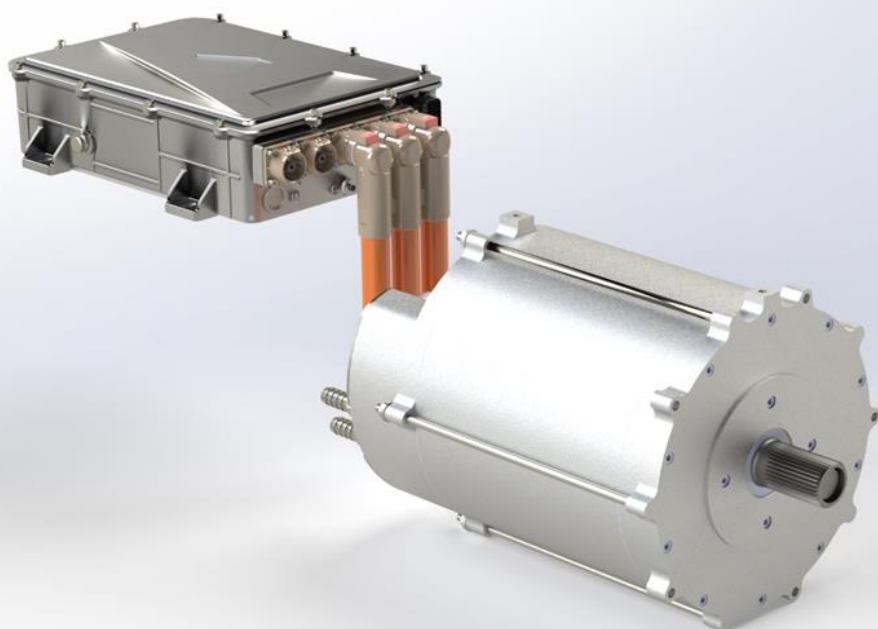


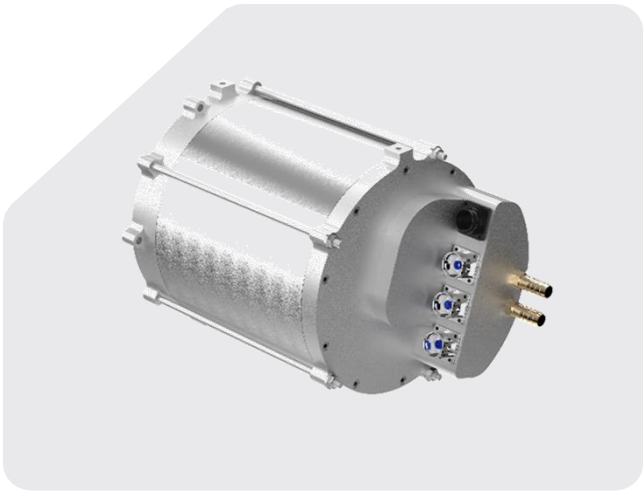
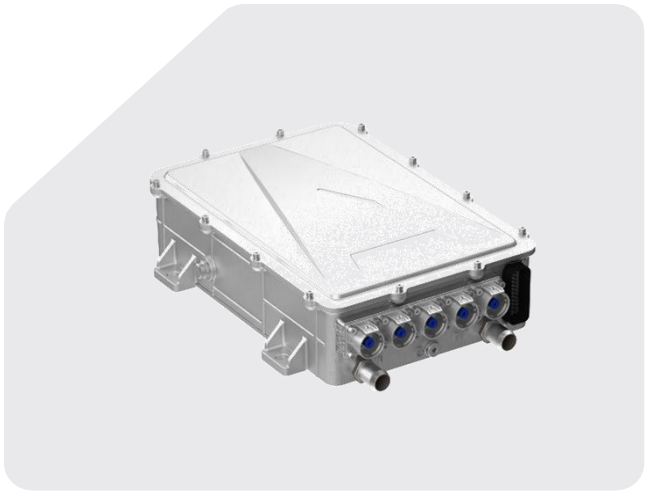
Powering Performance: Precision Motor and Inverter Pairing for Automotive Excellence

