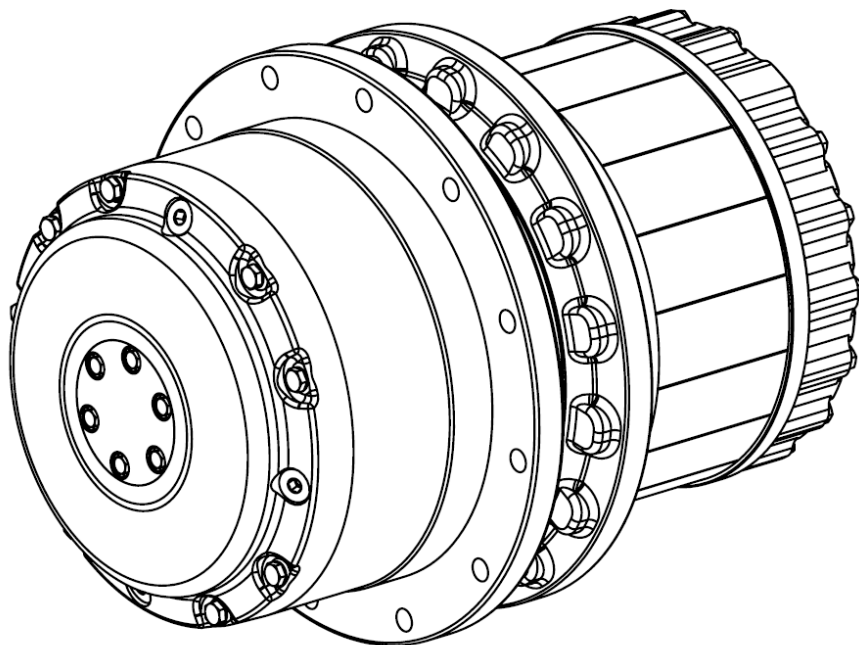


I&W

Electric Final Drive M280

Datasheet
v2021.08_A



Performance Characteristics

General Information

Ambient Temperature	-20°C to 25°C*
Insulation Class EN 60034-1	F(155°C)
Enclosure Type DIN EN 60529	IP67

*Derating for higher Temperatures

Drive

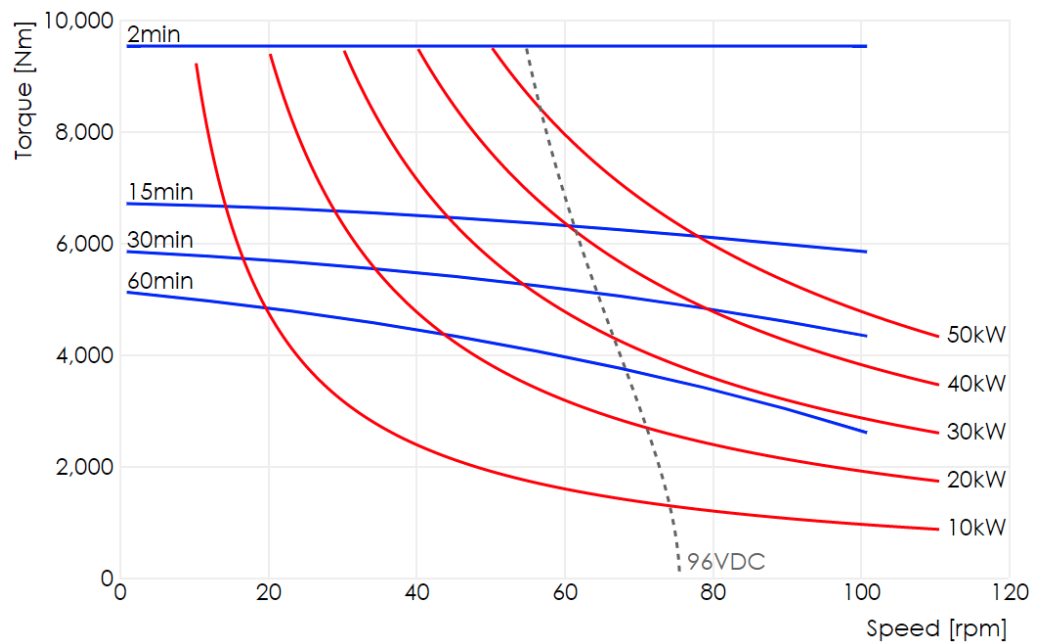
Engine Type	Permanentmagnet-Synchronous
Number of Poles	12
Reducer Ratio	40.5
Weight	142kg
Peak Torque (flange)	9510 Nm
Peak Current (rms)	660 Arms
S2 Rated Speed	40 rpm
S2 60min. Torque (flange)	4630 Nm
S2 60min. Current (rms, flange)	342 Arms
Torque Constant @ motor shaft	0.356 Nm / Arms
Back EMF Constant (Line to Line, peak, rpm @ motor shaft)	30.4 V / 1000 min ⁻¹
Electrical Resistance (Rs) @ 25°C	1.5 mΩ
Electrical Inductance @ 1kHz (Lq/Ld)	40 μH/34 μH

