Features

- Input voltage from 7 V to 45 V
- Output current up to 15 A<sub>rms</sub>
- Power stage based on STD140N6F7 MOSFETs
- Embedded 3.3 V buck regulator
- Embedded 12 V LDO regulator
- Single shunt current sensing
- Digital Hall sensors and encoder input
- Overcurrent comparator
- Bus voltage sensing
- Fully compatible with STM32 PMSM FOC software development kit
- 6-step sensorless and sensored firmware supported
- Embedded ST-LINK/V2-1
- Easy user interface with buttons and trimmer
- STM32 FW boot loader supported
- RoHS compliant

Applications

- Smart manufacturing equipment
- Battery powered home appliances and pumps
- Fans
- Drones
- Power tools

Description

The STEVAL-SPIN3202 three-phase brushless DC motor driver board is an evaluation board based on the STSPIN32F0A and STD140N6F7 MOSFETs. It provides an affordable and easy-to-use solution for the implementation of low voltage motor driving applications.

The board is designed for sensored or sensorless vector control - FOC and six-step algorithms with single shunt sensing.
1 Schematic diagrams

Figure 1: STEVAL-SPIN3202 schematic (1 of 4)
Figure 2: STEVAL-SPIN3202 schematic (2 of 4)
Figure 3: STEVAL-SPIN3202 schematic (3 of 4)

<table>
<thead>
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<th>Jumper</th>
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<tr>
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<td>1-2</td>
<td>2-3</td>
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<td>Jumper 4</td>
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<tr>
<td>Jumper 5</td>
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Figure 4: STEVAL-SPIN3202 schematic (4 of 4)
## Revision history

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<td>02-Nov-2017</td>
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