

Features

- BLDC motor, axial air gap design, dual stator design
- Patent Pending permanent magnet rotor
- Hall cell speed indication, 120 electrical degrees
- 85% system efficiency over a broad range
- Custom shaft and case available
- Choice of operation at 24V to 72 VAC with speed controller
- Speed range 0-5000 RPM – speed controller dependent
- No motor brush maintenance

Applications

- Electric motorcycle
- Electric golf car or utility vehicle
- Electric outboard and inboard boat drive
- Micro car

Description

The ME0913 is an Open Frame, Fan Cooled version of the 8" diameter family of BLDC motors. The motor offers a small volume and a high power to weight ratio.

The ME0913 can be used in 72V, 60V, 48V, 36V and 24V DC application with a BLDC speed controller.

Internal Temperature Sensor is installed in the motor windings.



DS-PMAC	Electric Motorsport, Inc	Rev:	
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Motor Electrical Parameters

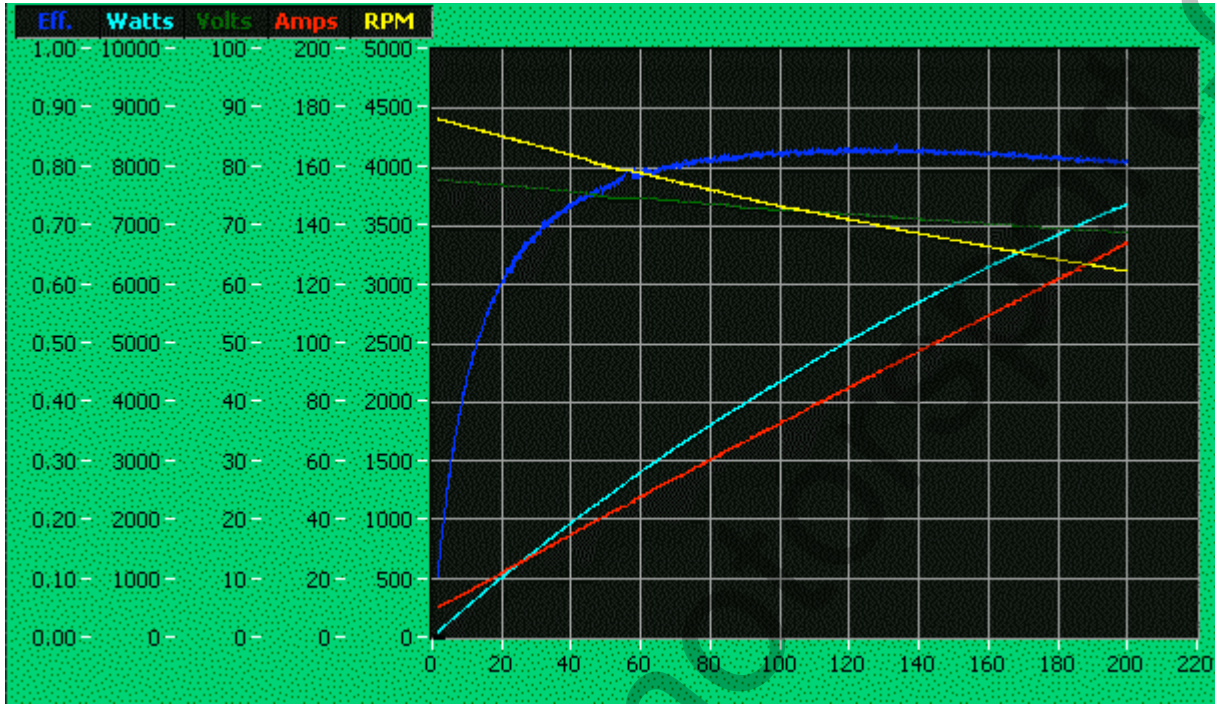
Electrical Parameter	Unit	Parameter
Operating Voltage Range	VAC	0 minimum to 72 maximum
Rated Continuous Current	Arms	180
Peak Phase Current	Arms	550
No Load Current (I_{NL})	Arms	Dependent on the motor control
Peak Stalled Current	Arms	550
Continuous Current	Arms	180 minimum
Voltage Constant	RPM/V	50 (DC input current to a motor controller)
Back EMF Constant (K_E)		
Phase Resistance (L-L)	Ohm	0.0125
Coil Connection	n/a	Y, non-grounded
Phase Turns	Turns	28
Phase Inductance	uH	110 at 1kHz
		105 at 120Hz

Motor Mechanical Parameters

Mechanical Parameter	Unit	Parameter
Rated Speed	RPM	3000
Maximum Speed	RPM	5000
Rated Torque	Lb-in	288
Peak Stalled Torque	Ft Lb	70 (94 Nm)
Continuous Stalled Torque	Lb-in	288
Torque Constant	Lb-in/A	1.6 (DC input current to a motor controller)
Operating Ambient Temperature	C	-40 to 40
Motor Winding Insulation	Class	F
Abs. Winding Allowable Temperature	C	155
Max. Winding Operating Temperature	C	145
Thermal Impedance	Rth	n/a
Thermal Time Constant	Tth	n/a
Shaft Configuration		See Drawing
Face Mounting Details		See Drawing
Tightening Torque for Terminals		See Drawing
Weight	lb	39
Direction of Rotation	I	Bi-directional fan
Storage Temperature	C	-30 to 150
Materials of Construction		Standard

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Typical Motor Performance Data



Data taken with 77 VDC battery input.
 Efficiency is the system efficiency including the motor and control losses.
 Maximum speed is set by the motor control.

