

## 4 x 18 W wide-range ballast based on the L6585DE combo IC

Data brief

### Features

- Input voltage: 90 to 265 V<sub>RMS</sub>
- Line frequency: 50/60 Hz
- Capable of driving 4 x 18 W T8-type tubes
- Power factor: > 0.98
- THD: 10%
- Average efficiency: 90%
- EN55015 compliant
- End-of-life detection
- Broken lamp protection with adjustable timing
- RoHS compliant

### Description

The STEVAL-ILB008V1 is a wide-range lighting ballast capable of driving 4 x 18 W linear T8 fluorescent tubes.

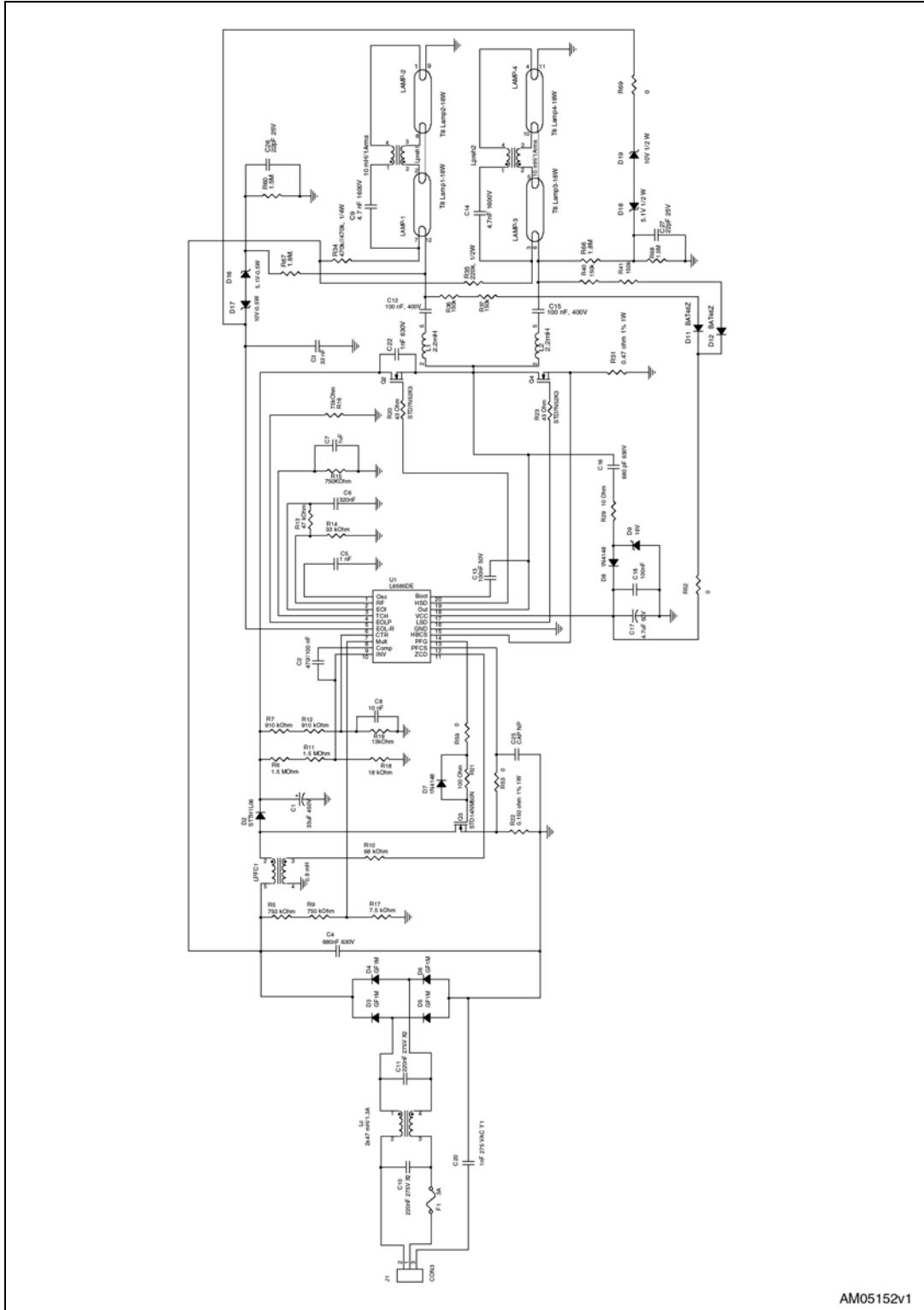
The ballast is controlled by the L6585DE IC, which integrates PFC and half-bridge control circuits, relevant drivers, and the circuitry required to manage all lamp operating phases (pre-heating, ignition and run mode). Protection against failures such as lamp disconnection, anti-capacitive mode, and PFC overvoltage 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 is estimated to be in the range of 20-25% for a given lamp power. Moreover, an electronic solution allows for improved control of the filament current and lamp voltage during pre-heating, resulting in increased lamp life.



# 1 Schematic diagram

Figure 1. Electrical schematic - 4 x 18 W T8 main wide range



## 2 Revision history

Table 1. Document revision history

Date	Revision	Changes
20-Jan-2010	1	Initial release.
25-Feb-2011	2	Modified <i>Figure 1: Electrical schematic - 4 x 18 W T8 main wide range</i> .

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