000	3.0		2 000 000	10.000.000
0 0			op. c.	3.000.000	10.000.000	3.000.000	10.000.000	3.000.000	10.000.000
M P O 10	ODTACT REHADILITY		g	130	130	230	250	230	250
P 0 10	Minimum distance of open contacts		mm			≥17 V; ≥			
0	Vilnimum distance of open contacts Power dissipation per pole		mm	2.5	2.5		6	2.5	2.5
10	Power dissipation per pole Overload current withstand capability:		W	2.5	2.5	2.2	2.2	2.5	2.5
	O s		А	7	2		6	0	
IV	Maximum back-up fuse for short-circuit protection gL and gG:		А	/	2		0	5	
	coordination type 1	I,	А	32	32	25	25	32	32
	coordination type 1	I _V	A .	32	32	23	23	- 52	52
	Rated insulation voltage	U.	V			4/	.0		
	Rated impulse withstand voltage	U _{imp}	kV						
	Rated operational voltage	U _a	V	400	2)3)		+ 40	10	
	Rated frequency	f	Hz	400		50/			
	hermal current	I _{th}	A	3	2	2		3	2
	Rated operational current for AC-1, AC-7a and AC-21	-tn	A		2	2			12
	Operational power for AC-1, AC-7a and AC-21:	e	,,		_		3		
	single-phase 230 V			-	7	5.	4	-	7
	hree-phase 230 V	P _e	kW			9		1	2
	hree-phase 400 V					1	6	2	21
⊨ N	Maximum operating frequency for AC-1, AC-7a and AC-21		op. c./h			60	00		
₿ E	Electrical endurance for AC-1, AC-7a and AC-21		op. c.	NO: 150.000	/ NC: 100.000	200.	000	150	.000
	Rated operational current for AC-2	I _e	Α		6	1-			6
MAIN 0	Operational power for AC-2:								
ž s	single-phase 230 V	D	1.147	2	.4	2	2	2.	.4
tl	hree-phase 230 V	P _e	kW			3.	6	4	.1
	hree-phase 400 V					Е	5	7.	.2
	Maximum operating frequency for AC-2		op. c./h			12	20		
E	Electrical endurance for AC-2		op. c.			100.	.000		
	Rated operational current for AC-22	l _e	Α	3	2	2	5	3	12
	Operational power for AC-22:								
	single-phase 230 V	P _e	kW	5	.9	4.	6	5.	.9
	hree-phase 230 V	l e	KVV			8	3	10	0.2
	hree-phase 400 V					13	.8	17	7.7
	Maximum operating frequency for AC-22		op. c./h			30	00		
	Electrical endurance for AC-22		op. c.			50.0	000		
	Rated operational current for AC-3, AC-7b and AC-23	l _e	А	NO: 9	/ NC: 6		8.	5	
	Operational power for AC-3, AC-7b and AC-23:								
	single-phase 230 V	P _e	kW	NO: 1.3 /	NC: 0.75		1.		
	hree-phase 230 V	l e	1/1/1				2.		
	hree-phase 400 V						L	ļ.	
M E	Maximum operating frequency for AC-3, AC-7b and AC-23		op. c./h op. c.			60	00		

¹⁾ Available approvals only CE

 $^{^{\}mbox{\tiny 2)}}$ Rated operational voltage between two line (phase) conductors

 $^{^{\}mbox{\tiny 3)}}$ Rated operational voltage for versions of contacts -10 and-01 is 230 V

 $^{^{\}mbox{\tiny 4)}}$ Ambient temperature (open) -25...+55 °C for version with 2NO and 4NO contacts

Installation Contactors up to 32 A



E	CHNICAL DATA								
	Гуре	Symbol	Unit	IKA232 IKA232-R IKA232-T	IKD232 IKD232-R IKD232-T	IKA25 IKA25-R IKA25-T	IKD25 IKD25-R IKD25-T	IKA432 IKA432-R IKA432-T	IKD432 IKD432-I IKD432-7
	Rated operational current for AC-5a (at 230 V)	l _e	А	1	3	1	1.2		13
	Maximum operating frequency for AC-5a		op. c./h			ϵ	500		
	Electrical endurance for AC-5a		op. c.			100	0.000		
	Rated operational current for AC-5b (at 230 V)	l _e	А	1	1	9	9.7		11
	Maximum operating frequency for AC-5b		op. c./h			6	500		
	Electrical endurance for AC-5b		op. c.			100	0.000		
	Rated operational current for AC-6a (at 230 V)	l _e	А	(5	1	2.8		6
	Maximum operating frequency for AC-6a		op. c./h				500		
	Electrical endurance for AC-6a		op. c.				0.000		
	Switching of capacitors AC-6b and AC-7c (at 230 V)	С	μF	4	O.		36	4	40
	Maximum operating frequency for AC-6b and AC-7c		op. c./h				500		
	Electrical endurance for AC-6b and AC-7c		op. c.			100	0.000	1	
	Rated operational current for DC-1 (L/R ≤ 1 ms):								
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC				15/6/0.6		15/6/0.6		15/6/0.6
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	l _e	А	32/32/2	20/10/6		20/10/6		20/10/6
	B poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC						25/20/15		32/20/15
	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC					1	25/20/15	32/32/	32/20/15
L	Maximum operating frequency for DC-1		op. c./h				300		
L	Electrical endurance for DC-1		op. c.			100	0.000	1	
	Rated operational current for DC-3 (L/R ≤ 2 ms):								
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC				1.3/0.2	1	1.3/0.2		4/1.3/0.2
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	l _e	А	32/18/1	2/5.5/0.6		2/5.5/0.6		2/5.5/0.6
	3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC						25/15/3	+	25/15/3
	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC					1	25/20/8	32/32/	25/20/8
	Maximum operating frequency for DC-3		op. c./h				300		
	Electrical endurance for DC-3		op. c.			100	0.000		
	Rated operational current for DC-5 (L/R ≤ 7.5 ms):								
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			18/6/3	/0.5/0.1		3/0.5/0.1		3/0.5/0.1
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	l _e	Α	32/16/1	10/4/0.4	25/15/	10/4/0.4	-	10/4/0.4
	3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC					25/25/	20/12/2	32/28/	20/12/2
	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC						25/15/5	32/32/	25/15/5
	Maximum operating frequency for DC-5		op. c./h				300		
	Electrical endurance for DC-5		op. c.			100	0.000		
	Terminal capacity:								
	rigid (solid and stranded)	S	mm²				10		
	lexible						6		
	ength of removed wire insulation		mm				9		
	Screw						13.5		
	Screw head						PZ1		
	Fightening torque		Nm				1.2		
	Contact reliability					≥17 V;	≥50 mA		
	Minimum distance of open contacts		mm				3.6		
	Power dissipation per pole		W	2.5	2.5	2.2	2.2	2.5	2.5
	Overload current withstand capability:								
	10 s		А	7	2			58	
	Maximum back-up fuse for short-circuit protection gL and gG:								
	coordination type 1	I _v	Α	32	32	25	25	32	32
	coordination type 2								
	Rated insulation voltage	U _i	V			L	40		
	Rated impulse withstand voltage	U_{imp}	kV				4		
	Rated operational voltage	U _e	V			230)/400		
	Rated frequency	f	Hz			50)/60		
	Thermal current	l _{th}	А	13	32		25		32
	Rated operational current for AC-15:								
	single-phase 230 V	l _e	А				6		
	single-phase 400 V						4		
	Maximum operating frequency for AC-15		op. c./h				500		
	Electrical endurance for AC-15		op. c.	300	.000		500	0.000	
	Rated operational current for DC-13:					1			
						6/4/1/	0.3/0.05		
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC								
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC 2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	I.	Д						
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC 2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC 3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	l _e	А				4/1/0.1	/6/3/1	



