



# 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



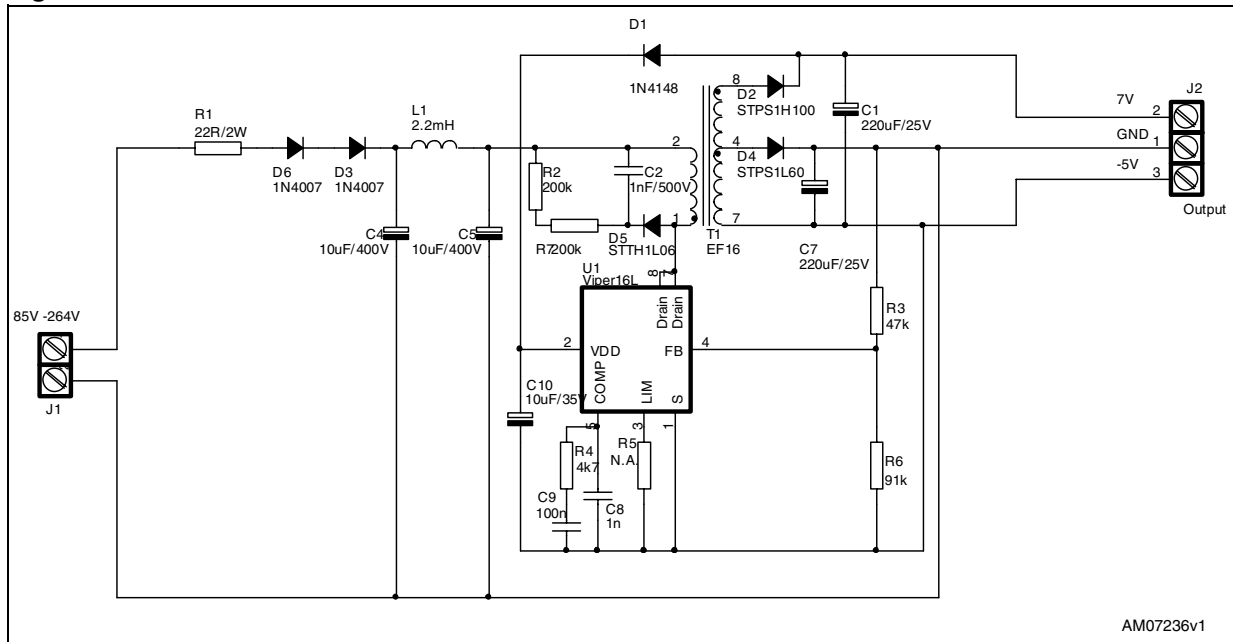
## Description

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



AM07236v1

## 2 Revision history

**Table 1. Document revision history**

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

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