EVL6564H-100W



100 W transition-mode PFC pre-regulator demonstration board based on the L6564H

Data brief

Features

- Line voltage range: 90 to 265 Vac
- Minimum line frequency (f_L): 47 Hz
- Regulated output voltage: 400 V
- Rated output power: 100 W
- Maximum 2f_L output voltage ripple: 20 V pk-pk
- Hold-up time: 10 ms (V_{DROP} after hold-up time: 300 V)
- Minimum switching frequency: 40 kHz
- Minimum estimated efficiency: 92% (@ V_{in} = 90 Vac, P_{OUT} = 100 W)
- Maximum ambient temperature: 50 °C
- PCB type and size: single side, 35 µm, CEM-1, 90 x 83 mm

Description

This demonstration board is based on the new transition-mode PFC controller L6564H and implements a 100 W, wide-range mains input, PFC pre-conditioner suitable for ballast, adapters, flat screen displays, and all SMPS having to meet IEC61000-3-2 or JEITA-MITI regulations.

The L6564H is a current-mode PFC controller operating in transition mode (TM) which embeds the same features existing in the L6564 with the addition of a high voltage startup source. These functions make the IC especially suitable for applications that must be compliant with energy saving regulations and where the PFC preregulator works as the master stage.

The EVAL6564H-100W implements a power factor correction (PFC) pre-regulator 100 W, continuous power, on a regulated 400 V rail from a wide-range mains voltage and providing for the reduction of the mains harmonics, allowing the European EN61000-3-2 or the Japanese JEITA-MITI standard to be met. The regulated output voltage is typically the input for the cascaded



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isolated DC-DC converter that provides the output rails required by the load.

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For further information contact your local STMicroelectronics sales office.

1 Electrical schematic



Figure 1. Electrical schematic

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2 Revision history

Table 1.Document revision history

Date	Revision	Changes
16-Apr-2012	1	Initial release.



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