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rEV235-2U + A4003



Inverter Features

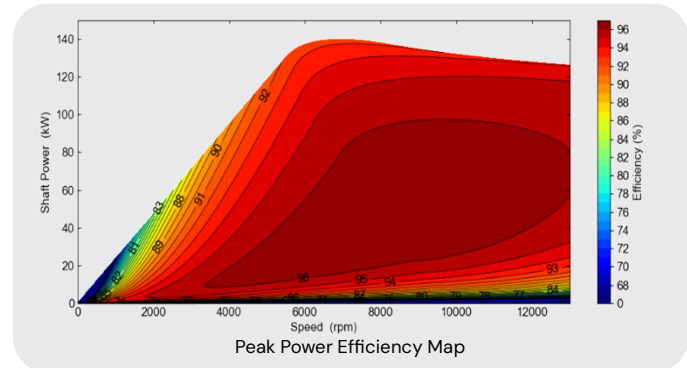
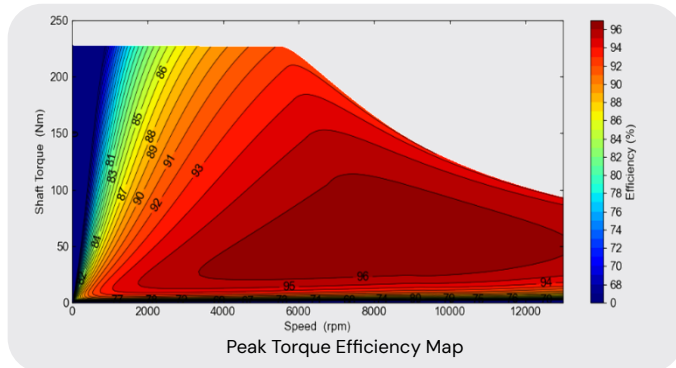
Code of Regulation and Standards	Name of Regulations and Standards
GB/T 18488.1-2015	Electric motors and controllers for electric vehicles Part 1: Technical requirements
GB/T 18488.2-2015	Electric motors and controllers for electric vehicles Part 2: Test methods
GB/T 2423.17-2008	Environmental testing of electrical and electronic products Part 2: Test methods: salt spray
GB/T 17619-1998	Limits and measurement methods of electromagnetic radiation immunity of motor vehicle electronic and electrical components
GB/T 26680-2011	Technical Specifications for Permanent Magnet Synchronous Generator Controller

Inverter Data

Electrical Specification	UNIT	
DC link voltage	VDC	250-420
Max Operational Voltage	VDC	420
Max Current	Arms	510
LV Supply	VDC	9-18
Switching Frequency	kHz	10

Performance Specification		
Working Temperature	°C	-40 to 85
Cooling		Water-Glycol 50:50
Mass	Kg	11.2
Flow Rate	l/m	12-16

Motor Data



Electrical Specification	UNIT	
Motor / Generator Type		3-Phase Radial Synchronous Flux Permanent Magnet Motor/Generator
Applications		Automotive Motorsport, Off-Highway, Motorcycle, Passenger Vehicle, Commercial Vehicle, Rail, Marine and Power Generation
DC Voltage (Motor)	VDC	250-400
Maximum Phase Current (Motor)	Arms	510
Rotor Position Sensor		Resolver