Installation Contactors up to 32 A

TI	ECHNICAL DATA								
	Туре	Symbol	Unit	IKA232 IKA232-R IKA232-T	IKD232 IKD232-R IKD232-T	IKA25 IKA25-R IKA25-T	IKD25 IKD25-R IKD25-T	IKA432 IKA432-R IKA432-T	IKD432 IKD432-R IKD432-T
ŧ	Maximum operating frequency for DC-13		op. c./h				00		
CIRCUIT	Electrical endurance for DC-13		op. c.			200	.000		
	Terminal capacity:								
AR	rigid (solid and stranded)	S	mm²			1	. 10		
I ∃	flexible					1.	6		
AUXILIARY	Length of removed wire insulation		mm			9	9		
	Screw					M	3.5		
	Screw head		mm			Р	Z1		
	Tightening torque						.2		
	Range of control voltage for switch-on	U _c	%				. 110		
	Range of control voltage for drop out	U _c	%			20 / DC: 75			
	Kind of voltage			AC	AC/DC	AC	AC/DC	AC	AC/DC
	Standard control voltages	U,	l v l	12 24 48	3, 120, 230	12, 24, 48	12, 24, 48	12, 24, 48,	12, 24, 48,
		·				120, 230, 400		120, 230, 400	120, 230
	Frequency of AC control voltage	f	Hz	50/60	40 500	50/60	40 500	50/60	40 500
	Control mode			remote	control with	U _c / manual co	ontrol only for	r types with -R	and -I
	Impulse duration of control voltage:								
	minimum						anent		
	maximum				0.5.1		anent		
	Minimum duration between two impulses of control voltage		ms		AC: 1	50 / DC: 500 (v	wnere is appii	icable)	
COIL	Surge immunity withstand voltage 1,2/50 μs acc. to standard IEC/EN 61000-4-5		kV				2		
ä	Coil consumption:								
	switch-on		VA/W	12/10	2.1/2.1	33/25	2.6/2.6 1)	33/25	2.6/2.6 1)
	operation			2.8/1.2	2.1/2.1	5.5/1.6	2.6/2.6 1)	5.5/1.6	2.6/2.6 1)
	Delays:			45 35	45 /5	40 30	45 /5	10 30	15 45
	make		ms	15 25	15 45	10 30	15 45	10 30	
	brake Terminal capacity:			10 30	20 50	10 30	20 70	10 30	20 70
	rigid (solid and stranded)		2			1	2.5		
	flexible		mm²				. 2.5		
	Length of removed wire insulation		mm				. <i>2.</i>		
	Screw						/ 13		
	Screw head						Z1		
	Tightening torque		Nm				.6		
	MTTF - Mean time to failure			AC-1:	3.750	AC-1:	5.000	AC-1:	3.750
	$MTTF = 1/\lambda = B10/(0.1 n_{on})$		h		7.500		AC-3:	12.500	
	MTTF _d - Mean time to failure dangerous			AC-1:	5.000	AC-1:	6.666	AC-1:	5.000
	$MTTFd = 1/\lambda_d = B10_d/(0.1 \text{ n}_{op})$		h	AC-3:	10.000		AC-3:	16.666	
	B10 - Number of operating cycles until 10 % of devices fail		op. c.		500 for NO	AC-1: 1	50.000	AC-1: 1	12.500
	B10, - Number of operating cycles until 10 % of device dangerous				225.000 .000 for NO	۸۲_1.3	AC-3: :	375.000 AC-1: 1	50,000
SAFETY	B10 _a = B10/ratio of dangerous failures		op. c.		300.000	AC-1: 2		500.000	20.000
ß	λ - Failure rate				0266 for NO	ΔC-1.	0.0002		000266
	$\lambda = (0.1 n_{\text{on}}) / B10$		1/h		.000133	AC 1.1		0.00008	
	λ_1 - Failure rate dangerous				000 133 002 for NO	AC-1· C	0.00015	AC-1: (0.0002
	$\lambda_d = (0.1 n_{\rm so})/B10_d$		1/h		0.0001	710 1.0		0.00006	
	Ratio of dangerous failures		%	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		7	'5		
	n _{on} - Operating cycles (operating cycles/h)		op. c./h				00		
	n _{op} - Operating cycles (operating cycles/h)		op. c./h			30	JU		

 $^{^{\}mbox{\tiny 1)}}$ Coil consumption for version -04 is 3.8 VA/3.8 W

Installation Contactors up to 63 A



Туре	Symbol	Unit	IKA40	IK40	IKA63	IK63
Standards			IEC/EI	N 61095, IEC/EN 609	947-4-1, IEC/EN 6094	7-5-1
Approvals				CE, CB,	NF, EAC	
Module width					3	
Number of poles					4	
Degree of protection			IP20 (IP40 w	hen installed in inst	allation box - distribu	tion board)
Pollution degree					3	
Climatic conditions		0.5			ve humidity	
Ambient temperature (open)		°C			+55 ³⁾ +80	
Storage temperature Maximum altitude		٠,٢		-30.	+80	
Storage temperature Maximum altitude U _i and U _e is reduced for 1.2 % and I _e for 0.4 % for every additional 100 m		m		20	000	
Number of contactors or switches side-by-side:						
\$40 °C			no limitation	max. 3	no limitation	max. 3
(40 55) °C			no limitation	max. 2	no limitation	max. 2
Noise level (operation)		dB	30	20	30	20
Vibration resistance according to IEC/EN 60068-2-6	a	g	switched off:	2 (Z and X axis) / sv	vitched on: 3 (Z axis) a	nd 1 (X axis)
Shock resistance according to IEC/EN 6068-2-27	a	g			vitched on: 15 (Z axis)	
Maximum operating frequency with no load		op. c./h		3.0	000	
Mechanical endurance		ор. с.	3.000.000	10.000.000	3.000.000	10.000.000
Weight		g	350	420	350	420
Contact reliability					≥50 mA	
Minimum distance of open contacts		mm			.6	
Power dissipation per pole		W	4	4	8	8
Overload current withstand capability:				-		_
10 s		А	17	^{'6}	24	0
Maximum back-up fuse for short-circuit protection gL and gG:		_	63	62	00	90
coordination type 1 coordination type 2	I _v	A	63 40	63 40	80 63	80 63
Rated insulation voltage	U,	V	40	·-	40	03
Rated impulse withstand voltage	U _{imp}	kV			5	
Rated operational voltage	U	V			00	
Rated frequency	f	Hz			/60	
Thermal current	I _{th}	A	41		63	3
Rated operational current for AC-1, AC-7a and AC-21	I _e	А	41	0	63	1)
Operational power for AC-1, AC-7a and AC-21:						
single-phase 230 V	D.	1.147	8.	7	13.3	3 ²⁾
three-phase 230 V	P _e	kW	1	5	24	2)
three-phase 400 V			2	5	40	2)
Maximum operating frequency for AC-1, AC-7a and AC-21 Electrical endurance for AC-1, AC-7a and AC-21		op. c./h			00	
Electrical endurance for AC-1, AC-7a and AC-21		op. c.			.000	
Rated operational current for AC-2	l _e	А	2:	5	32	2
Operational power for AC-2: single-phase 230 V			_	_		_
	P _e	kW -	3.		4.8	
three-phase 230 V			6.		8.3	
three-phase 400 V		/-	11		14.	4
Maximum operating frequency for AC-2 Electrical endurance for AC-2		op. c./h op. c.			20	
Rated operational current for AC-22	I _e	οр. с.	41		000 63	2
Operational power for AC-22:	¹e	^	41	<u> </u>	0.3	,
single-phase 230 V			7.	4	11.	6
three-phase 230 V	P _e	kW -			20	
three-phase 400 V			22		34.	
Maximum operating frequency for AC-22		op. c./h	22)O	-
Electrical endurance for AC-22		op. c.			000	
Rated operational current for AC-3, AC-7b and AC-23	I _p	A	2		30)
Operational power for AC-3, AC-7b and AC-23:						
single-phase 230 V	_ P		3.	7	5	
three-phase 230 V	P _e	kW -	5.	5	2.8	5
three-phase 400 V		<u> </u>	1	1	15	<u> </u>
Maximum operating frequency for AC-3, AC-7b and AC-23		op. c./h		60	00	
Electrical endurance for AC-3, AC-7b and AC-23						

¹⁾ I_e (AC-1) for IK63-04 is 50 A

²⁾ Rated power (AC-1) for IK63-04: single-phase 230 V = 10.9 kW three-phase 230 V = 18.9 kW three-phase 400 V = 32.9 kW

 $^{^{\}mbox{\tiny 3)}}$) Ambient temperature (open) –25...+55 °C for version with 4NO contacts



Installation Contactors up to 63 A

	ECHNICAL DATA						
	Туре	Symbol	Unit	IKA40	IK40	IKA63	IK63
	Rated operational current for AC-5a (at 230 V)	I.	А		20	3	1 <u> </u>
	Maximum operating frequency for AC-5a	-	op. c./h			00	· -
	Electrical endurance for AC-5a		op. c.			.000	
	Rated operational current for AC-5b (at 230 V)	I,	А		17.6	2	22
	Maximum operating frequency for AC-5b	-	op. c./h			00	-
	Electrical endurance for AC-5b		op. c.			.000	
	Rated operational current for AC-6a (at 230 V)	ا	А		10.8	17	7.2
	Maximum operating frequency for AC-6a	-	op. c./h		60	00	
	Electrical endurance for AC-6a		op. c.		100.	.000	
	Switching of capacitors AC-6b and AC-7c (at 230 V)	С	μF		220		30
	Maximum operating frequency for AC-6b and AC-7c		op. c./h		60	00	
	Electrical endurance for AC-6b and AC-7c		op. c.			.000	
	Rated operational current for DC-1 (L/R ≤ 1 ms):						
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			40/25	/18/4/1.2	63/26/2	20/4/1.2
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	l,	l a \vdash	40/38	/32/10/8	63/42/	34/10/8
	3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	-	''		40/30/20		50/35/30
	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC				40/40/40		53/63/63
	Maximum operating frequency for DC-1		op. c./h			00	
	Electrical endurance for DC-1		op. c.			.000	
	Rated operational current for DC-3 (L/R ≤ 2 ms):						
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			22/10/	/5/1.5/0.3	25/11/5	5/1.5/0.3
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	I,	A -		0/16/5/1		/18/5/1
	3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	-e	^ -		/32/15/4		35/18/5
	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC				40/40/10		53/63/10
	Maximum operating frequency for DC-3		op. c./h	407 407		00	37 037 10
	Electrical endurance for DC-3		op. c.		100.		
	Rated operational current for DC-5 (L/R ≤ 7.5 ms):		·				
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			20/8	/4/1/0.2	25/10/	5/1/0.2
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	I,	A F		/14/5/0.8		15/5/0.8
	3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	e	^		/28/12/3		30/15/4
	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC				/40/35/8		60/45/10
	Maximum operating frequency for DC-5		op. c./h			00	
	Electrical endurance for DC-5		op. c.		100.		
	Terminal capacity:						
	rigid (solid and stranded)	S	mm²		1.5 .	25	
	flexible	_	l			16	
	Length of removed wire insulation		mm		1	0	
	Screw				M		
	Screw head					Z2	
	Tightening torque		Nm			.5	
	Contact reliability				≥17 V; ≥		
	Minimum distance of open contacts		mm			.6	
	Power dissipation per pole		W	4	4	8	8
	Overload current withstand capability:				1		ı
	10 s		А		176	2	40
	Maximum back-up fuse for short-circuit protection gL and gG:						
	coordination type 1	I,	А	63	63	80	80
	coordination type 2			40	40	63	63
	Rated insulation voltage	U _i	V		44	40	
;	Rated impulse withstand voltage	U_{imp}	kV		L	4	
	Rated operational voltage	U _e	V		230/	/400	
	Rated frequency	f	Hz		50/	/60	
	Thermal current	I _{th}	А		40	6	53
	Rated operational current for AC-15:						
	single-phase 230 V	l _e	A		6	5	
	single-phase 400 V					· ·	
	Maximum operating frequency for AC-15		op. c./h		1.2	200	
			op. c.			.000	
	Electrical endurance for AC-15						
	Electrical endurance for AC-15 Rated operational current for DC-13:						
					6/4/1/0	0.3/0.05	
	Rated operational current for DC-13: 1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	اٍ	Α			0.3/0.05 /1/0.1	
	Rated operational current for DC-13:	l _e	Α		6/6/4	0.3/0.05 /1/0.1 6/3/1	

