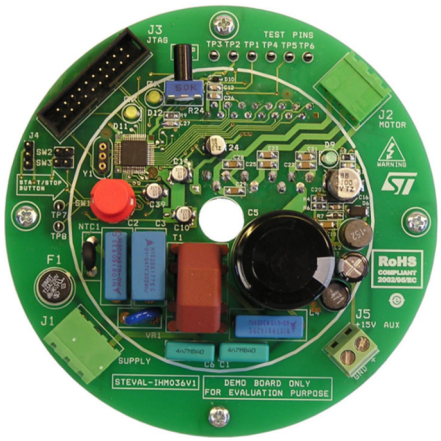
STEVAL-IHM036V1

Low power motor control board featuring the SLLIMM™ STGIPN3H60 and MCU STM32F100C6T6B

Data brief

Features

- Complete 100 W power inverter solution
- HV supply: 90 to 285 V AC or direct DC at 125 to 400 V DC
- Input inrush limiter based on NTC resistor
- Single shunt resistor current-sensing method
- Overtemperature and overcurrent hardware protection
- Compact and safe design
- Test points available to allow further evaluation
- RoHS compliant



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Description

The purpose of the STEVAL-IHM036V1 demonstration board is to present a universal, fully-tested design consisting of a 3-phase inverter bridge based on the 600 V, 3 A small low-loss intelligent molded module (SLLIMM™) STGIPN3H60 and the STM32F100C6T6B MCU.

The SLLIMM™ consists of short-circuit rugged IGBT's with negative temperature coefficient. Additional auxiliary functions are undervoltage lockout and smart shut-down.

Thanks to these advanced characteristics the system achieves fast and accurate conditioning of the current feedback, rendering it capable of meeting the typical requirements for field-oriented control (FOC).