Mechanical Brake

Type	Currentless Brake
Function Principle	Braked Engine Shaft
Activation Voltage	80VDC
Hold Voltage	40VDC
Typ. Braking Torque	9500 Nm

Performance

- ■ ■ Speed limit at DC-link Voltage without field weakening



Feedback

Temperature Sensor

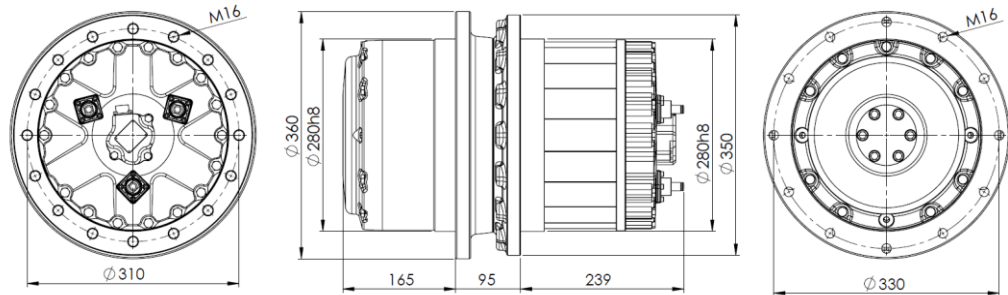
Sensor-Type	PT 1000
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Angle Sensor

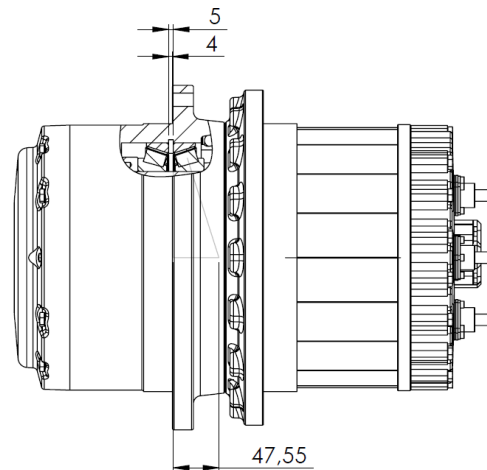
Sensor-Type	SIN/COS-Encoder
Power Supply (V_{dd})	5V +/-5%
Power Consumption	20mA
Output Amplitude	1.1 +/-0.2V _{pp}
Output Offset	$V_{dd}/2$ +/- 5mV
Internal serial Impedance	720Ω

Dimensions and Load

Dimensions



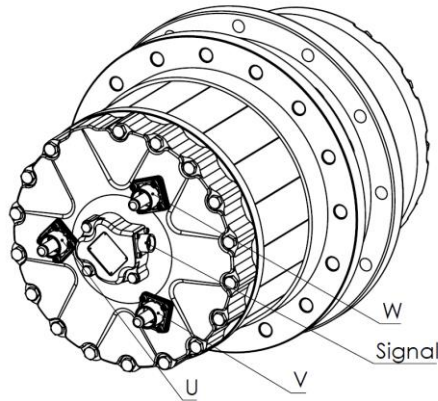
Bearing Capacity




C	2 x 309kN
C ₀	2 x 450kN

Connections

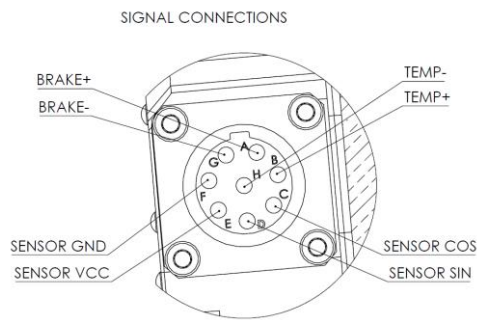
Power connections



Mating Connector	AMPHENOL Radlock
Part number	RL01201-120BK
Appearance	
Included	No

Cable-size	120mm ²
Included	No

Signal Connections (SIN/COS)



Mating Connector	Amphenol Ecomate RM
Connector	RT06128SNH
Backshell	RT0L-12CG-S1 (6-10.5mm cable)
Socket (8x)	SS20M1F (0.34-0.5 mm ²)
Included	No