Installation Contactors up to 63 A



TEC	CHNICAL DATA									
	Гуре	Symbol	Unit	IKA40	IK40	IKA63	IK63			
	Maximum operating frequency for DC-13		op. c./h		30	00				
E	Electrical endurance for DC-13		op. c.		200	.000				
	Terminal capacity:									
	rigid (solid and stranded)	S	mm²		1.5	25				
-	Flexible				1.5	16				
L	ength of removed wire insulation		mm			0				
S	Screw				N	15				
2	Screw head		mm			Z2				
	Fightening torque					.5				
	Range of control voltage for switch-on	U _c	%			. 110				
	Range of control voltage for drop out	U _c	%	AC	: 75 20 / DC: 75	10 (where is applicab				
	Kind of voltage			AC	AC/DC	AC	AC/DC			
5	Standard control voltages	U,	l v l	12, 24, 48,	12, 24, 48,	12, 24, 48,	12, 24, 48,			
				120, 230, 400	120, 230	120, 230, 400	120, 230			
	Frequency of AC control voltage	f	Hz	50/60	40 500	50/60	40 500			
	Control mode			remote cor	ntrol with U _c / manu	al control only for typ	es with -R			
	mpulse duration of control voltage:									
	minimum			permanent						
	maximum					anent				
	Minimum duration between two impulses of control voltage		ms		AC: 150 / DC: 500 (v	where is applicable)				
S	Surge immunity withstand voltage 1.2/50 µs		kV			2				
	acc. to standard IEC/EN 61000-4-5		IV U							
`	Zoil consumption:									
	switch-on		VA/W	15.4/6	5/5 ¹⁾	15.4/6	5/5 ¹⁾			
	pperation			7.7/3	5/5 ¹⁾	7.7/3	5/5 ¹⁾			
	Delays:			40 00			45 30			
	make		ms	10 20	15 20	10 20	15 20			
	prake			10 15	35 45	10 15	35 45			
	Terminal capacity:									
	rigid (solid and stranded)		mm²			. 2.5				
	lexible					. 2.5				
	Length of removed wire insulation		mm			8				
	Gcrew					13				
	Screw head					Z1				
	Fightening torque		Nm			.6				
	MTTF - Mean time to failure		h			2.500				
	MTTF = 1/λ = B10/(0.1 n _{op}) MTTF _« - Mean time to failure dangerous					3.750				
			h -			3.333				
	$MTTFd = 1/\lambda_d = B10_d/(0.1 n_{op})$					5.000 75.000				
Е	310 - Number of operating cycles until 10 % of devices fail		ор. с.			75.000 12.500				
	310 _d - Number of operating cycles until 10 % of device dangerous					100.000				
	310 ₄ = Number of operating cycles until 10 % of device dangerous and state of dangerous failures		op. c. –			50.000				
7	\ - Failure rate					0.0004				
	Λ - Fallure rate Λ = (0.1 n _{oo})/B10		1/h			.000266				
	۱ = المارية ا					0.0003				
	$\Lambda_{\rm d}$ = (0.1 $\Omega_{\rm co}$)/B10 _d		1/h			0.0003				
	Ratio of dangerous failures		%			<u></u>				
	n _o - Operating cycles (operating cycles/h)		op. c./h			5				
	100 Oberacing cheigs (oberacing cheig) 11)		υρ. с./11		30	JU				

 $^{^{\}mbox{\tiny 1)}}$ Coil consumption for version -22 and -04 is 6.1 VA/6.1 W



Installation Contactors UL/CSA up to 25 A

Type	Symbol	Unit	IKA220	IKD220	IKA425	IKD425
Standards	-				A-07, IEC/EN 61095, I	EC/EN 60947-4
Approvals			·		L, CSA	
Module width				1	2	
Number of poles				2	L	+
Degree of protection			IP20 (IP40)	when installed in inst	allation box - distrib	ution board)
Pollution degree			,		 3	· · · · · · · · · · · · · · · · · · ·
Ambient temperature (closed)				5 °F 104 °F /	-5 °C +40 °C ⁵⁾	
Storage temperature				-22 °F 176 °F	/ -30 °C +80 °C	
Maximum altitude						
U, and U _e is reduced for 1.2 % and I _e for 0.4 % for every additional 100 m		m		20	00	
Number of contactors or switches side-by-side:						
≤40 °C				no lim	itation	
(40 55) °C						
Noise level (operation)		dB	30	20	30	20
Vibration resistance according to IEC/EN 60068-2-6	a	g		f: 2 (Z and X axis) / sw		
Shock resistance according to IEC/EN 6068-2-27	a	g		10 (Z and X axis) / sw		
Maximum operating frequency with no load	† <u> </u>	op. c./h			000	, = (,, \d)
Mechanical endurance		ор. с./ п	3.000.000	10.000.000	3.000.000	10.000.000
Weight		g	130	130	230	250
Contact reliability			I JU	≥17 V;		
Minimum distance of open contacts		 			/3.6 mm	
Power dissipation per pole		w	1.7	1.7	2	2
Overload current withstand capability:		VV	1.7	1.7		
		_		70	_	0
10 s		А		72 T	Ь	8
Maximum back-up fuse for short-circuit protection gL and gG:					25	25
coordination type 1	I,	A _			25	25
coordination type 2		_	20	20		
Maximum back-up fuse for short-circuit protection KS acc. to UL and CSA	I _v	A	20	20	25	25
Rated insulation voltage	U _i	V			40	
Rated impulse withstand voltage	U _{imp}	kV				
Rated operational voltage	U _e	V	440 1) 2		400/	480 4)
Rated frequency	f	Hz			/60	
Thermal current	I _{th}	А		20	2	
Rated operational current for AC-1, AC-7a and AC-21	l _e	А		20	2	0
Operational power for AC-1, AC-7a and AC-21:						
single-phase 230 V	Pe	kW –		4	5	
three-phase 230 V	- e				(9
three-phase 400 V					1	6
Maximum operating frequency for AC-1, AC-7a and AC-21		op. c./h		60	00	
Electrical endurance for AC-1, AC-7a and AC-21		ор. с.		200	.000	
Rated operational current for AC-2	l _e	А		12	1	4
Operational power for AC-2:						
single-phase 230 V	P _e		1	1.8	2	2
three-phase 230 V	P _e	kW -			3	.6
three-phase 400 V					(5
Maximum operating frequency for AC-2		op. c./h		1.	20	
Electrical endurance for AC-2		op. c.			.000	
Rated operational current for AC-22	l _e	А		20	2	5
Operational power for AC-22:						
single-phase 230 V	_	[_{[,,,} [3	3.7	4	.6
three-phase 230 V	Pe	kW -				3
three-phase 400 V						3.8
Maximum operating frequency for AC-22		op. c./h		3(00	
Electrical endurance for AC-22		ор. с.			000	
Rated operational current for AC-3, AC-7b and AC-23	I_	А	NO. a	/ NC: 6	8	.5
Operational power for AC-3, AC-7b and AC-23:	'e	'`	140. 5	,	0	
single-phase 230 V			NO-1 3	/ NC: 0.75	1	.3
three-phase 230 V	P _e	kW -	110. 1.3	, 140.0.73		.2
three-phase 400 V		⊢				. <u>∠</u> '+
Maximum operating frequency for AC-3, AC-7b and AC-23		op. c./h		-	<u> </u>	+
I Mayimiim anarating traditancy for M 2 M 76 and M 11						

¹⁾ Rated operational voltage between two line (phase) conductors

 $^{^{\}mbox{\tiny 2)}}$ Rated operational voltage for versions of contacts -10 and-01 is 230 V

³⁾ Rated voltage 240 V valid in acc. to UL and CSA

A) Rated voltage 480 V valid in acc. to UL and CSA

 $^{^{\}text{5}}$ Ambient temperature (open) -13 ... 104 °F / -25 ... +40 °C for version with 2NO and 4NO contacts

