

## Product Overview

### STK5Q4U362J-E: Intelligent Power Module (IPM), 600 V, 10 A

For complete documentation, see the data sheet.



The STK5Q4U362J-E is a fully-integrated inverter power stage consisting of a high-voltage driver, six IGBT's and a thermistor, suitable for driving permanent magnet synchronous (PMSM) motors, brushless-DC (BLDC) motors and AC asynchronous motors. The IGBT's are configured in a 3-phase bridge with separate emitter connections for the lower legs for maximum flexibility in the choice of control algorithm.

The power stage has a full range of protection functions including cross-conduction protection, external shutdown and under-voltage lockout functions. An internal comparator and reference connected to the over-current protection circuit allows the designer to set the over-current protection level.

#### Features

- Three-phase 10 A / 600 V IGBT module with integrated drivers using DBC substrate for lower thermal resistance
- Typical values:  $V_{CE(sat)} = 1.8\text{ V}$ ,  $V_F = 1.5\text{ V}$ ,  $ESW = 390\text{ }\mu\text{J}$  at 10 A
- Compact 29.6 mm x 18.2 mm dual in-line package
- Cross-conduction protection
- Adjustable over-current protection level
- Integrated bootstrap diodes and resistors
- Enable pin
- Thermistor

#### Applications

- Industrial HVAC
- Industrial Automation
- Major Home Appliances

#### Benefits

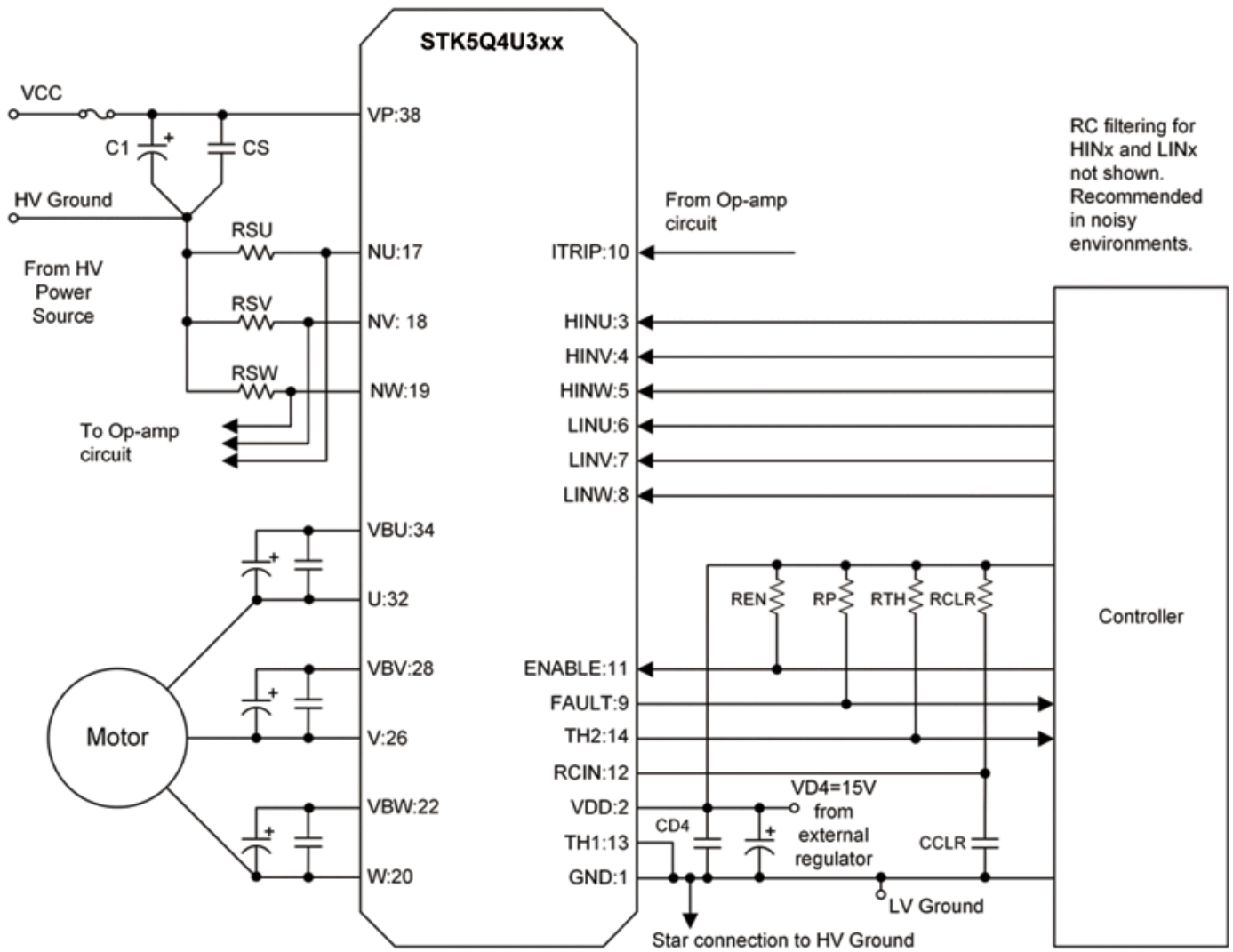
- Compact motion control system with low EMI, low losses and simple cooling
- Optimized for 10 A / 15 kHz applications
- Compact package with easy cooling
- Robust operation under fault conditions
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- Reduced external component count and layout size
- Robust operation under fault conditions
- Module temperature measurement required in most industrial applications

#### End Products

- Industrial Fans
- Industrial Pumps
- Compressors
- Clothes Washers
- Refrigerators

# Application Diagram

## Application Schematic



For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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