

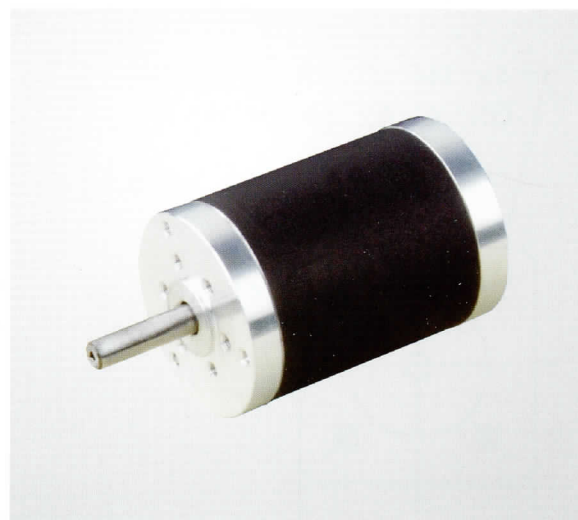
## DC042YS Brushless Motor Series

### General Features

- 42 mm round Frame Sizes
- Torques up to 77.00 Oz-in Peak, 25.70 Oz-in continuous
- Speeds up to 6200 RPM
- Voltage rating up to 24 Vdc
- Integrated Hall Effect Commutation
- IP40 protection and 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



