

## PM057DG Brush DC Motor Series

### General Features

- Size 57 mm NEMA23 flange
- Ball Bearing
- Torques up to 385.00 Oz-in Peak, 55.00 Oz-in continuous
- Speeds up to 6000 RPM
- Voltage rating up to 60 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 EL52 or EL60 Series
- Round Flange Mounting



### Technical and Performance Data

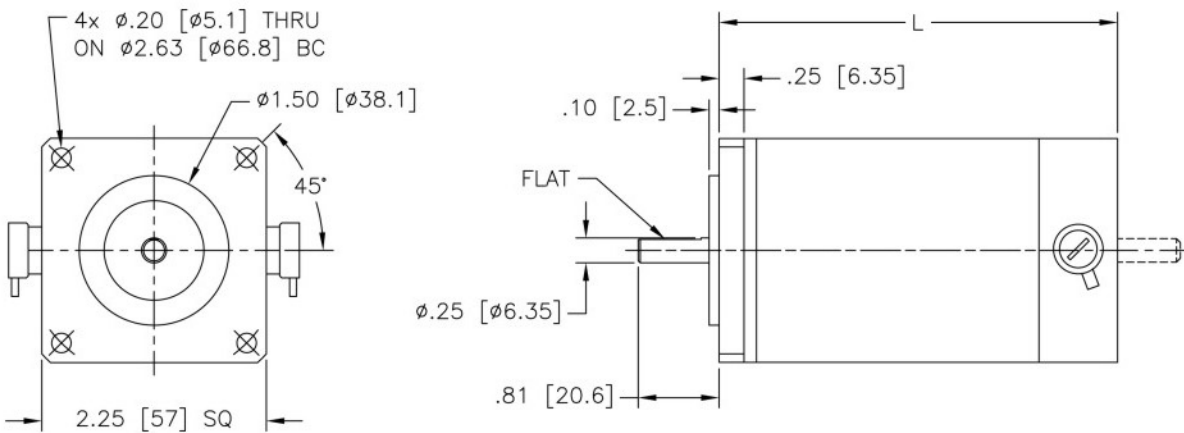
Model Number		PM057DG100	PM057DG210	PM057DG310	PM057DG410	PM057DG430
<b>General</b>						
Terminal Voltage	Vdc	60.00	60.00	60.00	60.00	60.00
Continuous Stall Torque	Oz-in	14.00	33.33	50.10	55.00	55.12
	Nm	0.10	0.24	0.35	0.39	0.39
Continuous Current (3)	Amps	0.62	4.09	4.06	3.85	5.48
Peak Stall Torque	Oz-in	32.41	233.32	323.35	304.99	385.87
	Nm	0.23	1.65	2.28	2.15	2.72
Peak Current (3)	Amps	1.38	26.46	24.65	20.16	35.93
Rated Speed @ Terminal Voltage	RPM	1800	6000	5000	4100	6000
Rated Torque @ Rated Speed	Oz-in	13.20	21.00	38.00	44.00	36.00
	Nm	0.09	0.15	0.27	0.31	0.25
Rated Output Power @ Rated Speed	Watts	18	93	141	133	160
Thermal Resistance	°C/W	10.0	5.0	4.2	3.8	3.8
<b>Electrical</b>						
Torque Constant (± 10%), (2)	Oz-in/Amp	27.00	10.00	14.85	17.15	12.15
	Nm/Amp	0.1907	0.0706	0.1049	0.1211	0.0858
Voltage Constant (± 10%), (2)	V/KRPM	20.00	7.41	11.00	12.70	9.00
	V s/rad	0.1907	0.0706	0.1049	0.1211	0.0858
Resistance (± 15%), (2)	Ohms	32.00	1.55	1.80	2.20	1.10
Inductance (± 15%), (2)	mH	50.00	3.39	5.00	6.40	2.00
<b>Mechanical</b>						
Inertia	Oz-In-Sec <sup>2</sup>	0.001841	0.003824	0.006089	0.007505	0.007505
	kg m <sup>2</sup>	1.30E-05	2.70E-05	4.30E-05	5.30E-05	5.30E-05
Maximum Speed (1)	RPM	2900	6000	5400	4600	6000
Weight	Oz	24.6	35.2	49.6	56.0	56.0
	gm	698.54	997.92	1406.16	1587.60	1587.60
Length	Inch	3.31	4.02	5.00	5.51	5.51
	mm	84.00	102.00	127.00	140.00	140.00

