

PM080FG Brush DC Motor Series

General Features

- Heavy Duty NEMA 34
- Ball Bearing
- Torques up to 1150.00 Oz-in Peak, 230.00 Oz-in continuous
- Speeds up to 6000 RPM
- Voltage rating up to 90 Vdc
- 2 Pole Brush Design
- Class F rated construction

Available Options

- Encoder - IMS Q or EQM35 Series
- Connectors and Matting cables
- Custom Shaft ends
- Custom Winding (Voltage or Current)
- Gearbox - IMS EL80 Series
- Custom Mounting



Technical and Performance Data

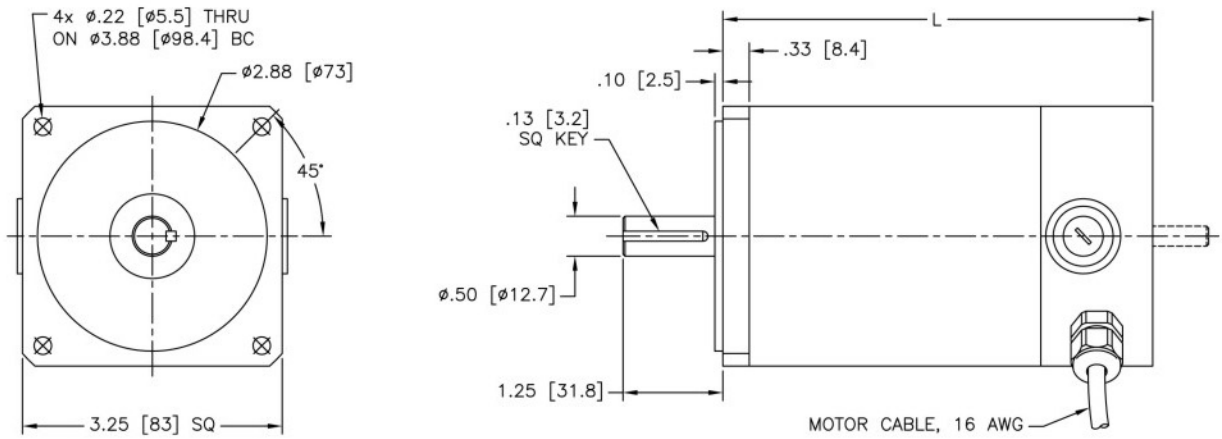
Model Number		PM080FG200	PM080FG400	PM080FG450	PM080FG500	PM080FG600
General						
Terminal Voltage	Vdc	90.00	90.00	90.00	90.00	90.00
Continuous Stall Torque	Oz-in	75.14	125.15	124.08	170.08	231.19
	Nm	0.53	0.88	0.88	1.20	1.63
Continuous Current (3)	Amps	5.58	5.61	8.47	8.18	8.66
Peak Stall Torque	Oz-in	375.68	625.73	620.38	850.39	1155.93
	Nm	2.65	4.42	4.38	6.01	8.16
Peak Current (3)	Amps	25.50	26.36	39.40	38.65	41.41
Rated Speed @ Terminal Voltage	RPM	6000	4100	6000	4500	3500
Rated Torque @ Rated Speed	Oz-in	50.00	90.00	75.00	130.00	190.00
	Nm	0.35	0.64	0.53	0.92	1.34
Rated Output Power @ Rated Speed	Watts	222	273	333	433	492
Thermal Resistance	°C/W	2.8	2.5	2.2	1.9	1.5
Electrical						
Torque Constant (± 10%), (2)	Oz-in/Amp	16.88	27.00	17.96	24.98	31.59
	Nm/Amp	0.1192	0.1907	0.1268	0.1764	0.2231
Voltage Constant (± 10%), (2)	V/KRPM	12.50	20.00	13.30	18.50	23.40
	V s/rad	0.1192	0.1907	0.1268	0.1764	0.2231
Resistance (± 15%), (2)	Ohms	1.55	1.78	0.91	1.05	1.19
Inductance (± 15%), (2)	mH	3.90	5.00	2.31	2.92	3.50
Mechanical						
Inertia	Oz-In-Sec ²	0.018980	0.033008	0.033000	0.048000	0.063000
	kg m ²	1.34E-04	2.33E-04	2.33E-04	3.39E-04	4.45E-04
Maximum Speed (1)	RPM	6000	4400	6000	4800	3800
Weight	Oz	89.6	115.3	115.3	115.3	115.3
	gm	2540.00	3270.00	3270.00	3270.00	3270.00
Length	Inch	4.78	5.78	5.78	6.77	7.78
	mm	121.40	146.80	146.80	172.00	197.60

