

## SM080AS Brushless Motor Series

### General Features

- 80 mm square Frame Sizes
- Torques up to 1111.00 Oz-in Peak, 370.00 Oz-in continuous
- Speeds up to 4400 RPM
- Voltage rating up to 48 Vdc
- Integrated Hall Effect Commutation
- IP42 protection and Class B rated construction
- RoHS and CE compliant

### Available Options

- Encoder - IMS Q or EQM35 Series
- Connectors and Matting cables
- Custom Shaft ends
- Custom Winding (Voltage or Current)
- Gearbox - IMS EL80 Series
- IP65 Class protection



### Technical and Performance Data

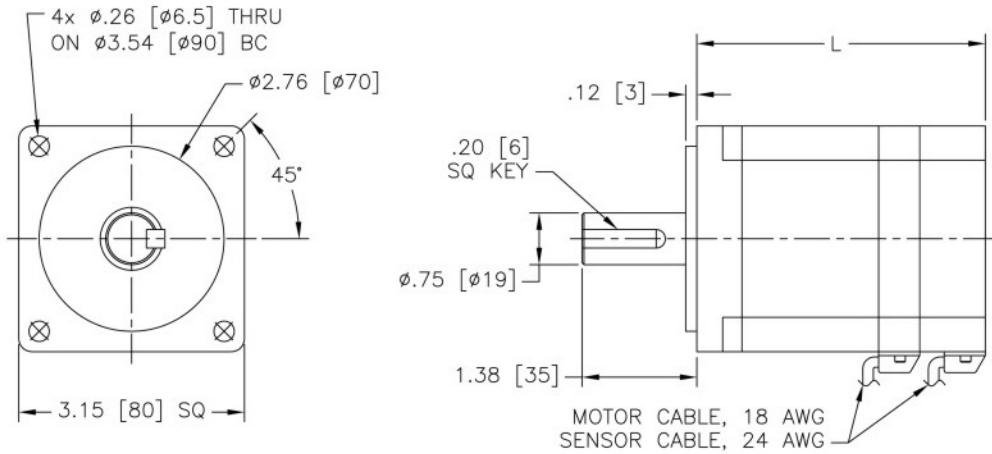
Model Number		SM080AS100	SM080AS200	
<b>General</b>				
	Maximum Terminal Voltage	Vdc	48.00	48.00
	Continuous Stall Torque	Oz-in	207.76	370.60
		Nm	1.47	2.62
	Continuous Current (3)	Amps	16.42	29.17
	Peak Stall Torque	Oz-in	623.29	1111.81
		Nm	4.40	7.85
	Peak Current (3)	Amps	48.47	86.33
24 Vdc Bus Rating	Rated Speed	RPM	1300	1250
	Rated Torque @ Rated Speed	Oz-in	200.00	360.00
		Nm	1.41	2.54
	Rated Output Power @ Rated Speed	Watts	192	333
	Maximum Speed (1)	RPM	2100	2200
36 Vdc Bus Rating	Rated Speed	RPM	2250	2250
	Rated Torque @ Rated Speed	Oz-in	196.00	350.00
		Nm	1.38	2.47
	Rated Output Power @ Rated Speed	Watts	326	583
	Maximum Speed (1)	RPM	3200	3300
48 Vdc Bus Rating	Rated Speed	RPM	3000	3000
	Rated Torque @ Rated Speed	Oz-in	190.00	340.00
		Nm	1.34	2.40
	Rated Output Power @ Rated Speed	Watts	422	755
	Maximum Speed (1)	RPM	4400	4400
	Thermal Resistance	° C/W	1.4	1.0
<b>Electrical</b>				
	Torque Constant (± 10%), (2)	Oz-in/Amp	14.51	14.51
		Nm/Amp	0.1024	0.1024
	Voltage Constant (± 10%), (2)	V/KRPM	10.75	10.75
		V s/rad	0.1024	0.1024
	Resistance (± 15%), (2)	Ohms	0.25	0.11
	Inductance (± 15%), (2)	mH	0.45	0.25
<b>Mechanical</b>				
	Inertia	Oz-In-Sec <sup>2</sup>	0.016990	0.023366
		kg m <sup>2</sup>	1.20E-04	1.65E-04
	Weight	Oz	74.1	95.2
		gm	2100.00	2700.00
	Length (L)	Inch	5.20	6.02
		mm	132.00	153.00

