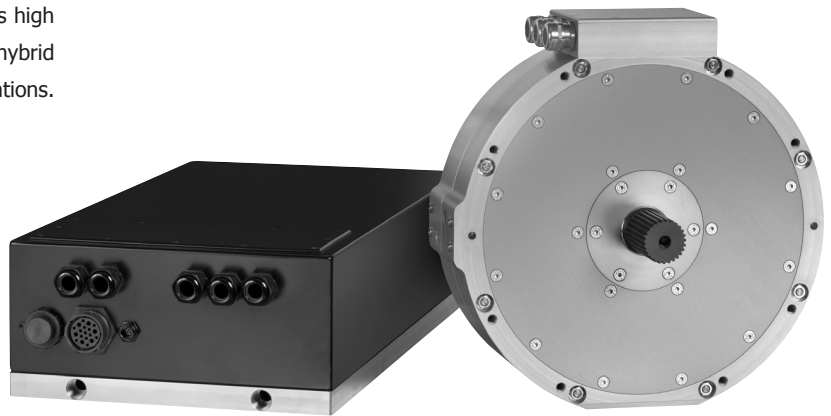


EDS-14042 Electric Drive System

The EDS-14042 Electric Drive System comprises a high performance AF-140 axial flux motor/generator linked to a specifically adapted BEK-250 inverter/controller unit. The EDS drive system combines high performance with low weight and size, ideal for electric and hybrid electric vehicles and a wide range of demanding industrial applications.

The EDS-14042 drive system has the following key features:

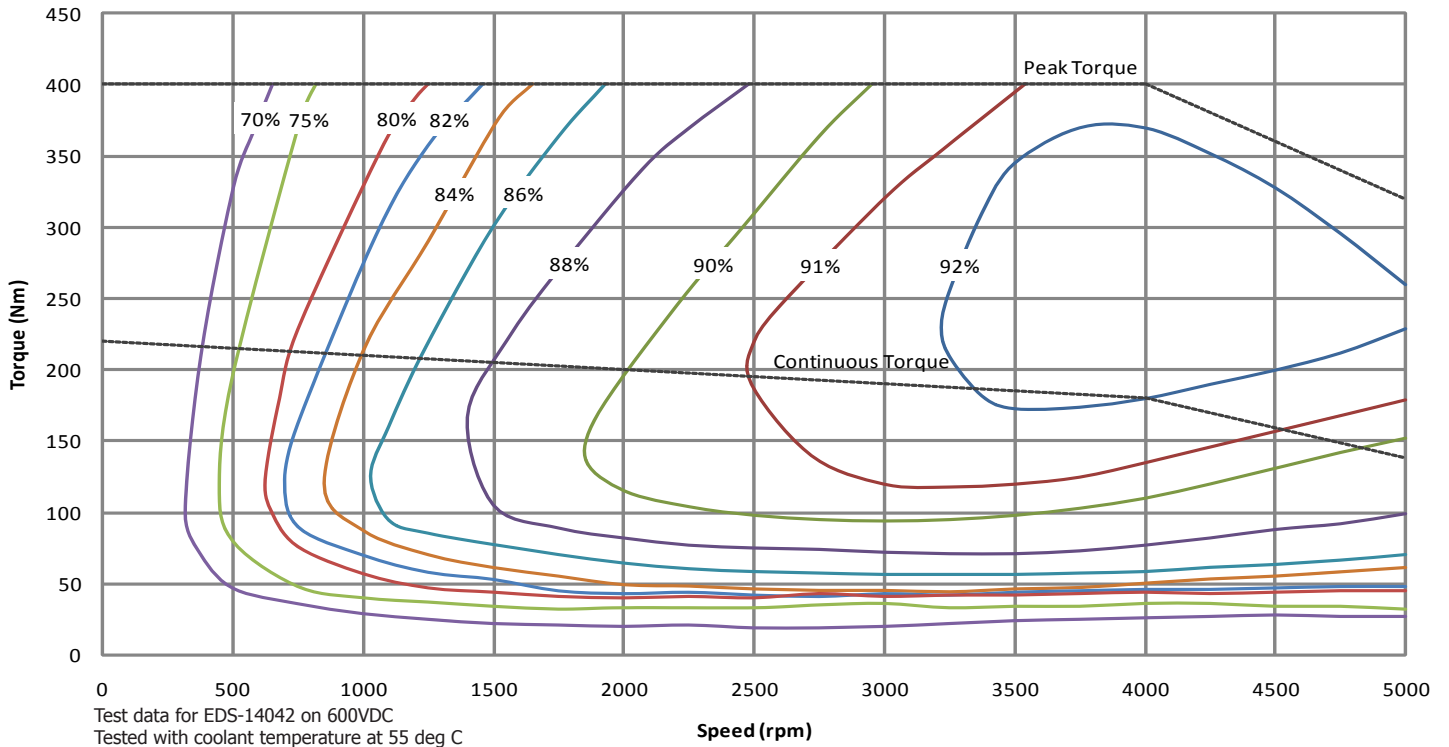
- Very high torque and power density
- Full motoring and generating capability
- Integrated vehicle system controller including diagnostics
- Configurable CAN interface
- Vibration tested to military standard
- Liquid cooling for enhanced performance
- Through shaft and customised versions available



