



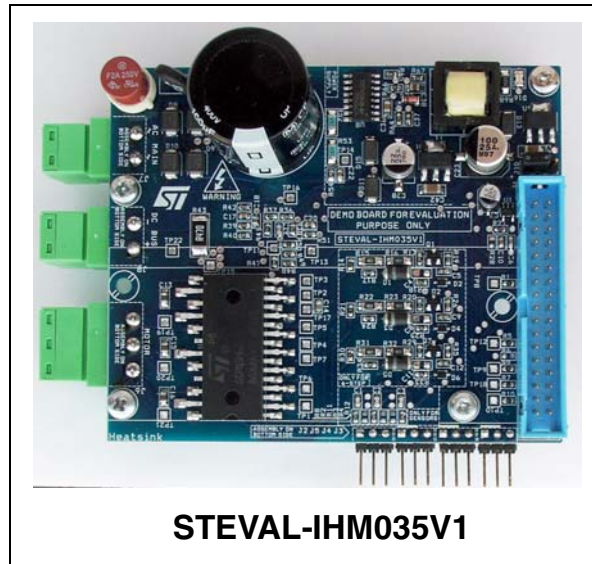
# STEVAL-IHM035V1

3-phase high voltage inverter power board for FOC and scalar motor control based on the STGIPN3H60 (SLLIMM™-nano)

Data brief

## Features

- Nominal power: up to 100 W
- Compatible with 3.3 V and 5 V control board
- Single shunt resistor for current reading
- On-board temperature sensor
- Overcurrent protection with boost/disabling capability
- For six-step drives:
  - Current limitation/regulation network
  - BEMF detection network
- MC connector
- Compatible with sinusoidal and trapezoidal control
- RoHS compliant



## Description

The STEVAL-IHM035V1 is designed to drive a high voltage/low power 3-phase brushless motor, either synchronous or asynchronous (PMSM and ACIM). It provides a compact solution in terms of size and efficient power dissipation thanks to the ST IPM STGIPN3H60 (SLLIMM™-nano). With the on-board MC-connector, the demonstration board can be also interfaced with any ST MCU control board in order to implement a complete motor drive.