Installation Contactors UL/CSA up to 25 A



TEC	CHNICAL DATA							
	Гуре	Symbol	Unit	IKA220	IKD220	IKA425	IKD425	
F	Rated motor power acc. to standards UL_and CSA:	-						
	single-phase 120 V	P _e		1/3	1/3	1/3	1/3	
	single-phase 208 V			3/4	3/4	3/4	3/4	
	single-phase 240 V		HP -	1	1	1	1	
	hree-phase 120 V	-				1	1 -	
	three-phase 208 V					2	2	
	:hree-phase 240 V :hree-phase 460 V					3	3 5	
	Maximum operating frequency for motors acc. to UL and CSA		op. c./h			5	5	
	Electrical endurance for motors according to UL and CSA		op. c./11	300.0		360 	0.000	
	General use according to standards UL and CSA:		ор. с.	300.0	000	300	J.000	
	single-phase 240 V	I _e	А	20	20			
	:hree-phase 480 V	*e	^	20	20	25	25	
	Maximum operating frequency for general use acc. to UL and CSA		op. c./h		3	360		
	Electrical endurance for general use acc. to UL and CSA		op. c.			0.000		
	Switching of discharge lamps acc. to standards UL and CSA:							
	single-phase 240 V - standard ballast	l _e	А	20	20			
	hree-phase 480 V - standard ballast				-	25	25	
N	Maximum operating frequency for discharge lamps acc. to UL and CSA		op. c./h		3	360	*	
Е	Electrical endurance for discharge lamps acc. to UL and CSA		op. c.		100	0.000		
	Rated operational current for AC-5a (at 230 V)	l _e	А	8.8	3	1	1.2	
ľ	Maximum operating frequency for AC-5a		op. c./h		6	500		
_	Electrical endurance for AC-5a		op. c.		100	0.000		
	Rated operational current for AC-5b (at 230 V)	l _e	А	8.8	3	9.7		
	Maximum operating frequency for AC-5b		op. c./h	600				
	Electrical endurance for AC-5b		op. c.		100.000			
	Rated operational current for AC-6a (at 230 V)	l _e	А	4		1	4.8	
	Maximum operating frequency for AC-6a		op. c./h		6	500		
	Electrical endurance for AC-6a		op. c.		100	0.000		
	Switching of capacitors AC-6b and AC-7c (at 230 V)	С	μF	30	30		36	
	Maximum operating frequency for AC-6b and AC-7c		op. c./h			500		
	Electrical endurance for AC-6b and AC-7c		op. c.		100	0.000		
	Rated operational current for DC-1 (L/R ≤ 1 ms):			20/45/46	1510.5	25/20/	15 (5 (0 5	
	l pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			20/15/10		ļ	15/6/0.6	
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	l _e	Α	25/18/1	5/10/6		20/10/6	
	B poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC						25/20/15	
	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC		//-				25/20/15	
	Maximum operating frequency for DC-1		op. c./h			300		
	Electrical endurance for DC-1 Rated operational current for DC-3 (L/R ≤ 2 ms):		op. c.		100	0.000		
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			10 / F / 2	/1 /0 1	15/0//	/1 2/0 2	
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC		_^	10/5/2/ 20/10/8			/1.3/0.2 /8/4/0.4	
	B poles in series 24 V DC/48 V DC/60 V DC/110 V DC/220 V DC	I _e	A	20/ 10/8	7470.4		25/15/3	
	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/220 V DC						25/20/8	
	Maximum operating frequency for DC-3		op. c./h		=	300	23/20/6	
	Electrical endurance for DC-3		op. c./11			0.000		
	Rated operational current for DC-5 (L/R ≤ 7.5 ms):				100	5.550		
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			10/4/1/0	.3/0.06	15/5/5	3/0.5/0.1	
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	I _e	A	20/8/6/		<u> </u>	10/4/0.4	
	B poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	·e	^`	20,0,0			20/12/2	
	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC						25/15/5	
	Maximum operating frequency for DC-5		op. c./h		3	300		
	Electrical endurance for DC-5		op. c.			0.000		
	Ferminal capacity:							
	rigid (solid and stranded)	S			16 10 AWG	5 / 1 10 mm²		
	lexible					5 / 1 6 mm²		
	TEXTURE							
f	Length of removed wire insulation				0.354 in / 9 mm			
f					N	13.5		
f L	ength of removed wire insulation					13.5 PZ1		
f	Length of removed wire insulation				F			
f L	Length of removed wire insulation Screw Screw head				F 10.62 lb-	PZ1		
f L S S	Length of removed wire insulation Screw Screw head Fightening torque				F 10.62 lb- ≥17 V;	PZ1 in / 1.2 Nm		
f L	Length of removed wire insulation Screw Screw head Fightening torque Contact reliability Minimum distance of open contacts Power dissipation per pole		W	1.7	F 10.62 lb- ≥17 V; 0.118 in	PZ1 in / 1.2 Nm ≥50 mA i /3.6 mm	2.2	
f L S S	Length of removed wire insulation Screw Screw head Fightening torque Contact reliability Minimum distance of open contacts		W	1.7	F 10.62 lb- ≥17 V; 0.118 in	PZ1 in / 1.2 Nm ≥50 mA i /3.6 mm	2.2	
f L S S	Length of removed wire insulation Screw Screw head Fightening torque Contact reliability Minimum distance of open contacts Power dissipation per pole Diverload current withstand capability:		W	1.7	F 10.62 lb- ≥17 V; 0.118 in	PZ1 in / 1.2 Nm ≥50 mA 1/3.6 mm	2.2	
f L	Length of removed wire insulation Screw Screw head Fightening torque Contact reliability Minimum distance of open contacts Power dissipation per pole Overload current withstand capability:		W		F 10.62 lb- ≥17 V; 0.118 in	PZ1 in / 1.2 Nm ≥50 mA 1/3.6 mm		
f L S S S S S S S S S S S S S S S S S S	Length of removed wire insulation Screw Screw head Fightening torque Contact reliability Minimum distance of open contacts Power dissipation per pole Diverload current withstand capability:	I _v	W		F 10.62 lb- ≥17 V; 0.118 in	PZ1 in / 1.2 Nm ≥50 mA 1/3.6 mm		



