



Applications

- 3-phase inverter
- Converter
- Chopper
- Half or full bridge
- Power supply

Powerex Integrated Power Module

Overview

The Powerex Integrated Power Module (PIPM) is a configurable IGBT based power platform. The PIPM is compatible with the NX-Series of Mitsubishi IGBT devices and is ideally suited for energy storage, uninterruptable power supplies (UPS), motor drives, solar, wind, photovoltaics, EV and hybrid electric vehicle applications.

The power module can be mounted on various heatsinks, including both forced air and liquid cooled options dependent upon application requirements. The PIPM includes device mounted, optically isolated gate drives and isolated gate drive power supplies as well as an interface board that supports various control connection schemes/protocols and offers built-in protection features including overvoltage, under-voltage lockout, overcurrent, short circuit detection and temperature monitoring.

The PIPM is available for operation with DC bus voltages of 400 to 800VDC and switching frequencies up to 20kHz.

Product Advantages

- Flexible customer control system interface
- High performance IGBT's
- Integrated gate drive with fault monitoring and protection
- System status LEDs for visual system feedback
- Isolated gate drive power supplies
- Output current measurement and feedback
- Output voltage measurement and feedback
- Scalable temperature feedback from within the IGBT module
- Superior short circuit detection and shoot through prevention





Powerex Integrated Power Module Line-up Table

Part Number	Mitsubishi IGBT	kW Rating
PIPM 225-XXX PIPM 300-XXX PIPM 450-XXX PIPM 600-XXX PIPM 150HV-XXX PIPM 200HV-XXX	CM225DX-24SI CM300DX-24SI CM450DX-24SI CM600DX-24SI CM150DX-34SA CM200DX-34SA	104KW 137KW 208KW 229KW 75KW 100KW
PIPM 300HV-XXX PIPM 450HV-XXX	CM300DX-34SA CM450DX-34SA	147KW 220KW

NOTE: -XXX in part number is reserved for customer specific heatsink and interface connection options. For specific part number assignment please call 724-925-7272 Option 2 (Product Technical Assistance).

Simplified Block Diagram







