Hyperdrives One

Integrated electric drive unit for automotive applications

Hyperdrives One combines power density and versatility, enabled by Hyperdrives' advanced hollow-conductor cooling technology. With a fully integrated SiC inverter, the system delivers exceptional efficiency across a wide operational range. Built on the proven inner-runner radial flux architecture with an IPM rotor and standard materials, Hyperdrives One is engineered for scalability and cost-efficient mass production – defining a new benchmark in performance-to-cost. One is compact, lightweight, easy to install, and versatile in use, supporting all applications from automotive and marine to aerospace and industrial sectors.

Key Features

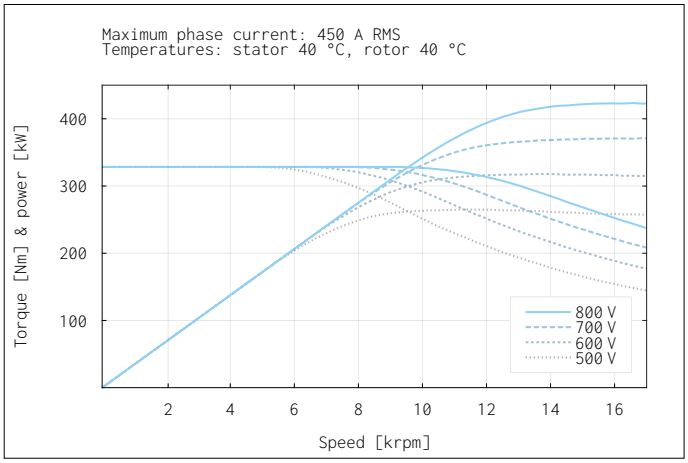
→ Superb system power density: peak 9.7 kW/kg & continuous 7.2 kW/kg
→ Fully integrated cooling loop for both motor and inverter
→ Class-leading performance-to-cost ready for mass production
→ Outstanding efficiency enabled by advanced SiC inverter and proprietary cooling technology

Specifications

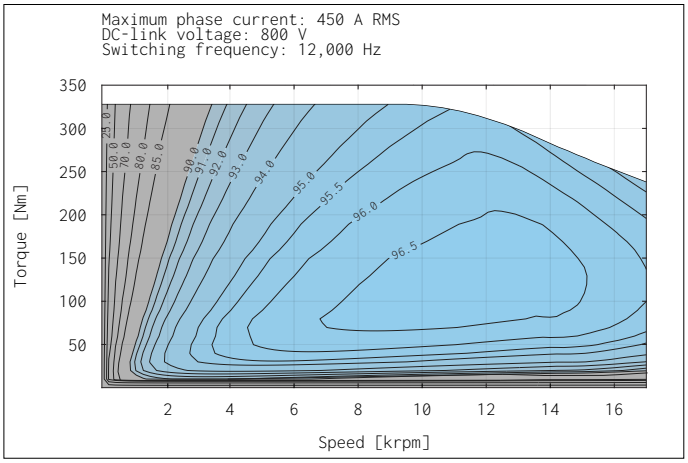
PERFORMANCE		
Maximum speed	17,000	rpm
Peak power	350	kW
Continuous power	260	kW
Peak torque	330	Nm
Continuous torque	300	Nm
ELECTRICAL		
Maximum DC voltage	800	VDC
LV-supply	9 to 28	VDC
Communication	CAN	

MECHANICAL		
Mass	36.1	kg
Rotational inertia	0.042	kg·m²
Cogging torque	±4.5	Nm
Ingress protection	IP67	
THERMAL		
Cooling fluid	dielectric oil	
Inlet temperature	-10 to +60	°C
Typical flow rate	20 to 40	l/min
Pressure drop	<1.5	bar

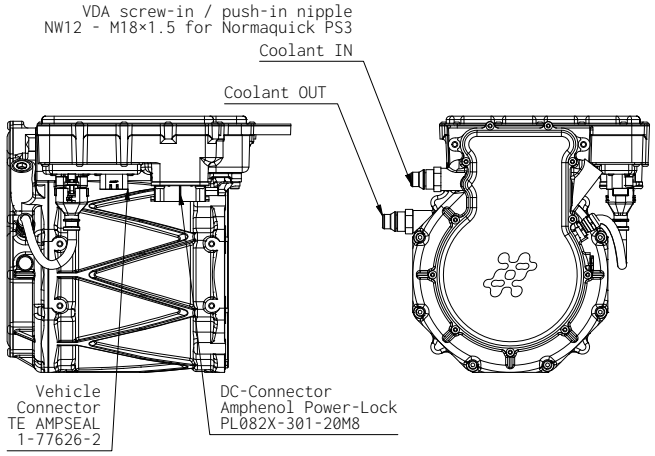
Maximum torque and power

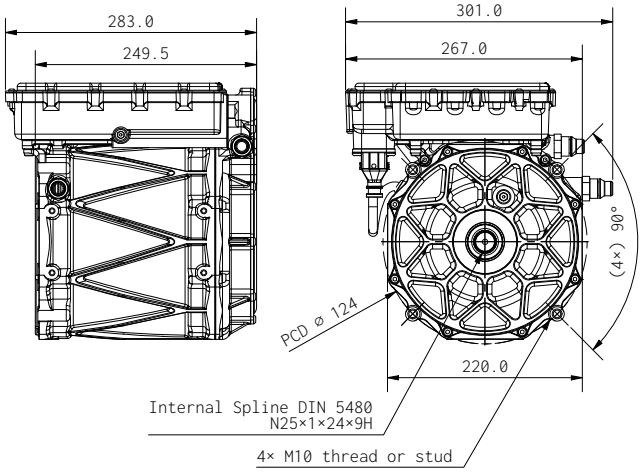


Efficiency map



Drawings





Email us for further information and inquiries:
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