1 Schematic diagram

Figure 1. Power inverter part

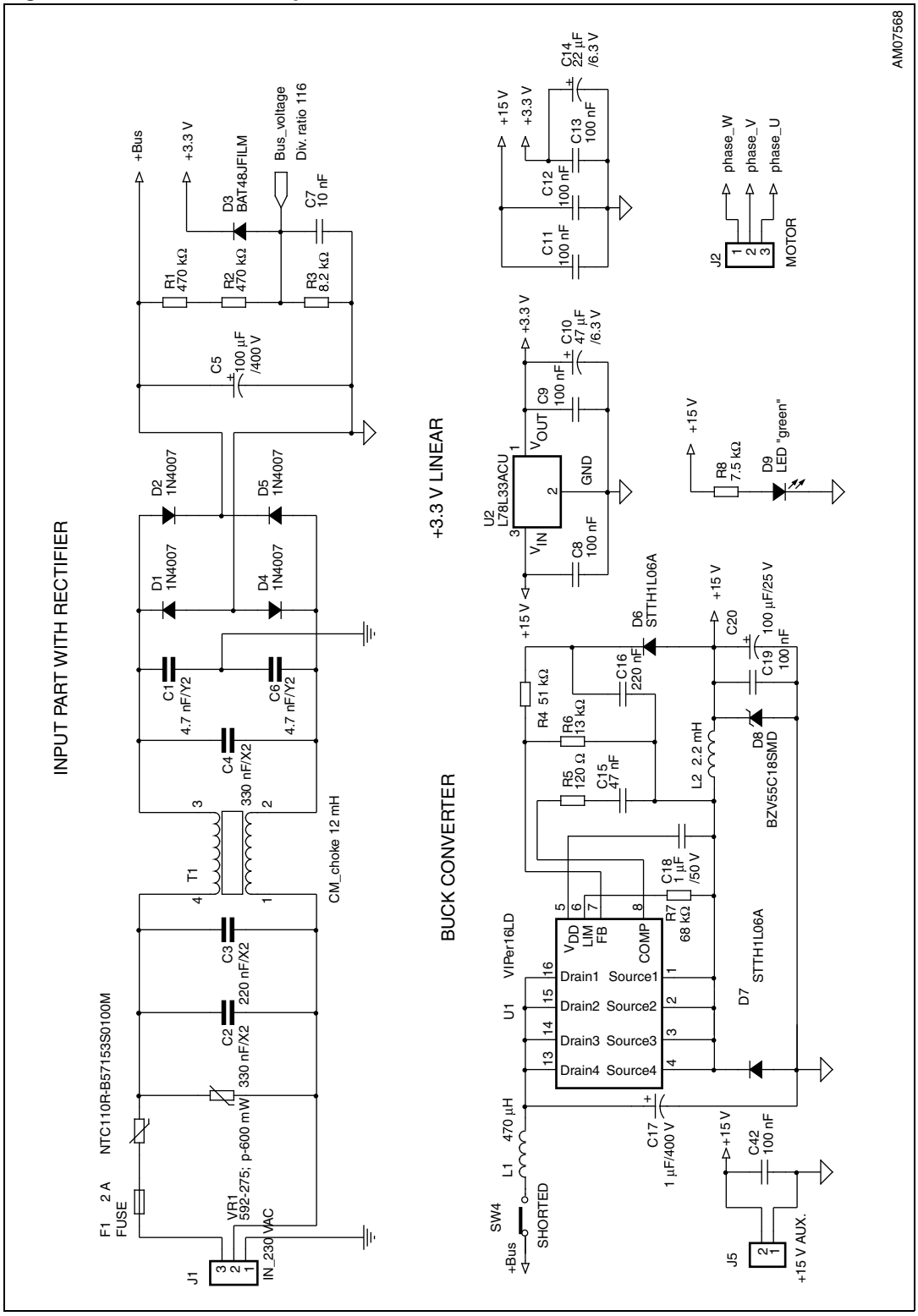


Figure 2. Input part with rectifier, buck converter and buck 3.3 V linear

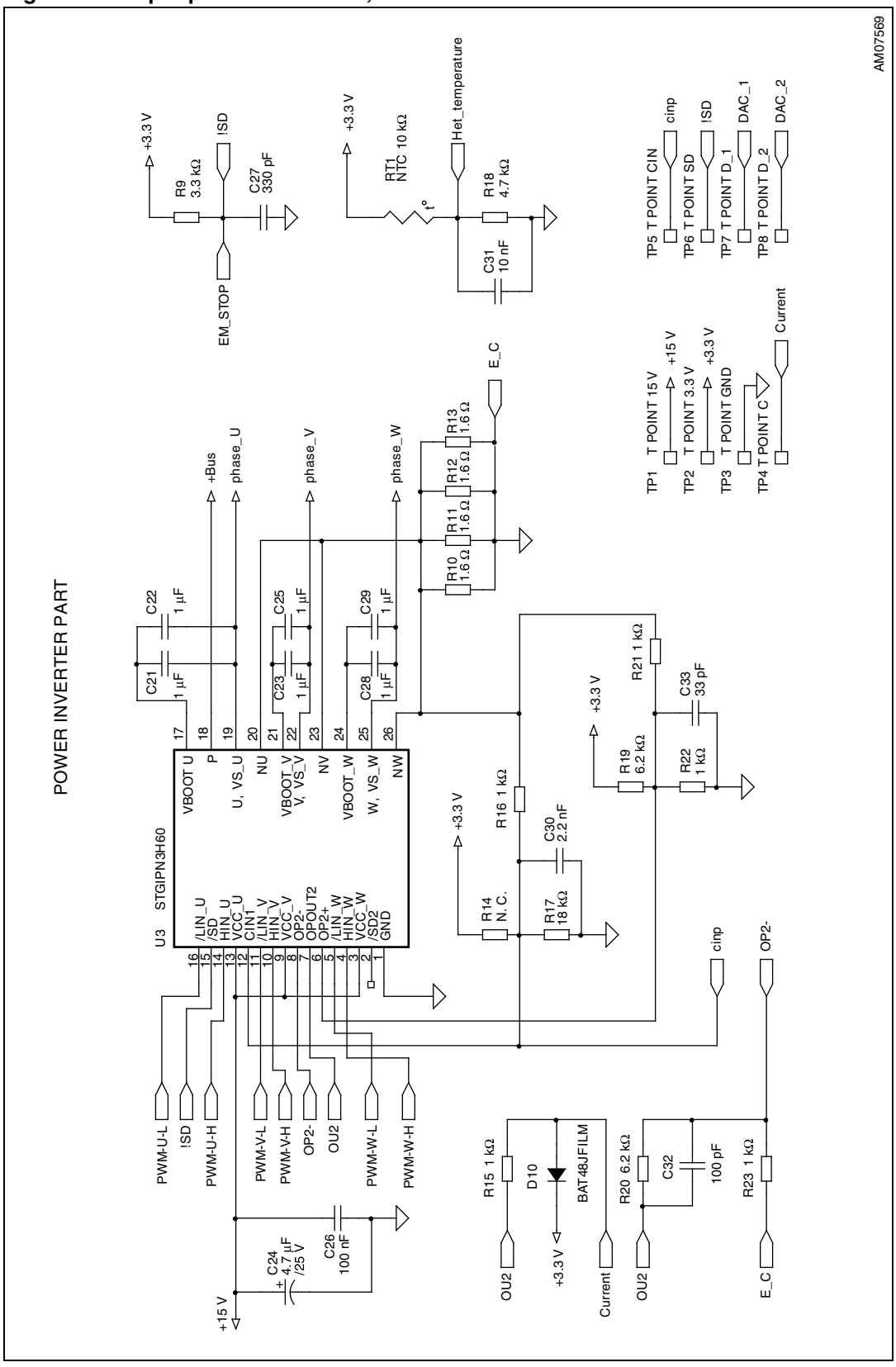
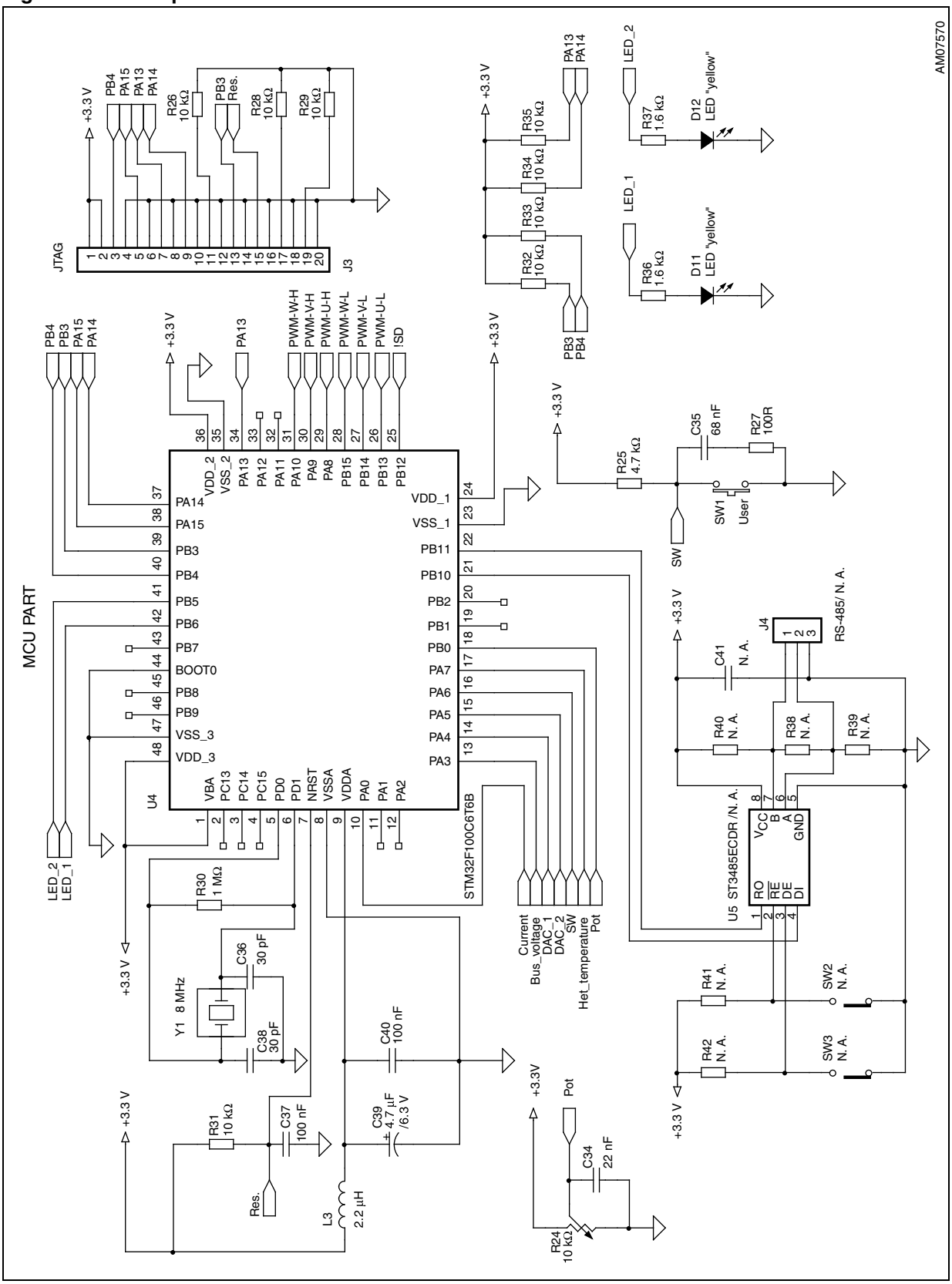


Figure 3. MCU part



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
30-Nov-2011	1	Initial release.
14-May-2012	2	Updated: photo in the cover page, *Figure 1*, *2* and *3*

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