Intelligent Power Modules for Small Motor Drives

Simple □ Compact □ Fully Integrated
Powerex is the sales and support arm in the Americas for the global leader in DIPIPM Solutions, Mitsubishi Electric Corp.

- Mitsubishi Power Module Loss Simulator (MELCOSIM) software, available at www.pwrx.com, validates device selection based on your specific conditions
- Evaluation boards demonstrate compact design and recommended PCB layout

**EXPERTISE**

DIPIPM™

- Simple
- Compact
- Fully Integrated

First to introduce:
- DIPIPM concept
- 1200V DIPIPM
- 1200V DIPIPM package-compatible with 600V DIPIPM
- DIPIPM with integrated partial-switching PFC

Underside PCB mounting simplifies heatsinking to housing or chassis

One DIPIPM replaces this array of discrete devices

**Features:**

- 5th Generation Carrier Stored Trench Gate Bipolar Transistor (CSTBT™) chip technology for low losses
- New heat-dissipating insulation sheet for reduced thermal impedance
- Compact package design for improved PCB layout
- Integrated HVIC gate drive with under-voltage lockout and short circuit protection
- Temperature sensing and protection available (varies by model)

**DIIPSC**

27.0 X 52.5 mm
RELIABILITY

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INNOVATION

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Powerex turns ideas into cost-effective products and is a leading supplier of discrete, modular and integrated high power semiconductor solutions, supporting many markets, including:

- AC, DC and Servo Drives (Low and Medium Voltage)
- Aircraft (Electro-Hydrostatic Actuators, Power Generators)
- Alternative Energy (Wind, Photovoltaic) and Distributed Power (Flywheel, Fuel Cell, Microturbine)
- Electric Vehicles
- Induction Heating
- Industrial Pump Controls
- Medical Power Supplies (CT, MRI, X-Ray)
- Transportation (Propulsion and Auxiliary Power for Rail, Shipboard)
- Uninterruptible Power Supplies (UPS)
- Welding
- White Goods and HVAC

Powerex and its strategic partners maintain a commitment to research and innovative product development to meet customer power semiconductor requirements, including:

- Decreased Component Size
- Reduced Costs
- Increased Energy Efficiency
- Switches that
  - Operate at Higher Frequencies
  - Are More Reliable
  - Offer Integrated Functions

This broad product line is enhanced by divisions devoted to the development of:

- Custom Modules
- Customer Specific Assemblies

Powerex standard and custom products are all supported by its world-class applications engineering staff.