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

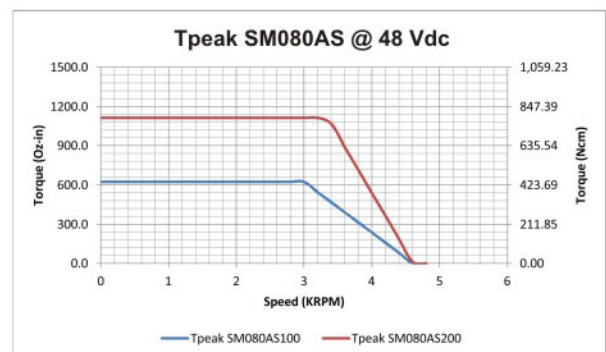
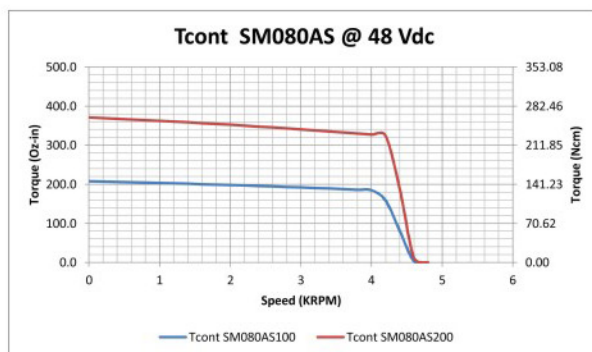
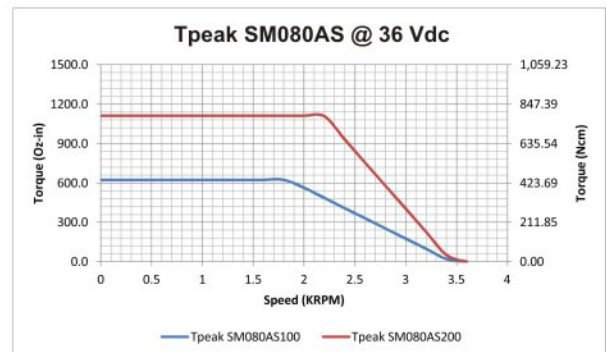
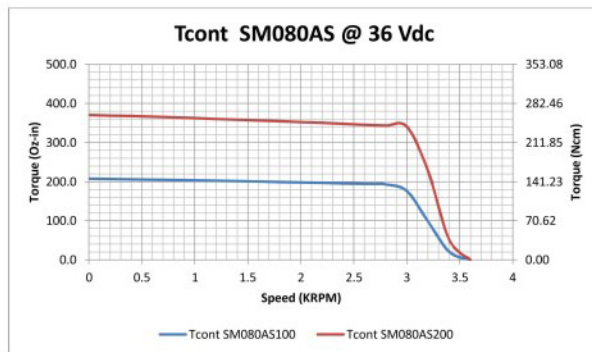
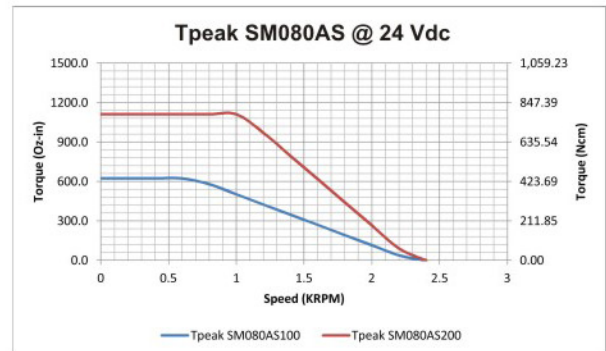
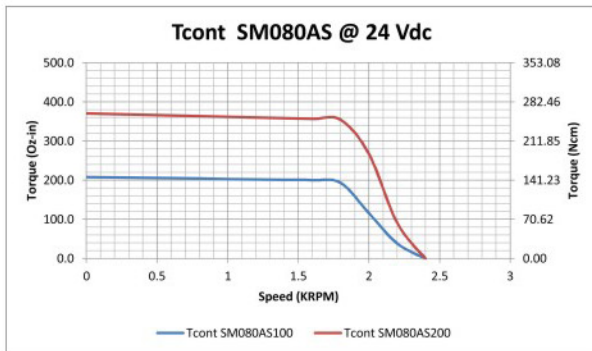
(2) Measure values at 20 °C

(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