

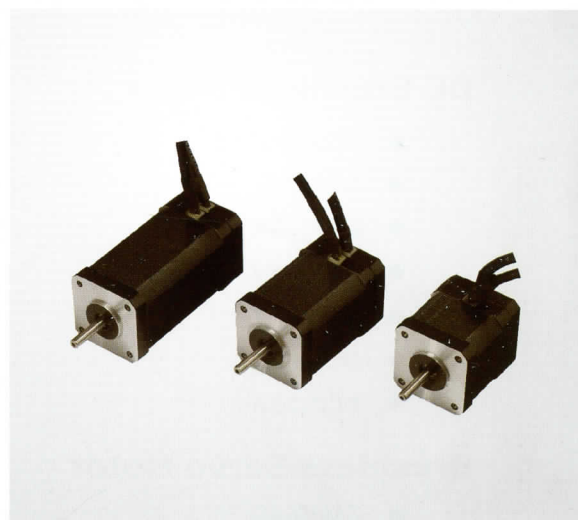
## DC042AS Brushless Motor Series

### General Features

- 42 mm square Frame Sizes
- Torques up to 147.00 Oz-in Peak, 49.00 Oz-in continuous
- Speeds up to 4300 RPM
- Voltage rating up to 24 Vdc
- Integrated Hall Effect Commutation
- Class B rated construction
- RoHS and CE compliant

### Available Options

- Encoder - IMS EQM35 Series
- Connectors and Matting cables
- Custom Shaft ends
- Custom Winding (Voltage or Current)
- Gearbox - IMS EL42 Series



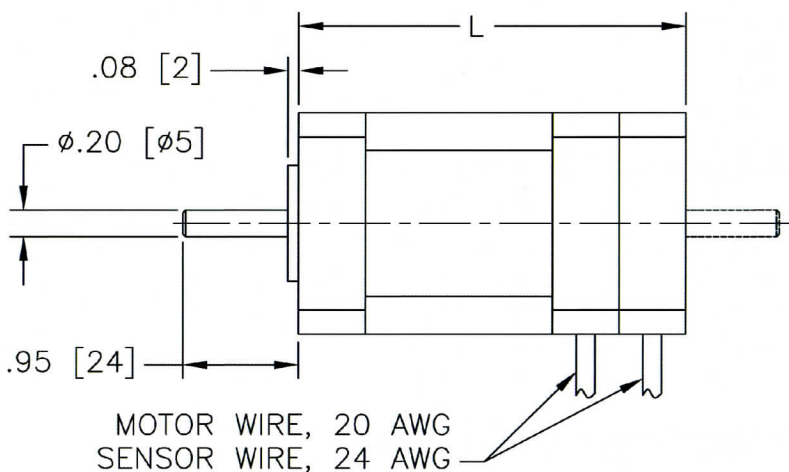
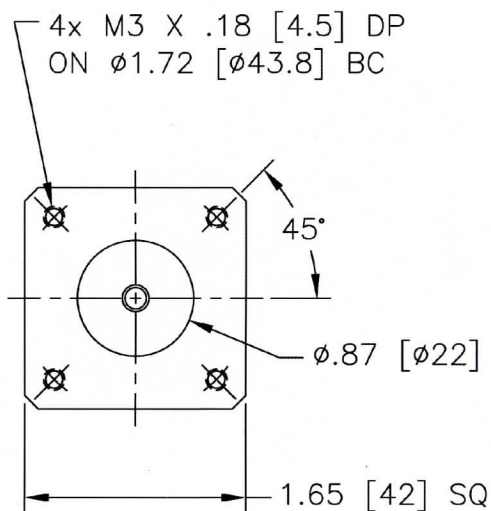
### Technical and Performance Data