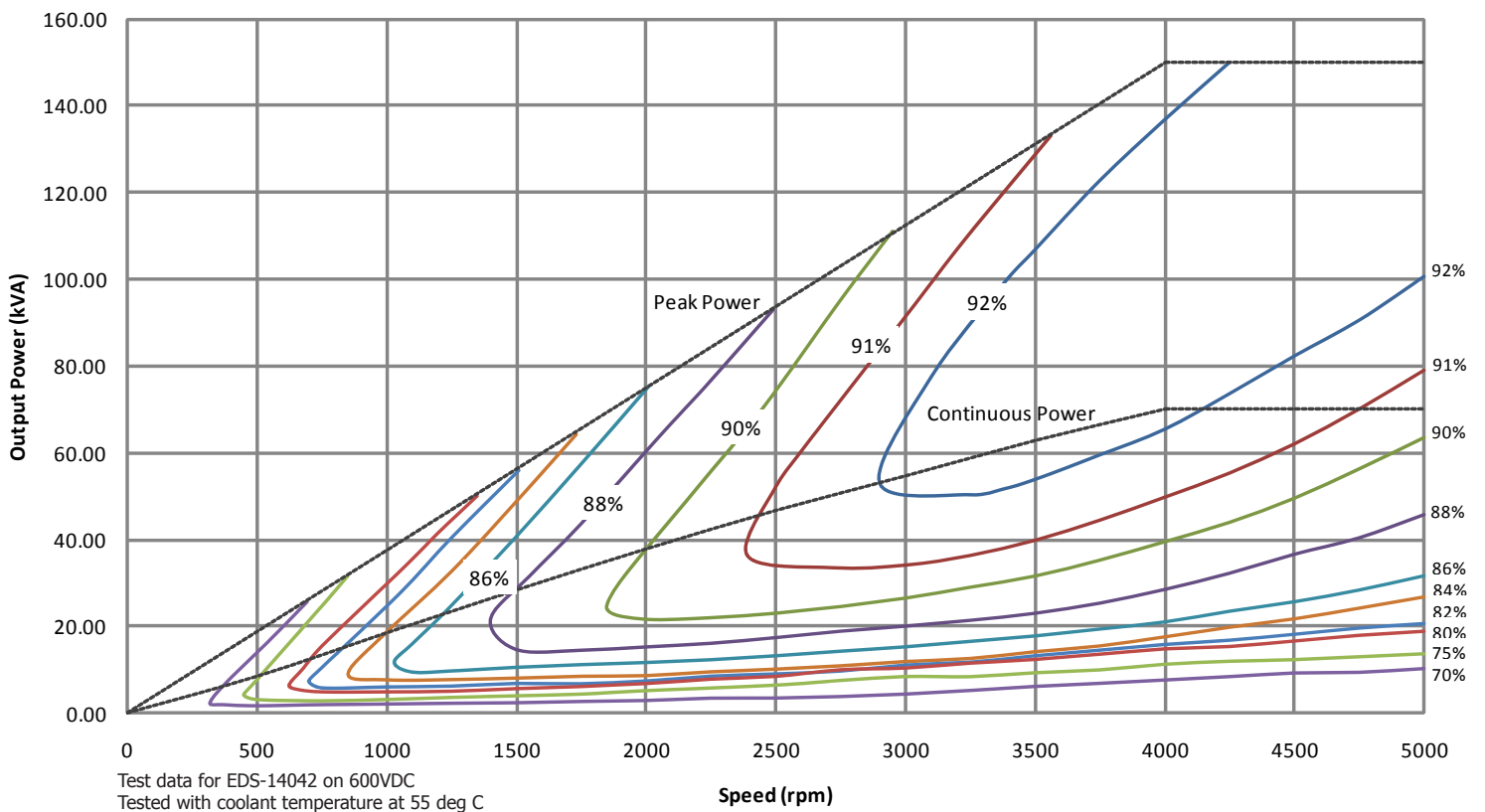
EDS-14042 Specification

Machine Type	○	AF-140-4 Permanent Magnet Axial Flux
Drive Type	○	BEK-250 Vector Controlled Inverter
Maximum Speed	○	5000rpm
Nominal Torque	○	220Nm
Peak Torque (for up to 60s)	○	400Nm
Launch Torque (for up to 30s)	○	500Nm
Nominal Motor Power	○	75kW
Peak Motor Power (for up to 60s)	○	167.5kW
Nominal Generator Power	○	70kVA
Peak Generator Power (for up to 60s)	○	150kVA
Peak System Efficiency	○	92.5%
Nominal Input Voltage	○	600VDC
Input Voltage Range	○	300 - 720VDC
Maximum Input Current	○	343ADC
