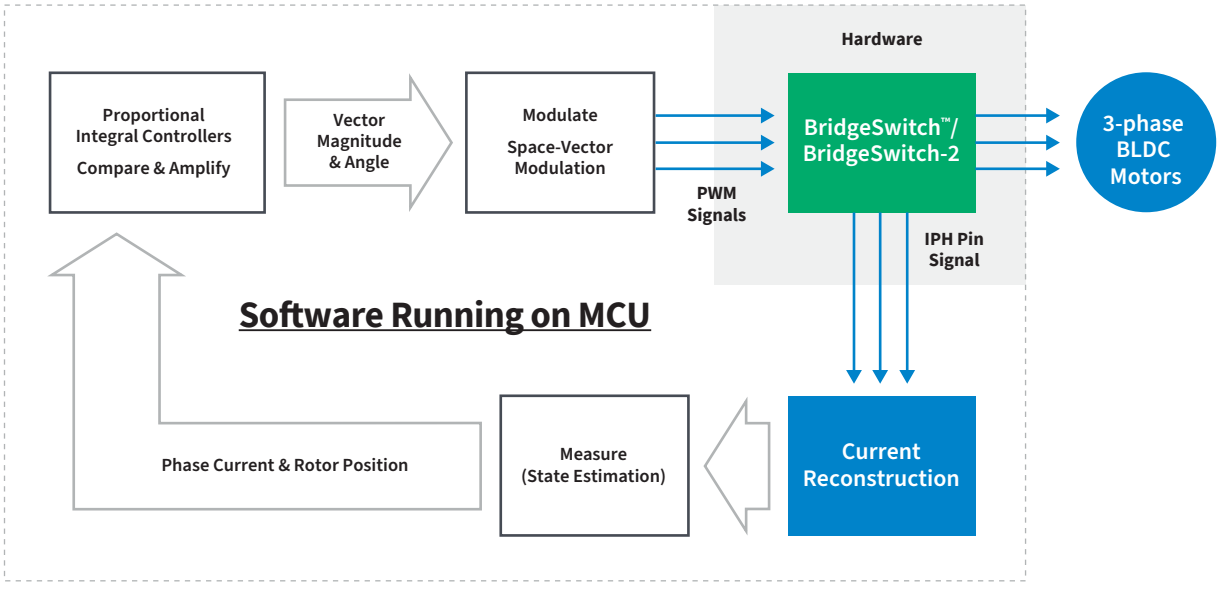
power integrations

MotorXpert™ Suite

- Modular software for motor tuning, quick start and performance optimization
- Supports three-phase and single-phase BLDC motor designs
- Runs on entry-level Arm Cortex-M0 and equivalent Arm Cortex microcontrollers
  - Can be ported to any other popular motor control MCU
- Highly configurable, even at run-time
- Reduces development time
- Fully compatible with BridgeSwitch™ and BridgeSwitch-2 product families

Three-Phase Sensorless Field-Oriented Control Software Architecture



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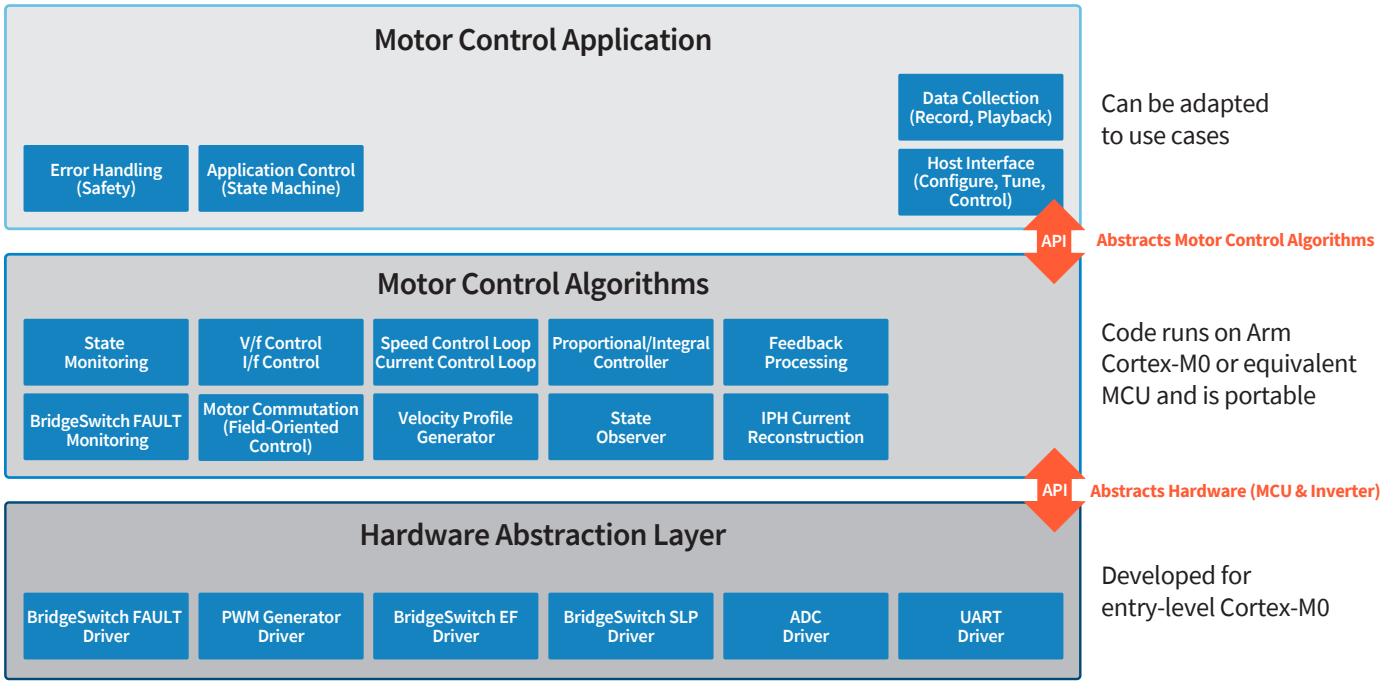
Applications

- Single- or multi-phase high-voltage PM and BLDC motor drives in:
  - HVAC fans
  - Refrigerators compressor
  - Fluid pumps
  - Gas boiler combustion fans
  - Washing machine drums
  - Ceiling fans
  - Industrial pumps and motors

Modular Software with Examples to Match Use Cases



Design Support

Design Tool	MotorXpert Suite software (www.power.com/motorxpert-suite)
Design Example	750 W Three-Phase Brushless DC Motor Driver without Heatsink (www.power.com/rdk-975)
Design Example	250 W, three-phase, shuntless FOC design (RDR-964) (www.power.com/rdr-964)
Design Example	150 W three-phase, shuntless FOC design with Integrated Phase Current (IPH) (RDR-974) (www.power.com/rdr-974)
Design Example	30 W single-phase inverter design (RDR-873) (www.power.com/rdr-873)
Design Example	70 W Single-Phase Inverter Using BridgeSwitch for Fan Application Using BridgeSwitch (RDK-872) (www.power.com/rdk-872)
Video	MotorXpert software streamlines motor drive designs (www.power.com/motorxpert-video)

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