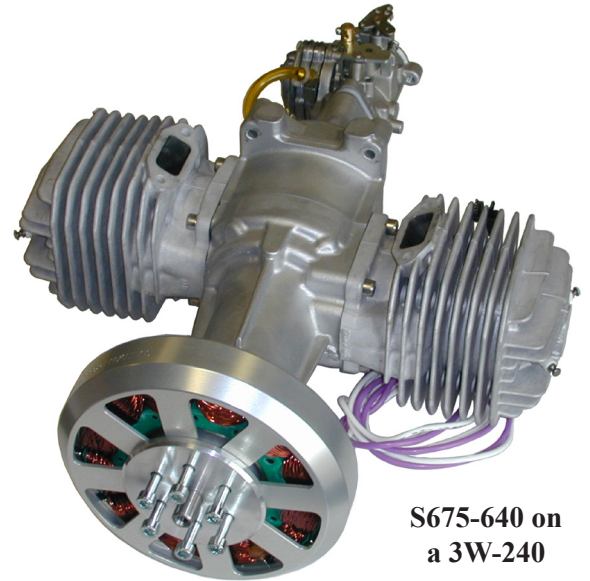


1250 to 4700 Watt Brushless Alternator S675-640

Features:

- Brushless Design
- Only one moving part (a sealed ball bearing) when direct driven
- NdFeB Magnets
- Coated for humidity and moisture protection

| MODEL NUMBER | S675-640 |
|-----------------------------------|---|
| Diameter | 163 mm |
| Thickness | 32 mm |
| Standard Weight | 2105 g |
| Typical Engine Sizes (Generating) | 150 cc to 250 cc |
| Rated Output Power at 2500 RPM | 1400 Watts |
| Rated Output Power at 7500 RPM | 5500 Watts |
| Standard Wind Type | Single Phase |
| Standard Voltage Curve, VAC RMS | 10.1 VAC/1000 RPM |
| Aluminum Spinner | Mating 152 mm Aluminum Spinner available |
| Options | Custom Voltage Curve Modified Shell Design |



