

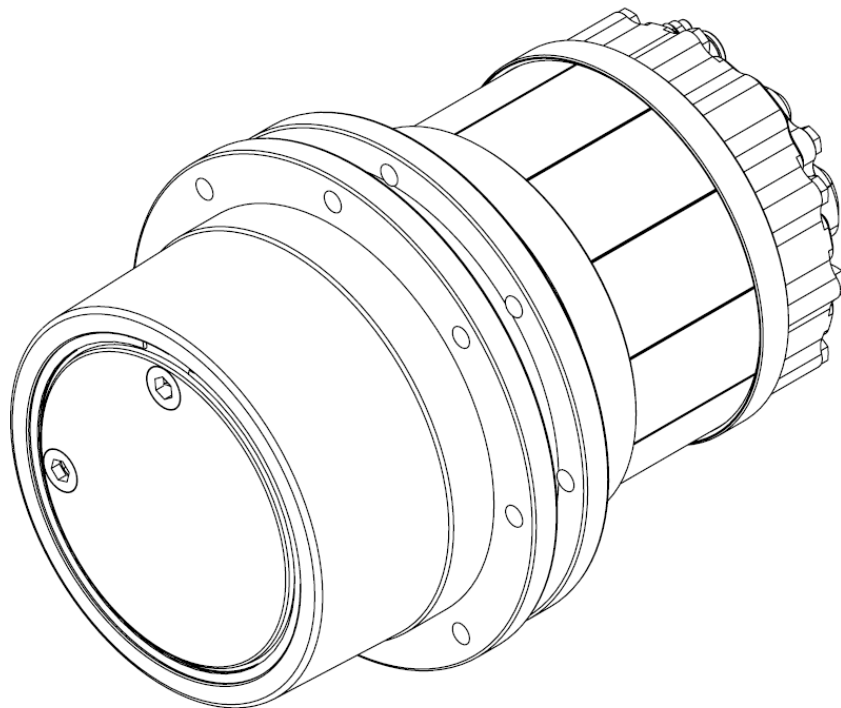


Electric Final Drive

M160i2 (48V)

Type M160i2_72_20_i42.7_B12V

Datasheet
v2020.05



Performance Characteristics

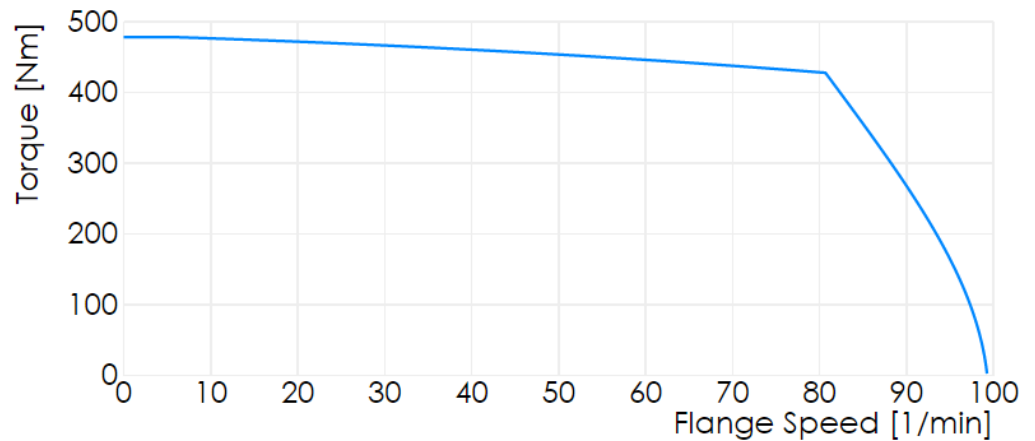
General Information	Ambient Temperature	-20°C to 25°C*
	Insulation Class EN 60034-1	F(155°C)
	Enclosure Type DIN EN 60529	IP67 (Connector Mated) IP69k optional

