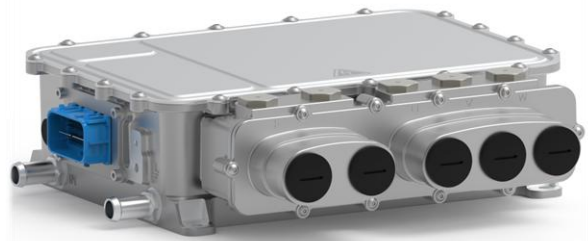


MCU-800 SiC INVERTER

PRODUCT DESCRIPTION

Motion Applied's MCU-800 inverter leverages over a decade of expertise in Silicon Carbide (SiC) technology.

Utilising next-generation SiC power module technology, MCU-800 can supply over 600kW¹ of peak power to applications across automotive, aerospace, marine and defence.



Performance	
Voltage	250 – 900 V
Peak current	800 Arms ¹
Continuous current	320 Arms ¹
Efficiency	Over 97% typical, 99% peak
Switching frequency	8 – 32 kHz continuously variable at 1kHz rate
Electrical frequency	Up to 2.5 kHz

Communication and Motor Feedback	
Operating system	AUTOSAR 4.3
Low voltage input	8 – 32 V nominal
Vehicle communication	3 CAN2.0 interfaces
Debugging	1 Ethernet interface
Motor temperature feedback	Supports PT100, PT1000, NTC10k, NTC100k and KTY
Motor position feedback	Supports resolvers and analogue SinCos encoders Support for sensorless control ²

Safety	
Functional safety	ISO26262 SEooC ASIL D capable
Safety features	Active Short Circuit

Mechanical	
Dry mass	6.4 kg
Volume	4.85L
Ingress protection	IP67 and IP6k9k

Environmental	
Coolant type	50/50 water/glycol ²
Coolant conditions	70°C, 10L/min ² . Max 2bar _{gauge}
Operating temperature	-40 °C to +105 °C

1. 750 V input voltage, 10 seconds duration, 8 kHz switching frequency, 70°C coolant, 10 L/min flowrate, 8 kHz Fsw
 2. To achieve rated specification