Installation Contactors UL/CSA up to 25 A

TE	ECHNICAL DATA								
	Туре	Symbol	Unit	IKA220	IKD220	IKA425	IKD425		
	Maximum back-up fuse for short-circuit protection K5 acc. to UL and CSA	U _i	V	20	20	25	25		
	Rated insulation voltage	U _i	V		44	+0			
	Rated impulse withstand voltage	U_{imp}	kV		L	•			
	Rated operational voltage	U _e	V		230/	400			
	Rated frequency	f	Hz		50/	′60			
	Thermal current	I _{th}	А	2	0	2	25		
	Rated operational current for AC-15:								
	single-phase 230 V	l _e	А	6					
	single-phase 400 V				L	+			
	Maximum operating frequency for AC-15		op. c./h		60	00			
	Electrical endurance for AC-15		op. c.	300	.000	500	0.000		
	Switching of auxiliary loads according to standard UL and CSA				B300,				
5	Maximum operating frequency for auxiliary loads according to UL and CSA		op. c./h		36				
	Electrical endurance for auxiliary loads according to UL and CSA		op. c.		100.				
	Rated operational current for DC-13:		-1		100.	.000			
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			C///1/03/00E					
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	ا		6/4/1/0.3/0.05 6/6/4/1/0.1					
		I _e	A	6/6/4/1/0.1 6/6/6/3/1					
	3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC 4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC		-						
			on s /L		6/6/6				
	Maximum operating frequency for DC-13 Electrical endurance for DC-13		op. c./h		30				
			op. c.		200.	UUU			
	Terminal capacity:	_		2					
	rigid (solid and stranded)	S			1610 AWG				
	flexible			16 8 AWG / 16 mm²					
	Length of removed wire insulation			0.354 in / 9 mm					
	Screw			M3.5					
	Screw head			PZ1					
	Tightening torque			10.62 lb-in / 1.2 Nm					
	Range of control voltage for switch-on	U _c	%		85				
	Range of control voltage for drop out	U_c	%	AC	: 75 20 / DC: 75	10 (where is applicat	ole)		
	Kind of voltage			AC	AC/DC	AC	AC/DC		
	Standard control voltages	U _c	V		12, 24, 48, 110, 120	, 127, 208, 230, 240			
	Frequency of AC control voltage	f	Hz		50/	[′] 60			
	Control mode				remote con	trol with U.			
	Impulse duration of control voltage:								
	minimum				perma	anent			
	maximum				perma	anent			
	Minimum duration between two impulses of control voltage		ms		AC: 150 / DC: 500 (v				
	Surge immunity withstand voltage 1.2/50 µs								
	acc. to standard IEC/EN 61000-4-5		kV		2	2			
	Coil consumption:						I		
í	switch-on		VA/W	12/10	2.1/2.1	33/25	2.6/2.6 1)		
	operation		VA/ VV -	2.8/1.2	2.1/2.1	5.5/1.6			
	Delays:			2.07 1.2	2.1/2.1	١.١ ١٠.٠	2.6/2.6 1)		
	make		ms	15 25	1E /.E	10 30	15 45		
	brake		1115 -	10 30	15 45 20 50		20 70		
	Terminal capacity:		-	10 30	ZU DU	10 30	20 /0		
	rigid (solid and stranded)				16 1/ 11/1	/1 25 mm²			
	rigid (solid and stranded) flexible		-		16 14 AWG				
			\vdash	16 14 AWG / 1 2.5 mm ²					
	Length of removed wire insulation		\vdash		0.276 in				
	Screw		\vdash		M				
	Screw head				P)				
	Tightening torque				5.31 lb-in				
	MTTF - Mean time to failure		h 📙		General L				
	MTTF = $1/\lambda = B10/(0.1 n_{op})$			Motor			10.416		
			l h L		General L				
	MTTF _d - Mean time to failure dangerous			Motor	: 8.333		13.888		
	MTTF _d - Mean time to failure dangerous MTTFd = 1/A _d = B10 _o /(0.1 n _{op})			General Use: 150.000					
	$MTTFd = 1/\lambda_d = B10_d/(0.1 \text{ n}_{op})$		ор. с. —			Motor: 225.000 Motor: 375.000			
	MTTFd = $1/\lambda_d$ = B10 _e /(0.1 n _{ep}) B10 - Number of operating cycles until 10 % of devices fail		ор. с. —	Motor:	225.000	Motor:	375.000		
	$\label{eq:mttfd} \begin{split} \text{MTTFd} &= 1/\lambda_{d} = \text{B10}_{d}/(0.1~n_{op}) \\ \text{B10 - Number of operating cycles until 10 % of devices fail} \\ \text{B10}_{d} &- \text{Number of operating cycles until 10 % of device dangerous} \end{split}$		·	Motor:		Motor:	375.000		
	$\begin{split} & \text{MTTFd} = 1/\lambda_{d} = \text{B10}_{d}/(0.1~\text{n}_{\text{op}}) \\ & \text{B10 - Number of operating cycles until 10 \% of devices fail} \\ & \text{B10}_{d} - \text{Number of operating cycles until 10 \% of device dangerous} \\ & \text{B10}_{d} = \text{B10/ratio of dangerous failures} \end{split}$		op. c. —		225.000	Motor: se: 200.000	375.000 500.000		
	$\label{eq:mttfd} \begin{split} \text{MTTFd} &= 1/\lambda_{d} = \text{B10}_{d}/(0.1~n_{op}) \\ \text{B10 - Number of operating cycles until 10 % of devices fail} \\ \text{B10}_{d} &- \text{Number of operating cycles until 10 % of device dangerous} \end{split}$		op. c		225.000 General Us	Motor: se: 200.000 Motor:			
	MTTFd = $1/\lambda_d$ = $B10_d/(0.1~n_{op})$ $B10 - Number of operating cycles until 10 % of devices fail$ $B10_d - Number of operating cycles until 10 % of device dangerous$ $B10_d = B10/ratio of dangerous failures$ $\lambda - Failure rate$ $\lambda = (0.1~n_{op})/B10$		·	Motor:	225.000 General Us 300.000	Motor: se: 200.000 Motor: se: 0.00024			
	$\begin{split} & \text{MTTFd} = 1/\lambda_{d} = \text{B10}_{d}/(0.1~n_{op}) \\ & \text{B10 - Number of operating cycles until 10 \% of devices fail} \\ & \text{B10}_{d} - \text{Number of operating cycles until 10 \% of device dangerous} \\ & \text{B10}_{d} = \text{B10/ratio of dangerous failures} \\ & \lambda - \text{Failure rate} \end{split}$		op. c	Motor:	225.000 General Us 300.000 General Us	Motor: 6e: 200.000 Motor: 6e: 0.00024 Motor: 0	500.000		
I I I I I I	MTTFd = $1/\lambda_d$ = $B10_d/(0.1~n_{op})$ $B10 - Number of operating cycles until 10 % of devices fail$ $B10_d - Number of operating cycles until 10 % of device dangerous$ $B10_d = B10/ratio of dangerous failures$ $\lambda - Failure rate$ $\lambda = (0.1~n_{op})/B10$		op. c	Motor:	225.000 General Us 300.000 General Us 0.00016	Motor: 6e: 200.000 Motor: 6e: 0.00024 Motor: 0	500.000		
	$\begin{split} & \text{MTTFd} = 1/\lambda_{d} = \text{B10}_{d}/(0.1~n_{op}) \\ & \text{B10 - Number of operating cycles until 10 \% of devices fail} \\ & \text{B10}_{d} - \text{Number of operating cycles until 10 \% of device dangerous} \\ & \text{B10}_{d} = \text{B10/ratio of dangerous failures} \\ & \lambda - \text{Failure rate} \\ & \lambda = (0.1~n_{op})/\text{B10} \\ & \lambda_{d} - \text{Failure rate dangerous} \end{split}$		op. c	Motor:	225.000 General Us 300.000 General Us 0.00016 General Us	Motor: 6e: 200.000 Motor: 6e: 0.00024 Motor: 6e: 0.00018 Motor: 0	500.000		

 $^{^{\}mbox{\tiny 1)}}$ Coil consumption for contact version -04 is 3.8 VA / 3.8 W

Installation Contactors UL/CSA up to 63 A



TE	ECHNICAL DATA								
	Туре	Symbol	Unit	IKA440	IKD440	IKA463	IKD463		
	Standards	Symbol	Onit		C22.2 No. 60947-4-1				
	Approvals			UL 00347-4-1A,		L, CSA	ILC/ LIN 00347-4-1		
	Module width					3			
	Number of poles					4			
	Degree of protection			וחסט /וחיים	when installed in ins	•	oution board\		
	Pollution degree			120 (1240			Julion Doaru)		
	Ambient temperature (open)				1)	3	2)		
	Storage temperature					/ -30 °C +80 °C	,		
뒽	Maximum altitude				-22 F 1/0 F	7 -30 C+80 C			
寧	U, and U, is reduced for 1.2 % and I, for 0.4 % for every additional 100 m		m		20	000			
GENERAL						1			
	Number of contactors or switches side-by-side: \$40 °C			no limit	max. 3	no limit	max. 3		
			-						
	(40 55) °C		40	30	1 20	30	30		
	Noise level (operation)		dB		20	30	20		
	Vibration resistance according to IEC/EN 60068-2-6	a a	g		f: 2 (Z and X axis) / sv				
	Shock resistance according to IEC/EN 6068-2-27	d		Switched off:	10 (Z and X axis) / sv	· · · · · · · · · · · · · · · · · · ·	b) and 2 (X axis)		
	Maximum operating frequency with no load	1	op. c./h	7.000.000		2 200 200	10,000,000		
	Mechanical endurance		op. c.	3.000.000	10.000.000	3.000.000	10.000.000		
	Weight		g	350	420	350	420		
	Contact reliability					≥50 mA			
	Minimum distance of open contacts					/3.6 mm	T -		
	Power dissipation per pole		W	4	4	8	8		
	Overload current withstand capability:								
	10 s		А	176 240					
	Maximum back-up fuse for short-circuit protection gL and gG:								
	coordination type 1	I _v	A	63	63	80	80		
	coordination type 2			40	40	63	63		
	Maximum back-up fuse for short-circuit protection KS acc. to UL and CSA	l _v	А	60	60	70	70		
	Rated insulation voltage	U _i	V		4	40			
	Rated impulse withstand voltage	U _{imp}	kV			4			
	Rated operational voltage	U _e	V		400/	′480 ³⁾			
	Rated frequency	f	Hz		50	/60			
	Thermal current	I _{th}	А	4	40		53		
	Rated operational current for AC-1, AC-7a and AC-21	l _e	А	4	40		53		
	Operational power for AC-1, AC-7a and AC-21:								
	single-phase 230 V	P,	kW	3	3.7	1	3.3		
	three-phase 230 V	' e	NVV	16		24			
_	three-phase 400 V			26		40			
CIRCUIT	Maximum operating frequency for AC-1, AC-7a and AC-21		op. c./h		6	00			
E	Electrical endurance for AC-1, AC-7a and AC-21		op. c.		100	0.000			
2	Rated operational current for AC-2	l _e	А		25		32		
A	Operational power for AC-2:								
-	single-phase 230 V	P _e	1.147	3	3.7		+.8		
	three-phase 230 V	P _e	kW -	6.5		8	3.3		
	three-phase 400 V			1	1.2	1	4.4		
	Maximum operating frequency for AC-2		op. c./h		1	20			
	Electrical endurance for AC-2		op. c.		50.	000			
	Rated operational current for AC-22	l _e	А		40		53		
	Operational power for AC-22:								
	single-phase 230 V			-	7.4	1	1.6		
	three-phase 230 V	P _e	kW		2.7		0.1		
	three-phase 400 V			2	2.2	3	4.9		
	Maximum operating frequency for AC-22		op. c./h			00			
	Electrical endurance for AC-22		op. c.			000			
	Rated operational current for AC-3, AC-7b and AC-23	I.	A		22		30		
	Operational power for AC-3, AC-7b and AC-23:	e		•					
	single-phase 230 V			=	3.7		5		
	three-phase 230 V	P _e	kW		5.5	S	3.5		
	three-phase 400 V				11		 15		
		-	//.			I 00			
	Maximum operating frequency for AC-3, AC-7b and AC-23		op. c./h		L				

