



## Direct Drive Motor Specification

Motor Model Number  
**MF08A**

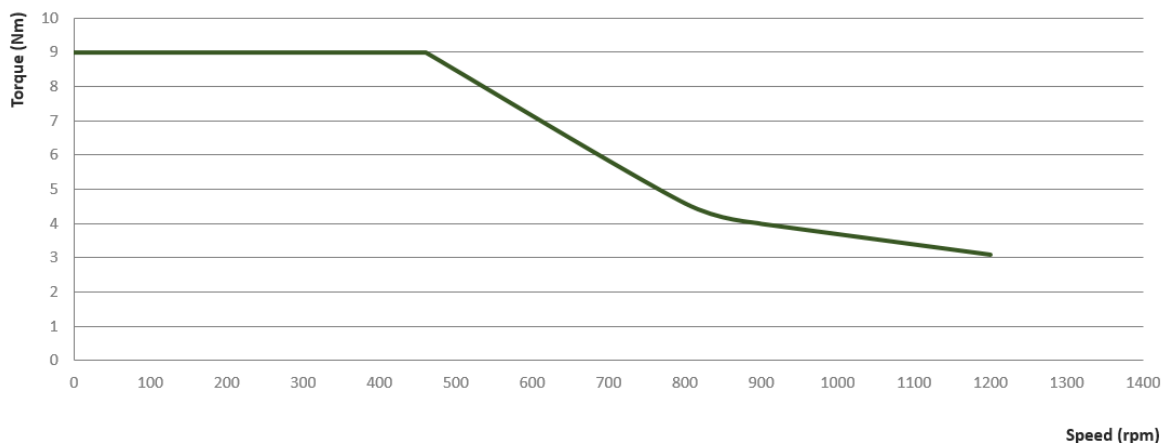
PARAMETER	VALUE	COMMENT
<b>GENERAL</b>		
Motor type	3-phase brushless permanent-magnet Outer rotor	15 stator poles, 20 rotor poles Sinusoidal Back-EMF wave shape Aluminium wire and Ferrite magnet
Rotor position sensor (RPS – optional)	N/A	Vector sensorless control
Ambient temperature	Operating temp: -10°C to +40°C Storage temp: -40°C to +60°C	at 85% RH
Total motor mass	2.3 kg	
<b>MOTOR FUNDAMENTALS</b>		
$K_e$ - BEMF constant	1.01 $V_{rms}/rad.s^{-1}$	Line to neutral, RMS Voltage
$K_t$ – Torque constant	3.04 Nm/A	
$K_m$ - Motor constant	0.63 $Nm / \sqrt{Watt}$	
Inductance	50.3 mH	Line to neutral inductance (includes self and mutual inductance)
<b>INDICATIVE PERFORMANCE * / ** AT NOMINAL 220V<sub>RMS</sub></b>		
Speed – maximum	1,200 rpm	*
Torque at 460 rpm	9 Nm	*
Torque at 1,100 rpm	3.4 Nm	*
Power output – at 460 rpm	430 W	* at 9 Nm torque
Power output – at 1,100 rpm	390 W	* at 3.4 Nm torque
Efficiency at 460 rpm	58%	* at 9 Nm torque
Efficiency at 1,100 rpm	84%	* at 3.4 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 220V 50Hz

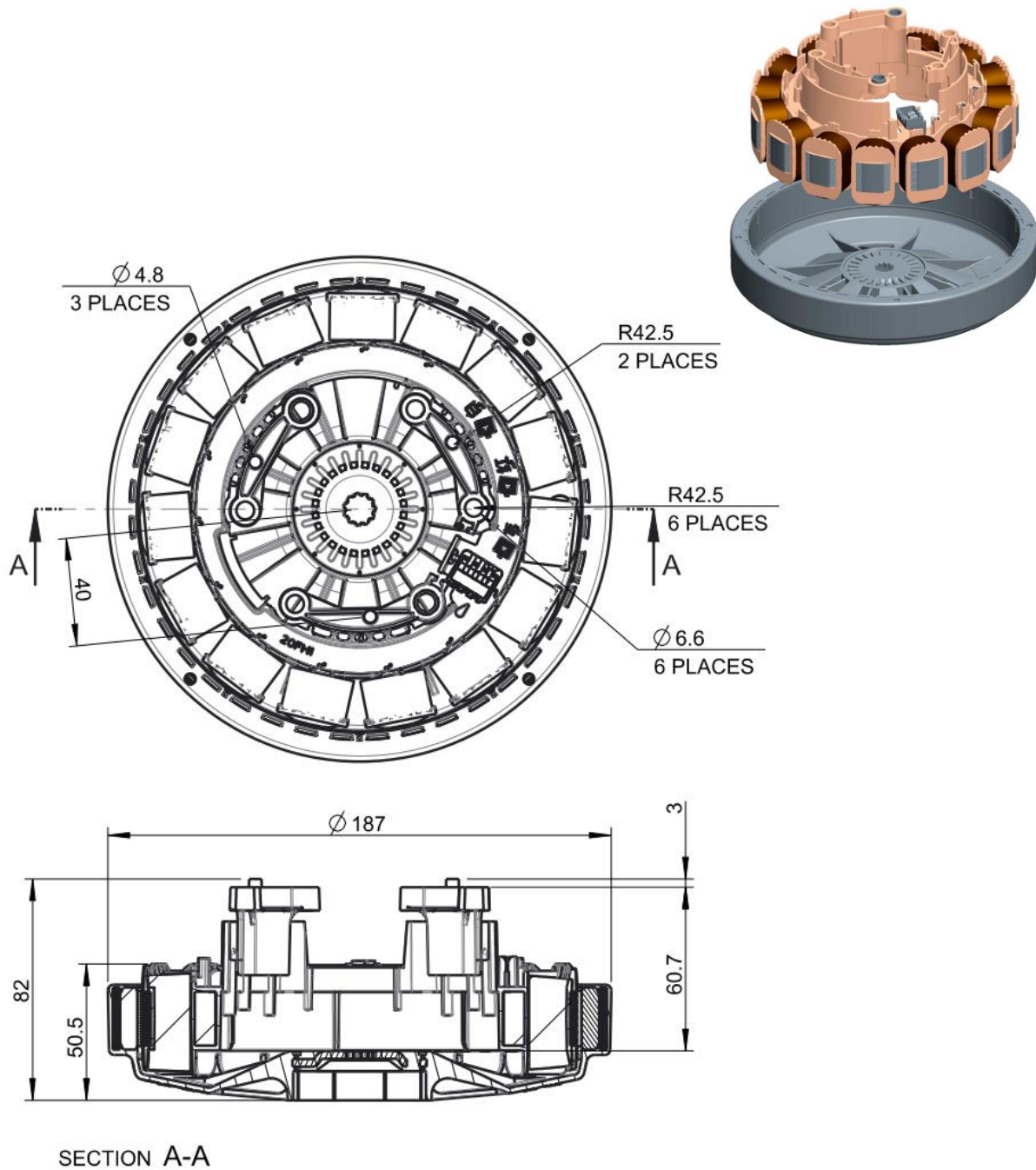
Reference curve using Fisher & Paykel Components and Technology control board



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**OVERALL DIMENSIONS \*\*\***



\*\*\* All dimensions in mm