

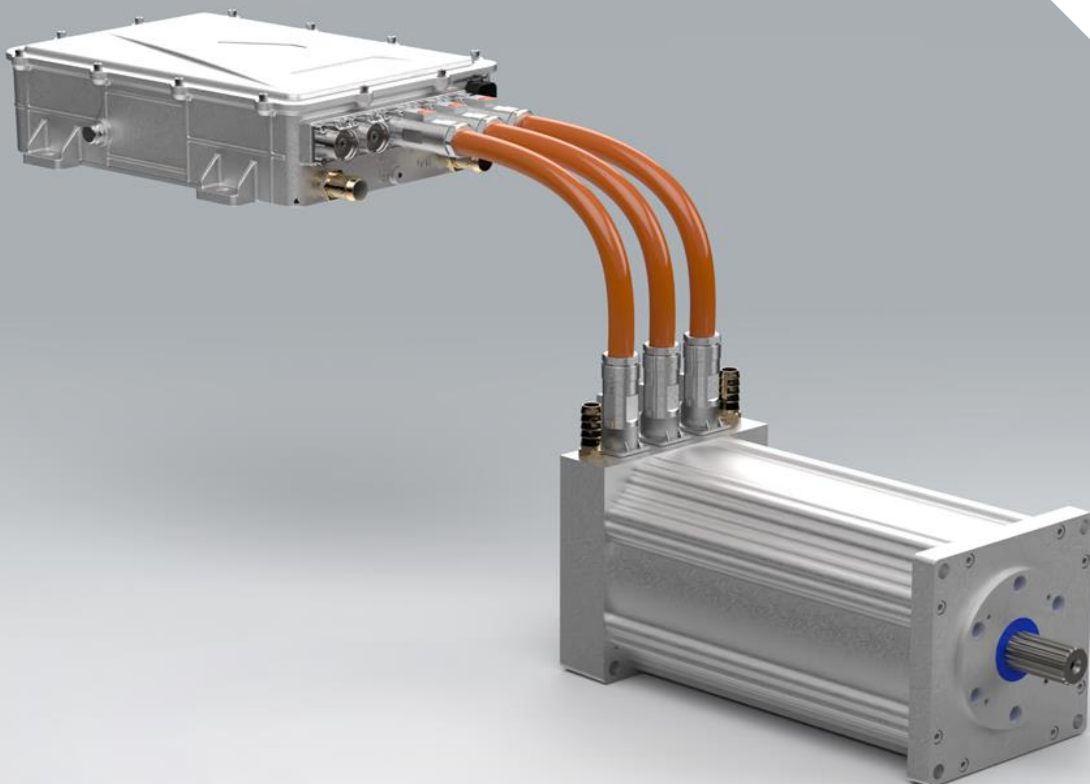


iEV180 + A4001 Drive

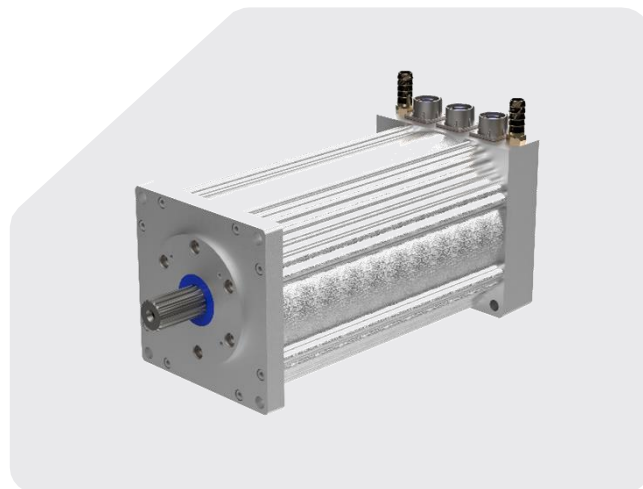
Inetic

Versatility that adapts to your needs, **reliability** that endures

Learn more
Inetictraction.com



Inetic



Inverter Standards

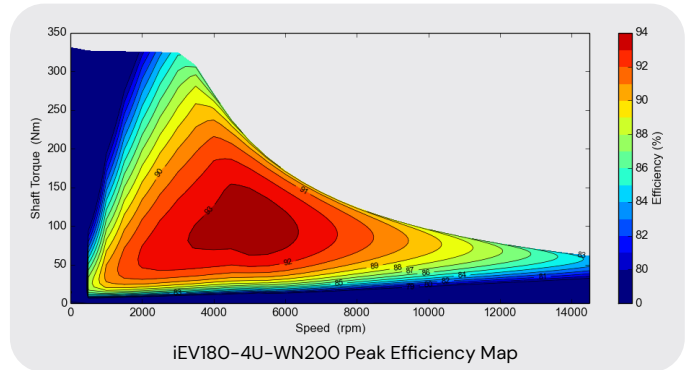
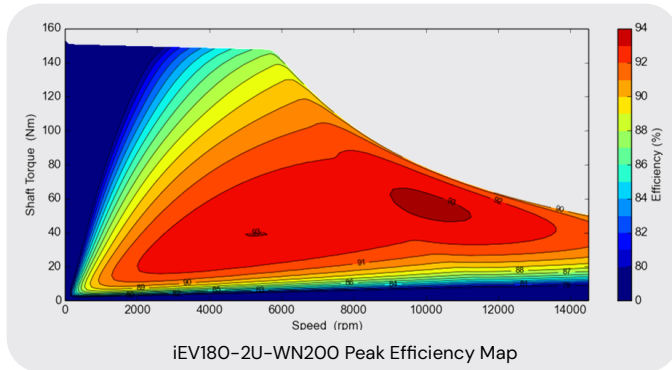
Code of Regulation and Standards	Name of Regulations and Standards
GB/T 18488.1-2015	Electric motors and controllers for electric vehicles Part 1: Technical requirements
GB/T 18488.2-2015	Electric motors and controllers for electric vehicles Part 2: Test methods
GB/T 2423.17-2008	Environmental testing 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	410
Continuous Power @400V	kw	150
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	420
Maximum Phase Current (Motor)	Arms	410
Rotor Position Sensor		Resolver

