

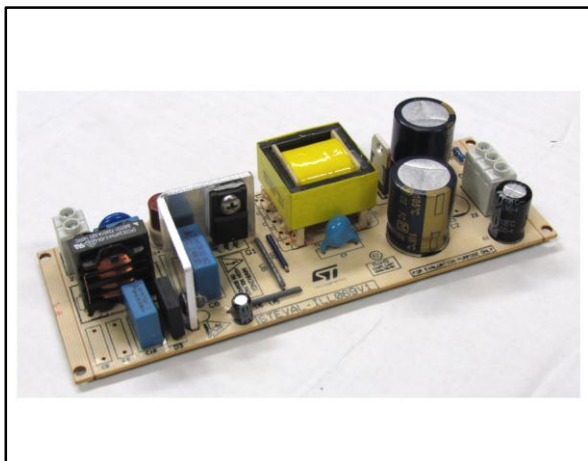


THE DATASHEET OF STEVAL-ILL069V1



35 W wide input range flyback converter using HVLED001 quasi resonant flyback controller

Data brief

**Features**

- Input voltage: $V_{in} = 90 - 264$ Vrms, $f = 45 - 66$ Hz
- Output voltage: 48 V / 730 mA
- High power factor, low THD
- No-load: better than 400 mW @ 230 V_{in}
- Full load efficiency: better than 90%
- Short circuit protection with auto restart
- Safety: Acc. to EN60065
- PCB board: 130 mm x 50 mm single side PCB
- RoHS compliant

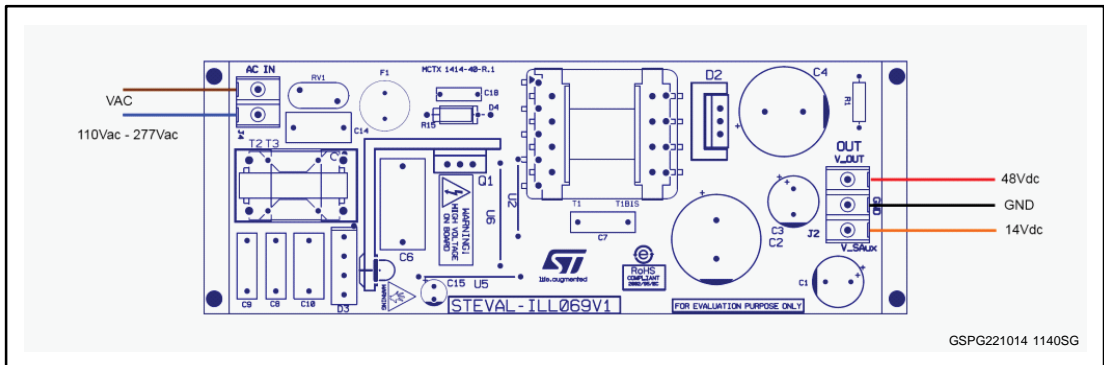
Description

The STEVAL-ILL069V1 is designed to provide a stable and insulated 48 V voltage bus to supply secondary side circuitry (e.g., LED current generators) with a total output power of 35 W when a wide range of input voltages is applied at its input. An auxiliary 14 V output is also present to supply small circuitries which absorb a maximum current of 20 mA. A very high power factor is obtained thanks to the HVLED001's features, including management of protections for input voltage variations, excessive input voltages (overvoltage due to surges or bursts) and very low input voltages, thus improving the reliability of the application. The efficiency of the application is very high even at very low loads thanks to the improved frequency fold-back feature that simultaneously reduces the output voltage ripple at light loads. Output short circuit and overload protections feature auto-restart for safer operation in lighting environments.

The board can operate with 305 Vrms input voltage replacing Q1 with STF5N95K5 Power MOSFET.

1 STEVAL-ILL069V1 board

Figure 1: Jumpers and connectors location



3 Revision history

Table 1: Document revision history

Date	Rev	Changes
18-Nov-2014	1	First release.
02-Jul-2015	2	Updated features and description on the cover page.

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.



ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2015 STMicroelectronics – All rights reserved

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View STEVAL-ILL069V1 on WIN SOURCE](#)
-  [STMicroelectronics Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management