



# High Speed Motor Specification

Motor Model Number  
**MK2.4B2221**

PARAMETER	NOMINAL VALUE	COMMENT
<b>GENERAL</b>		
Type	3-phase brushless permanent-magnet Internal rotor	12 stator poles, 8 rotor poles Sinusoidal Back-EMF wave shape 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 +65°C	
Total motor mass	3.0 kg	
<b>MOTOR FUNDAMENTALS @22°C</b>		
$K_e$ - BEMF constant	0.195 V/rad.s-1	Line to neutral, RMS Voltage
$K_t$ – Torque constant	0.585 Nm/A	
$K_m$ - Motor constant	0.184 $Nm/\sqrt{Watt}$	
Inductance	22.66 mH	Line to neutral inductance (includes self and mutual inductance)
<b>INDICATIVE PERFORMANCE */ ** AT NOMINAL 230V<sub>RMS</sub></b>		
Speed – maximum	17,000 rpm	*
Max. Torque at 580 rpm	2.40 Nm	*
Max. Torque at 16800 rpm	0.28 Nm	*
Efficiency at 580 rpm	62.6%	* at 1.1 Nm torque
Efficiency at 16800 rpm	77.0%	* at 0.28 Nm torque

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

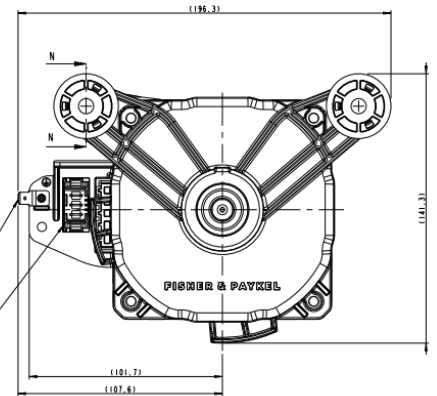
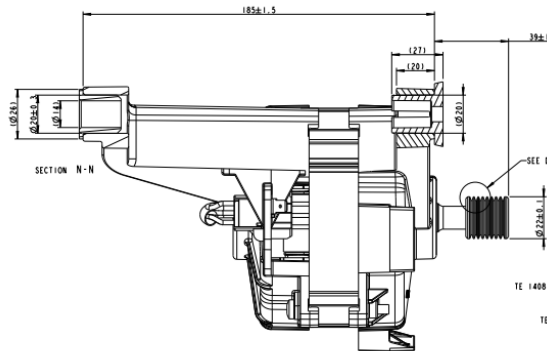
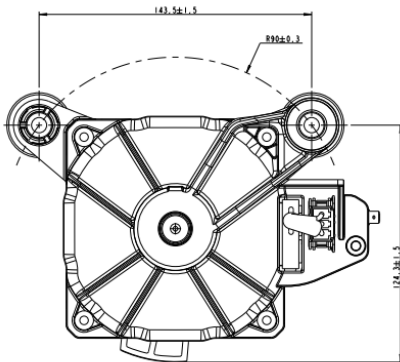
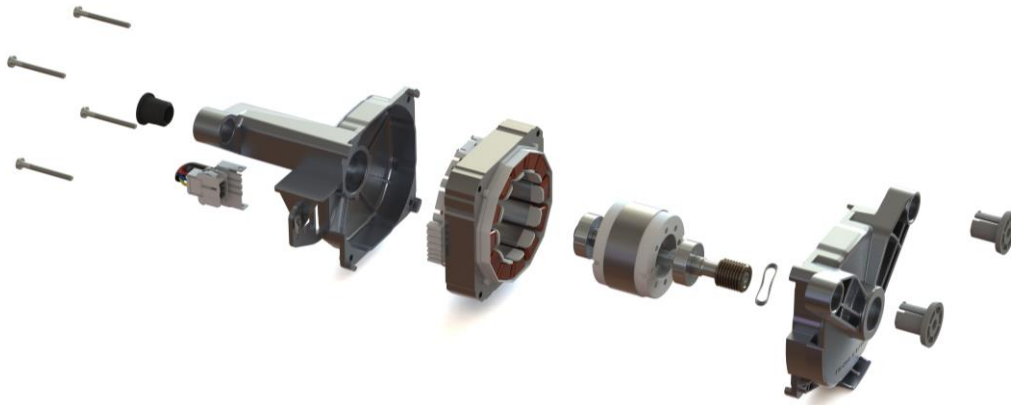
\*\* Different performance levels might be achieved through motor customization to other applications.



# High Speed Motor Specification

Motor Model Number  
**MK2.4B2221**

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



\*all dimensions in mm