traction™

rPA-5U-WN250 and A8003

Adaptable electro-hydraulic power, engineered for seamless integration and control

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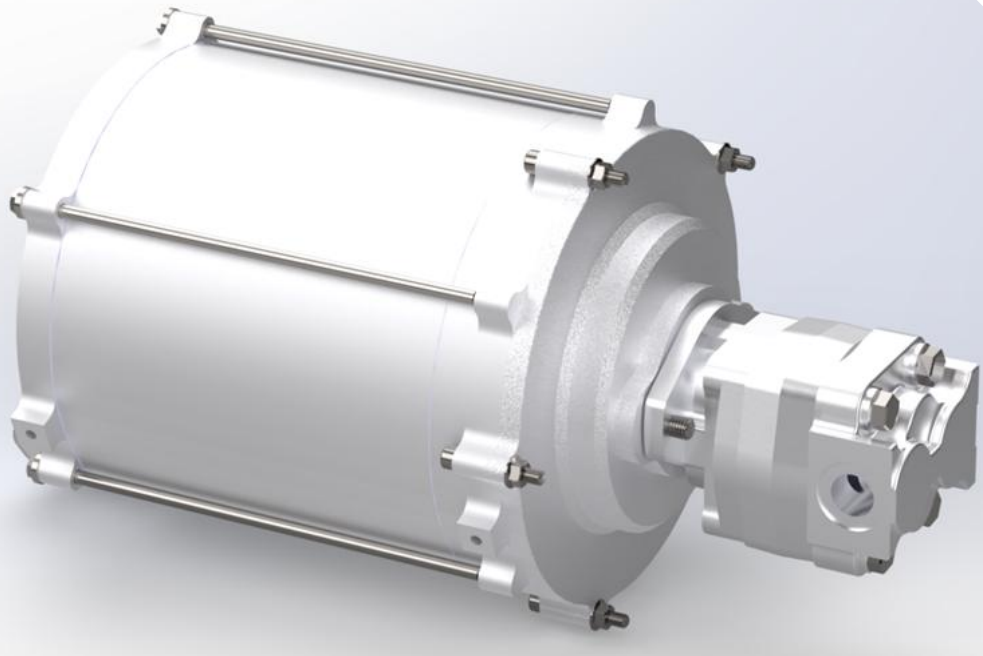

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Pump Coupling

The motor is shown integrated with both a new off-the-shelf hydraulic gear pump using standard fittings, and an existing vehicle pump—demonstrating its flexibility for new designs as well as retrofit applications. This adaptability enables seamless integration across a range of platforms and use cases.

Inverter Data

Electrical Specification	UNIT	
DC link voltage	VDC	480-800
Max Operational Voltage	VDC	800
Max Current	Arms	200
Continuous Power @400V	kw	80
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

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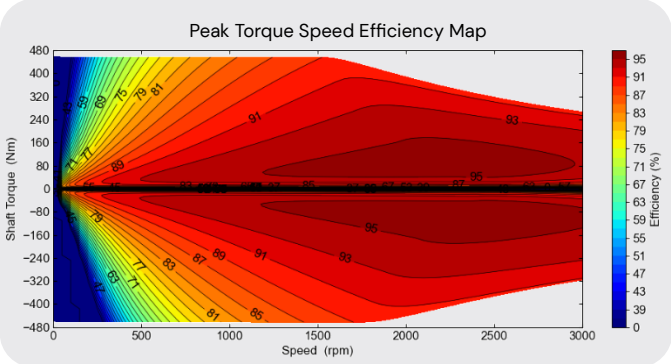
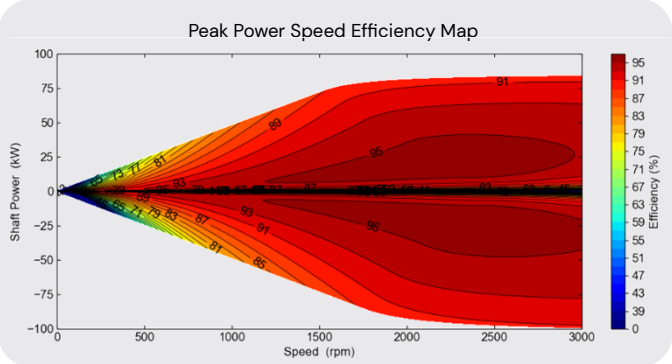
Motor Data