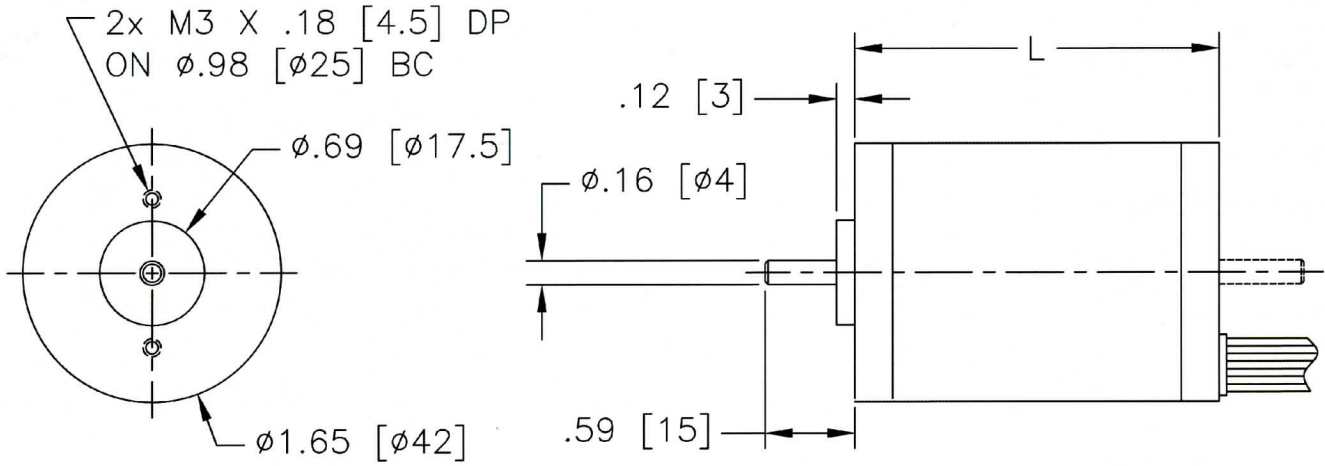
### Technical and Performance Data

Model Number		DC042YS100	DC042YS200
<b>General</b>			
Maximum Terminal Voltage	Vdc	24.00	24.00
Continuous Stall Torque	Oz-in	12.60	25.70
	Nm	0.09	0.18
Continuous Current (3)	Amps	3.26	5.99
Peak Stall Torque	Oz-in	37.80	77.09
	Nm	0.27	0.54
Peak Current (3)	Amps	8.91	17.20
12 Vdc Bus Rating	Rated Speed	RPM	1500
	Rated Torque @ Rated Speed	Oz-in	11.00
		Nm	0.08
	Rated Output Power @ Rated Speed	Watts	12
Maximum Speed (1)	RPM	3000	
24 Vdc Bus Rating	Rated Speed	RPM	4000
	Rated Torque @ Rated Speed	Oz-in	10.00
		Nm	0.07
	Rated Output Power @ Rated Speed	Watts	30
Maximum Speed (1)	RPM	6200	
Thermal Resistance	° C/W	7.0	4.0
<b>Electrical</b>			
Torque Constant (± 10%), (2)	Oz-in/Amp	4.98	5.11
	Nm/Amp	0.0351	0.0361
Voltage Constant (± 10%), (2)	V/KRPM	3.70	3.80
	V s/rad	0.0351	0.0361
Resistance (± 15%), (2)	Ohms	1.60	0.71
Inductance (± 15%), (2)	mH	1.94	0.86
<b>Mechanical</b>			
Inertia	Oz-In-Sec <sup>2</sup>	0.00068	0.00092
	kg m <sup>2</sup>	4.80E-06	6.50E-06
Weight	Oz	14.1	21.2
	gm	400.00	600.00
Length (L)	Inch	2.36	3.35
	mm	60.00	85.00

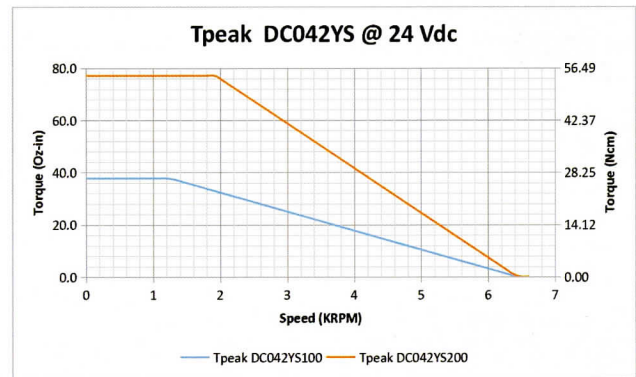
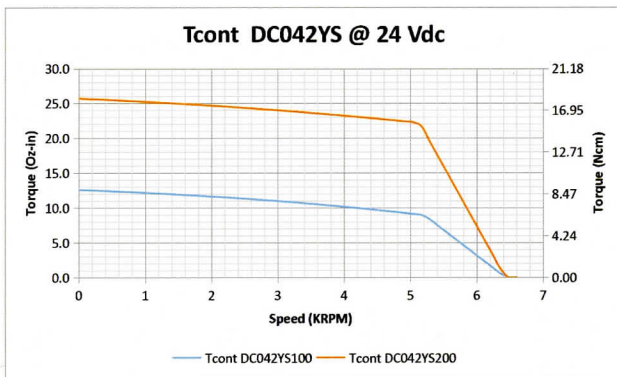
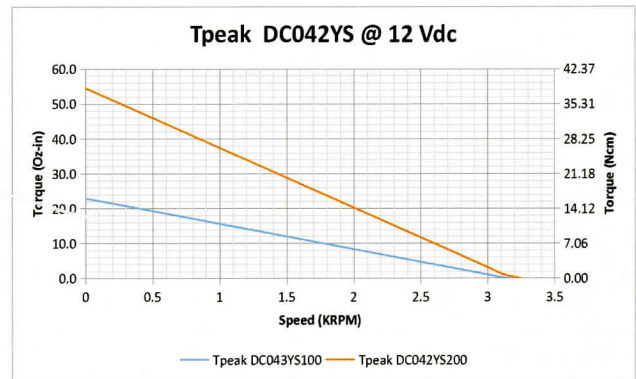
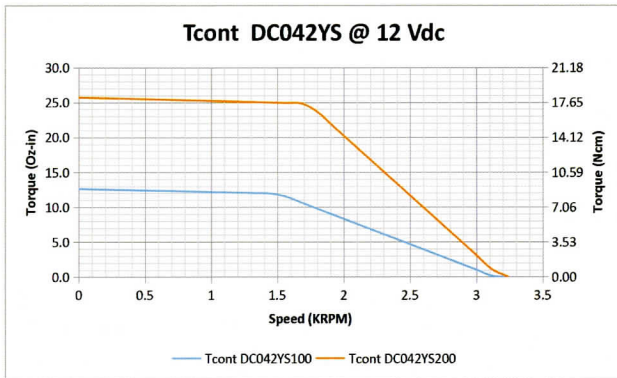
(1) Maximum Speed can be limited by bus voltage and feedback types  
 (3) Current values are at maximum allowable winding temperature 125 °C

(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