

## AFG-140 Axial Flux Generator

EVO Electric offers 3-phase permanent magnet AC generators based on proprietary axial flux technology that can be used with active or passive rectification. AFG type electric generators combine high performance with low weight and size, ideal for hybrid electric vehicles, mobile power generation and a wide range of demanding industrial applications.

The AFG-140 generator range has the following key features:

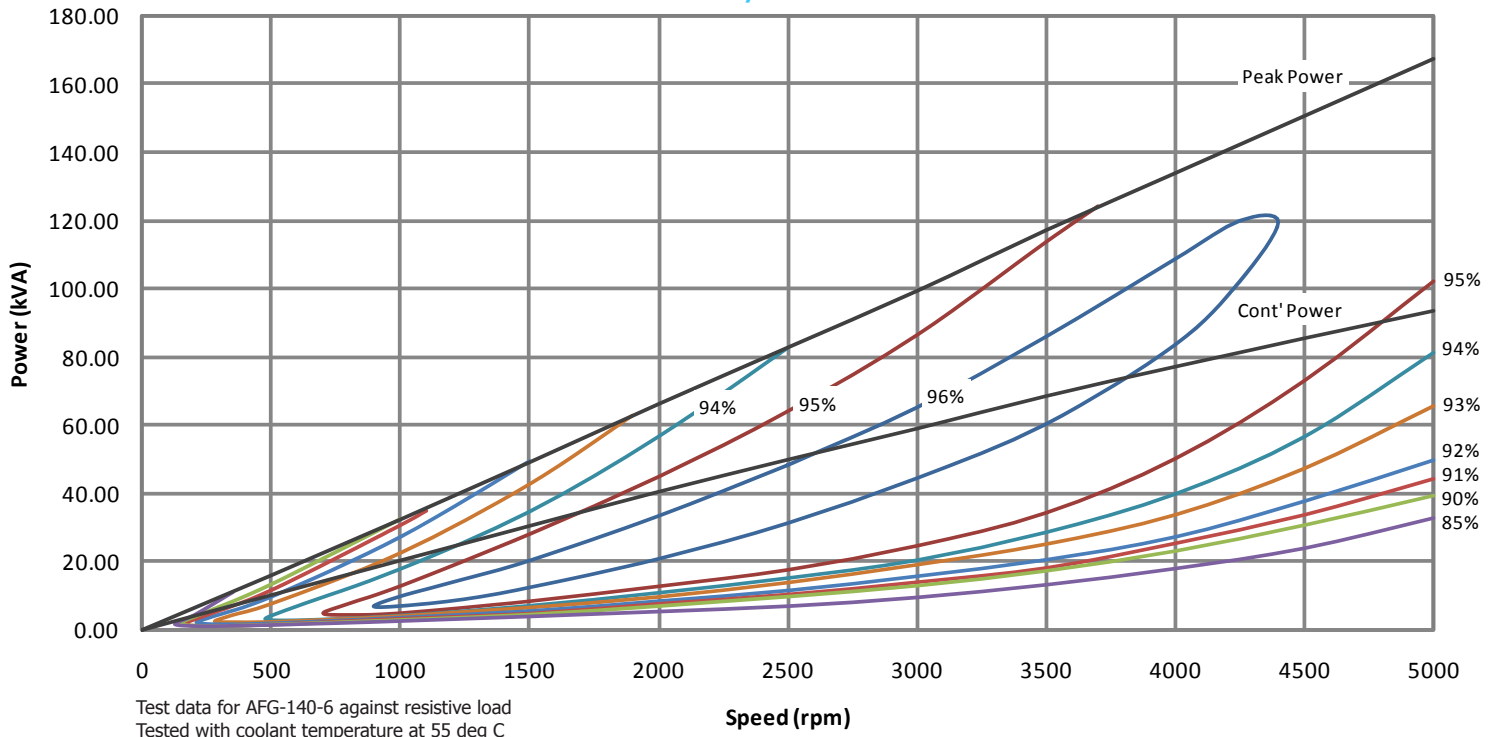
- Very high torque and power density
- Low cogging torque
- Compact design with flat front and back faces for mounting
- Integrated resolver for rotor position feedback (optional)
- Vibration tested to military standard
- Liquid cooling for enhanced performance
- Through shaft and customised versions available



## AFG-140 Specification

Type	PM Synchronous - Axial Flux
Maximum Speed	5000rpm
Nominal Output Power	92kVA
Peak Output Power (for up to 60s)	167kVA
Nominal Input Torque	190 - 220Nm
Peak Input Torque (for up to 60s)	340Nm
Output Power Density	4.2kVA/kg
Input Torque Density	8.5Nm/kg
Peak Efficiency	>96%
Output Configuration	Star (Wye) or Delta
Coolant Medium	Water/Glycol (50/50)
Coolant Flow Rate	> 8l/min
Length	115.2mm
Diameter	380mm
Weight	40kg

## Generator Performance and Efficiency



## Winding Configurations

Generator Type	Generator Constants		Nominal Current (A)	Short-Circuit Current (A)
	$K_T$ (Nm/A)	$K_E$ (Vs/rad)		
AFG-140-3	1.3	0.81	168	400
AFG-140-4	1.73	1.08	126	300
AFG-140-6	2.6	1.62	84	200

Data shown are for indication only. Actual values are dependent on operating conditions and might vary.  $K_T$ ,  $K_E$  for Star configuration;  $K_E$  in Vrms,pp

