Features

- Input voltage 120 V/60 Hz
- Motor current: 7 A RMS
- Phase control for universal motor drive
- Open loop or closed loop speed regulation
- Voltage and current sensing, for sensorless operation (optional)
- Debug outputs
- AC tach, Hall sensor or opto-sensor for speed feedback
- RoHS compliant

Description

The STEVAL-IHM041V1 demonstration board is a Triac-based phase angle control for universal motor speed control using an STM8S103F3P6, 8-bit microcontroller, to set the conduction angle of the Triac.

The STEVAL-IHM041V1 demonstration board may be operated in either open loop mode or in closed loop speed control mode, with an AC tach, Hall sensor or opto-sensor feedback.

The open loop mode may also be used as a lamp dimmer.

The STEVAL-IHM041V1 demonstration board is designed to operate from a 120 V/60 Hz mains, but may be easily modified to operate on other mains voltages by changing components in the power supply and motor voltage sensing circuits. Suggested component values for 230 V/50 Hz mains voltages are shown in the relevant bill of materials.
1 Schematic diagram

Figure 1. Schematic diagram
2 Revision history

Table 1. Document revision history

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Changes</th>
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<tbody>
<tr>
<td>06-Jul-2012</td>
<td>1</td>
<td>Initial release.</td>
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