Electrical Specification	UNIT	
Motor / Generator Type		3-Phase Radial Synchronous Flux Permanent Magnet Motor/Generator
Applications		Electro-hydraulic, Off-highway, Warehouse automation
Maximum DC Voltage (Motor)	VDC	650
Maximum Phase Current (Motor)	Arms	190
Rotor Position Sensor		Resolver

Performance Specification		
Peak Torque (For 10s)	Nm	450
Peak Power (For 10s)	kw	80
Continuous Torque	Nm	250
Continuous Power	kw	50
Torque Density Peak	Nm/L	59
Power Density Peak	kW/L	28

Mechanical Specification		
Cross Section Diameter	mm	265.5
Package Length (Excluding Shaft)	mm	307
Mass	kg	59
Maximum Speed	rpm	3,000
Axial/Radial Shaft Load	N	100N Axial, 200N Radial
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 540VDC and 190Arms, 3) Continuous Values are simulated using 540VDC, 70°C inlet temperature and 12l/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.

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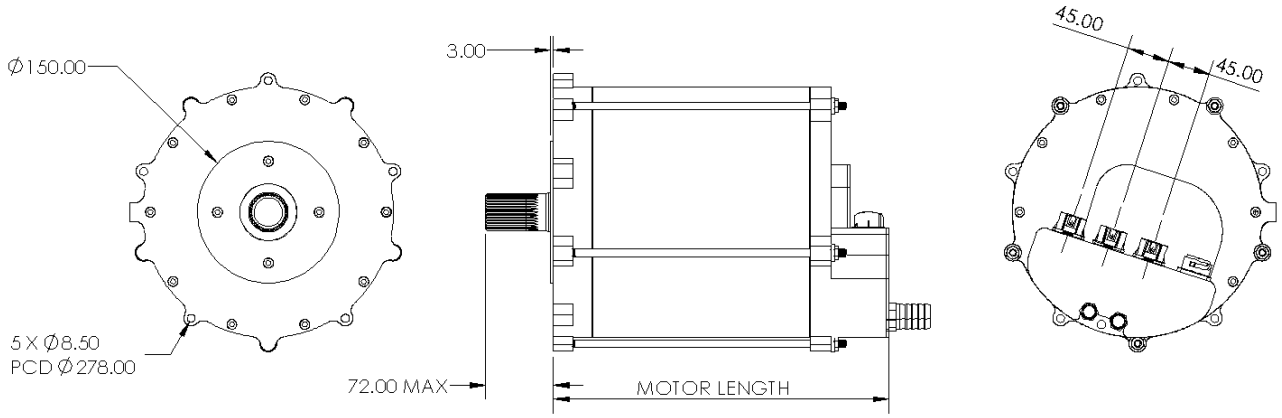
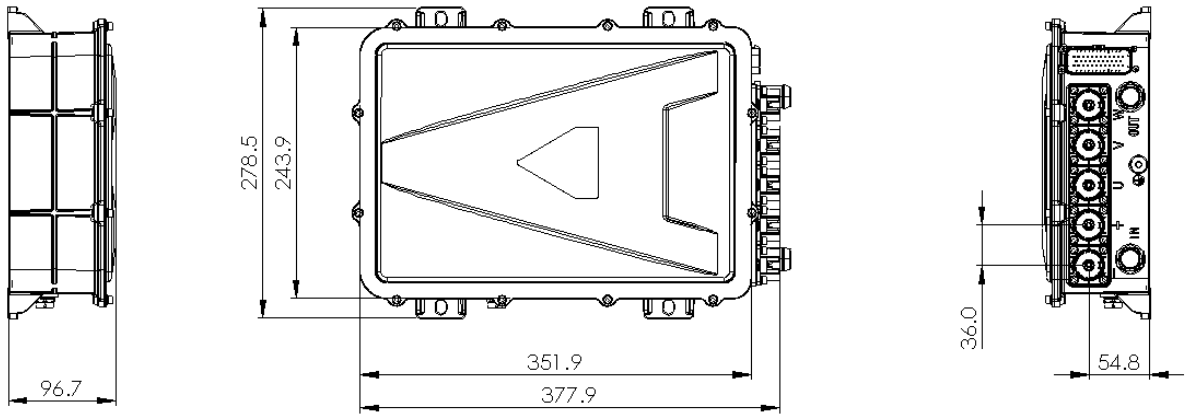
Motor Geometry



Inverter Geometry



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