¹⁾ Surrounding air temperature for 4NO contacts version -13 °F...104 °F / -25 °C ... 40 °C, for others contacts version 5 °F ... 104 °F / -15 °C ... +40 °C ²¹ Surrounding air temperature for 4NO contacts version -13 °F...95 °F / -25 °C ... 35 °C, for others contacts version 5 °F ... 95 °F / -15 °C ... +35 °C

³⁾ Rated voltage 480 V valid only for UL and CSA



Installation Contactors UL/CSA up to 63 A

ECHNICAL DATA									
Туре	Symbol	Unit	IKA440	IKD440	IKA463	IKD463			
Rated motor power acc. to standards UL_and CSA:									
single-phase 120 V			1	1	2	2			
single-phase 208 V			2	2	3	3			
single-phase 240 V three-phase 120 V	P _e	HP -	3	3	5	5			
three-phase 120 V			7 1/2	3 7 1/2	5 10	5 10			
three-phase 240 V			7 1/2	7 1/2	10	10			
three-phase 460 V			15	15	20	20			
Maximum operating frequency for motors acc. to UL and CSA		op. c./h	12		<u> </u>	20			
Electrical endurance for motors according to UL and CSA		op. c.			.000				
General use according to standards UL and CSA:				1					
single-phase 240 V	ا	A							
three-phase 480 V			40	40	63	63			
Maximum operating frequency for general use acc. to UL and CSA		op. c./h		3	60	<u>'</u>			
Electrical endurance for general use acc. to UL and CSA		op. c.		100	.000				
Switching of discharge lamps acc. to standards UL and CSA:									
single-phase 240 V - standard ballast	l _e	Α							
three-phase 480 V - standard ballast			30	30	40	40			
Maximum operating frequency for discharge lamps acc. to UL and CSA		op. c./h			60				
Electrical endurance for discharge lamps acc. to UL and CSA		op. c.			.000				
Rated operational current for AC-5a (at 230 V)	l _e	А		20		32			
Maximum operating frequency for AC-5a		op. c./h			00				
Electrical endurance for AC-5a		op. c.			.000				
Rated operational current for AC-5b (at 230 V)	e	A	1	7.6		22			
Maximum operating frequency for AC-5b		op. c./h	600						
Electrical endurance for AC-5b		op. c.		100.000					
Rated operational current for AC-6a (at 230 V)	l _e	A	1(0.8		7.2			
Maximum operating frequency for AC-6a		op. c./h			00				
Electrical endurance for AC-6a	-	op. c.	100.000						
Switching of capacitors AC-6b and AC-7c (at 230 V)	С	μF	220 330						
Maximum operating frequency for AC-6b and AC-7c Electrical endurance for AC-6b and AC-7c		op. c./h op. c.	600 100.000						
		υр. с.		100	.000 T				
Rated operational current for DC-1 (L/R ≤ 1 ms):			/.O / 2E /:	10 / /, / 1 . 7	62/26/	2077/12			
1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC				18/4/1.2		20/4/1.2			
2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC 3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	l _e	A		32/10/8		34/10/8			
4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC				+0/30/20		50/35/30			
Maximum operating frequency for DC-1		op. c./h	40/40/2	40/40/40	00	63/63/63			
Electrical endurance for DC-1		ор. с./11			.000				
Rated operational current for DC-3 (L/R ≤ 2 ms):		ор. с.		100	.000				
1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			22/10/5	5/1.5/0.3	25/11/	5/1.5/0.3			
2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	l _e	A		/16/5/1		/18/5/1			
3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	'e	^		32/15/4		35/18/5			
4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC		-		40/40/10		53/63/10			
Maximum operating frequency for DC-3		op. c./h	-37 -07 -		00				
Electrical endurance for DC-3		ор. с.			.000				
Rated operational current for DC-5 (L/R ≤ 7.5 ms):		 		100					
1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			20/8/	4/1/0.2	25/10/	/5/1/0.2			
2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	l _e	A	40/18/	14/5/0.8		15/5/0.8			
3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC				28/12/3		30/15/4			
4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC				40/35/8		50/45/10			
Maximum operating frequency for DC-5		op. c./h			00				
Electrical endurance for DC-5		op. c.			.000				
Terminal capacity:									
rigid (solid and stranded)	S			14 10 AWG	/ 1.5 25 mm²				
flexible				14 4 AWG /	1.5 16 mm²				
Length of removed wire insulation					/ 10 mm				
Screw				N	15				
Screw head				P	Z2				
Tightening torque				30.98 lb-i	n / 3.5 Nm				
Contact reliability				≥17 V;	≥50 mA				
Minimum distance of open contacts				0.118 in	/3.6 mm				
Power dissipation per pole		W		4		8			
Overload current withstand capability:									
10 s			1	76	2	40			
Maximum back-up fuse for short-circuit protection gL and gG:									
coordination type 1	l _v	Α	63	63	80	80			
coordination type 2			40	40	63	63			

Installation Contactors UL/CSA up to 63 A



CHNICAL DATA							
Туре	Symbol	Unit	IKA440	IKD440	IKA463	IKD463	
Maximum back-up fuse for short-circuit protection K5 acc. to UL and CSA	I _v	А	60	60	70	70	
Rated insulation voltage	U _i	V		44			
Rated impulse withstand voltage	U _{imp}	kV					
Rated operational voltage	U _e	V			400		
Rated frequency	f	Hz		50,	′60		
Thermal current	I _{th}	А		40	6	i3	
Rated operational current for AC-15:							
single-phase 230 V	l _e	Α		(5		
single-phase 400 V				L	+		
Maximum operating frequency for AC-15		op. c./h		1.2	.00		
Electrical endurance for AC-15		ор. с.		150	.000		
Switching of auxiliary loads according to standard UL and CSA				B300,	P300		
Maximum operating frequency for auxiliary loads according to UL and CSA		op. c./h		36	50		
Electrical endurance for auxiliary loads according to UL and CSA		op. c.		100			
Rated operational current for DC-13:							
1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC				6/4/1/0	3/0.05		
2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	I.	l a H		6/6/4			
3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC	'e	^ -			5/3/1		
4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/220 V DC		⊢			5/4/2		
Maximum operating frequency for DC-13	 	op. c./h		30			
Electrical endurance for DC-13	 	ор. с./11 ор. с.					
		υр. с.		200	.000		
Terminal capacity: rigid (solid and stranded)				,	4.5. 25. 7		
	S			410 AWG /			
flexible	<u> </u>			4 10 AWG /			
Length of removed wire insulation				0.394 in			
Screw				N			
Screw head					72		
Tightening torque				30.98 lb-ir			
Range of control voltage for switch-on	U _c	%		85			
Range of control voltage for drop out	U _c	%	А	C: 75 20 / DC: 75	10 (where is applicat	ole)	
Kind of voltage			AC	AC/DC	AC	AC/DC	
Standard control voltages	U _c	V		12, 24, 48, 110, 120	, 127, 208, 230, 240		
Frequency of AC control voltage	f	Hz		50,	[′] 60		
Control mode				remote con	trol with U _c		
Impulse duration of control voltage:							
minimum				perma	anent		
maximum				perma	anent		
Minimum duration between two impulses of control voltage		ms		AC: 150 / DC: 500 (v	vhere is applicable)		
Surge immunity withstand voltage 1,2/50 µs							
acc. to standard IEC/EN 61000-4-5		kV		4	2		
Coil consumption:							
switch-on		VA/W	15.4/6	5/5 ¹⁾	15.4/6	5/5 ¹⁾	
operation		***	7.7/3	5/5 ¹⁾	7.7/3	5/5 ¹⁾	
Delays:			,,,,,,	3/3	,,,,,,	3/3	
make		ms	10 20	15 20	10 20	15 20	
brake		, -	10 15	35 45	10 15	35 45	
Terminal capacity:			10 13	JJ 4J	10 13	J JJ 4J	
rigid (solid and stranded)				16 1/ 1/1/	/1 2 E mm²		
flexible				16 14 AWG			
	 			16 14 AWG			
Length of removed wire insulation Screw	 			0.315 in			
					13		
Screw head Tightening torque	 	\vdash		P. 54 III :			
Tightening torque	<u> </u>			5.31 lb-in			
MTTF - Mean time to failure		h 📙		General L			
$MTTF = 1/\lambda = B10/(0.1 n_{op})$	<u> </u>	···		Motor			
MTTF _d - Mean time to failure dangerous		l h ⊢		General L			
$MTTFd = 1/\lambda_d = B10_d/(0.1 \text{ n}_{op})$	ļ	''		Motor			
		ор. с. —			se: 75.000		
R10 - Number of operating cycles uptil 10 % of devices fail		_ Op. c		Motor:	112.500		
B10 - Number of operating cycles until 10 % of devices fail				General Us	e: 100.000		
			General Use: 100.000 Motor:150.000				
B10 _d - Number of operating cycles until 10 % of device dangerous		op. c					
$B10_a$ - Number of operating cycles until 10 % of device dangerous $B10_a$ = $B10/ratio$ of dangerous failures λ - Failure rate		1/h		General Us	e: 0.00048		
B10 $_{\tiny o}$ - Number of operating cycles until 10 % of device dangerous B10 $_{\tiny d}$ = B10/ratio of dangerous failures λ - Failure rate λ = (0.1 $n_{\tiny op}$)/B10				General Us Motor: (se: 0.00048 0.00032		
B10 $_{\rm o}$ - Number of operating cycles until 10 % of device dangerous B10 $_{\rm d}$ = B10/ratio of dangerous failures λ - Failure rate λ = (0.1 $n_{\rm op}$)/B10 $\lambda_{\rm d}$ - Failure rate dangerous				General Us Motor: (General Us	se: 0.00048 0.00032 se: 0.00036		
B10 $_{\tiny o}$ - Number of operating cycles until 10 % of device dangerous B10 $_{\tiny d}$ = B10/ratio of dangerous failures λ - Failure rate λ = (0.1 $n_{\tiny op}$)/B10		1/h		General Us Motor: (General Us Motor: (se: 0.00048 0.00032 se: 0.00036		

