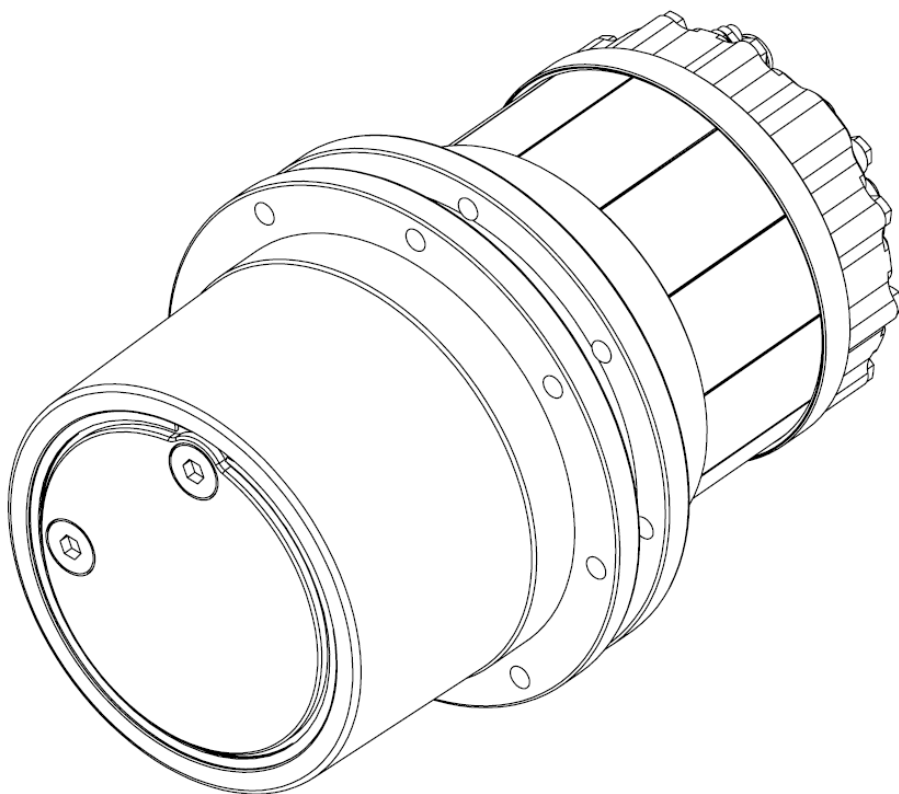


# I&W

## Electric Final Drive M160i3 (48V/96V)

Type M160i3\_72\_17\_i83.5\_B12V

Datasheet  
v2020.7



## Performance Characteristics

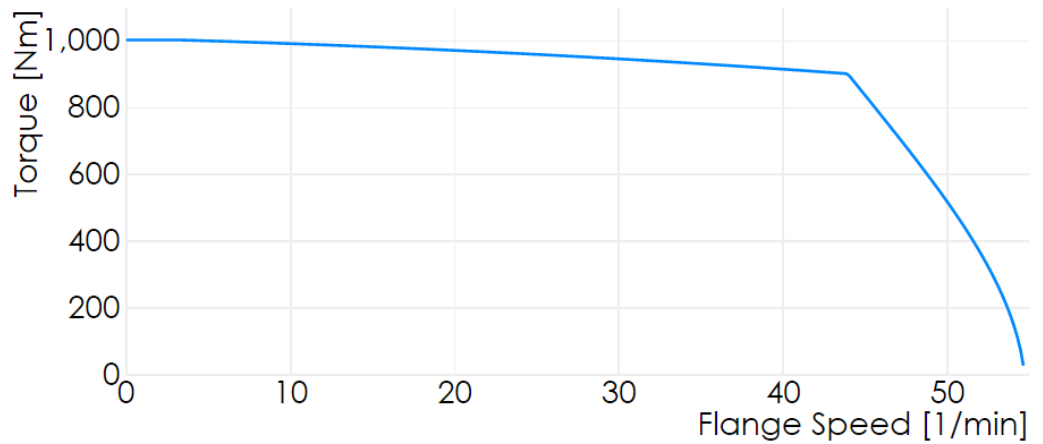
<b>General Information</b>	Ambient Temperature	-20°C to 25°C*
	Insulation Class EN 60034-1	F(155°C)
	Enclosure Type DIN EN 60529	IP67 (Connector Mated) IP69k optional