*Derating for higher Temperatures

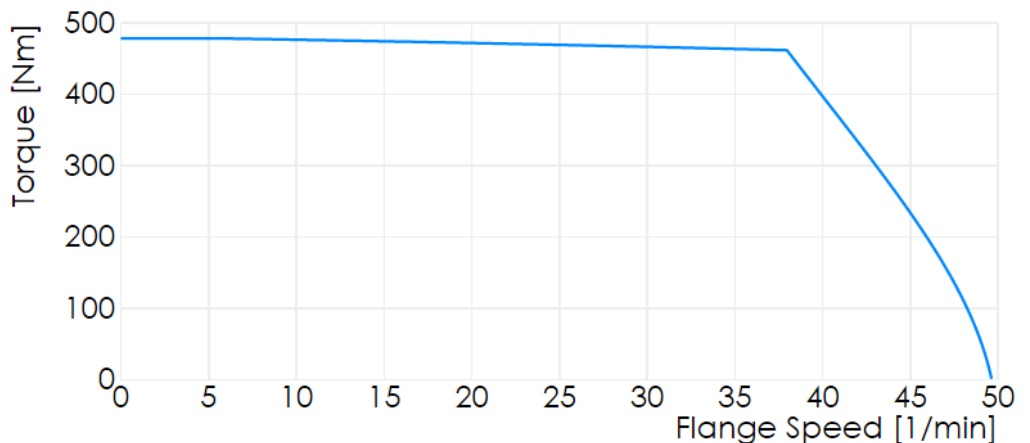
Drive	Engine Type	Permanentmagnet-Synchronous
	Number of Poles	8
	Reducer Ratio	42.7
	Weight	27.7kg
	Peak Torque(flange)	1078 Nm
	Peak Current (rms)	200 Arms
	Continuous Torque @ 30 1/min (flange)	466 Nm
	Continuous Current @ 30 1/min (rms, flange)	87 Arms
	Maximum Speed @ 48 V	99 1/min
	Maximum Speed @ 24 V	
	Torque Constant @ motor shaft	0.13 Nm / Arms
	Back EMF Constant (Line to Line, peak, rpm @ motor shaft)	11.3 V / 1000 min ⁻¹
	Electrical Resistance (Rs) @ 25°C	6 mΩ
Electrical Inductance @ 1kHz (Lq/Ld)	134 mH/112 mH (est)	

Mechanical Brake	Type	Currentless Brake
	Function Principle	Braked Engine Shaft
	Typ. Braking Torque	1100 Nm
	Activation Voltage	12V
	Min. Hold Voltage	2V

Performance @ 48VDC, Continuous



Performance @ 24VDC, Continuous



Feedback

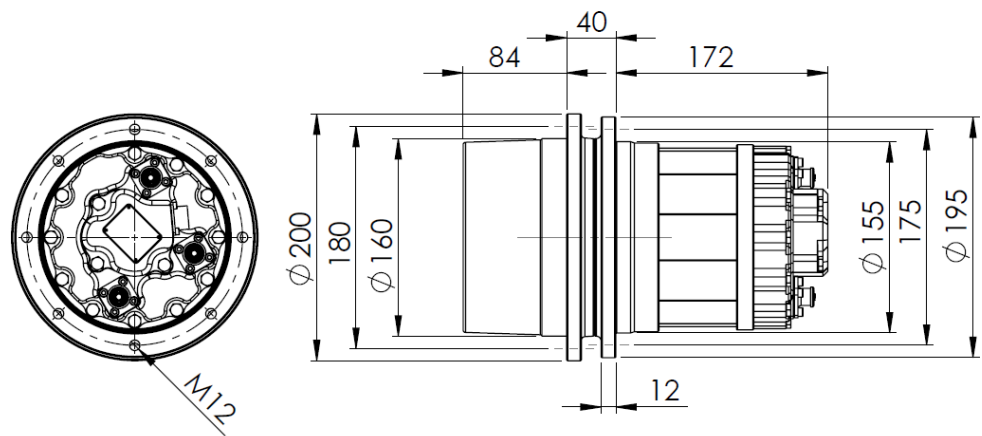
Temperature Sensor

Sensor-Type	PT 1000
-------------	---------

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

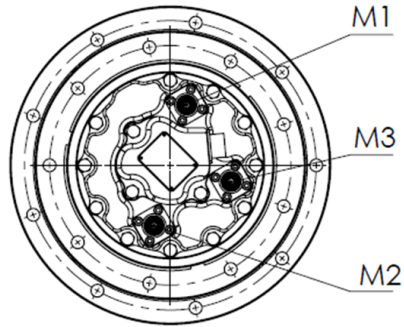


Bearing

F_{DYN}	43kN
F_{STAT}	57kN

Connections

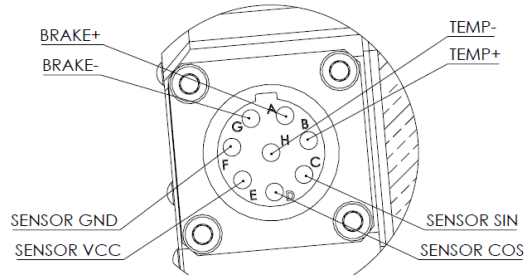
Power connections



Connector	AMPHENOL SURLOCK PLUS
Part number	SLPPA16BSO
Included	No

Cable-size	16mm ²
Cable Dia.	8.1 +/-0.2mm
Included	No

Signal Connections (SIN/COS)



Connector	Amphenol Ecomate RM
Part number	RT06128SNH
Included	No