



Direct Drive Motor Specification

Motor Model Number
MB30W63

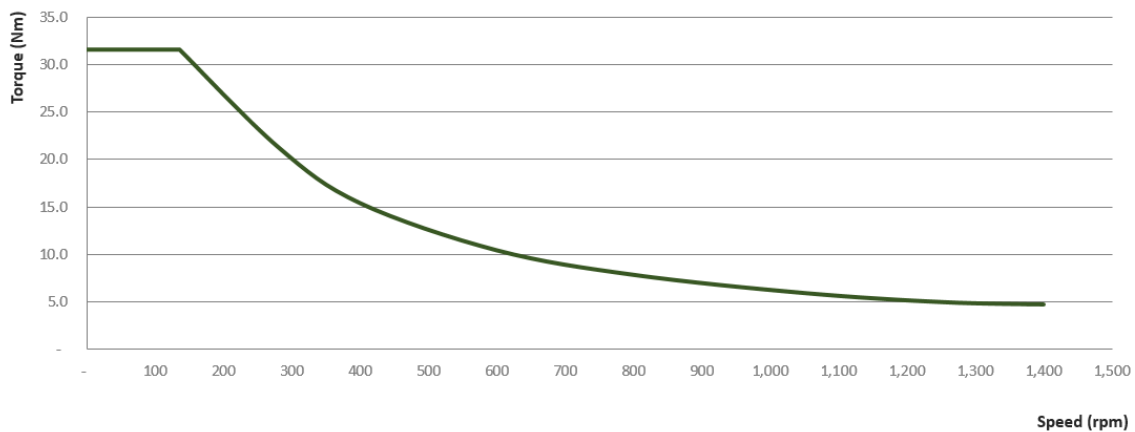
PARAMETER	VALUE	COMMENT
GENERAL		
Motor type	3-phase brushless permanent-magnet Outer rotor	27 stator poles, 36 rotor poles Sinusoidal Back-EMF wave shape Aluminium wire and Ferrite magnet
Rotor position sensor (RPS – optional)	N/A	Vector sensorless control
Ambient temperature	Operating temp: -10°C to +40°C Storage temp: -40°C to +60°C	at 85% RH
Total motor mass	5.9 kg	
MOTOR FUNDAMENTALS		
K_e - BEMF constant	3.41 $V_{rms}/rad.s^{-1}$	Line to neutral, RMS Voltage
K_t – Torque constant	10.22 Nm/A	
K_m - Motor constant	2.07 Nm/\sqrt{Watt}	
Inductance	77.9 mH	Line to neutral inductance (includes self and mutual inductance)
INDICATIVE PERFORMANCE * / ** AT NOMINAL 230V_{RMS}		
Speed – maximum	1,400 rpm	*
Torque at 140 rpm	31 Nm	*
Torque at 1,200 rpm	5 Nm	*
Power output – at 140 rpm	460 W	* at 31 Nm torque
Power output – at 1,200 rpm	640 W	* at 5 Nm torque
Efficiency at 140 rpm	60%	* at 31 Nm torque
Efficiency at 1,200 rpm	79%	* at 5 Nm torque

* Reference values using Fisher & Paykel motor control at 22 °C. Values may vary using different control board and different tests conditions

** Different performance levels might be achieved through motor customization to other applications.

Pull Down curve at 230V 50Hz

Reference curve using Fisher & Paykel Components and Technology control board

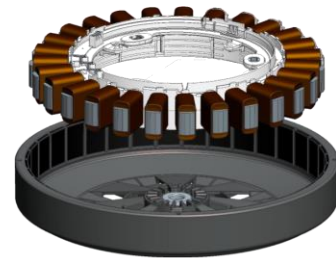
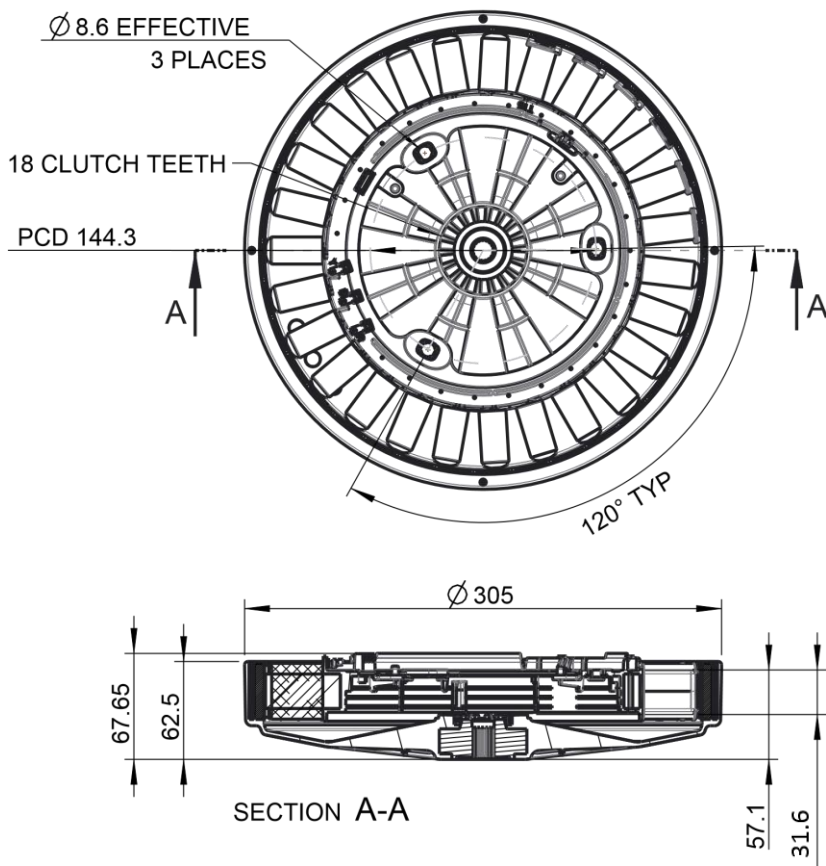




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OVERALL DIMENSIONS ***



*** All dimensions in mm