# 1 Circuit schematic

Figure 1. Circuit schematic

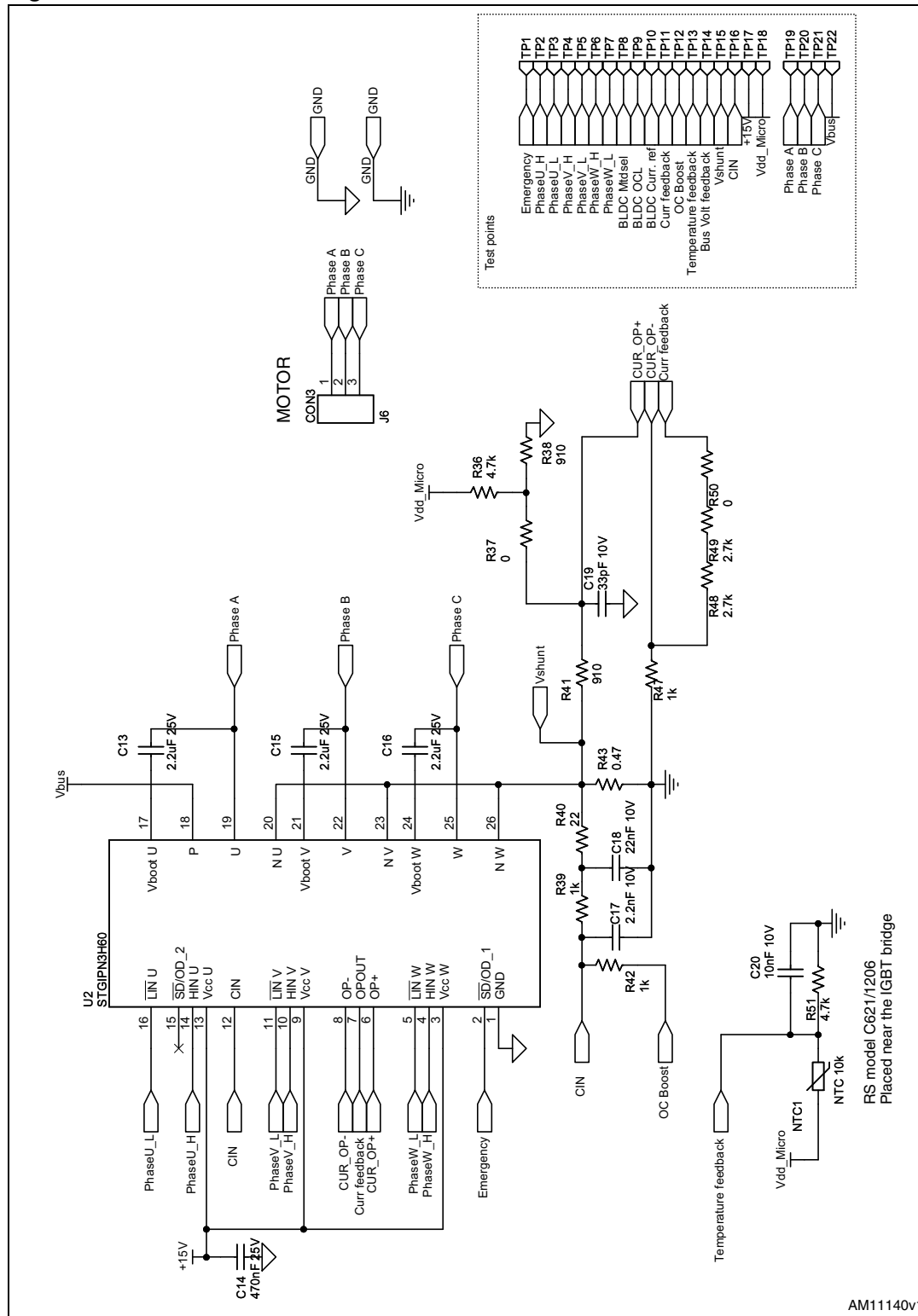


Figure 2. Sensor inputs, BEMF detecting network, motor control connector

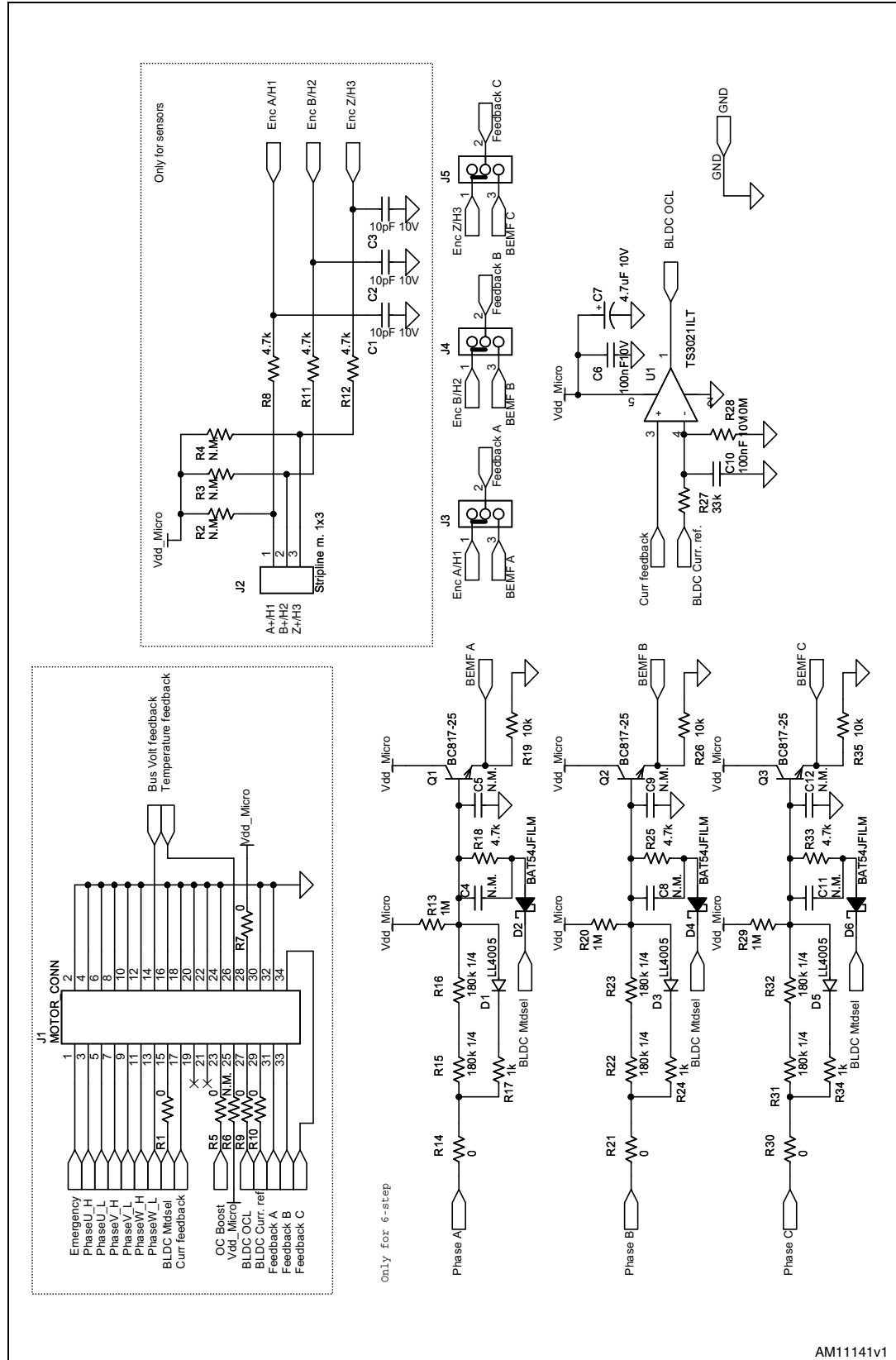
