

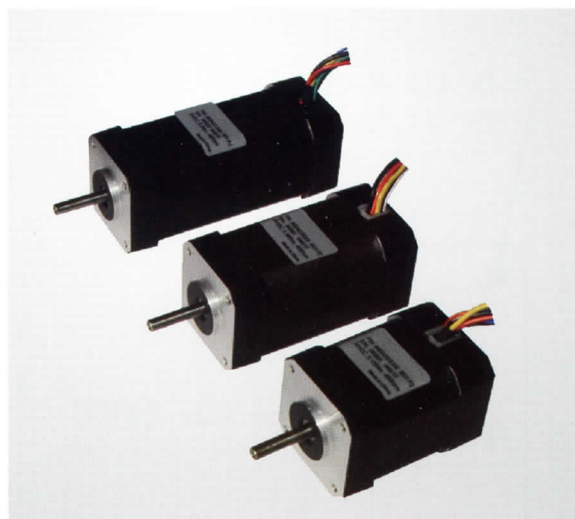
DC042GS Brushless Motor Series

General Features

- 42 mm square Frame Sizes
- Torques up to 121.00 Oz-in Peak, 40.00 Oz-in continuous
- Speeds up to 6300 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



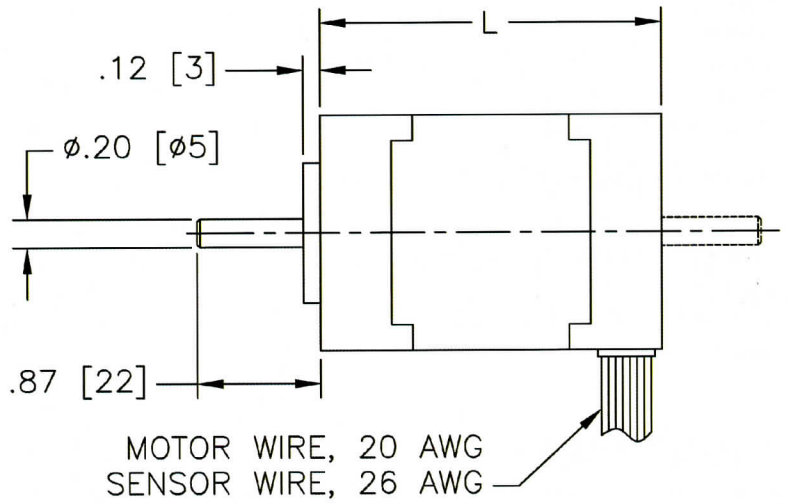
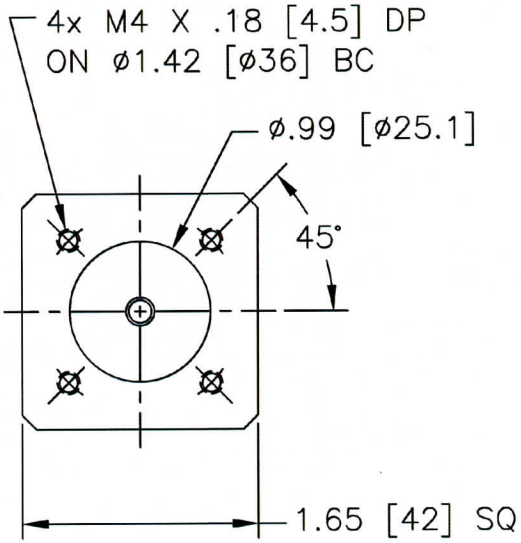
Technical and Performance Data