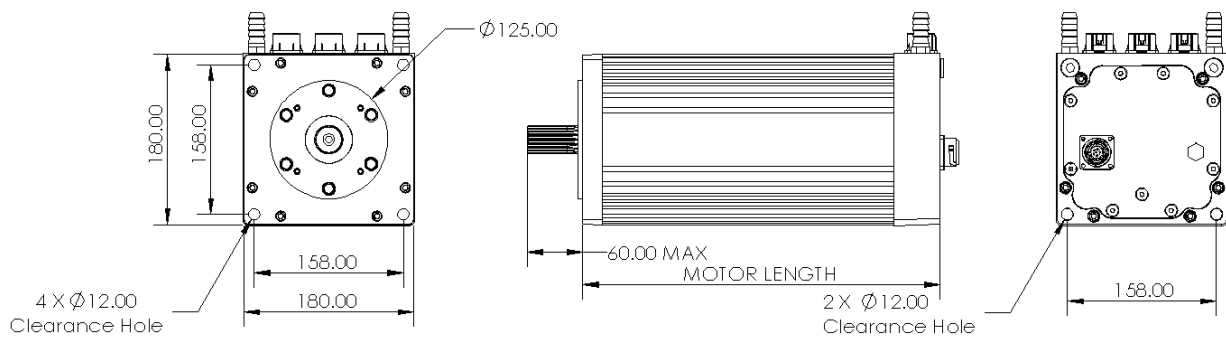
Performance Specification		iEV180-2U-WN200	iEV180-4U-WN200
Peak Torque (For 10s)	Nm	151	330
Peak Power (For 10s)	kw	92	110
Continuous Torque	Nm	68	168
Continuous Power	kw	37	73
Torque Density Peak	Nm/kg	8.3	9.5
Power Density Peak	kW/kg	5.0	3.2

Mechanical Specification		iEV180-2U-WN200	iEV180-4U-WN200
Cross Section Dimension	mm	180x180	
Package Length (Excluding Shaft)	mm	254	397
Mass	kg	29	52
Maximum Speed	rpm	14,000	
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%	

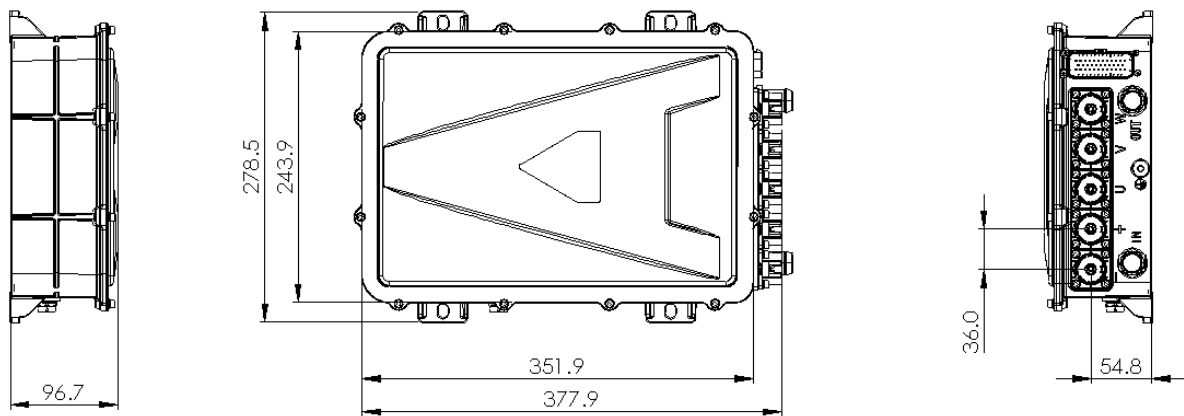
Thermal Specification		iEV180-2U-WN200	iEV180-4U-WN200
Cooling Method		Water-Glycol 50:50	
Coolant Inlet Temperature	°C	-10 to 85	
Coolant Inlet Pressure	bar (gauge)	0.5-3.0	
Maximum Stator Winding Temperature	°C	180	
De-Rate Stator Winding Temperature	°C	165	
Temperature Sensor	-	PT1000	
Ambient Temperature	°C	-20 to 100	

NOTE: 1) Mass: excludes cables and coolant tubes, 2) Peak Values are simulated using 400VDC and 410Arms, 3) Continuous Values are simulated using 400VDC, 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.

Motor Geometry



Inverter Geometry



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