

## PM040JS Brush DC Motor Series

### General Features

- Size 40 mm
- Heavy Gage Steel Housing
- Torques up to 50.00 Oz-in Peak, 12.00 Oz-in continuous
- Speeds up to 6900 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 EL32 or EL42 Series



### Technical and Performance Data

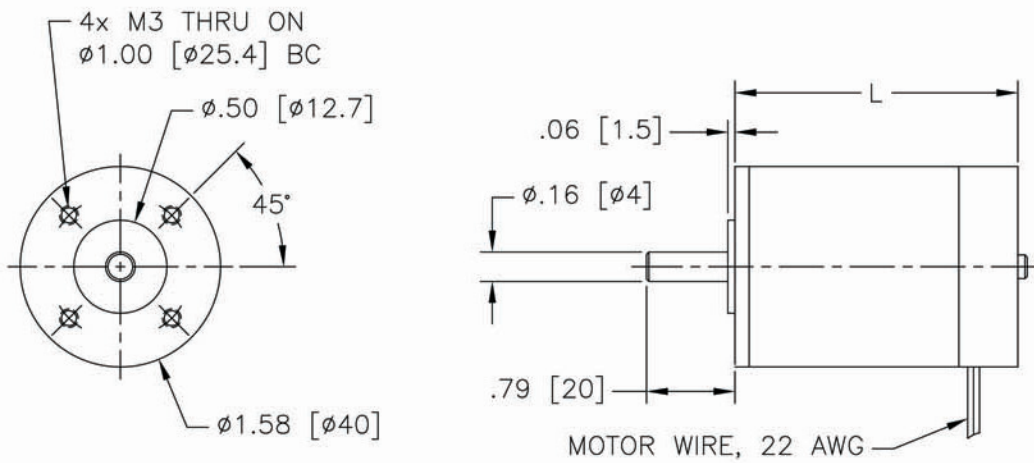
Model Number		PM040JS100	PM040JS200	PM040JS300	PM040JS400	PM040JS500	PM040JS600
<b>General</b>							
Terminal Voltage	Vdc	24.00	24.00	24.00	24.00	24.00	24.00
Continuous Stall Torque	Oz-in	3.12	5.64	6.72	7.67	10.56	12.33
	Nm	0.02	0.04	0.05	0.05	0.07	0.09
Continuous Current (3)	Amps	0.97	1.37	1.64	1.95	2.02	2.50
Peak Stall Torque	Oz-in	8.67	16.93	26.55	31.97	40.07	50.24
	Nm	0.06	0.12	0.19	0.23	0.28	0.35
Peak Current (3)	Amps	2.39	3.77	5.94	7.47	7.11	9.58
Rated Speed @ Terminal Voltage	RPM	5100	4800	5000	5300	4000	4300
Rated Torque @ Rated Speed	Oz-in	2.40	4.40	5.30	6.00	8.60	10.50
	Nm	0.02	0.03	0.04	0.04	0.06	0.07
Rated Output Power @ Rated Speed	Watts	9	16	20	24	25	33
Thermal Resistance	°C/W	23.0	19.0	17.0	15.0	13.0	11.0
<b>Electrical</b>							
Torque Constant (± 10%), (2)	Oz-in/Amp	4.39	5.27	5.16	4.93	6.48	5.99
	Nm/Amp	0.0310	0.0372	0.0364	0.0348	0.0458	0.0423
Voltage Constant (± 10%), (2)	V/KRPM	3.25	3.90	3.82	3.65	4.80	4.44
	V s/rad	0.0310	0.0372	0.0364	0.0348	0.0458	0.0423
Resistance (± 15%), (2)	Ohms	7.38	3.94	2.98	2.37	2.49	1.85
Inductance (± 15%), (2)	mH	4.64	3.29	2.51	2.05	2.63	1.97
<b>Mechanical</b>							
Inertia	Oz-in-Sec <sup>2</sup>	0.000270	0.000460	0.000590	0.000790	0.001000	0.001200
	kg m <sup>2</sup>	1.91E-06	3.25E-06	4.17E-06	5.58E-06	7.06E-06	8.47E-06
Maximum Speed (1)	RPM	6950	5900	6100	6400	4850	5300
Weight	Oz	5.6	6.7	8.8	12.0	13.8	15.5
	gm	160.00	190.00	250.00	340.00	390.00	440.00
Length	Inch	1.89	2.24	2.44	2.76	3.10	3.39
	mm	48.00	57.00	62.00	70.00	78.80	86.00