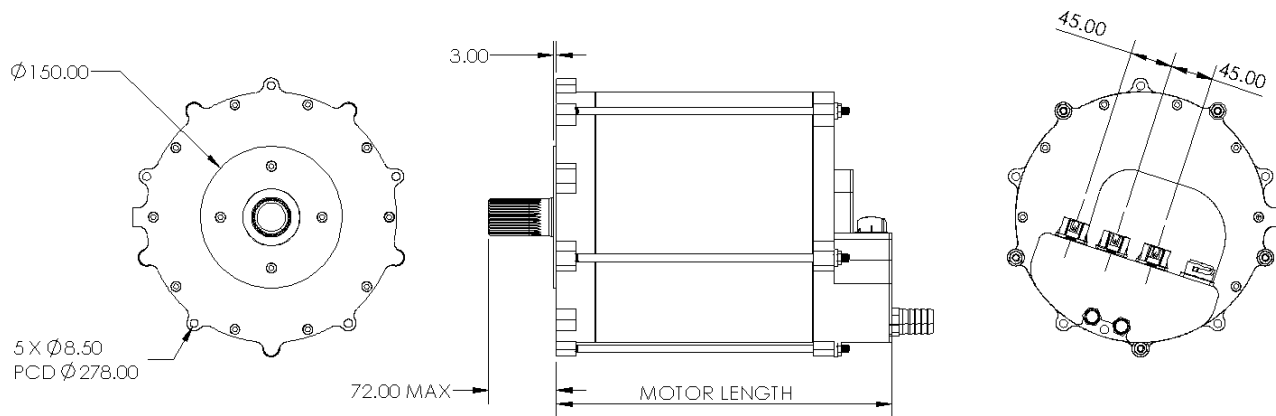
Performance Specification		
Peak Torque (For 10s)	Nm	228
Peak Power (For 10s)	kw	140
Continuous Torque	Nm	77
Continuous Power	kw	66
Torque Density Peak	Nm/l	80
Power Density Peak	kW/l	49

Mechanical Specification		
Cross Section Dimension	mm	265.6
Package Length (Excluding Shaft)	mm	194.5
Mass	kg	44
Maximum Speed	rpm	12,500
Axial/Radial Shaft Load	N	100N Axial, 200N Radial
Shaft Output		External Spline
Ingress Protection	IP	IP67
Motor Connection Type		PowerLok Connectors
Cogging Torque	Nm	<2.5%

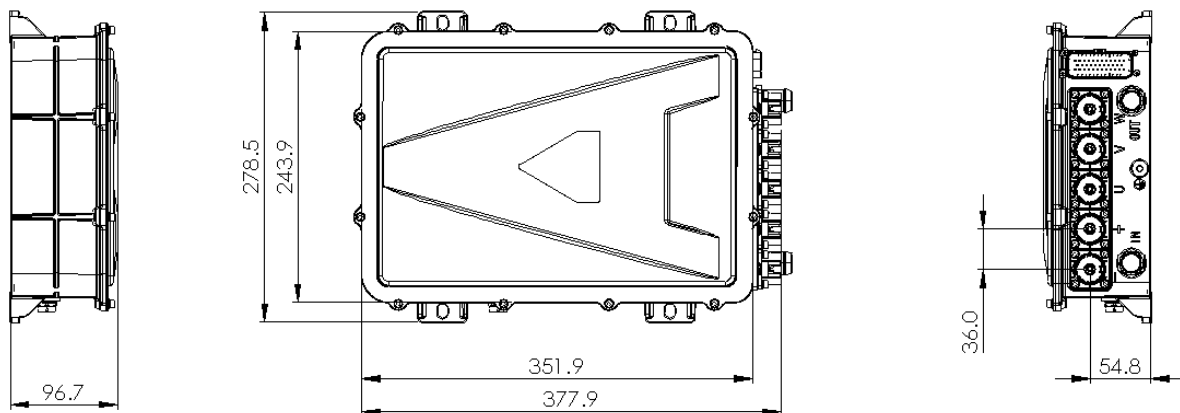
Thermal Specification		
Cooling Method		Water-Glycol 50:50
Coolant Inlet Temperature	°C	-10 to 85
Coolant Inlet Pressure	bar (gauge)	0.5-3.0
Maximum Stator Winding Temperature	°C	180
De-Rate Stator Winding Temperature	°C	165
Temperature Sensor	-	PT1000
Ambient Temperature	°C	-20 to 100

NOTE: 1) Mass: excludes cables and coolant tubes, 2) Peak Values are simulated using 333VDC and 510Arms, 3) Continuous Values are simulated using 333VDC, 70°C inlet temperature and 12 l/m flow rate, 4) The data provided in this datasheet is for guidance only and does not form part of any contract. 5) Motor, inverter, gearbox should undergo application testing to validate performance.

Motor Geometry



Inverter Geometry



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