

## Product Overview

### FNA21012A: Intelligent Power Module, 1200 V, 10A

For complete documentation, see the data sheet.

The FNA21012A is a Motion SPM® 2 module providing a fully-featured, high-performance inverter output stage for AC induction, BLDC, and PMSM motors. These modules integrate optimized gate drive of the built-in IGBTs to minimize EMI and losses, while also providing multiple on-module protection features: under-voltage lockouts, over-current shutdown, temperature sensing, and fault reporting. The built-in, high-speed HVIC requires only a single supply voltage and translates the incoming logic-level gate inputs to high-voltage, high-current drive signals to properly drive the module's internal IGBTs. Separate negative IGBT terminals are available for each phase to support the widest variety of control algorithms.

### Features

- UL Certified No. E209204 (UL1557)
- 1200 V - 10 A 3-Phase IGBT Inverter, Including Control ICs for Gate Drive and Protections
- Low-Loss, Short-Circuit-Rated IGBTs
- Very Low Thermal Resistance Using Al<sub>2</sub>O<sub>3</sub> DBC Substrate
- Built-In Bootstrap Diodes and Dedicated Vs Pins Simplify PCB Layout
- Separate Open-Emitter Pins from Low-Side IGBTs for Three-Phase Current Sensing
- Single-Grounded Power Supply Supported
- Built-In NTC Thermistor for Temperature Monitoring and Management
- Adjustable Over-Current Protection via Integrated Sense-IGBTs
- Isolation Rating of 2500 Vrms / 1 min.

For more features, see the data sheet

### Applications

- Motion Control - Home Appliance/Industrial Motor

Part Electrical Specifications											
Product	Pricing (\$/Unit)	Compliance	Status	Family	Rated Voltage Min (V)	I <sub>o</sub> @ 25 °C Min (A)	V <sub>CE(sat)</sub> @ 25 °C Typ (V)	R <sub>DS(on)</sub> (Ω)	Emitter Configuration	Shutdown Pin	Package Type
FNA21012A	39.999	Pb-free Halide free	Active	SPM® 2 Series	1200	10	2.2		3 emitter pins	No	DIP-034

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

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