

 **traction**[™]
rEV235 + A8003 Drive

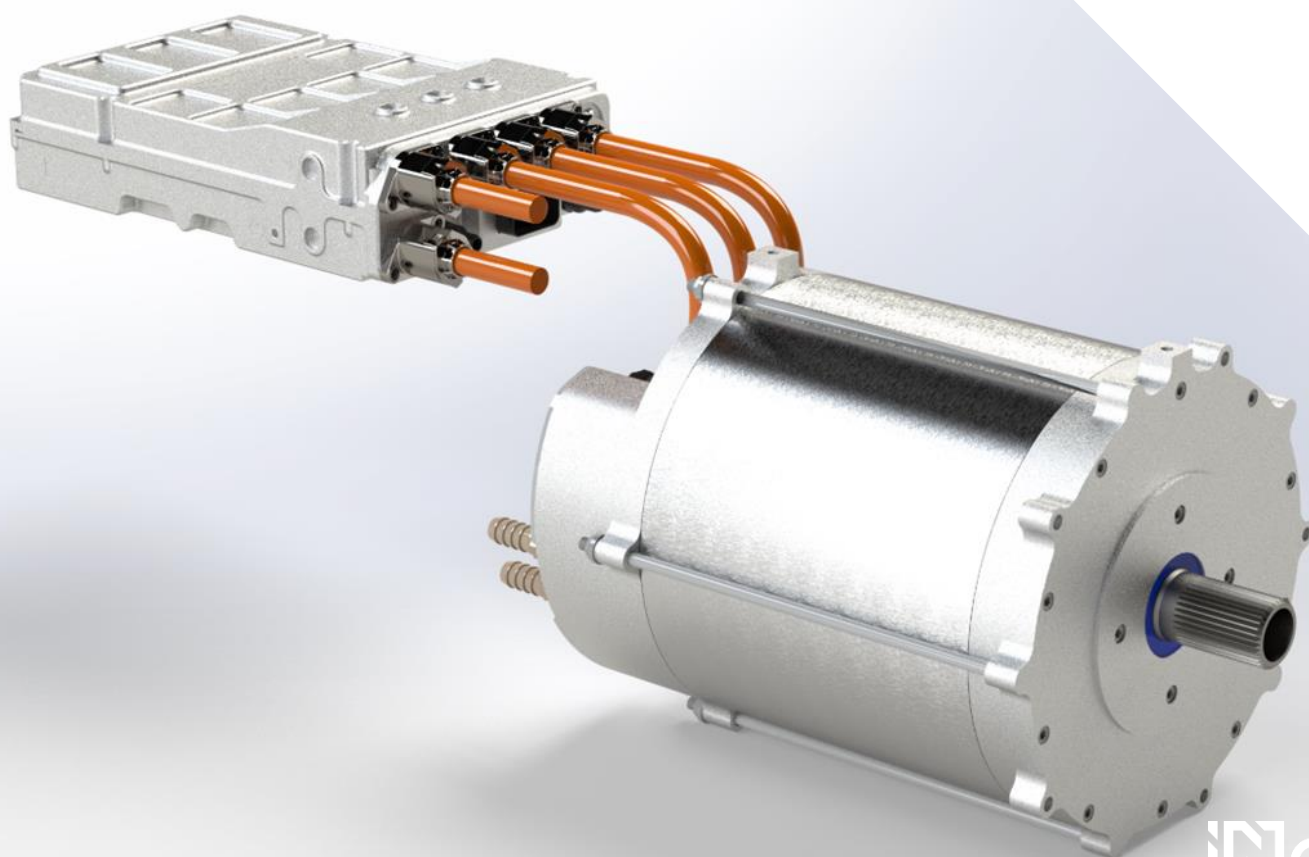


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Inverter Features

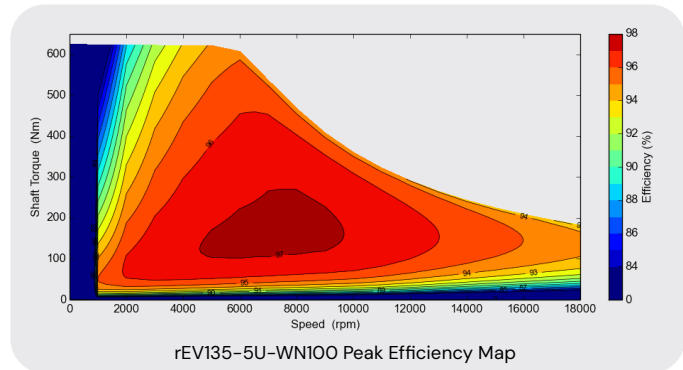
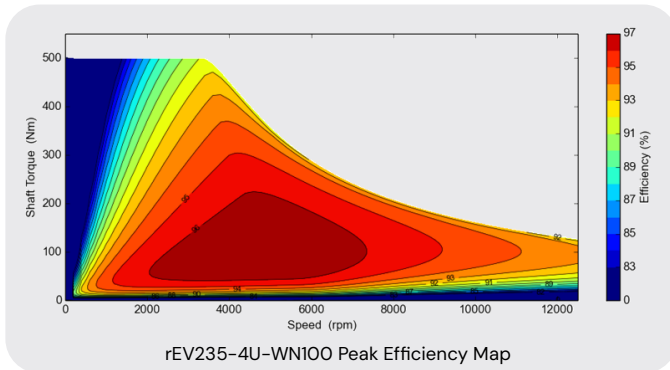
- ASIL D certified triple core microcontroller @300Mhz
- Redundancy functions through a CPLD device for safety-critical applications
- Over current, over voltage and over temperature self-protection features
- Application software enables sensors auto-calibration functions
- Customizable control algorithms for each application
- Torque, Speed and Id/Iq Control
- 2x CAN communication channels

