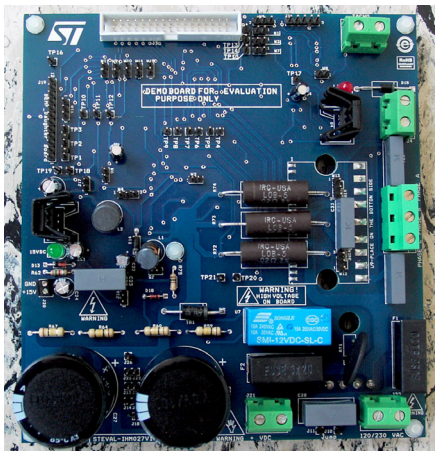
STEVAL-IHM027V1

Power board with MC connector based on the STGIPS10K60A 10 A, 600 V intelligent power module

Data brief

Features

- Minimum input voltage: 125 VDC or 90 VAC
- Maximum input voltage: 350 VDC or 220 VAC
- Capable of using external +15 V supply voltage
- Maximum output power for motor: 1000 W
- Regenerative brake control feature
- Input inrush limitation with bypassing relay
- +15 V auxiliary power supply based on buck converter with VIPer16
- Fully-populated board with test points
- Motor control connector for interfacing with STM3210B-EVAL board and other ST motor control-dedicated kits
- Tachometer and Hall/encoder inputs
- Compatible with BEMF daughterboard for sensor-less six-step control of BLDC motors
- RoHS compliant



STEVAL-IHM027V1

Description

The STEVAL-IHM027V1 is a 1 kW, 3-phase motor control demonstration board featuring the STGIPS10K60A 600 V, 10 A IGBT intelligent power module (IPM) from STMicroelectronics.

The system is an AC/DC 3-phase inverter for driving an induction motor or PMSM motors up to 1000 W. The purpose of the application is to demonstrate the performance of the STGIPS10K60A IPM, housed in a 25-lead, small dual inline package.

The STEVAL-IHM027V1 demonstration board is designed to be compatible with single-phase AC supply from 90 to 220 V, or DC supply from 125 to 350 V.

1 Schematic diagrams

Figure 1. STEVAL-IHM027V1 circuit schematics (1 of 1)

