

Product Overview

NFAM3065L4BT: Intelligent Power Module, SPM31, 650 V, 30A (NTC option)

For complete documentation, see the data sheet.

NFAM3065L4BT is an advanced Motion SPM 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 including under-voltage lockouts, over-current shutdown, thermal monitoring of drive IC, and fault reporting. The built-in, high-speed HVIC requires only a single supply voltage and translates the incoming logic-level gate inputs to the high-voltage, high-current drive signals required 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

- 650 V - 30 A 3-Phase IGBT Inverter with Integral Gate Drivers and Protection
- Low-Loss, Short-Circuit Rated IGBTs (FS4)
- Very Low Thermal Resistance Using
- Built-In Bootstrap Diodes and Dedicated Vs Pins Simplify PCB Layout
- Single-Grounded Power Supply
- Thermister Built-In
- Isolation Rating: 2500 Vrms / 1 min.

Applications

- Inverter for AC Induction, BLDC, and PMSM motors.

Benefits

- Highly integrated module with optimized components
- High efficient and high robust product
- High reliability, minimize system size
- Easy peripheral layout & stable operation
- Simplify peripheral PCB layout
- Accurate temperature sensing
- UL1557 certification

End Products

- HVAC
- Commercial Air conditioner
- Factory automation
- Robotics

Part Electrical Specifications

| Product | Pricing (\$/Unit) | Compliance | Status | Family | Type | Substrate | Input Logic | Rated Voltage Min (V) | I_o @ 25 °C Min (A) | $V_{CE(sat)}$ @ 25 °C Typ (V) | $R_{DS(on)}$ (Ω) | Emitter Configuration | Shutdown Pin | Mounting Type | Package Type |
|--------------|-------------------|-------------------------------|--------|--------|-----------------------|-----------|-------------|-----------------------|-----------------------|-------------------------------|------------------|-----------------------|--------------|---------------|------------------------|
| NFAM3065L4BT | 19.9995 | Pb-free non AEC-Q and PPAP | Active | SPM31 | 3-Phase Inverter IGBT | DBC | Active High | 650 | 30 | 1.6 | | 3 Emitter Pins | Yes | DIP | MINI DIP39, 31.0x5.4.5 |

For more information please contact your local sales support at www.onsemi.com.

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