S675-640 on
a 3W-240

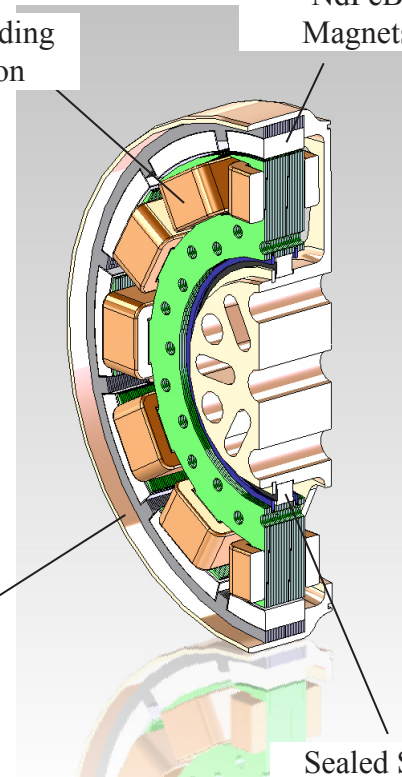
S675-640
Standard Hub

S675-640
Back



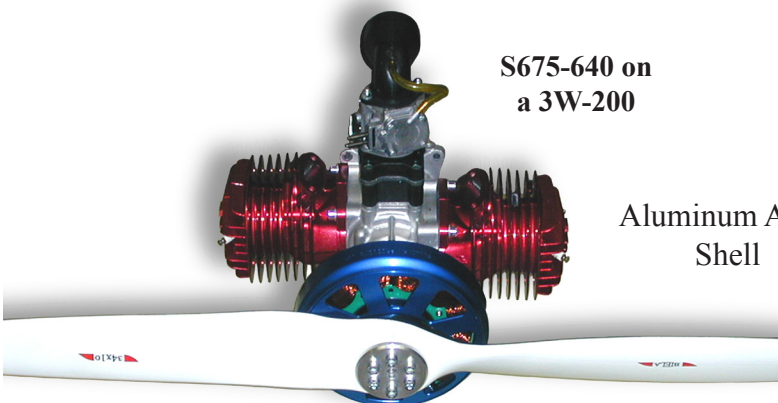
200C Winding
Insulation

NdFeB
Magnets



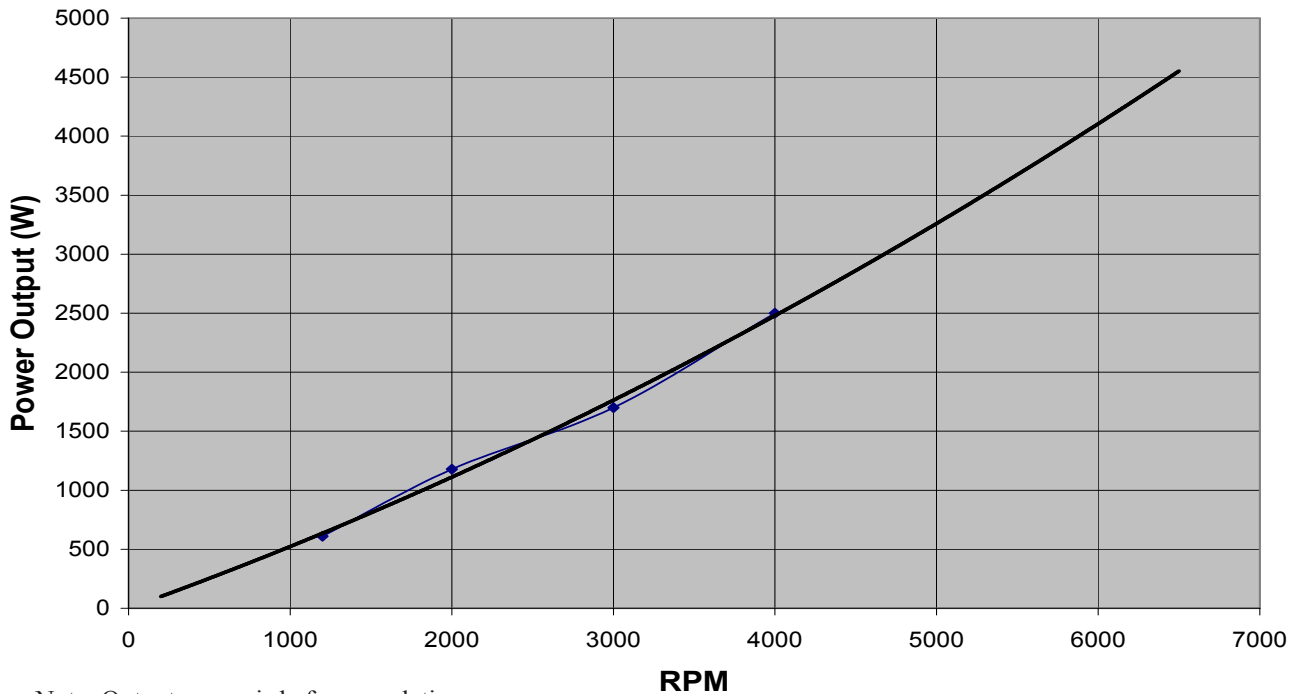
Sealed Stator
Bearing

Aluminum Alloy
Shell



S675-640 on
a 3W-200

**S675-640 Single Phase Alterantor
Rated Power vs RPM (120C Max)**



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 95% efficiency requires $600 / 0.95 = 632$ watts of engine power. At 746 Watts/HP, this is .847 HP.

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

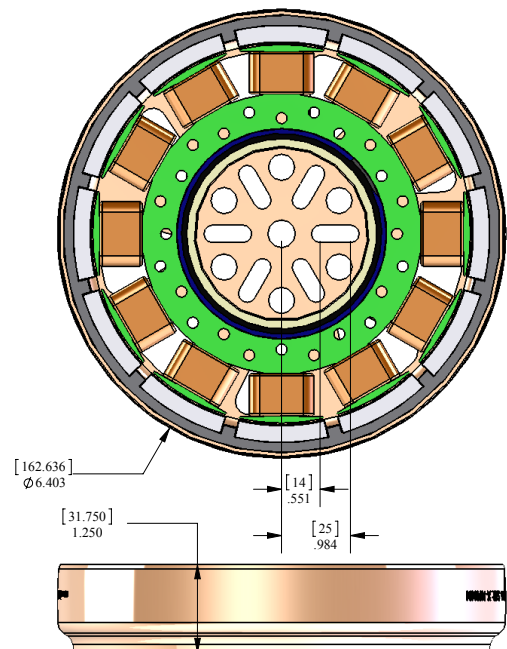
At 3000 RPM, a 600 Watt load at 95% efficiency will have a torque load of $.847 \text{ HP} * 5252 / 3000 = 1.483 \text{ Ft-Lbs}.$

$1 \text{ Ft-Lb} = 1.3558 \text{ N-M}.$ 1.483 Ft-Lbs of torque is 2.010 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.

**S676-640
Outline Drawing**



Sullivan

1 North Haven Street
Baltimore, MD 21224
Phone 410-732-3500
Fax 410-327-7443
www.sullivanuv.com