Phi-Power AG is supplying high performance axial flux motors. The machines offer superior power and torque density with low torque-ripple.

Overview

The PHI301 is part of a new generation of axial flux permanent magnet motors developed for automotive and industrial applications.

The PHI301 is water cooled as standard and is best used with variable frequency drives running vector control. The motor is equiped with a resolver for postion feedback and PT100 temperature sensors.

Phi-Power can support customers with the integration of the motor as well a supplying matched motor and inverter pairs.

Phi-Power also adapts its technology for specific applications and develops custom machines to suite specific needs.
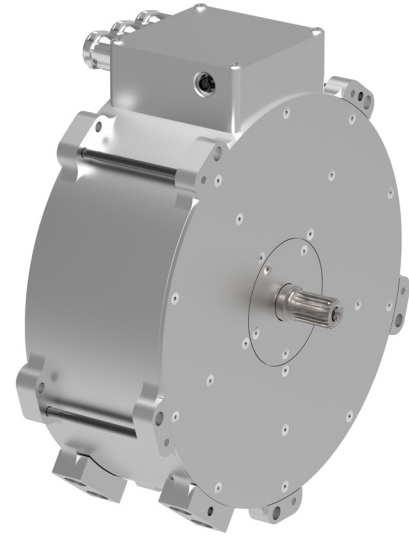
Phi.301 - Performance Parameters:

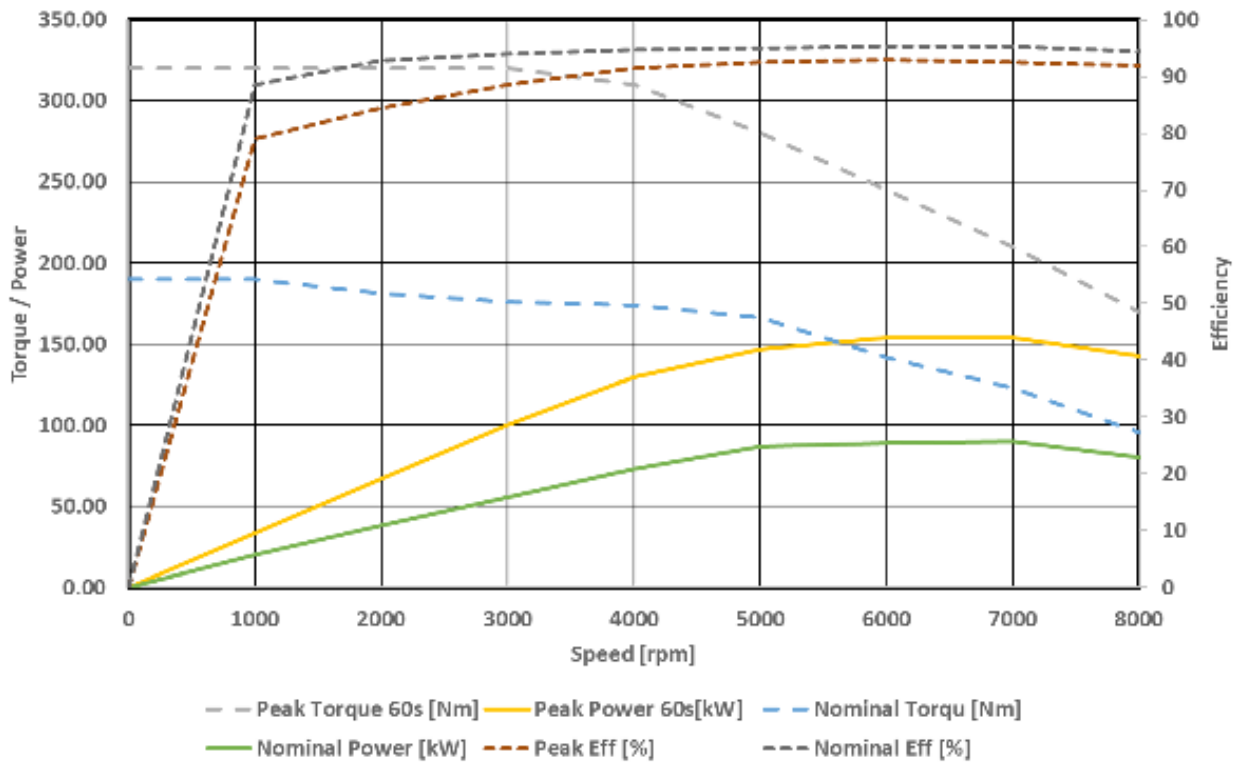|		
Peak Torque (for up to 20s)	520	**[Nm]**
Peak Torque (for up to 60s)	320	**[Nm]**
Nominal Torque	190	**[Nm]**
Peak Output Power (for up to 60s)	>160	**[kW]**
Nominal Output Power	85	**[kW]**
Maximum Speed	9000	**[rpm]**
Peak Efficiency	>95.5	**[%]**
Mass[1]	29	**[kg]**
Diameter[2]	300	**[mm]**
Length[3]	120	**[mm]**
Inertia	0.021	**[kgm^2]**

