



### Features

- FOT power systems based on the L6563
- Single range input voltage from 185 V to 265 V @ 50/60 Hz line
- Output voltage 400 V  $\pm$ 5%
- Inductor saturation protection
- Optimized EMC input filter (EN55014 and EN55022)
- Power factor > 0.98
- Efficiency higher than 95%
- THD below 10% starting from 1 kW
- RoHS compliant

### Description

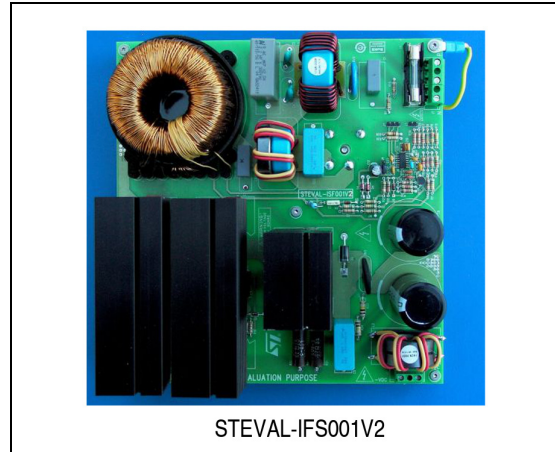
The STEVAL-ISF001V2 demonstration board provides a compact and ready-to-use solution for the implementation of a simple PFC system able to supply loads with a power close to the maximum delivered in the most typical domestic installations.

For such a power range the use of a continuous mode PFC operation becomes mandatory in order to drain from the net a current with an RMS value that does not surpass the maximum allowed from the metering system and to have a reasonable device size involved in the system operations.

Normally, the use of a standard continuous mode driver chip means the use of a more expensive and complex driver along with all the passive components required.

STMicroelectronics has patented a solution that allows the use of a simple driver, designed for transition mode operation, in a fixed off-time, variable frequency, PWM modulation.

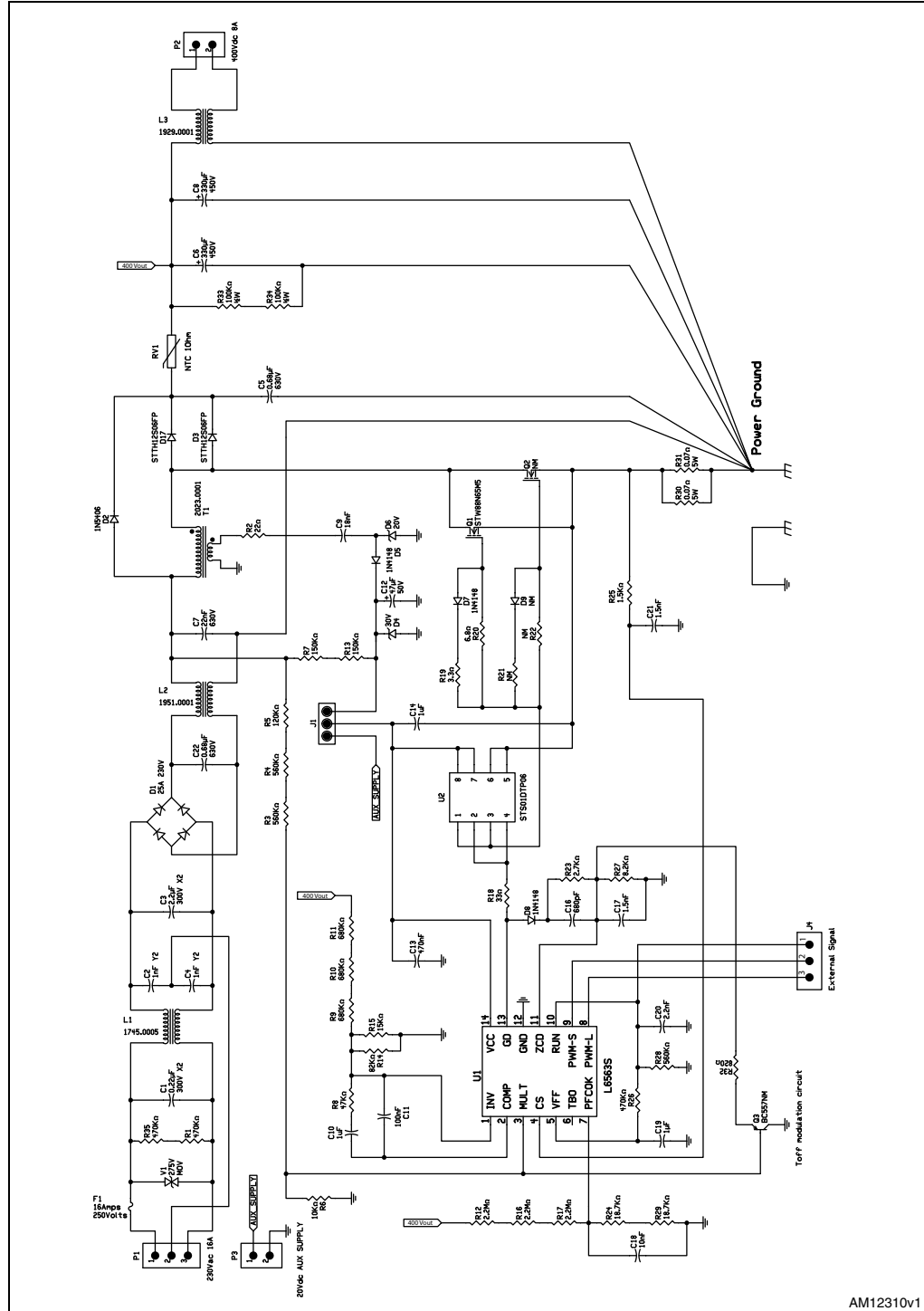
This kind of modulation gives a current on the boost inductor of the PFC that is comparable with



the current obtained using a classic continuous mode modulation.

# 1 Schematic diagram

Figure 1. Schematic diagram



## 2 Revision history

Table 1. Document revision history

Date	Revision	Changes
25-May-2012	1	Initial release.

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