

PM054TP Brush DC Motor Series

General Features

- Size 54 mm
- Ball Bearing and Copper Graphite Brushes
- Torques up to 252.00 Oz-in Peak, 50.00 Oz-in continuous
- Speeds up to 4100 RPM
- Voltage rating up to 24 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 Series



Technical and Performance Data

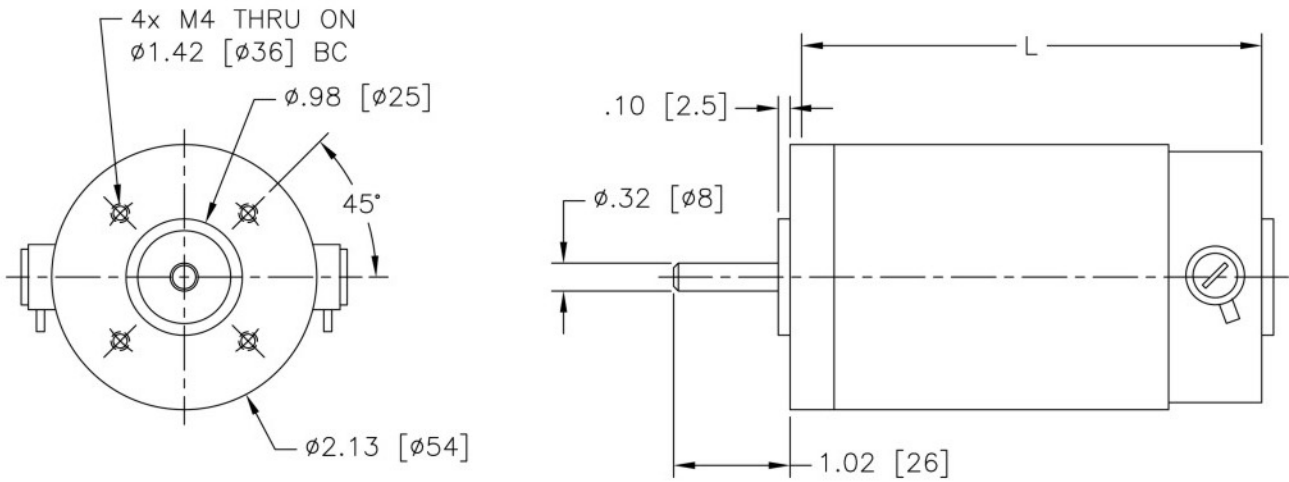
Model Number		PM054TP100	PM054TP300	PM054TP600	PM054TP700
General					
Terminal Voltage	Vdc	24.00	24.00	24.00	24.00
Continuous Stall Torque	Oz-in	18.31	26.63	38.62	50.46
	Nm	0.13	0.19	0.27	0.36
Continuous Current (3)	Amps	2.90	4.16	5.95	7.70
Peak Stall Torque	Oz-in	69.43	131.91	193.11	252.32
	Nm	0.49	0.93	1.36	1.78
Peak Current (3)	Amps	10.24	19.28	28.14	36.69
Rated Speed @ Terminal Voltage	RPM	3300	3600	3700	3600
Rated Torque @ Rated Speed	Oz-in	14.00	20.00	30.00	42.00
	Nm	0.10	0.14	0.21	0.30
Rated Output Power @ Rated Speed	Watts	34	53	82	112
Thermal Resistance	°C/W	9.0	8.0	7.0	5.0
Electrical					
Torque Constant (± 10%), (2)	Oz-in/Amp	7.79	7.79	7.79	7.79
	Nm/Amp	0.0550	0.0550	0.0550	0.0550
Voltage Constant (± 10%), (2)	V/KRPM	5.77	5.77	5.77	5.77
	V s/rad	0.0550	0.0550	0.0550	0.0550
Resistance (± 15%), (2)	Ohms	1.73	0.92	0.50	0.41
Inductance (± 15%), (2)	mH	2.54	1.60	0.80	0.50
Mechanical					
Inertia	Oz-In-Sec ²	0.001629	0.003045	0.005240	0.006797
	kg m ²	1.15E-05	2.15E-05	3.70E-05	4.80E-05
Maximum Speed (1)	RPM	4000	4100	4100	4000
Weight	Oz	21.2	31.7	45.9	56.4
	gm	600.00	900.00	1300.00	1600.00
Length	Inch	2.95	3.70	4.96	5.71
	mm	75.00	94.00	126.00	145.00

