

MODULES

Three-Phase Bridge Power Modules

Three-Phase Bridge Power Modules in MTC Package Increase Efficiency and Reliability



KEY BENEFITS

- High output current from 130 A to 300 A
- High blocking voltage to 1800 V
- High surge current to 2512 A
- Junction to case thermal resistance down to 0.23 °C/W
- 5-terminal MTC package

APPLICATIONS

• Three-phase rectification for industrial power supplies, high frequency welding, plasma cutting, and industrial battery chargers; input rectification for AC/DC motor controls

RESOURCES

- Datasheets:
 - please visit www.vishay.com/ppg?96989 (VS-131MT...C Series)
 - please visit <u>www.vishay.com/ppg?96990</u> (VS-161MT...C Series)
 - please visit <u>www.vishay.com/ppg?96991</u> (VS-301MT...C Series)
- For technical questions contact: <u>DiodesAmerica@vishay.com</u>, <u>DiodesAsia@vishay.com</u>, <u>DiodesEurope@vishay.com</u>
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>



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Three-Phase Bridge Power Modules

The DNA of tech."

Vishay's three-phase bridge modules are designed to increase efficiency and reliability for heavy duty industrial-level applications. The Vishay Semicondutors VS-131MT...C, VS-161MT...C, and VS-301MT...C series deliver higher current output, blocking voltage, and surge current than previous-generation solutions, while offering improved thermal resistance in the 5-terminal MTC package.

- Electrically insulated case for excellent junction to case thermal resistance down to 0.23 °C/W
- Robust MTC plastic package provides high reliability
- Screw terminals allow for compatibility with competing solutions

Part Number	Output Current	Reverse Voltage	Forward Voltage	Surge Current at 60 Hz	Thermal Resistance, Junction to Case
<u>VS-131MT160C,</u> <u>VS-131MT180C</u>	130 A at 120 °C		2.05 V at 300 A	1330 A	0.41 °C/W
<u>VS-161MT160C,</u> <u>VS-161MT180C</u>	160 A at 118 °C	1600 V to 1800 V	1.85 V at 300 A	1610 A	0.35 °C/W
<u>VS-301MT160C,</u> <u>VS-301MT180C</u>	300 A at 118 °C	1	1.70 V at 300 A	2512 A	0.23 °C/W