

MilCOTS™

Bus Converters



Rugged, High Efficiency Next Generation DC-DC Bus Converters

These military-grade bus converters are the next-generation, board-mountable, isolated, fixed switching frequency DC-DC converters that use synchronous rectification to achieve extremely high conversion efficiency. The power dissipated by the converter is so low that a heatsink is not required, which saves cost, weight, height, and application effort. MCOTS-Bus converters are ideal for creating the mid-bus voltage required to drive point-of-load (non-isolated) converters in IBA.

Operational Features

- ◆ High efficiency, up to 95% at full rated load current
- ◆ Delivers up to 65A @ full power with minimal derating
- ◆ Operating input voltage range: 230-400V, 440-700V, and 800-1000V
- ◆ Fixed frequency switching provides predictable EMI
- ◆ Industry standard half-brick pin-out configuration
- ◆ -55°C to +100°C Operating Temperature

Protection

- ◆ Input under-voltage and over voltage lockout protects against abnormal input voltages
- ◆ Output current limit and short circuit protection (auto recovery)
- ◆ Thermal shutdown
- ◆ On/Off control referenced to input side
- ◆ Inherent current share (by droop method) for high current and parallel applications
- ◆ Clock synchronization (primary reference)

Model Number	Package Size	Input Voltage	Input Transient	Output Voltage	Output Current	Max Output Power	Efficiency
MCOTS-B-270-31-HT	Half-Brick	230-400V	155-450V	29.7V	32.5A	1000W	95%
MCOTS-B-385-270-HT	Half-Brick	230-400V	155-450V	270V	3.7A	900W	95%
MCOTS-B-600-31-HT	Half-Brick	440-700V	400-750V	30.3V	32.5A	1000W	95%
MCOTS-B-270-31-FT	Full-Brick	230-400V	155-450V	31V	65A	2015W	97%
MCOTS-B-900-48-FT	Full-Brick	800-1000V	750-1050V	50V	60A	3000W	96%

Family	Product	Vin Range	Vout	Package Size	Thermal Design	Screening Level
MCOTS	B: Bus Converter	270: 230-400V 385: 230-400V 600: 440-700V 900: 800-1000V	31: 31V 48: 48V 270: 270V	HT: Half-brick Tera FT: Full-brick Tera	N: Encased, Threaded Baseplate D: Encased, Non-Threaded Baseplate F: Encased, Flanged Baseplate	S: S-Grade M: M-Grade

Part Numbering Example: MCOTS-B-600-31-HT-N-M For valid part numbers, contact us on the below emails for further assistance.