Typical performance values.
1) Dry complete with shaft 2) Body max diameter excluding terminal box and coolant manifold 3) Internal resolver version.
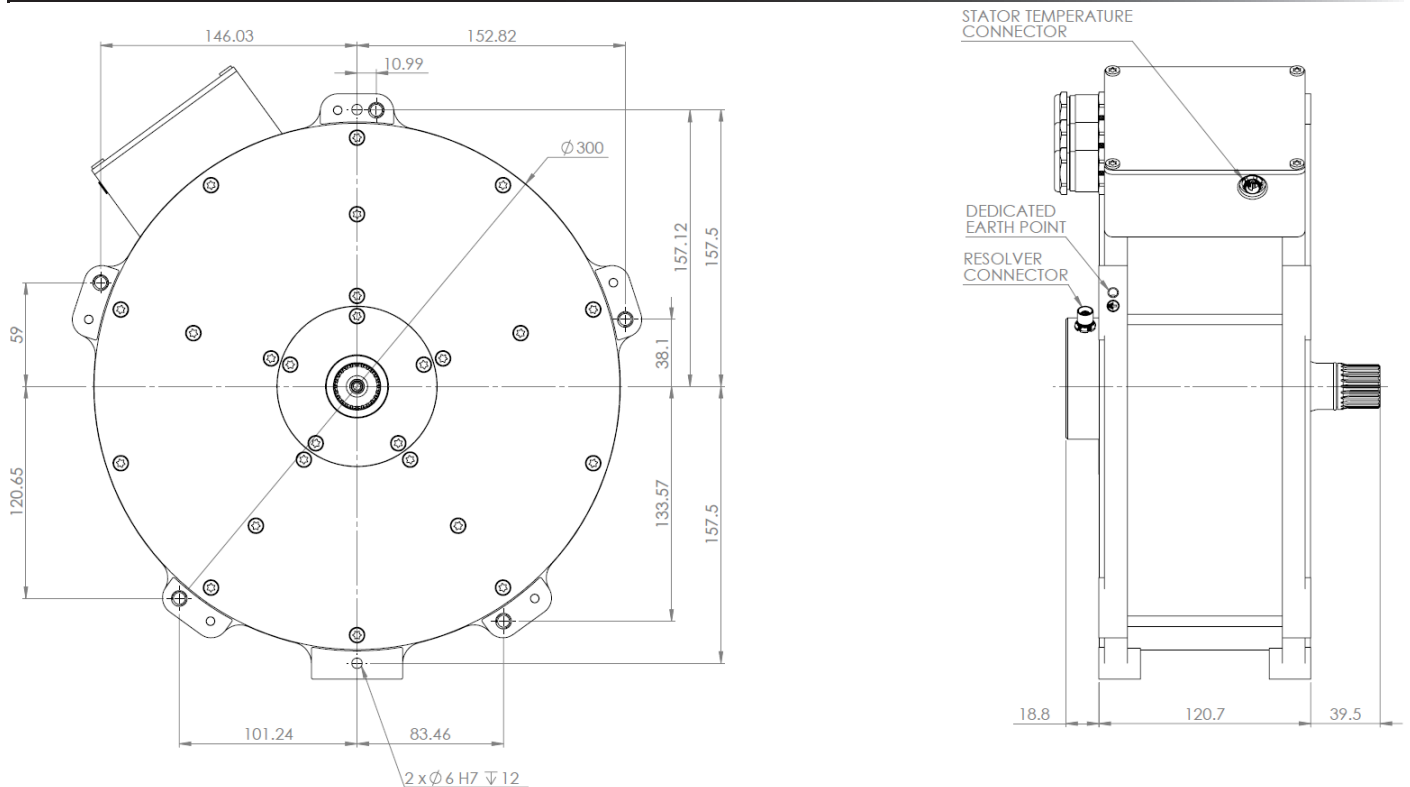
Please contact us to discuss your application requirements or other motor sizes you require. CAD models and detailed electrical parameters available on request.

Ratings and dimensions subject to change without notice, please consult factory.

Key Features:

- Low weight
- High efficiency
- High Torque
- Simple liquid cooling with water- glycol (no oil required)
- Low inertia
- Compatible with standard inverters
- Integrated resolver feedback
- Stator temperature sensors
- Flexible winding configuration allows for different operating voltages.

Phi-Power AG
Fabrikstrasse 2
8330 Pfäffikon ZH
Switzerland

www.phi-power.com

+41 (0) 44 555 89 67
info@phi-power.com

PHI301 Typical Perfromance

Legend:
- — Peak Torque 60s [Nm]
- — Peak Power 60s [kW]
- — Nominal Torqu [Nm]
- — Nominal Power [kW]
- — Peak Eff [%]
- — Nominal Eff [%]

PHI301 Outline Drawing

Ratings and dimensions subject to change without notice, please consult factory. CAD models and detailed electrical parameters available on request.