 $^{^{\}mbox{\tiny 1)}}$ Coil consumption for -22 and -04 is 6.1 VA/6.1 W



Installation Contactors

Accessories

IKN , IKN-UL – Auxiliary switch

Туре	Symbol	Unit	IKN	IKN-UL
Standards	5450.	Office	IEC/EN 60947-5-1	UL508, C22.2 No. 14, IEC/EN 60947
Approvals			CE, CB, NF, EAC	CE, UL, CSA
Module width			0.5	0.5
Number of poles			2	2
Degree of protection			IP20 1)	IP20 ¹⁾
Pollution degree				3
Climatic conditions			95 % relative humidity	3
			95 % relative fluillidity	
Ambient temperature:			25.06 .55.06	
open			-25 °C +55 °C	12.05 104.05 / 25.05 / 4
closed				-13 °F 104 °F / -25 °C +40
Storage temperature			-30 °C +80 °C	-22 °F 176 °F / -30 °C +80
Maximum altitude		m	2000	2000
$\rm U_{\rm i}$ and $\rm U_{\rm e}$ is reduced for 1.2 % and $\rm I_{\rm e}$ for 0.4 % for every additional 100 m				
Mechanical endurance		op. c.	3.000.000	3.000.000
Weight			30 g	0.08 lb / 30 g
Contact reliability			≥12 V; ≥5 mA	≥12 V; ≥5 mA
Minimum distance of open contacts			3.6 mm	0.142 in /3.6 mm
Power dissipation per pole		W	0.3	0.3 (at I _{th} = 6 A)
Maximum back-up fuse for short-circuit protection gL and gG:				- 111
coordination type 2	l,	А	6	6
Maximum back-up fuse for short-circuit protection KS acc. to UL and CSA		А	<u>~</u>	6
Rated insulation voltage	U.	V	500	500
Rated impulse withstand voltage	U _{imp}	kV	4	4
Rated operational voltage	O _{imp}	KV	4	IEC: 230 /400
Rated operational voltage		.,	220 // 00	
	U _e	V	230/400	UL: C300 (120 VAC, 240 VAC)
				UL: Q300 (125 VDC, 250 VDC)
Rated frequency	f	Hz	50/60	50/60
Thermal current	I _{th}	А	6	IEC: 6 ; UL: 2.5
Rated operational current for AC-15:				
single-phase 230 V	l _e	А	6	6
single-phase 400 V			4	4
Electrical endurance for AC-15		op. c.	50.000	50.000
Switching of auxiliary loads acc. to standard UL and CSA				C300, Q300
Electrical endurance for auxiliary loads acc. UL and CSA		op. c.		50.000
Rated operational current for DC-13:				
1 pole 24 VDC / 48 VDC / 60 VDC / 110 VDC / 220 VDC	l.	А	6/4/1/0.3/0.05	6/4/1/0.3/0.05
2 poles in series 24 VDC/ 48 VDC / 60 VDC / 110 VDC / 220 VDC	'e		6/6/4/1/0.1	6/6/4/1/0.1
Electrical endurance for DC-13		op. c.	50.000	50.000
Switching of auxiliary loads acc. to standard UL and CSA		ор. с.	50.000	C300, Q300
		00.5		
Electrical endurance for auxiliary loads acc. UL and CSA		op. c.		50.000
Terminal capacity:			3	
rigid (solid and stranded)	S		1 2.5 mm²	16 14 AWG / 1 2.5 mm ²
flexible			1 2.5 mm²	16 14 AWG / 1 2.5 mm ²
Length of removed wire insulation			7 mm	0.276 in / 7 mm
Screw			M3	M3
Screw head			PZ1	PZ1
Tightening torque			0.8 Nm	7.08 lb-in / 0.8 Nm
MTTF - Mean time to failure		.		
MTTF = $1/\lambda$ = B10/(0.1 n _{on})		h	833	694
MTTF _d - Mean time to failure dangerous				
MTTFd = $1/\lambda_d$ = B10 _d /(0.1 n _{nn})		h	1.666	1.388
а а ар-				
B10 - Number of operating cycles until 10 % of devices fail		op. c.	25.000	25.000
D40 Number of counting and a 1240 % of daying				
B10 _d - Number of operating cycles until 10 % of device dangerous		op. c.	50.000	50.000
B10 _d = B10/ratio of dangerous failures				22.000
λ - Failure rate		1/h	0.0012	0.00144
$\lambda = (0.1 \text{ n}_{op})/B10$		1711	0.0012	0.00144
λ _d - Failure rate dangerous		1/h	0.0005	0.00073
$\lambda_{d} = (0.1 \text{n}_{co}) / \text{B10}_{d}$		1/h	0.0006	0.00072
Ratio of dangerous failures		%	50	50

 $^{^{\}mbox{\tiny 1)}}$ IP40 when installed in installation box - distribution boards

Installation Switches IKS-R Installation Momentary Switches IKS-T



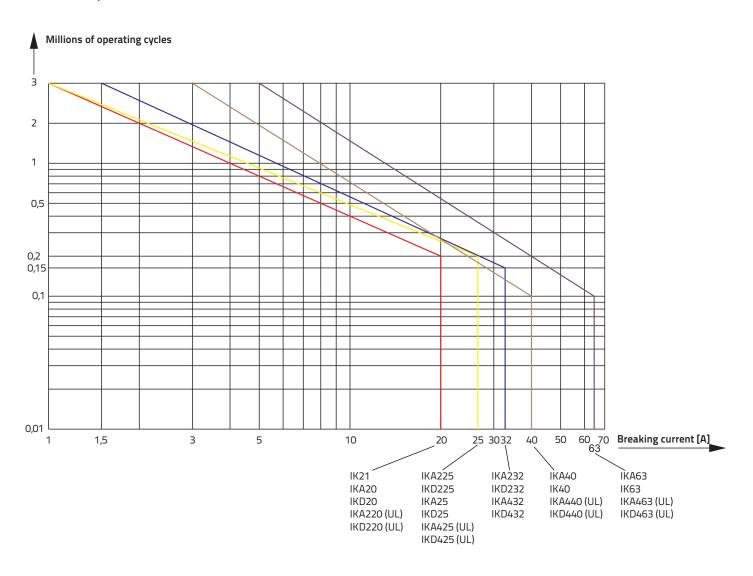
				IKS220-R	IKS225-R	IKS232-R	IKS420-R	IKS425-R	IKS432-R
	Туре	Symbol	Unit	IKS220-R	IKS225-R IKS225-T	IKS232-R IKS232-T	IKS420-R IKS42-T	IKS425-R IKS425-T	IKS432-R IKS432-T
	Standards					IEC/EN	L 60947-3		
	Approvals					C	ΞE		
	Module width				2			4	
	Number of poles				2			4	
	Degree of protection			IP20	(IP40 when ir	stalled in inst	allation box -	distribution b	oard)
	Pollution degree						3		
	Climatic conditions					95 % relativ	e humidity		
뒱	Ambient temperature (open)		°C			-25 .	+55		
GENERAL	Storage temperature		°C			-30.	+80		
핑	Maximum altitude		l m			20	000		
	$\rm U_{_{i}}$ and $\rm U_{_{e}}$ is reduced for 1.2 % and $\rm I_{_{e}}$ for 0.4 % for every additional 100 m		'''			20	000		
	Number of contactors or switches side-by-side:								
	≤40 °C					no lim	itation		
	(40 55) °C					110 1111	iitatioii		
	Maximum operating frequency with no load		op. c./h				00		
	Mechanical endurance		op. c.			1.00	0.000		
	Weight		g		55			105	
	Contact reliability						≥50 mA		
	Minimum distance of open contacts		mm			1	.6	1	1
	Power dissipation per pole		W	1.7	2	2.5	1.7	2	2.5
	Overload current withstand capability:								
	10 s				72			68	1
	Maximum back-up fuse for short-circuit protection gL and gG:	I,	A	20	25	32	20	25	32
	coordination type 1	·			23			23	52
	Rated insulation voltage	U _i	V			4	40		
	Rated impulse withstand voltage	U _{imp}	kV				4		
	Rated operational voltage	U _e	V				30		
	Rated frequency	f	Hz			1	/60		
	Thermal current	l _{th}	А	20	25	32	20	25	32
	Rated operational current for AC-1, AC-7a and AC-21	l _e	А	20	25	32	20	25	32
	Operational power for AC-1, AC-7a and AC-21:								
	single-phase 230 V	P _e	kW	4	5.4	7	4	5.4	7
	three-phase 230 V						7	9	12
	Maximum operating frequency for AC-1, AC-7a and AC-21		op. c./h				00		
	Electrical endurance for AC-1, AC-7a and AC-21		op. c.				.000	1	
	Rated operational current for AC-22	I _e	А	20	25	32	20	25	32
늘	Operational power for AC-22:						2.7		
CIRCUIT	single-phase 230 V	P _e	kW	3.7	4.6	5.9	3.7	4.6	5.9
Ū Z	three-phase 230 V						6.2	8	10.2
MAI	Maximum operating frequency for AC-1, AC-7a and AC-21		op. c./h				00		
2	Electrical endurance for AC-1, AC-7a and AC-21		op. c.				000		
	Rated operational current for AC-5a (at 230 V)	I _e	A	8.8	11	13	8.8	11	13
	Maximum operating frequency for AC-5a		op. c./h				00		
	Electrical endurance for AC-5a (at 230 V)		op. c.				.000		
	Rated operational current for AC-5b (at 230 V)	I _e	Α	8.8	9.7	11	8.8	9.7	11
	Maximum operating frequency for AC-5b		op. c./h				00		
	Electrical endurance for AC-5b (at 230 V)		op. c.				.000		_
	Rated operational current for AC-6a (at 230 V)	I _e	A	4	4.8	6	4	4.8	6
	Maximum operating frequency for AC-6a		op. c./h				00		
	Electrical endurance for AC-6a (at 230 V)	_	op. c. µF	20	36		.000	20	
	Switching of capacitors AC-6b and AC-7c (at 230 V)	С		30	36	40	30	36	40
	Maximum operating frequency for AC-6b and AC-7c Electrical endurance for AC-6b and AC-7c		op. c./h				00		
			op. c.			100	.000		
	Terminal capacity:	_	, ,			4	10		
	rigid (solid and stranded) flexible	S	mm²				. 10		
			- mm				6		
	Length of removed wire insulation Screw		mm				9		
	JCIEW						3.5 Z1		
	Screw head								