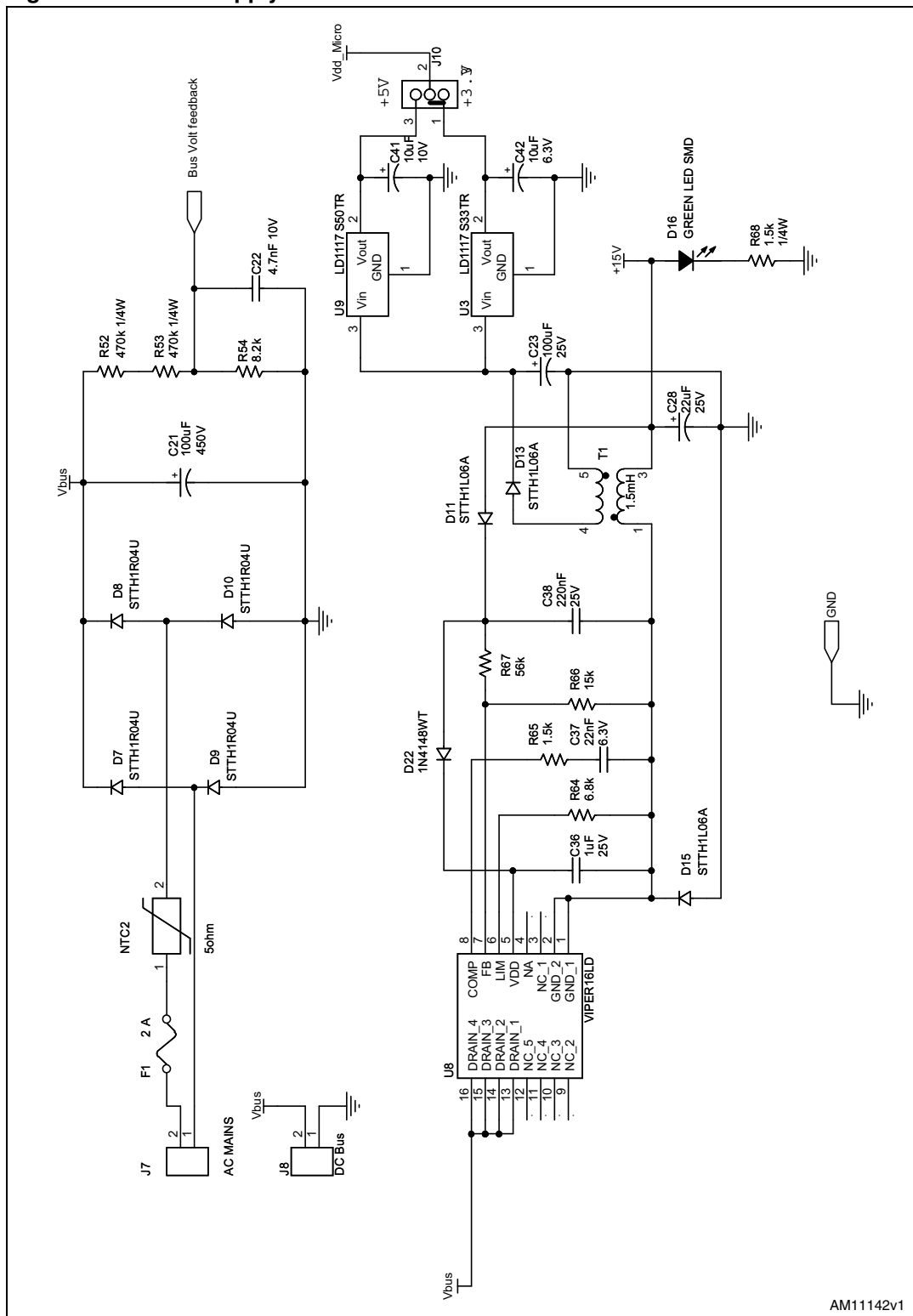


Figure 3. Power supply schematic



## 2 Revision history

Table 1. Document revision history

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

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