

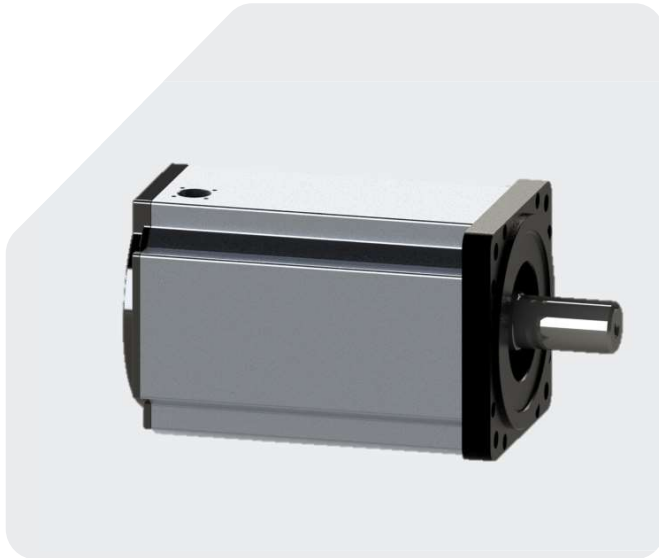
 traction™
sEV Motor Range



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compact package

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Key Features

Optimal Power Density: The sEV motor boasts exceptional power density, offering a compact yet powerful solution for a range of applications, from personal transport to high-power fans and pumps.

Versatile Voltage Optimization: Optimized for a wide voltage range from 12 to 650V, the sEV motor adapts seamlessly to various power requirements, providing versatility and efficiency across different applications.

Low-Noise Operation: The sEV motor prioritizes a serene experience with its low-noise operation. Whether in personal transport or powering high-power fans and pumps, enjoy the benefits of efficient performance without compromising on comfort.

Compact Packaging: Designed for efficient use of space, the sEV motor's compact packaging ensures easy integration into various systems, making it an ideal choice for applications with limited space availability.

Example Application

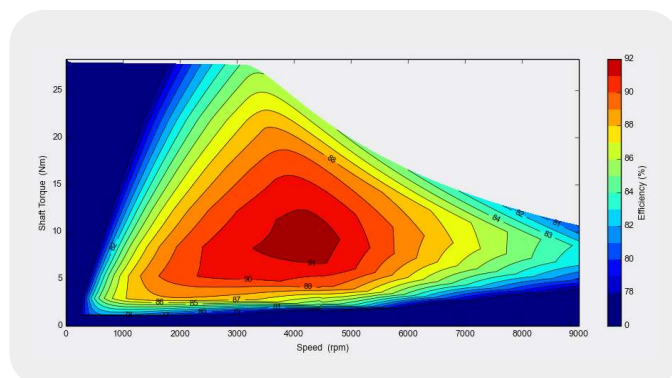
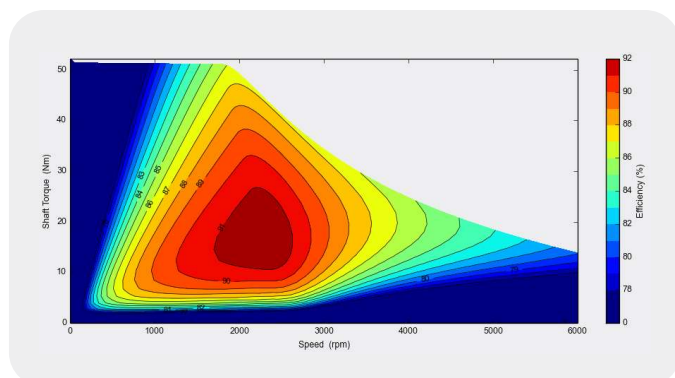
Personal Transport (Bikes): Efficient Mobility:

The sEV motor revolutionizes personal transport, particularly in electric bikes, with its lightweight, compact design, and efficient use of space. It ensures efficient mobility without compromising on power, making it ideal for eco-friendly and agile urban commuting.

High-Power Fans and Pumps:

Powerful Performance: In applications like high-power fans and pumps, the sEV motor's power density and compact packaging shine. Its efficient use of space, combined with versatility, make it an optimal choice for ventilation systems and industrial pumps, delivering powerful and efficient performance.

Characteristics



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	300
Rotor Position Sensor		Encoder

Performance Specification	Unit	sEV135-3U-WN200	sEV135-1U-WN175
Peak Torque (for 10s)	Nm	51	28.4
Peak Power (for 10s)	kw	10.5	10.5
Continuous Torque (30 min)	Nm	17	12.3
Continuous Power (30 min)	kw	2.7	4.4
Torque Density Peak	Nm/kg	3	3
Power Density Peak	kW/kg	0.6	1

Mechanical Specification	Unit	sEV135-3U-WN200	sEV135-1U-WN175
Cross section dimension	mm	ø142	
Package Length (excluding splined shaft)	mm	314	100
Mass	kg	17	8.5
Maximum speed	rpm	6,000	10,000
Axial/Radial Shaft Load	N	100 N axial 200 N radial	
Shaft Output		External Spline, Internal Spline, Plain Shaft or Single Keyways	
Ingress Protection	IP	IP67	
Motor Connection Type		Powerlok Connectors	
Cogging Torque	Nm	<2.5%	

Thermal Specification	Unit	sEV235-3U-WN200	sEV135-1U-WN175
Cooling method		Air	Liquid cool, 50% Ethylene Glycol
Coolant Inlet Temperature	°C	N/A	-10 to +75
Coolant Inlet Pressure	bar (guage)	N/A	0.5 - 3.0
Coolant Pressure drop across motor	barG a 10l/min	N/A	0.B
Maximum stator winding temperature	°C	180	
De-rate stator winding temperature	°C	165	
Temperature sensor	-	PT1000	
Ambient Temperature	°C	-20 to 45	

NOTE: 1) Mass: excludes cables or coolant tubes, 2) Peak Values are simulated using 46.5VDC and 226Arms for sEV135-1U-WN175, and 679VDC and 15Arms for sEV135-3U-WN200 3) Continuous values for sEV135-1U-WN175 are simulated using 46.5 VDC, 70 C Inlet Temperature and 8 Lpm coolant flow rate. 4) Data for lower voltages and current levels are available upon request.



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