

95 to 390 Watt Brushless Alternator S675-300

Features:

- Brushless Design
- Reversible
- No separate moving parts when direct driven
- NdFeB Magnets
- 200C Class Insulation
- Coated for humidity and moisture protection

MODEL NUMBER	S675-300
Diameter	76 mm
Thickness	26 mm
Standard Weight	341 g
Typical Engine Sizes (Generating)	30 cc or smaller
Rated Output Power at 2500 RPM	95 Watts
Rated Output Power at 7500 RPM	390 Watts
Standard Wind Type	Single Phase
Standard Voltage Curve, VAC RMS	6.36 VAC/1000 RPM
Aluminum Spinner	Not available
Options	Custom Voltage Curve Modified Shell Design

Typical system parts



OS 160



Typical Mounting Brackets

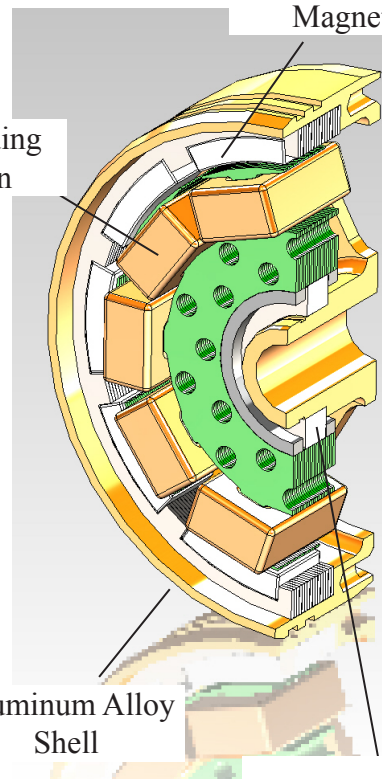


Irvine 53



Rare Earth Magnets

200C Winding Insulation

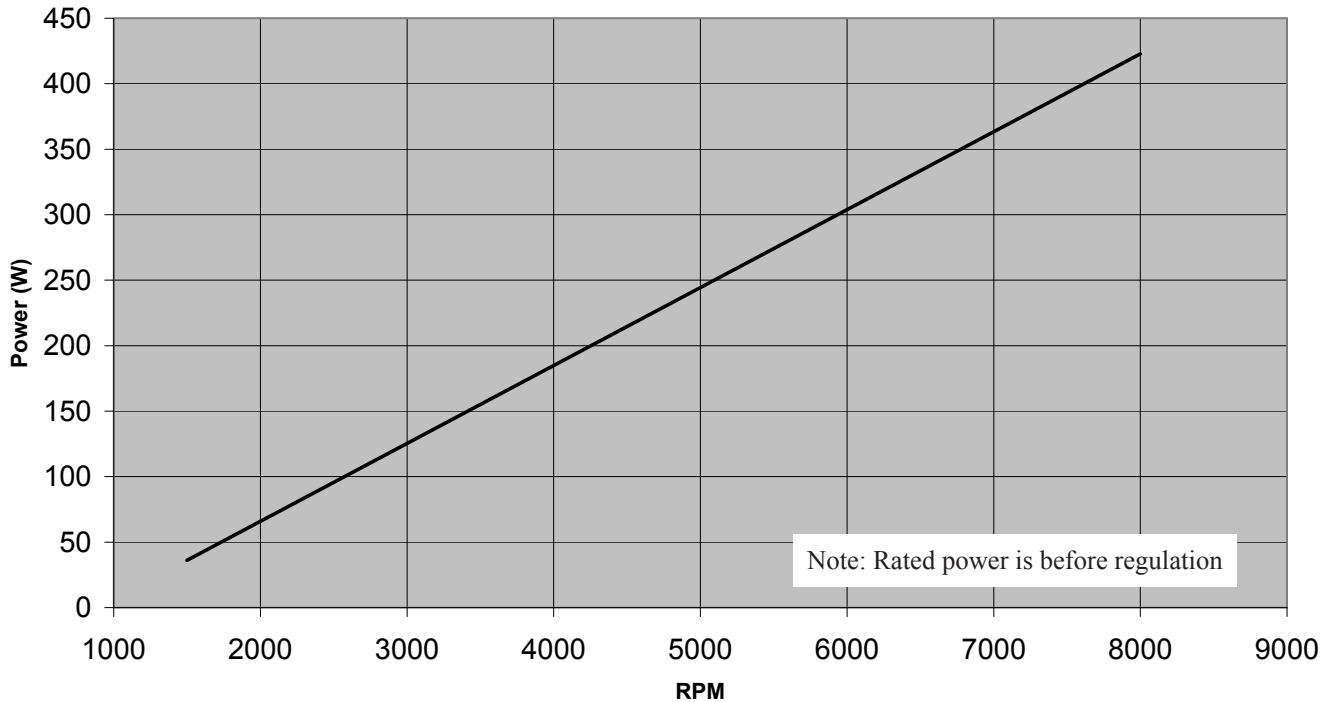


Aluminum Alloy Shell

Sealed Bearing

S675-300 Rated Power vs. RPM

(120C Max Stator Temp)



Mounting

Generally, the alternator mounts directly to the engine's prop hub or rear output shaft. It can also be driven by a secondary shaft or belt. The stator is kept from turning by a mounting bracket.

We machine the stator bracket to fit the specific engine model or mounting situation.

It is possible to mount the stator directly to a machined ring on the engine. This eliminates the bracket and the sealed ball bearing, reducing weight.

Engine load calculations before regulation

Engine load = Output power / Efficiency.

Example: A 600 Watt electrical load at 88% efficiency requires $600 / 0.88 = 682$ watts of engine power. At 746 Watts/HP, this is .914 HP.

$Ft-Lbs\ of\ Torque = Horsepower * 5252 / RPM.$

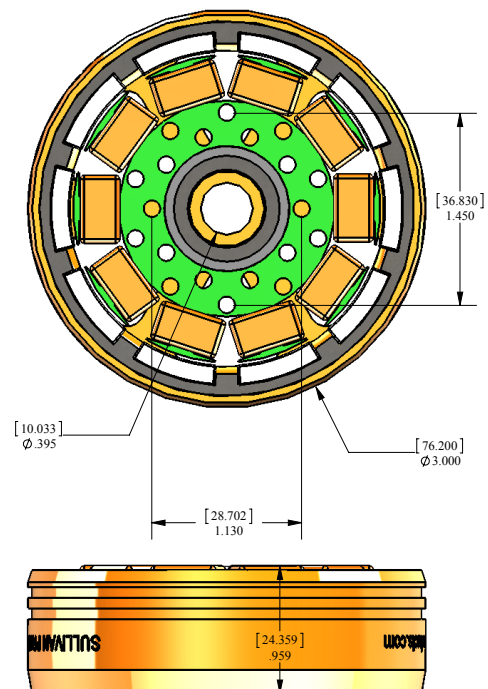
At 3000 RPM, a 600 Watt load at 88% efficiency will have a torque load of $.914\ HP * 5252 / 3000 = 1.600\ Ft-Lbs.$

$1\ Ft-Lb = 1.3558\ N-M.$ 1.600 Ft-Lbs of torque is 2.169 N-M.

Starting

To properly match the engine's required starting wattage, we need the starting torque vs RPM curve of the engine. If this is not available from the engine manufacturer, we can measure it at our facilities.

S675-300 Outline Drawing



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