Inverter Data

Electrical Specification	UNIT	
DC link voltage	VDC	48-800
Max Operational Voltage	VDC	840
Max Current	Arms	560
Continuous Power @800V	kw	300
LV Supply	VDC	9-28
Switching Frequency	kHz	2-8

Performance Specification		
Working Temperature	°C	-40 to 85
Cooling		Water-Glycol 50:50
Mass	Kg	7
Flow Rate	l/m	6-12

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	800
Maximum Phase Current (Motor)	Arms	560
Rotor Position Sensor		Resolver

Performance Specification		rEV235-4U-WN100	rEV235-5U-WN100
Peak Torque (For 10s)	Nm	500	625
Peak Power (For 10s)	kw	200	400
Continuous Torque	Nm	185	240
Continuous Power	kw	140	155
Torque Density Peak	Nm/kg	13.3	13.3
Power Density Peak	kW/kg	5.3	8.5

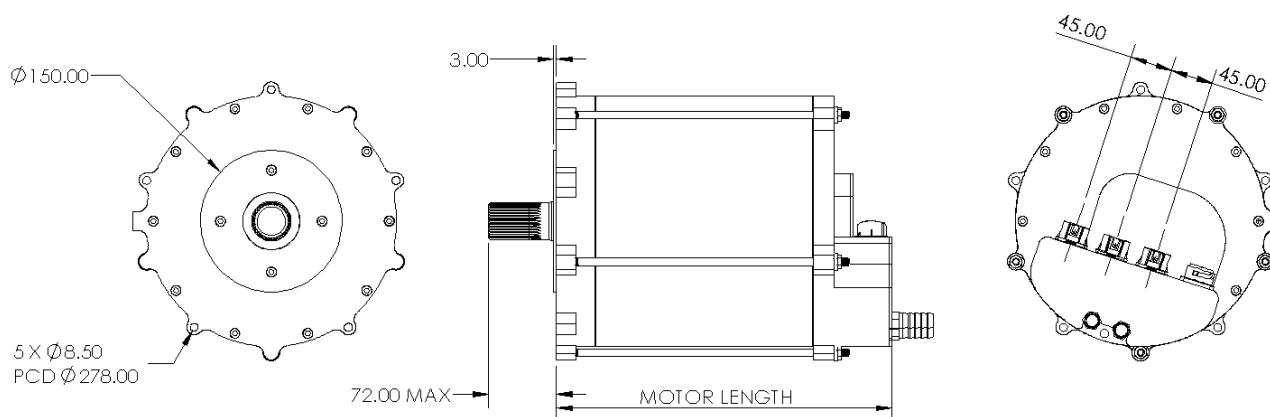
Mechanical Specification		rEV235-4U-WN100	rEV235-5U-WN100
Cross Section Dimension	mm	265.6	
Package Length (Excluding Shaft)	mm	235	294
Mass	kg	37.6	47
Maximum Speed	rpm	18,000	
Axial/Radial Shaft Load	N	100N Axial, 200N Radial	
Shaf Output		External Spline	
Ingress Protection	IP	IP67	
Motor Connection Type		PowerLok Connectors	
Cogging Torque	Nm	<2.5%	

Thermal Specification		rEV235-4U-WN100	rEV235-5U-WN100
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	

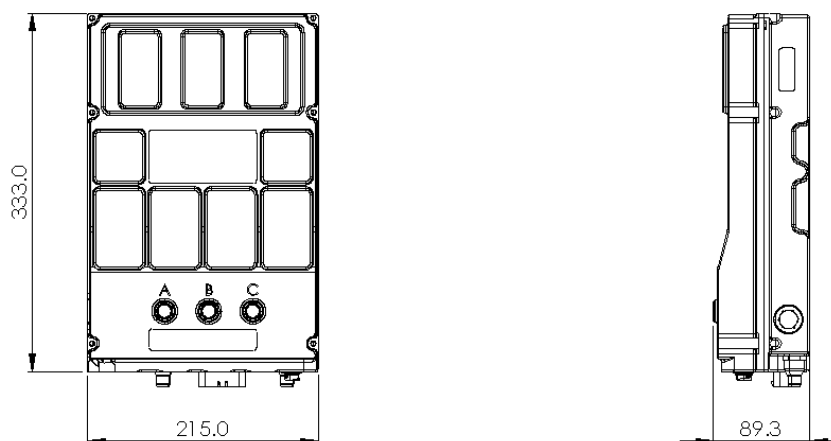
NOTE: 1) Mass: excludes cables and coolant tubes, 2) Peak Values are simulated using 800VDC and 560Arms, 3) Continuous Values are simulated using 800VDC, 70°C inlet temperature and 12 l/m flow rate, 4) The data provided in this datasheet is for guidance only and does not form part of any contract. 5) Motor, inverter, gearbox should undergo application testing to validate performance.



Motor Geometry



Inverter Geometry



Explore inetictraction.com to design your drive system with multiple configurations, matched gearboxes