



### Military-Grade High Voltage, Non-Isolated DC-DC Converters

The high input voltage non-isolated DC-DC converters offer unique solutions for converting high-powered, variable voltages to a wide range of output voltages. The converter is a non-isolated buck-boost regulator, which employs synchronous rectification to achieve extremely high conversion efficiency. These products are suitable for use in IBA, or to provide a regulated output voltage from a variable voltage source such as a battery. They can be configured to ‘buck’ the input voltage down or ‘boost’ the input voltage up using a single external resistor.

#### Battery Charging Features

##### HIGH-VOLTAGE NON-ISOLATED (KEY FEATURE OF TRIMMABLE CURRENT LIMIT)

- ◆ Provides the power conversion platform for battery charging
- ◆ Output current limit is externally controlled for constant-current charging
- ◆ Current can be set with an external resistor or an active circuit
- ◆ Current analog signal provided for instrumentation and control functions
- ◆ Ideal diode output stage with zero back-drive currents prevents discharge of battery when not charging
- ◆ Output voltage set-point is independently controlled through trim pin
- ◆ Unit will smoothly transition between current and voltage modes as charging cycle needs change

Model Number	Brick Size	Input Voltage	Output Voltage	Current	Max Output Power	High Efficiency
MCOTS-N-28V-60-HG	Half-brick	9-60V	0-60V	40A	2000W	96% Efficiency
MCOTS-N-28V-60-QT	Quarter-brick	9-60V	0-60V	25A	1500W	96% Efficiency
MCOTS-N-28V-60-EP	Eighth-brick	9-60V	0-60V	15A	900W	95% Efficiency
MCOTS-N-28VE-90-HG	Half-brick	9-90V	0-90V	26A	2000W	96% Efficiency
MCOTS-N-28VE-90-QT	Quarter-brick	9-90V	0-90V	18A	1500W	97% Efficiency
MCOTS-N-28VE-90-EP	Eighth-brick	9-90V	0-90V	10A	900W	96% Efficiency

Family	Product	Vin Range	Vout	Package Size	Thermal Design	Screening Level
MCOTS	N: Non-isolated Converter	28V: 9-60V 28VE: 9-90V	60: 0-60V 90: 0-90V	EP: Eighth-brick Peta QT: Quarter-brick Tera HG: Half-brick Giga	N: Encased, Threaded Baseplate D: Encased, Non-threaded Baseplate F: Encased, Flanged Baseplate	S: S-Grade M: M-Grade

Part Numbering Example: MCOTS-N-28VE-90-HG-N-M For valid part numbers, contact us on the below emails.