Model Number		DC042AS100	DC042AS200	DC042AS300	
<b>General</b>					
Maximum Terminal Voltage	Vdc	24.00	24.00	24.00	
Continuous Stall Torque	Oz-in	13.97	30.91	49.15	
	Nm	0.10	0.22	0.35	
Continuous Current (3)	Amps	2.40	5.11	8.02	
Peak Stall Torque	Oz-in	41.90	92.73	147.46	
	Nm	0.30	0.65	1.04	
Peak Current (3)	Amps	6.71	14.65	23.19	
12 Vdc Bus Rating	Rated Speed	RPM	800	900	
	Rated Torque @ Rated Speed	Oz-in	13.50	30.00	48.00
		Nm	0.10	0.21	0.34
	Rated Output Power @ Rated Speed	Watts	8	20	32
Maximum Speed (1)	RPM	2100	2100	2100	
24 Vdc Bus Rating	Rated Speed	RPM	3000	3000	3000
	Rated Torque @ Rated Speed	Oz-in	12.00	28.00	45.00
		Nm	0.08	0.20	0.32
	Rated Output Power @ Rated Speed	Watts	27	62	100
Maximum Speed (1)	RPM	4300	4300	4400	
Thermal Resistance	° C/W	8.0	4.0	2.5	
<b>Electrical</b>					
Torque Constant (± 10%), (2)	Oz-in/Amp	7.22	7.22	7.22	
	Nm/Amp	0.0510	0.0510	0.0510	
Voltage Constant (± 10%), (2)	V/KRPM	5.37	5.37	5.37	
	V s/rad	0.0510	0.0510	0.0510	
Resistance (± 15%), (2)	Ohms	2.40	0.98	0.62	
Inductance (± 15%), (2)	mH	1.70	0.58	0.38	
<b>Mechanical</b>					
Inertia	Oz-In-Sec <sup>2</sup>	0.000411	0.000836	0.001260	
	kg m <sup>2</sup>	2.90E-06	5.90E-06	8.90E-06	
Weight	Oz	12.7	19.4	22.9	
	gm	360.00	550.00	650.00	
Length (L)	Inch	2.05	2.80	3.54	
	mm	52.00	71.00	90.00	

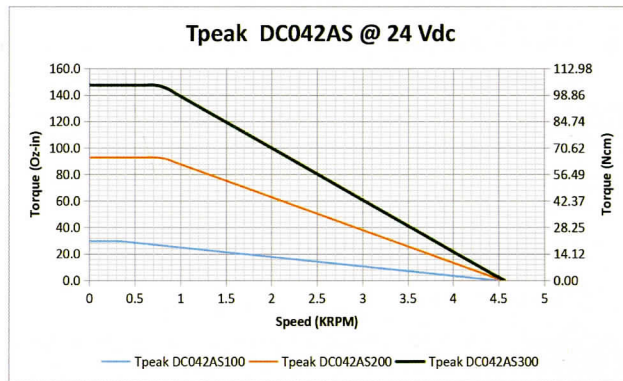
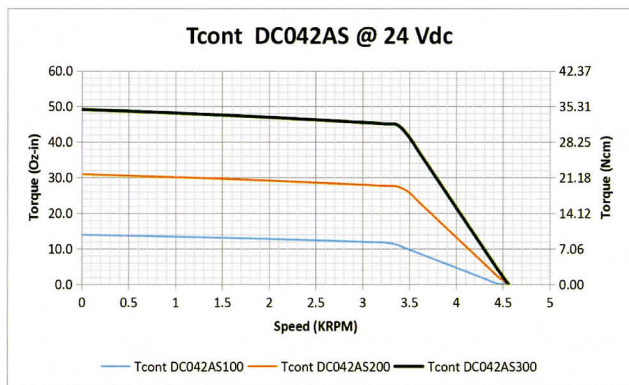
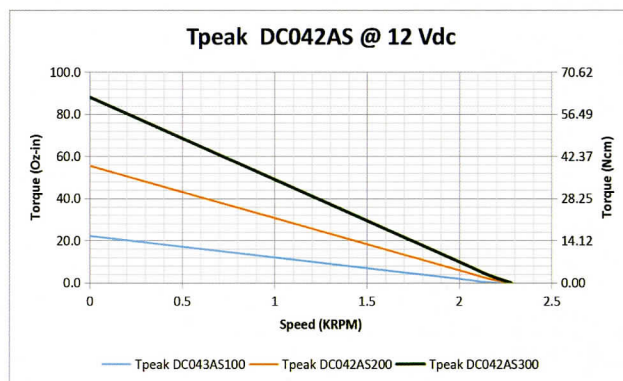
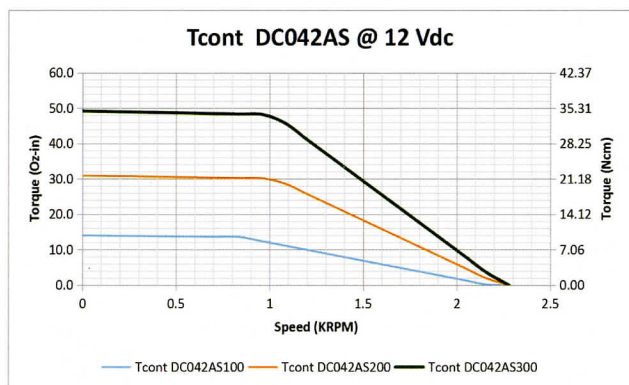
(1) Maximum Speed can be limited by bus voltage and feedback types  
 (3) Current values are at maximum allowable winding temperature 125 °C

(2) Measure values at 20 °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