Installation Contactors Electrical Endurance

Diagram '

AC-1/230V/1-phase for IKA20, IKD20, IKA220 (UL), IKD220 (UL), IKA225, IKD225, IKA232, IKD232, IKA440 (UL), IKD440 (UL), IKD463 (UL), IKD463 (UL), AC-1/400V/3-phase for IK21, IKA25, IKD25, IKA425 (UL), IKD425 (UL), IKA432, IKD432, IKA40, IK40, IKA63, IK63



Installation Contactors Electrical Endurance



Diagram 2

AC-3/400V/3-phase for IK21, IKA25, IKD25, IKA425 (UL), IKD425 (UL), IKD432, IKD432, IKD432, IKA40, IKA63, IK63, IKA440 (UL), IKD440 (UL), IKD463 (UL), IKD463 (UL)

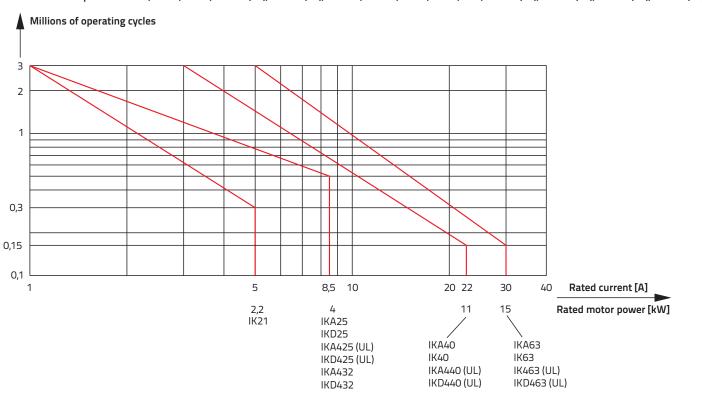
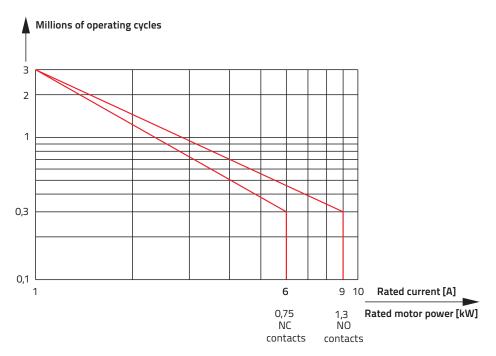


Diagram 3

AC-3/230V/1-phase for IKA20, IKD20, IKA220 (UL), IKD220 (UL), IKA225, IKD225, IKA232, IKD232

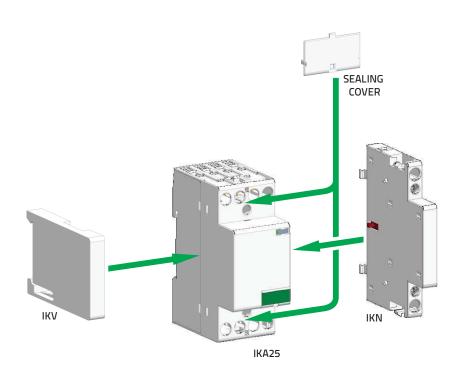




Installation Contactors

Mounting Positions of Accessories

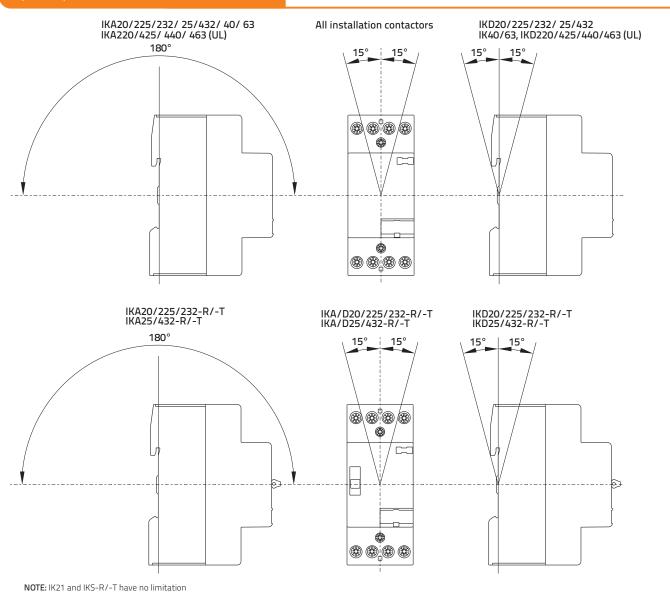
Mounting positions of accessories



Installation ContactorsOperating Position, Dimensions

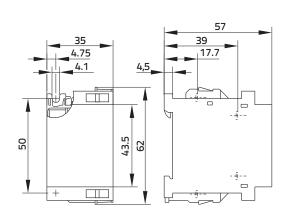


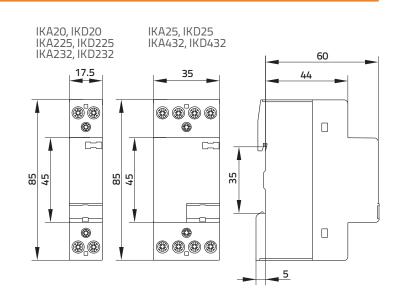
Operation position



Dimension to all and a

IK21





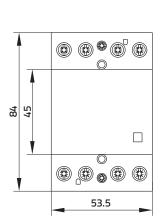


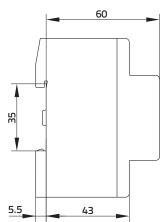
Installation Contactors

Dimensions

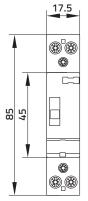
Dimensions (in milimeters unless otherwise stated

IK40, IK63 IKA40, IKA63





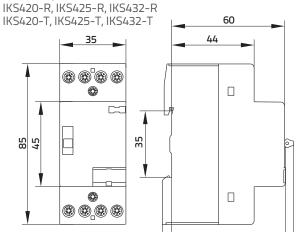
IKA20-R, IKD20-R IKA225-R, IKD225-R IKA232-R, IKD232-R



IKA20-T, IKD20-T IKA225-T, IKD225-T IKA232-T, IKD232-T

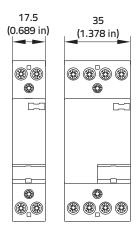
IKS220-R, IKS225-R IKS232-R

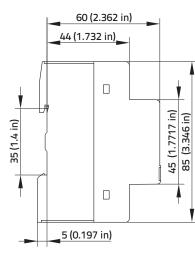
IKS220-T, IKS225-T IKS232-T IKA25-R, IKD25-R IKA432-R, IKD432-R



5

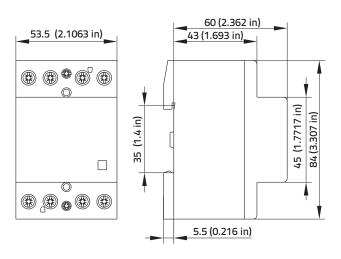
IKA220 (UL) IKA425 (UL) IKD220 (UL) IKD425 (UL)





IKA440 (UL), IKD440 (UL) IKA463 (UL), IKD463 (UL)

5



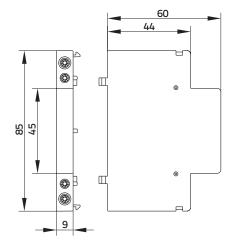
Installation Contactors

Dimensions

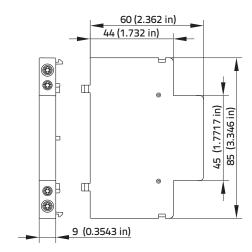


Dimensions (in milimeters unless otherwise stated)

IKN



IKN-UL



IKV