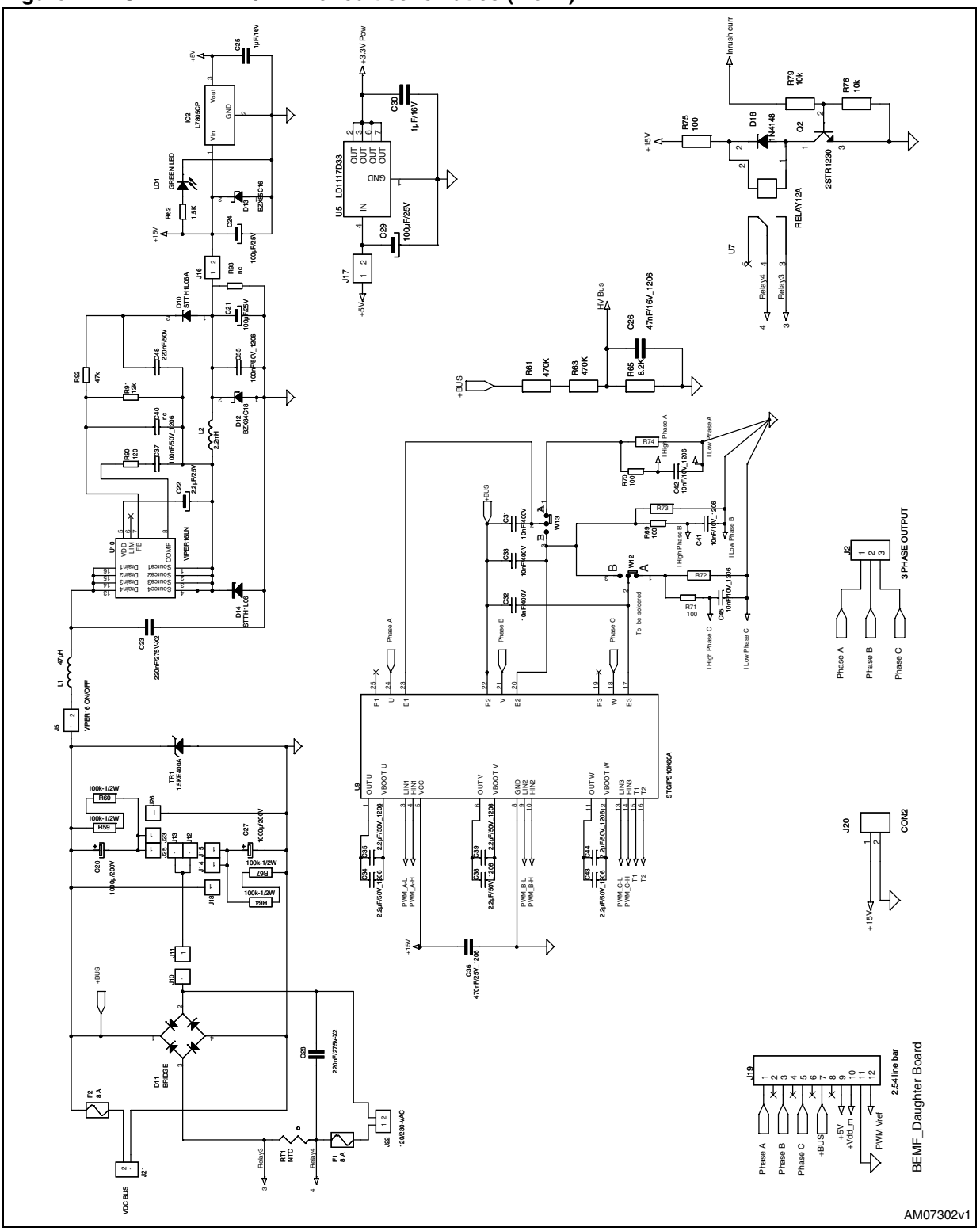
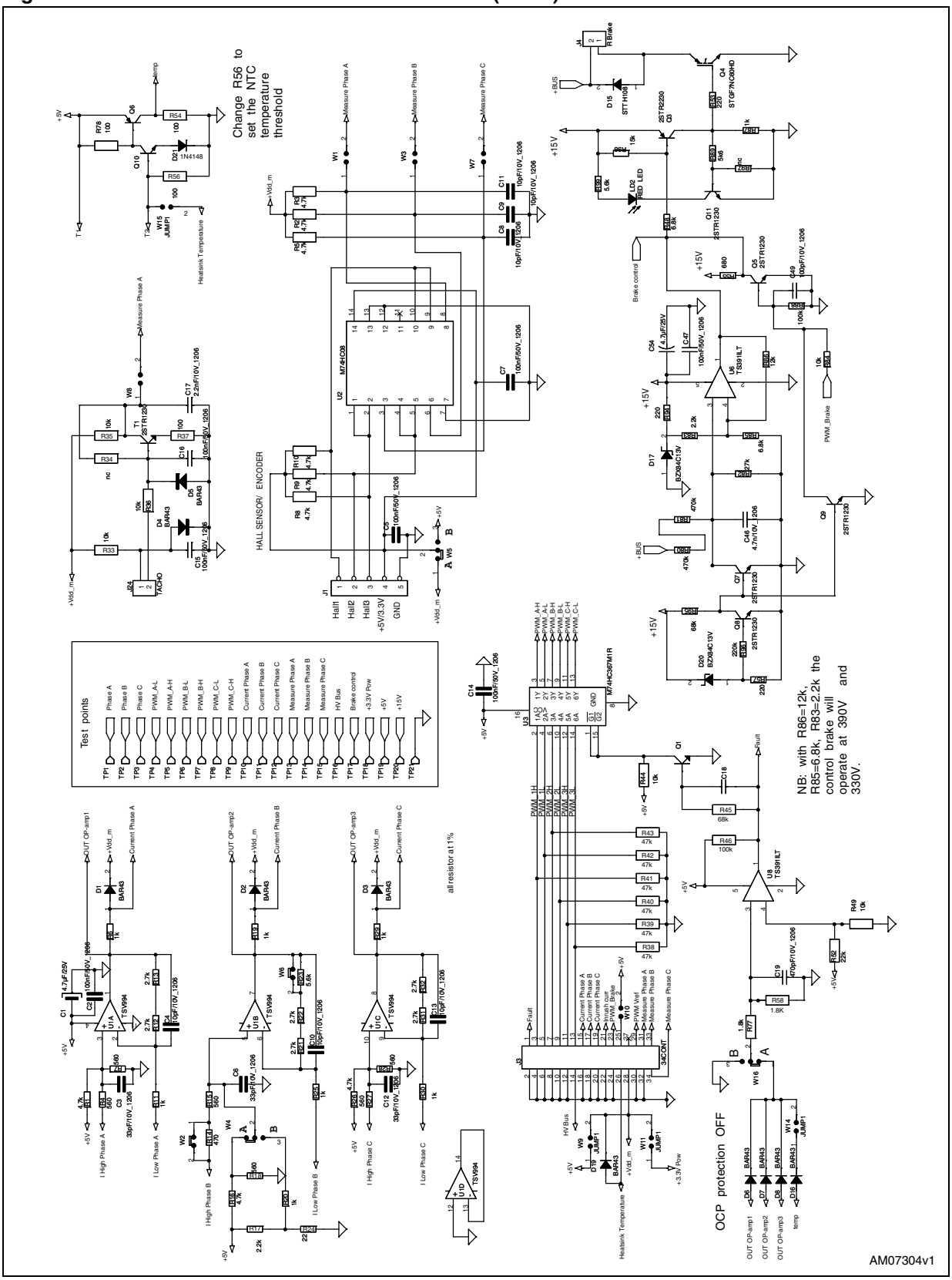


Figure 2. STEVAL-IHM027V1 circuit schematics (2 of 2)



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
13-Aug-2010	1	Initial release.
21-Feb-2012	2	Modified: schematics

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