



## Direct Drive Motor Specification

Motor Model Number  
**MB23G**

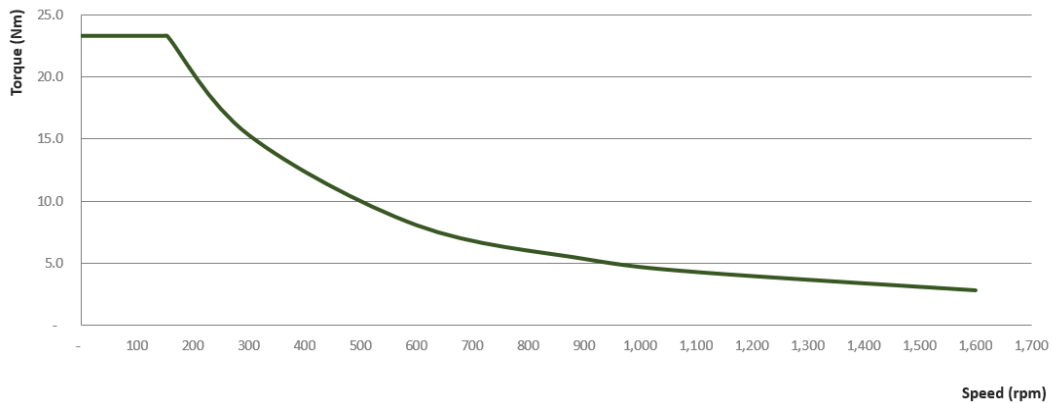
PARAMETER	VALUE	COMMENT
<b>GENERAL</b>		
Motor type	3-phase brushless permanent-magnet Outer rotor	27 stator poles, 36 rotor poles Sinusoidal Back-EMF wave shape Aluminium wire and Ferrite magnet
Rotor position sensor (RPS – optional)	N/A	Vector sensorless control
Ambient temperature	Operating temp: -10°C to +40°C Storage temp: -40°C to +60°C	at 85% RH
Total motor mass	4.5 kg	
<b>MOTOR FUNDAMENTALS</b>		
$K_e$ - BEMF constant	3.25 $V_{rms}/rad.s^{-1}$	Line to neutral, RMS Voltage
$K_t$ – Torque constant	9.75 Nm/A	
$K_m$ - Motor constant	1.51 $Nm/\sqrt{Watt}$	
Inductance	78.9 mH	Line to neutral inductance (includes self and mutual inductance)
<b>INDICATIVE PERFORMANCE * / ** AT NOMINAL 230V<sub>RMS</sub></b>		
Speed – maximum	1,600 rpm	*
Torque at 140 rpm	23 Nm	*
Torque at 1,600 rpm	3 Nm	*
Power output – at 140 rpm	340 W	* at 23 Nm torque
Power output – at 1,600 rpm	470 W	* at 3 Nm torque
Efficiency at 140 rpm	51%	* at 23 Nm torque
Efficiency at 1,600 rpm	62%	* at 3 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

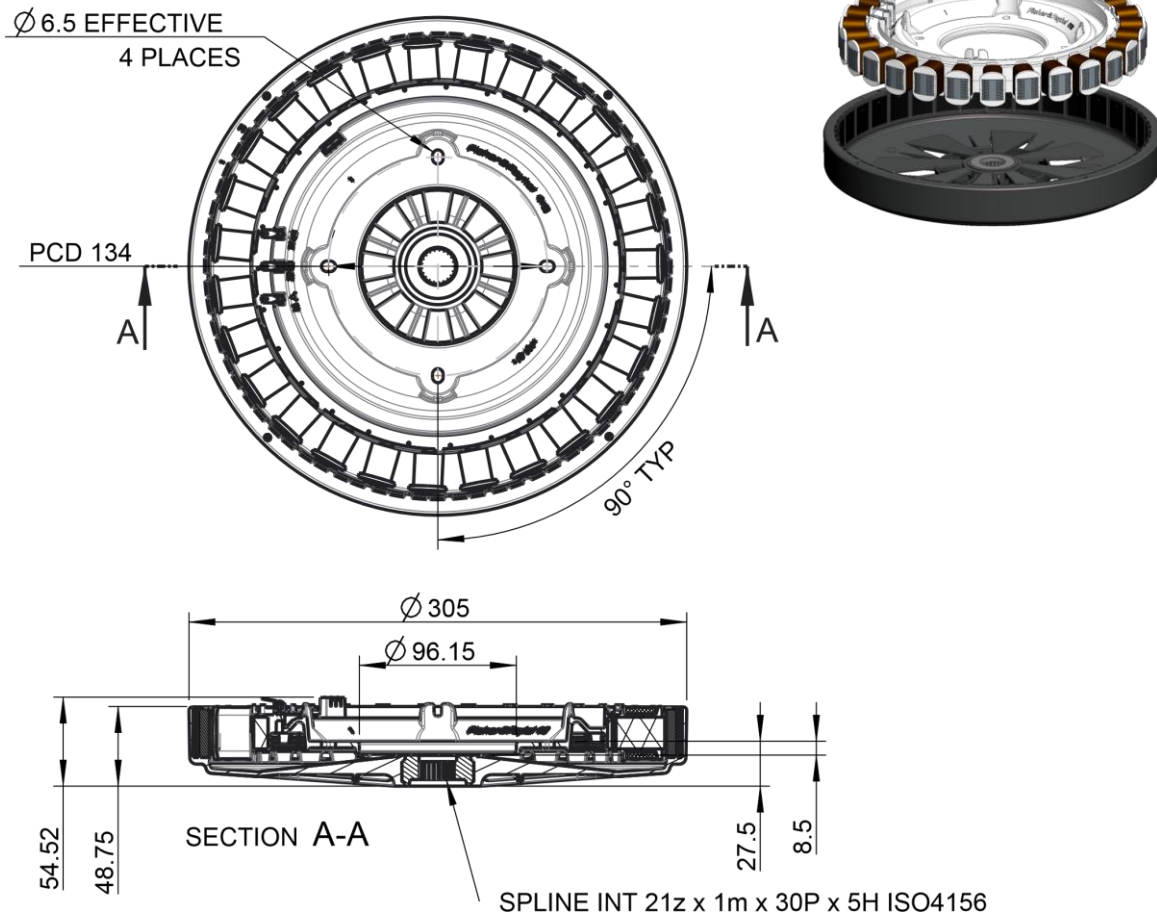




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## OVERALL DIMENSIONS \*\*\*



\*\*\* All dimensions in mm