

PM042DK Brush DC Motor Series

General Features

- Size 42 mm
- Heavy Gage Steel Housing
- Torques up to 36.00 Oz-in Peak, 15.00 Oz-in continuous
- Speeds up to 4300 RPM
- Voltage rating up to 24 Vdc
- 2 Pole Brush Design
- Class B rated construction

Available Options

- Encoder - IMS Q or EQM35 Series
- Connectors and Matting cables
- Custom Shaft ends
- Custom Winding (Voltage or Current)
- Gearbox - IMS EL42 Series



Technical and Performance Data

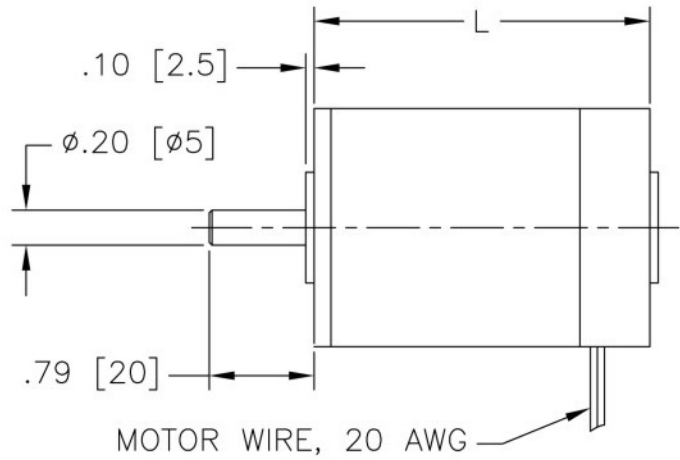
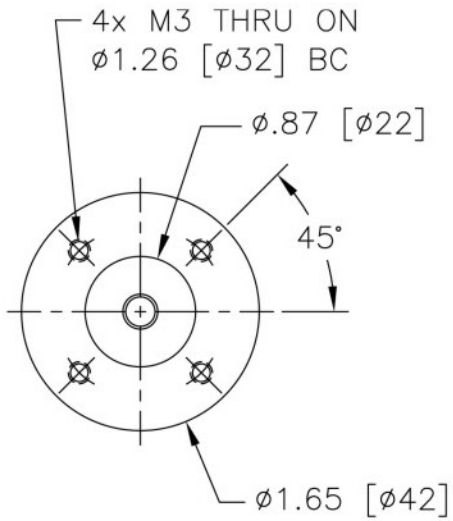
Model Number		PM042DK100	PM042DK200	PM042DK300
General				
Terminal Voltage	Vdc	24.00	24.00	24.00
Continuous Stall Torque	Oz-in	8.69	12.54	15.70
	Nm	0.06	0.09	0.11
Continuous Current (3)	Amps	1.52	1.99	2.35
Peak Stall Torque	Oz-in	19.94	31.40	36.69
	Nm	0.14	0.22	0.26
Peak Current (3)	Amps	3.27	4.69	5.23
Rated Speed @ Terminal Voltage	RPM	3200	3000	2600
Rated Torque @ Rated Speed	Oz-in	5.30	8.00	13.00
	Nm	0.04	0.06	0.09
Rated Output Power @ Rated Speed	Watts	13	18	25
Thermal Resistance	°C/W	8.0	6.5	5.0
Electrical				
Torque Constant (± 10%), (2)	Oz-in/Amp	7.21	7.83	8.14
	Nm/Amp	0.0509	0.0553	0.0575
Voltage Constant (± 10%), (2)	V/KRPM	5.34	5.80	6.03
	V s/rad	0.0509	0.0553	0.0575
Resistance (± 15%), (2)	Ohms	5.95	4.15	3.72
Inductance (± 15%), (2)	mH	8.90	4.52	4.05
Mechanical				
Inertia	Oz-In-Sec ²	0.000850	0.001350	0.001841
	kg m ²	6.00E-06	9.53E-06	1.30E-05
Maximum Speed (1)	RPM	4300	3900	3800
Weight	Oz	16.9	21.2	22.6
	gm	480.00	600.00	640.00
Length	Inch	2.95	3.35	3.74
	mm	75.00	85.00	95.00

(1) Maximum Speed can be limited by bus voltage and feedback types

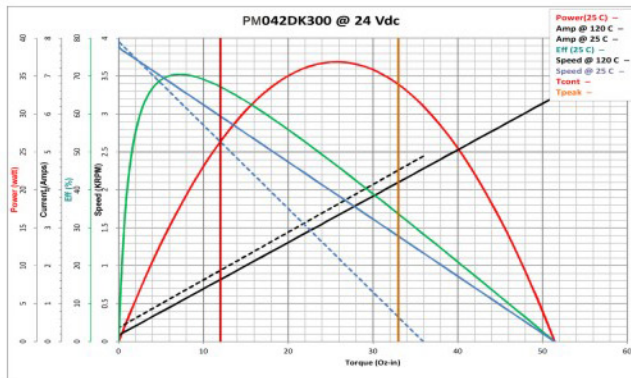
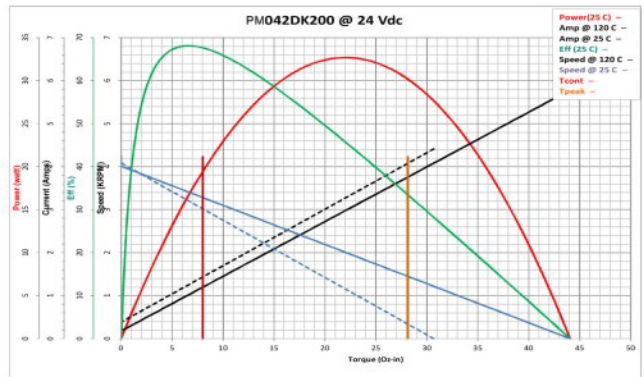
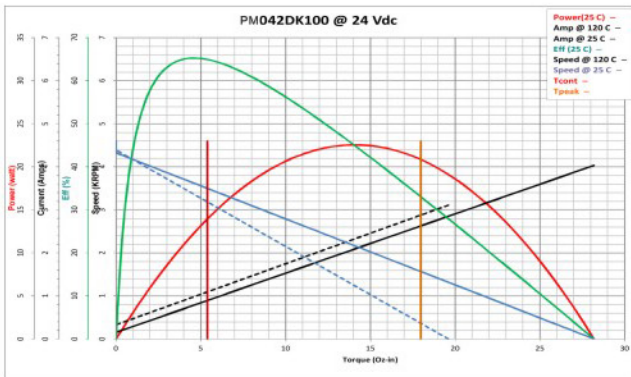
(2) Measure values at 20 °C

(3) Current values are at maximum allowable winding temperature 125 °C

Outline Drawing and Dimensional Data



Performance Curves



* Motor performance curves may vary with the drive technology used

** Motor performance curves may vary based upon the quality of the input voltage