



STEVAL-ISA071V1

4 W non-isolated, wide input-voltage range SMPS demonstration board based on the VIPER16

Data brief

Features

- Input:
 - V_{IN} : 85 - 264 V_{rms}
 - f : 45 - 66 Hz
- Output:
 - 12 $V_{DC} \pm 10\%$ (referred to -5 V), 160 mA
 - -5 $V_{DC} \pm 4\%$, 400 mA
- Maximum output power: 4 W (for EU range up to 6 W)
- Standby: 70 mW at 230 VAC
- Short-circuit protected
- Isolation: non-isolated; N connected to output GND
- EMI: in accordance with EN55022 class B
- RoHS compliant



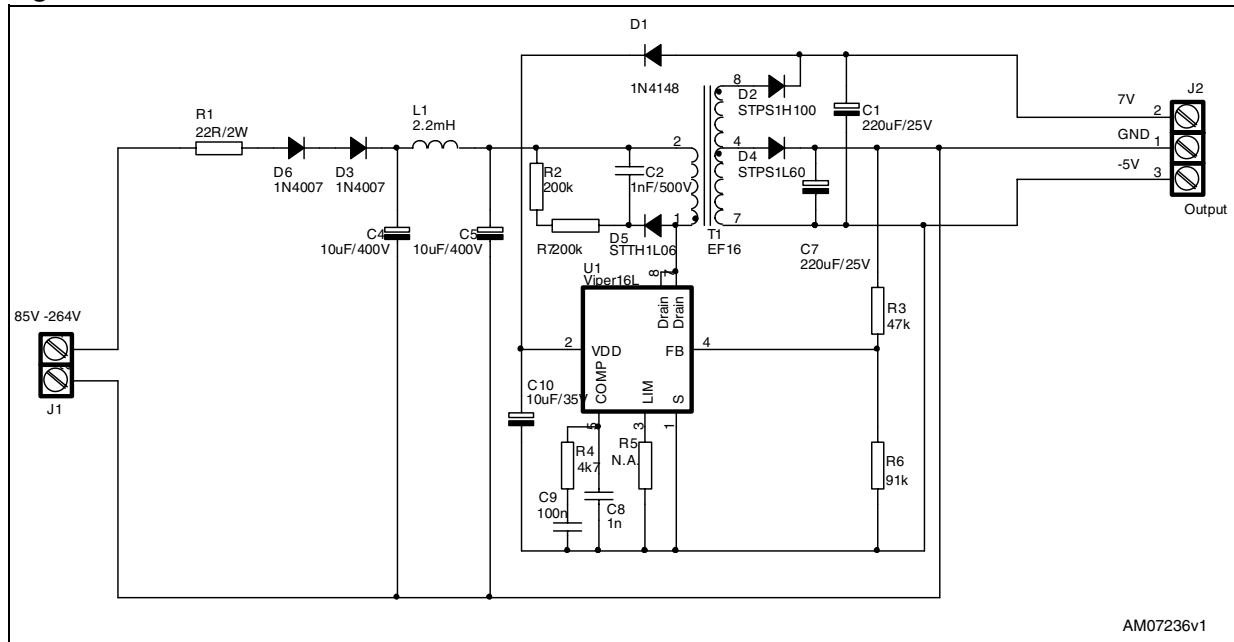
Description

The STEVAL-ISA071V1 switched-mode power supply (SMPS) demonstration board is dedicated to mains applications requiring -5 V and +7 V referred to neutral. The non-isolated SMPS is capable of delivering 4 W of output power over a wide input voltage range. This capability can also be applied to higher power outputs or different voltage ranges.

The SMPS generates 5 V and 12 V. The 5 V can be used to supply the MCU, directly driving a Triac connected to neutral, and the 12 V can be used to supply additional circuits, such as relays, OAs, etc.

1 Schematic diagram

Figure 1. STEVAL-ISA071V1 circuit schematic



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
27-Apr-2010	1	Initial release.
11-Jun-2010	2	Updated title on cover page.

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