

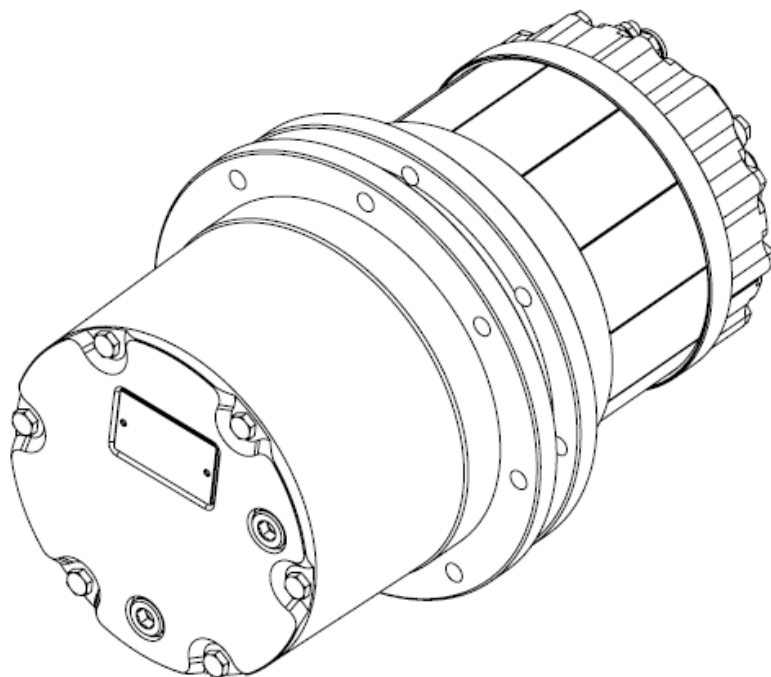


# Electric Final Drive

## M160i3 (400V)

Type M160i3\_72\_650\_i83.5\_B24V

Datasheet  
v2020.06



## 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

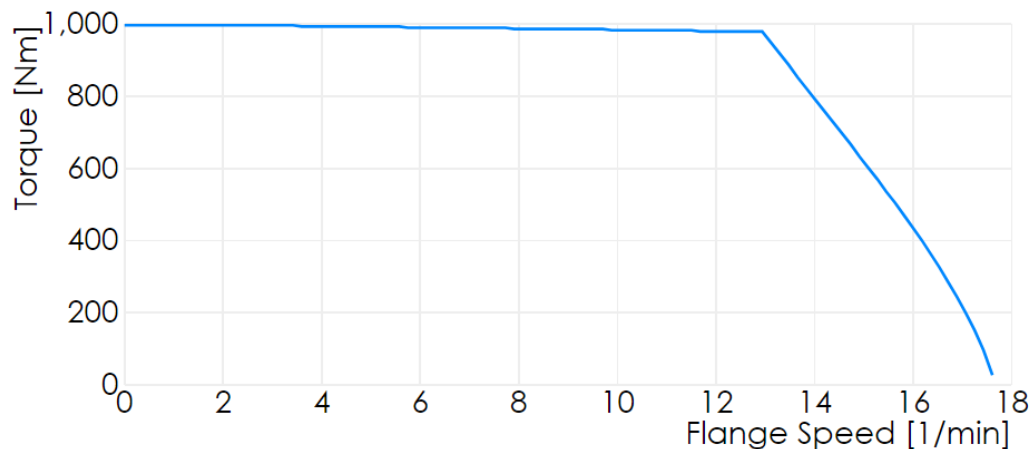
### Drive

Engine Type	Permanentmagnet-Synchronous
Number of Poles	8
Reducer Ratio	83.5
Weight	30kg
Peak Torque(flange)	2200 Nm
Peak Current (rms)	7 Arms
Continuous Torque @ 10 l/min (flange)	980 Nm
Continuous Current @ 10 l/min (rms, flange)	2.9 Arms
Maximum Speed @ 96 V	84.5 l/min
Torque Constant @ motor shaft	4.44 Nm / Arms
Back EMF Constant (Line to Line, peak, rpm @ motor shaft)	380 V / 1000 min <sup>-1</sup>
Electrical Resistance (Rs) @ 25°C	6.3 Ω
Electrical Inductance @ 1kHz (Lq/Ld)	92 mH/68 mH

### Mechanical Brake

Type	Currentless Brake
Function Principle	Braked Engine Shaft
Typ. Braking Torque	2200 Nm
Activation Voltage	24V

### Performance @ 400VAC, Continuous



## Feedback

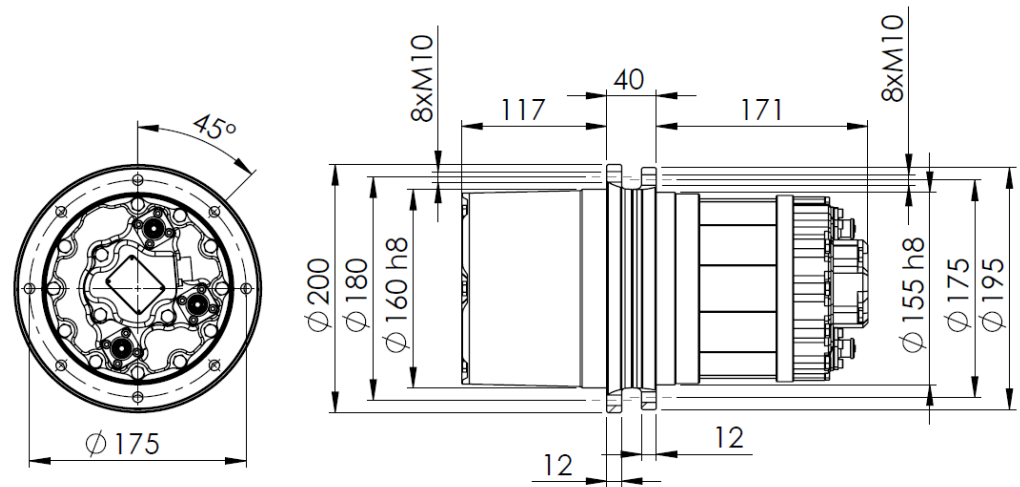
### Temperature Sensor

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

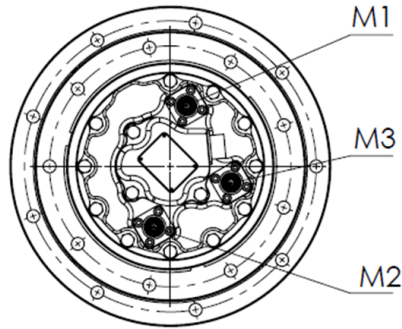


### Bearing

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

# Connections

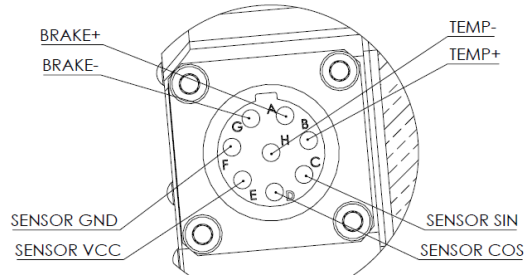
## Power connections



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