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STEVAL-ILB007V1

2 x 58 W wide-range ballast based on the L6585DE combo IC

Data brief

Features

- Input voltage: 85 to 265 V_{RMS}
- Line frequency: 50/60Hz
- Capable of driving 2 x 58 W T8-type tubes
- Power factor: 0.9
- THD: 10%
- Average efficiency: 90%
- End-of-life detection
- Broken lamp protection
- RoHS compliant



STEVAL-ILB007V1

Description

The STEVAL-ILB007V1 demonstration board is capable of driving 2 x 58 W linear T8 fluorescent tubes, and with simple modifications can also be adapted for 2 x 36 W linear T8 fluorescent tubes.

The ballast is controlled by the L6585DE device, which integrates PFC and half-bridge control circuits, the relevant drivers, and the circuitry to manage all lamp operating phases (pre-heating, ignition and run mode). Protection against failures such as lamp disconnection, anti-capacitive mode and PFC over-voltage are guaranteed and achieved using a minimum number of external components.

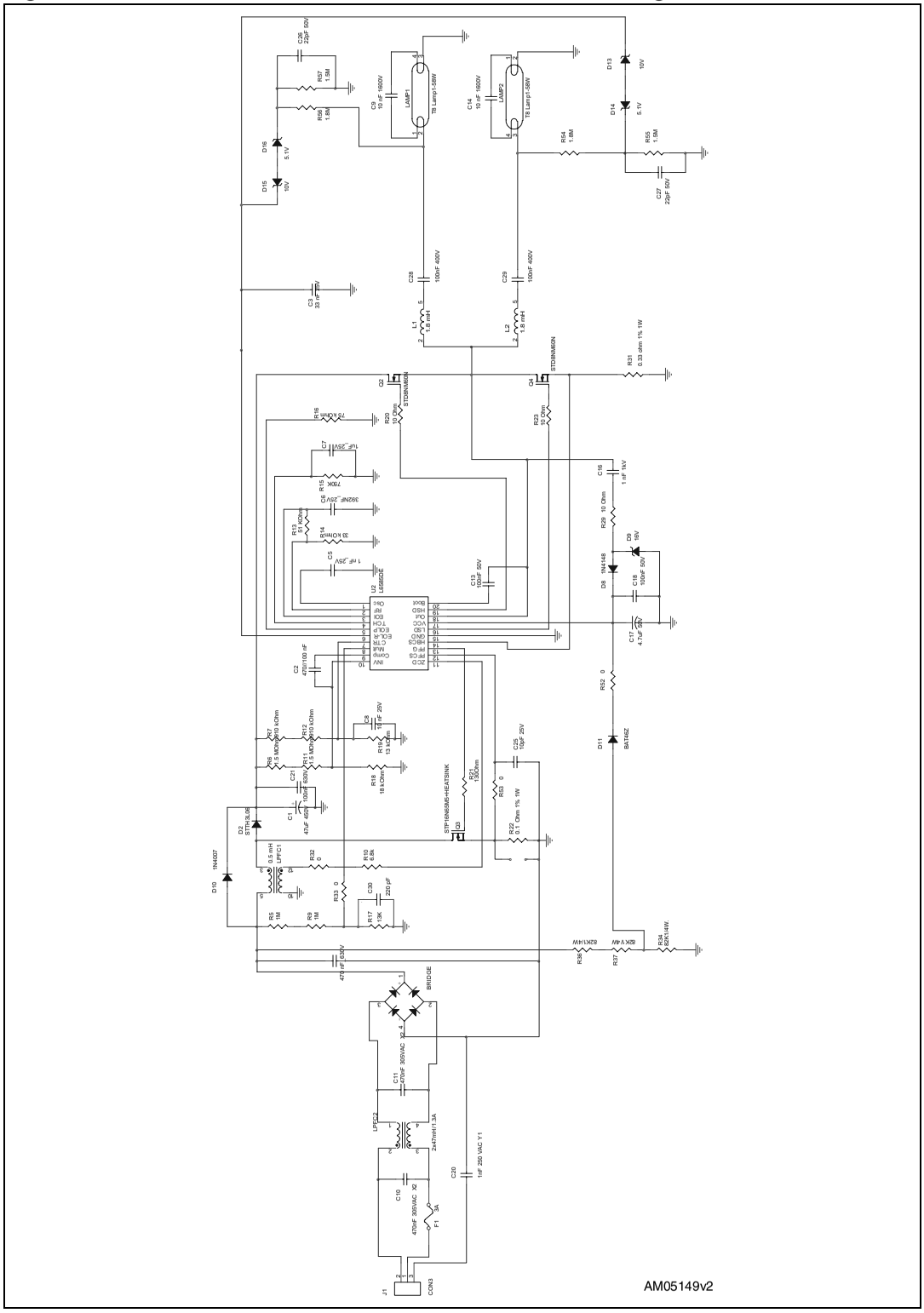
An electronic ballast consumes less power and therefore dissipates less heat than an electromagnetic ballast. The energy saved can be estimated to be in the range of 20-25% for a given lamp power.

Finally, the electronic solution allows better control of the filament current and lamp voltage during pre-heating, resulting in an increase in lamp life.

For further information contact your local STMicroelectronics sales office. www.st.com

1 Schematic diagram

Figure 1. Electrical schematic - 2 x 58 W T8 main wide range



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
12-Jan-2010	1	Initial release.

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