



STEVAL-IHM030V1

24 V brushed DC motor up to 2 kW
based on the STM8S208MB

Data brief

Features

- Bidirectional drive for a 24 V brushed DC motor up to 2 kW
- Configurable PI closed speed loop
- Motor commands and PI parameter messages via CAN bus
- H-bridge topology
- Efficient power dissipation with power MOSFETs mounted on a dedicated IMS layer
- Programming and debug capability
- Security functions: current and voltage bus monitoring
- RoHS compliant



Description

The STEVAL-IHM030V1 is a brushed DC motor (BDC) demonstration kit which presents a 24 V, up to 2 kW brushed DC motor drive solution.

A typical application for this solution is in traction systems.

The kit contains two stacked modular boards: a power stage board and a control board. It is a compact solution and provides efficient power dissipation due to the mounting of the power MOSFET on a dedicated IMS layer.

The brain of the system is the STM8S208MB 8-bit microcontroller, which drives the full H-bridge topology, implements the PI closed loop control speed, manages the encoder signal feedback using the dedicated timer peripheral, and manages the motor commands and PI configuration messages through the CAN bus.

Figure 1. Power supply section

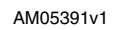


Figure 2. Control board

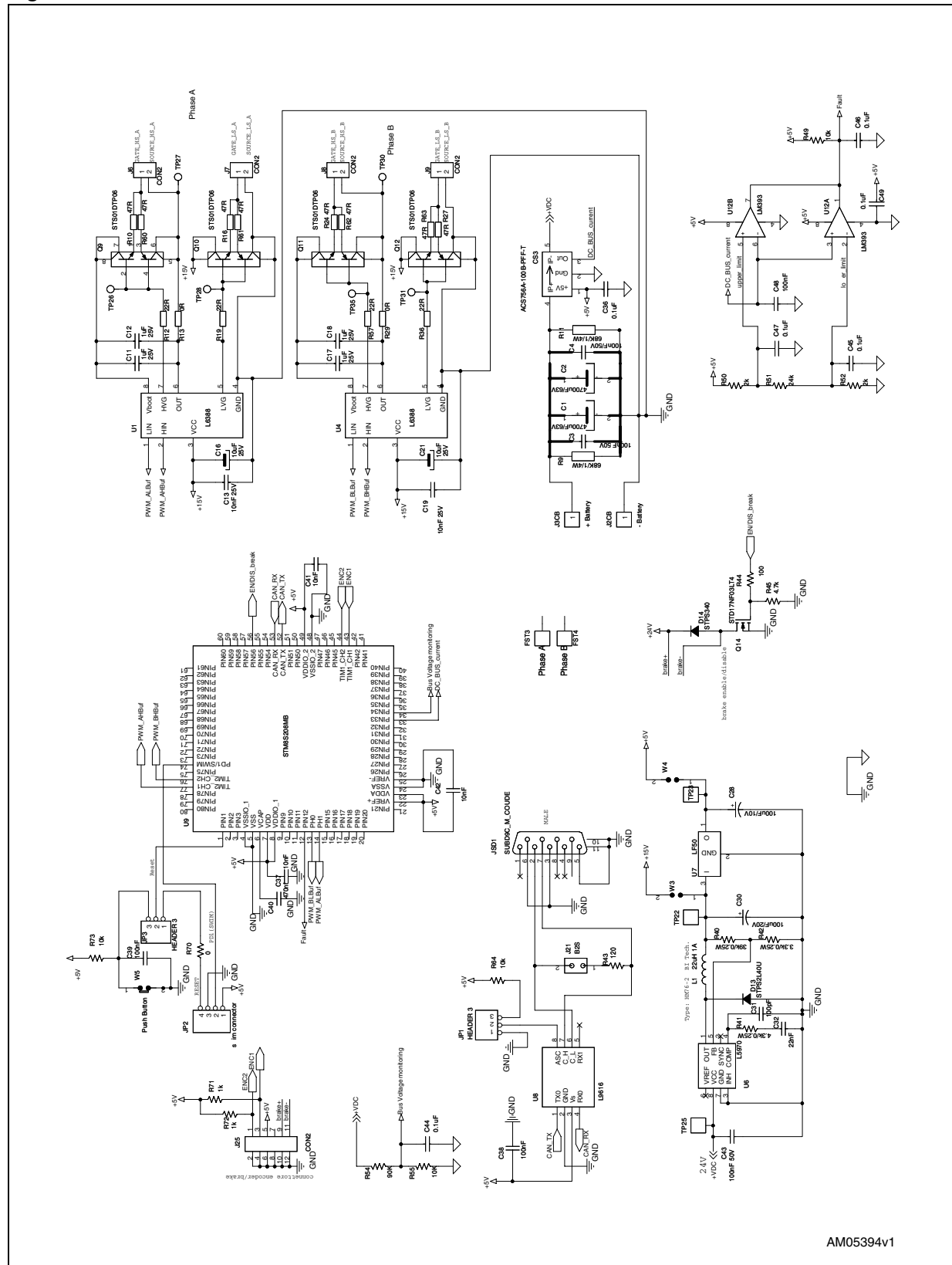
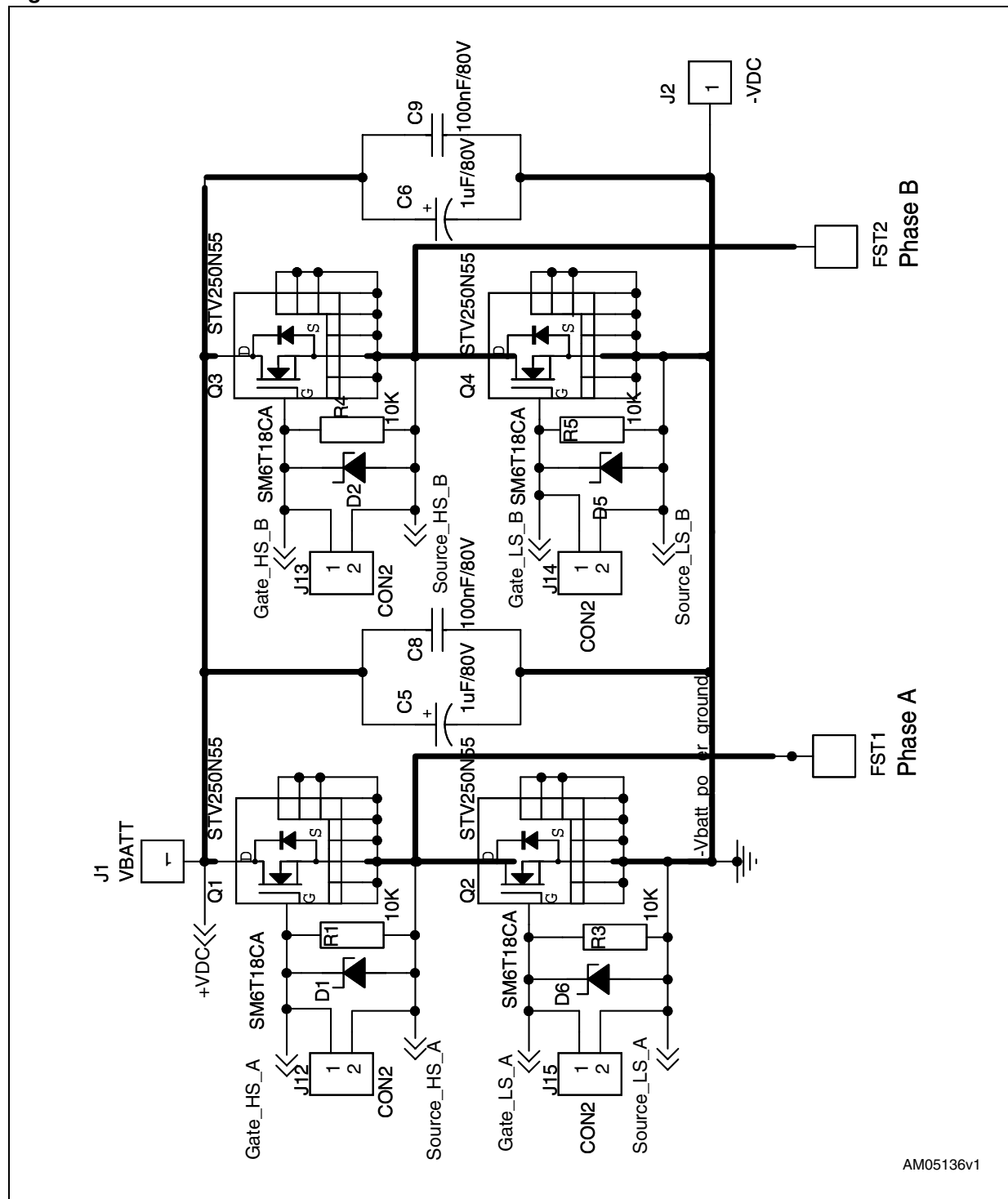


Figure 3. Power board



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
27-Apr-2010	1	Initial release.

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