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

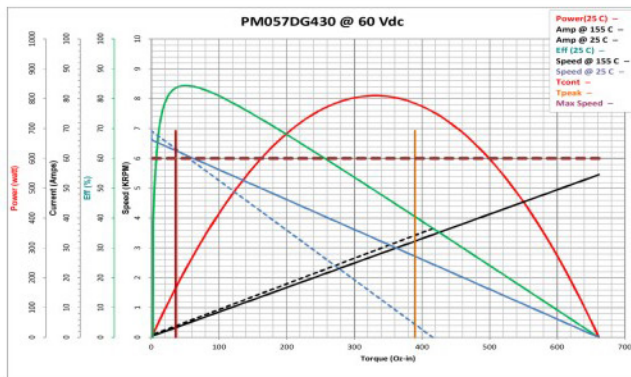
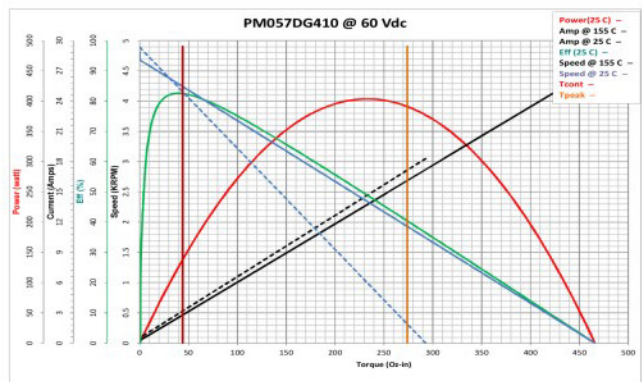
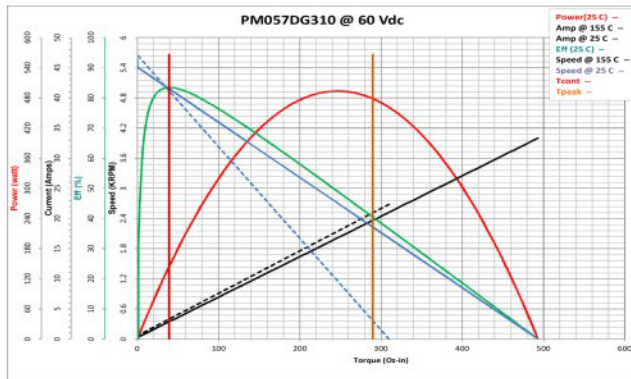
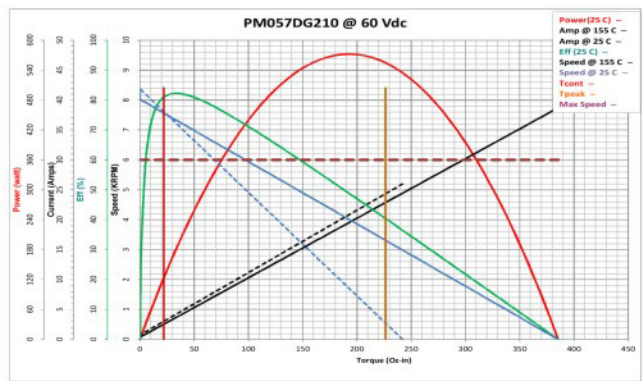
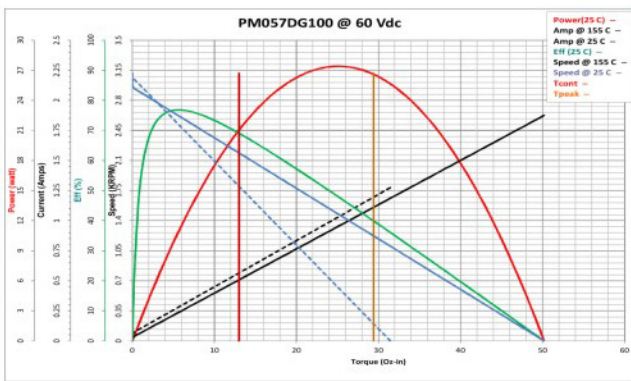
(2) Measure values at 20 °C

(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