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

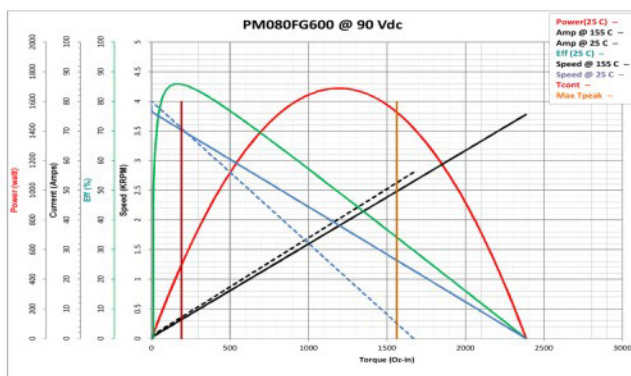
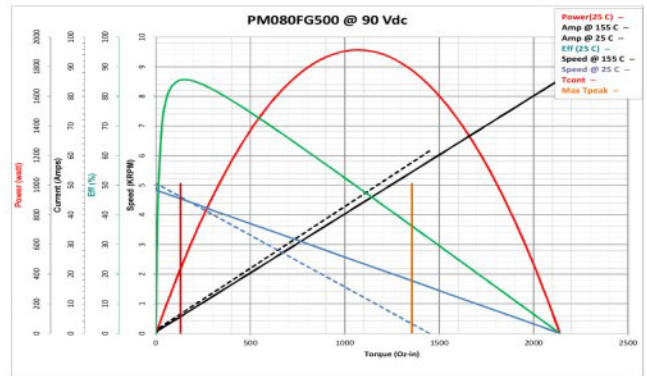
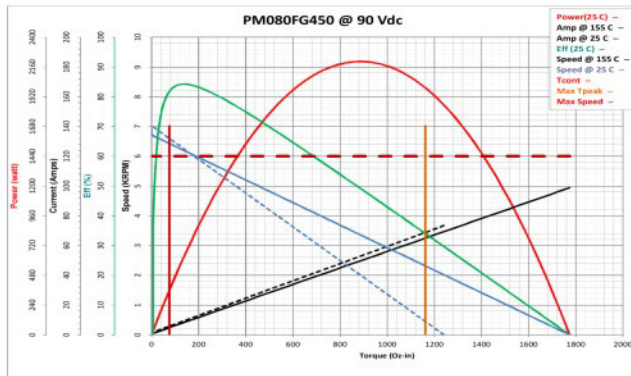
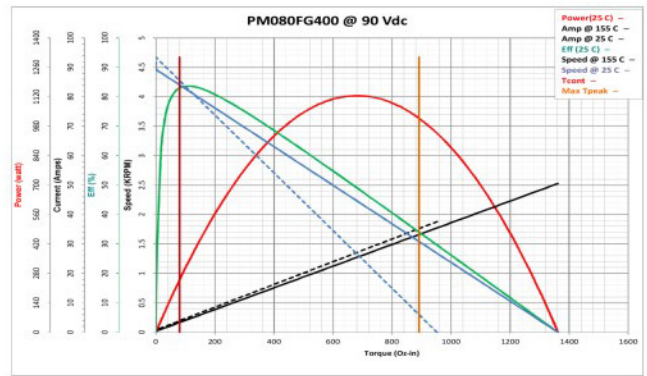
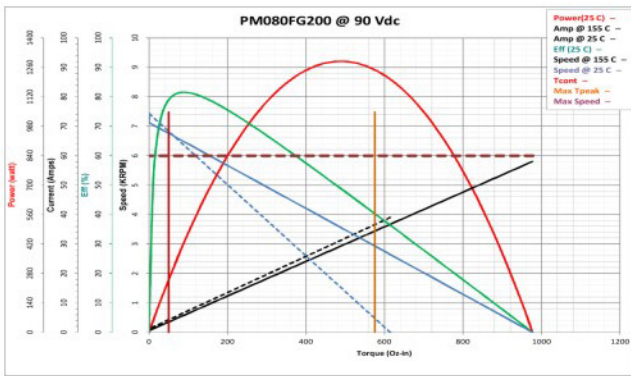
(2) Measure values at 20 °C

(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