\*Derating for higher Temperatures

<b>Drive</b>	Engine Type	Permanentmagnet-Synchronous
	Number of Poles	8
	Reducer Ratio	83.5
	Weight	30kg
	Peak Torque(flange)	2200 Nm
	Peak Current (rms)	235 Arms
	Continuous Torque @ 10 1/min (flange)	992 Nm
	Continuous Current @ 10 1/min (rms, flange)	104 Arms
	Maximum Speed @ 48 V	54 1/min
	Torque Constant @ motor shaft	0.12 Nm / Arms
	Back EMF Constant (Line to Line, peak, rpm @ motor shaft)	10.5 V / 1000 min <sup>-1</sup>
	Electrical Resistance (Rs) @ 25°C	4.8 mΩ
Electrical Inductance @ 1kHz (Lq/Ld)	68 mH/57 mH	

<b>Mechanical Brake</b>	Type	Currentless Brake
	Function Principle	Braked Engine Shaft
	Typ. Braking Torque	2200 Nm
	Activation Voltage	12V

**Performance @ 48VDC, Continuous**



## Feedback

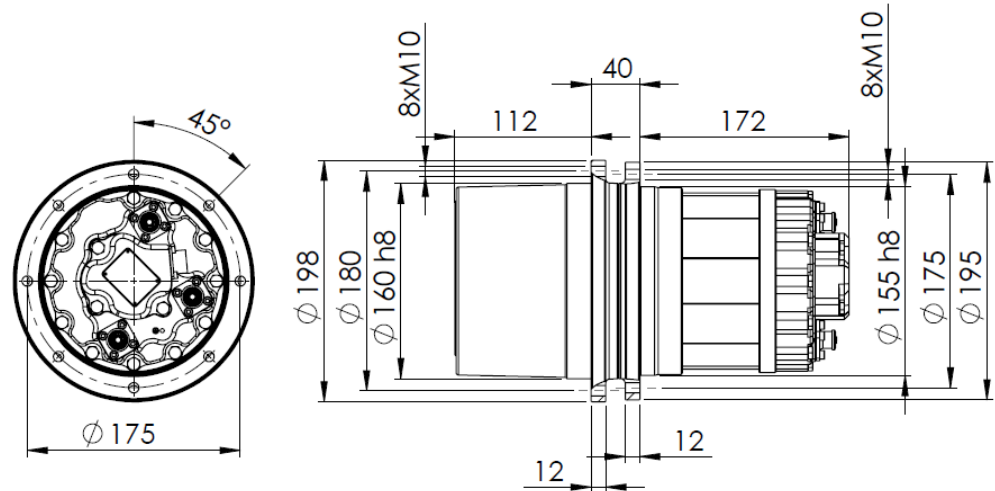
### Temperature Sensor

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 <sub>pp</sub>
Output Offset	$V_{dd}/2$ +/- 5mV
Internal serial Impedance	720Ω

## Dimensions and Load

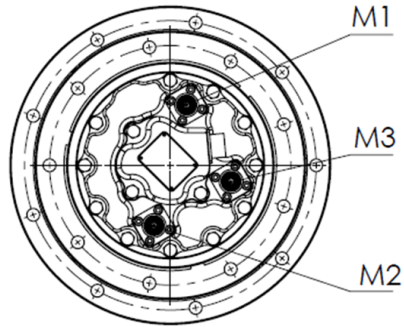


### Bearing

F <sub>DYN</sub>	43kN
F <sub>STAT</sub>	57kN

## Connections

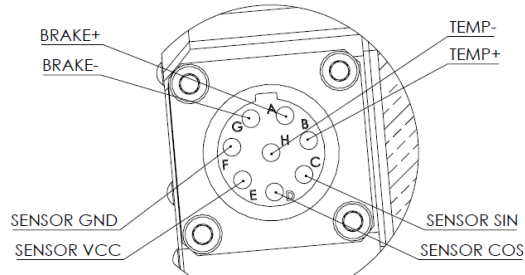
### Power connections



Connector	AMPHENOL SURLOCK PLUS
Part number	SLPPA16BSO
Included	No

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

### Signal Connections (SIN/COS)



Connector	Amphenol Ecomate RM
Part number	RT06128SNH
Included	No