Coolant Medium	○	Water/Glycol (50/50)
Motor Weight	○	40kg
Inverter Weight	○	30kg

System Performance and Efficiency (Motor Mode)



System Performance and Efficiency (Generator Mode)



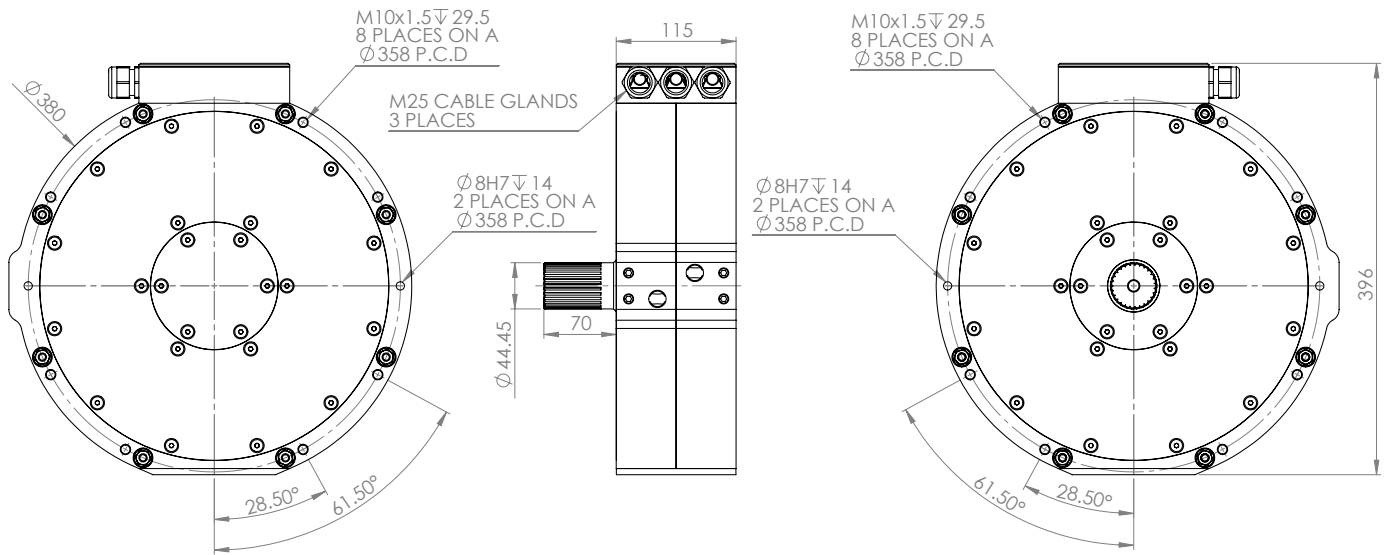


Input Voltage Dependent Performance

DC Voltage	Base Speed	Maximum Speed	Continuous Power	Peak Power
320VDC	2000	3000	45kW	84kW
450VDC	3000	4500	65kW	126kW
600VDC	4000	5000	75kW	167.5kW

Data shown are for indication only. Actual values are dependent on operating conditions and may vary.

Dimensions AF-140 Motor/Generator



Dimensions BEK-250 Inverter/Controller