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

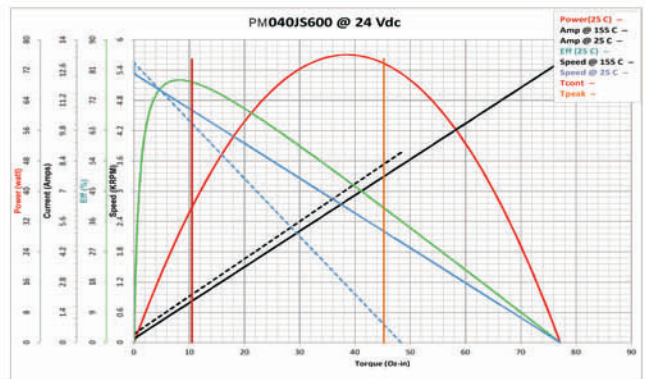
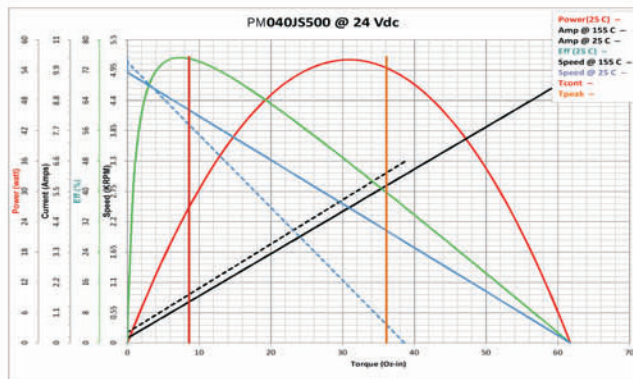
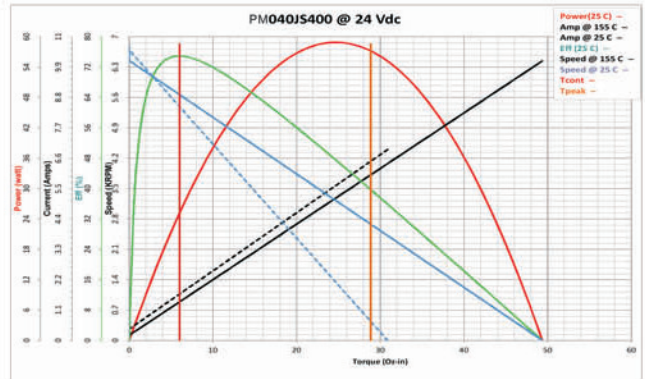
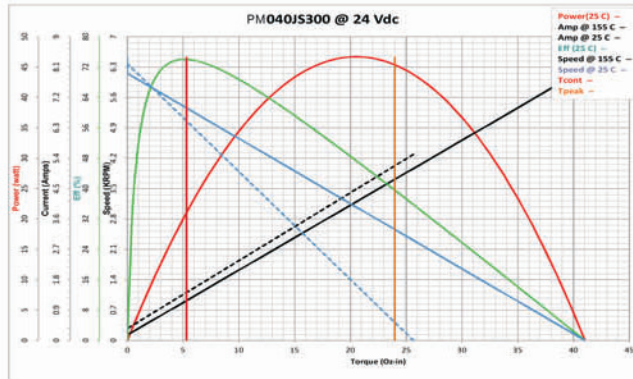
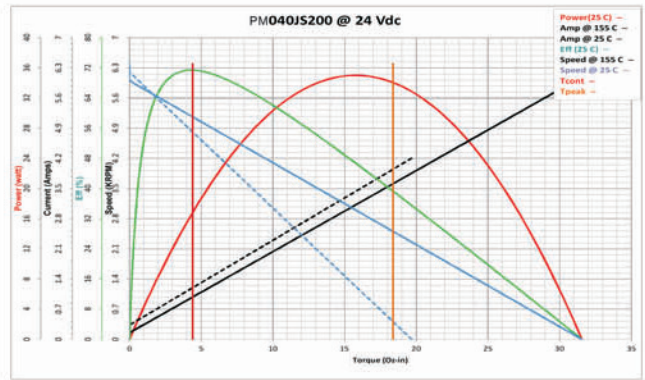
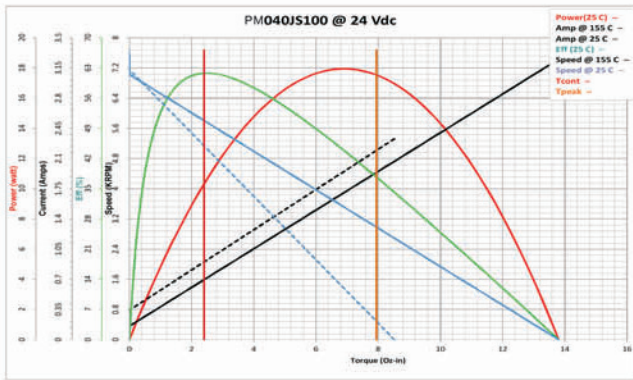
(2) Measure values at 20 °C

(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