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

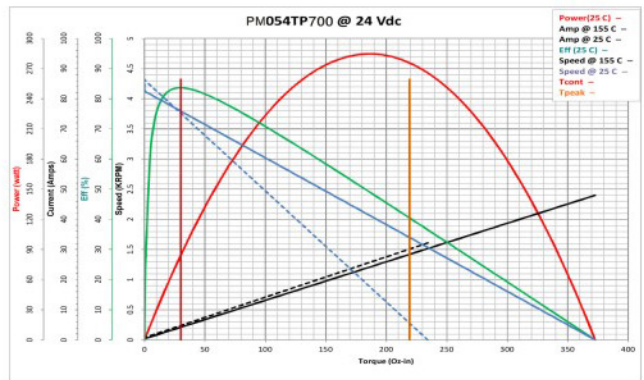
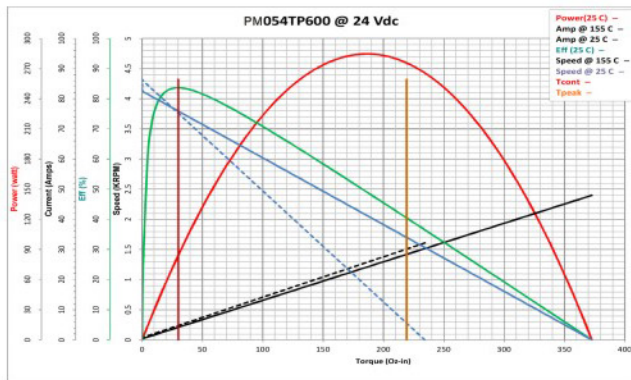
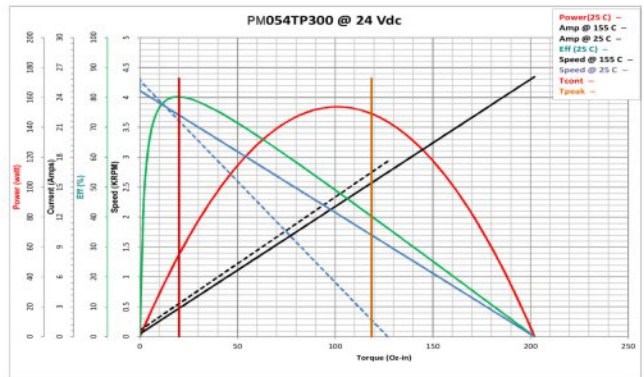
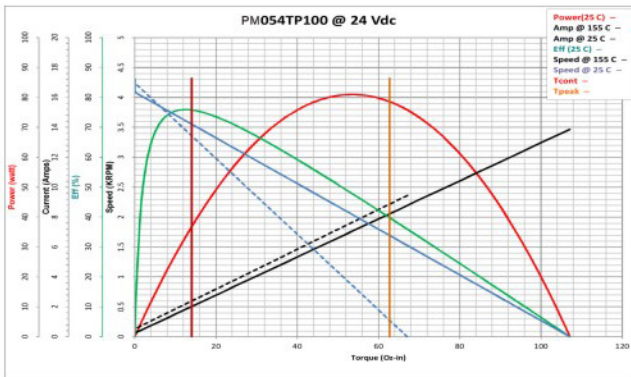
(2) Measure values at 20 °C

(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