Model Number		DC042GS100	DC042GS200	DC042GS300	DC042GS400	
General						
Maximum Terminal Voltage	Vdc	24.00	24.00	24.00	24.00	
Continuous Stall Torque	Oz-in	10.10	19.09	28.89	40.49	
	Nm	0.07	0.13	0.20	0.29	
Continuous Current (3)	Amps	2.47	4.42	6.64	9.46	
Peak Stall Torque	Oz-in	30.30	57.26	86.67	121.46	
	Nm	0.21	0.40	0.61	0.86	
Peak Current (3)	Amps	6.92	12.84	19.38	27.31	
12 Vdc Bus Rating	Rated Speed	RPM	1500	1800	1800	1800
	Rated Torque @ Rated Speed	Oz-in	9.50	18.00	28.00	38.00
		Nm	0.07	0.13	0.20	0.27
	Rated Output Power @ Rated Speed	Watts	11	24	37	51
Maximum Speed (1)	RPM	3000	3100	3100	3100	
24 Vdc Bus Rating	Rated Speed	RPM	4000	4000	4000	4000
	Rated Torque @ Rated Speed	Oz-in	8.50	17.00	27.00	35.00
		Nm	0.06	0.12	0.19	0.25
	Rated Output Power @ Rated Speed	Watts	25	50	80	104
Maximum Speed (1)	RPM	6200	6300	6300	6300	
Thermal Resistance	° C/W	10.0	7.0	4.0	4.0	
Electrical						
Torque Constant (± 10%), (2)	Oz-in/Amp	5.06	5.06	5.06	5.06	
	Nm/Amp	0.0357	0.0357	0.0357	0.0357	
Voltage Constant (± 10%), (2)	V/KRPM	3.76	3.76	3.76	3.76	
	V s/rad	0.0357	0.0357	0.0357	0.0357	
Resistance (± 15%), (2)	Ohms	1.80	0.72	0.55	0.28	
Inductance (± 15%), (2)	mH	2.60	1.20	0.80	0.54	
Mechanical						
Inertia	Oz-In-Sec ²	0.000397	0.000680	0.00102	0.001360	
	kg m ²	2.80E-06	4.80E-06	7.20E-06	9.60E-06	
Weight	Oz	10.6	15.9	22.9	28.2	
	gm	300.00	450.00	650.00	800.00	
Length (L)	Inch	1.61	2.40	3.19	3.94	
	mm	41.00	61.00	81.00	100.00	

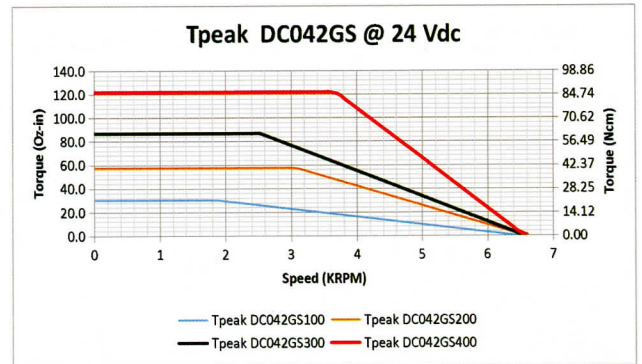
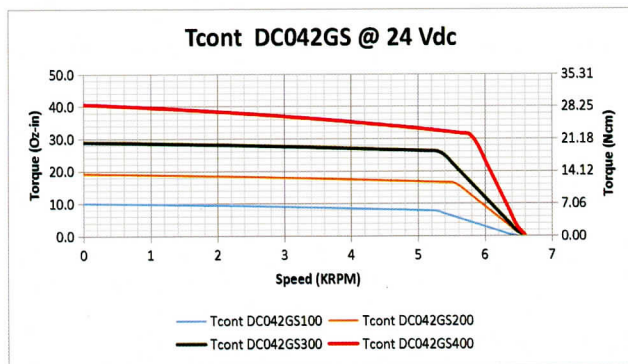
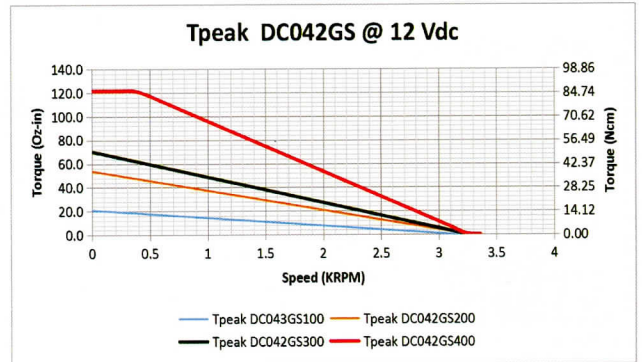
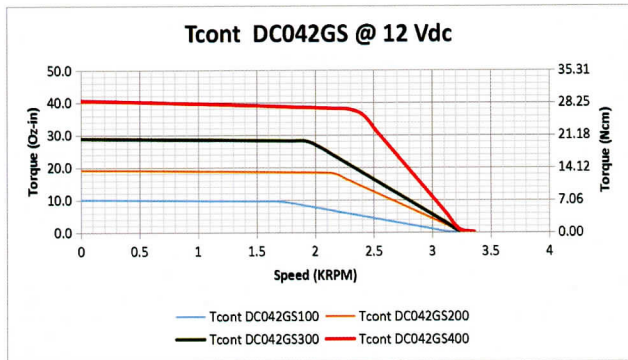
(1) Maximum Speed can be limited by bus voltage and feedback types
 (3) Current values are at maximum allowable winding temperature 125 °C

(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