DC057AH Brushless Motor Series

General Features

- NEMA 23 Frame Sizes
- Torques up to 390.00 Oz-in Peak, 130.00 Oz-in continuous
- Speeds up to 6000 RPM
- Voltage rating up to 160 Vdc for offline drives
- Integrated Hall Effect Commutation
- Class B rated construction
- RoHS and CE compliant

Available Options

- Encoder - IMS Q or EQM35 Series
- Gearhead
- Brake -IMS MPC023 Series
- Connectors and Mating cables
- Custom Shaft ends
- Custom Winding (Voltage or Current)

Technical and Performance Data

Model Number			DC057AH100	DC057AH200	DC057AH300
General					
	Maximum Terminal Voltage	Vdc	160.00	160.00	160.00
	Continuous Stall Torque	Oz-in	55.84	99.87	130.10
		Nm	0.39	0.71	0.92
	Continuous Current (3)	Amps	4.42	6.31	9.00
	Peak Stall Torque	Oz-in	167.51	299.61	390.31
		Nm	1.18	2.12	2.76
	Peak Current (3)	Amps	12.63	18.13	26.19
48 Vdc Bus Rating	Rated Speed	RPM	3000	2400	3000
	Rated Torque @ Rated Speed	Oz-in	50.00	90.00	114.00
		Nm	0.35	0.64	0.81
	Rated Output Power @ Rated Speed	Watts	111	160	253
	Maximum Speed (1)	RPM	4200	3400	3790
60 Vdc Bus Rating	Rated Speed	RPM	4000	3200	4000
	Rated Torque @ Rated Speed	Oz-in	49.00	85.00	102.00
		Nm	0.35	0.60	0.72
	Rated Output Power @ Rated Speed	Watts	145	201	302
	Maximum Speed (1)	RPM	5300	4250	4740
160 Vdc Bus Rating	Rated Speed	RPM	6000	6000	6000
	Rated Torque @ Rated Speed	Oz-in	41.00	58.00	70.00
		Nm	0.29	0.41	0.49
	Rated Output Power @ Rated Speed	Watts	182	257	311
	Maximum Speed (1)	RPM	6000	6000	6000
	Thermal Resistance	° C/W	2.5	2.2	2.1
Electrical					
	Torque Constant (± 10%), (2)	Oz-in/Amp	15.06	18.83	16.95
		Nm/Amp	0.1064	0.1330	0.1197
	Voltage Constant (± 10%), (2)	V/KRPM	11.20	14.00	12.60
		V s/rad	0.1064	0.1330	0.1197
	Resistance (± 15%), (2)	Ohms	2.09	1.16	0.58
	Inductance (± 15%), (2)	mH	1.60	1.07	0.54
Mechanical					
	Inertia	Oz-In-Sec^2	0.0019	0.0037	0.0056
		kg m^2	1.34E-05	2.61E-05	3.95E-05
	Weight	Oz	32.0	46.4	60.8
		gm	907.20	1315.44	1723.68
	Length (L)	Inch	2.80	3.80	4.80
		mm	71.12	96.52	121.92

(1) Maximum Speed can by limited by bus voltage and feedback types *(2) Measure values at 20 °C*
(3) Current values are at maximum allowable winding temperature 125 °C

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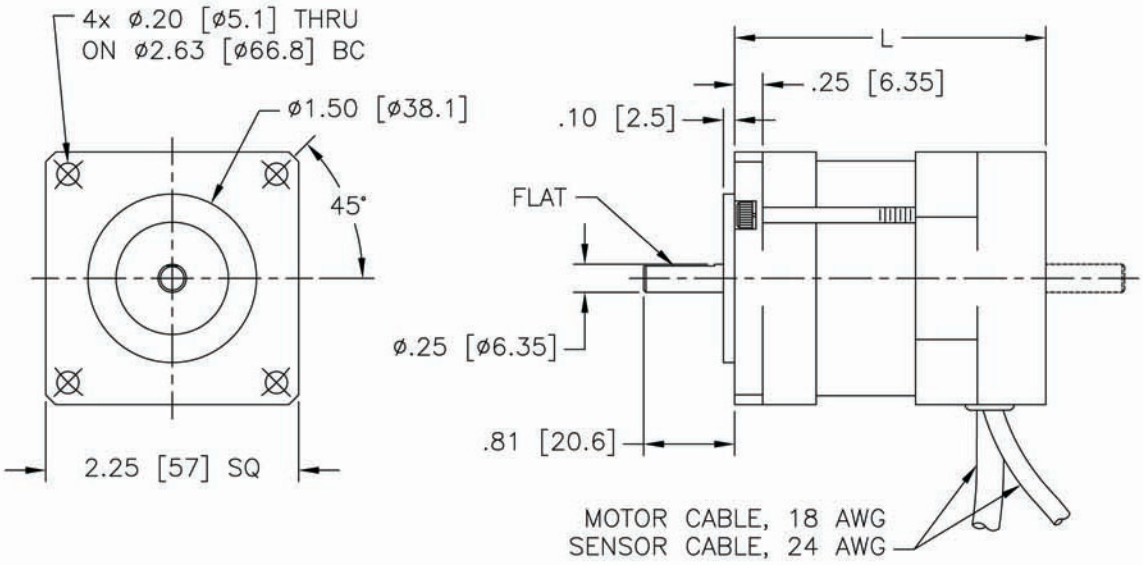
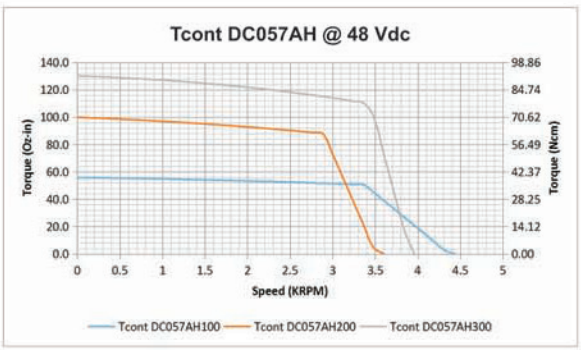
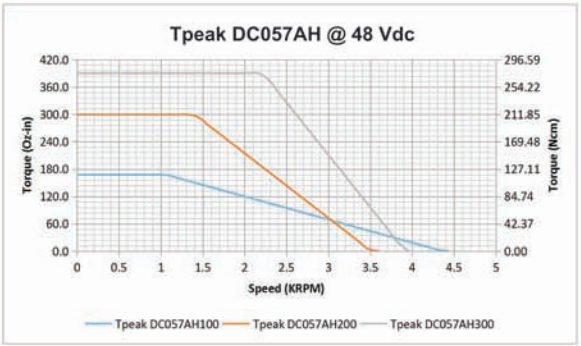
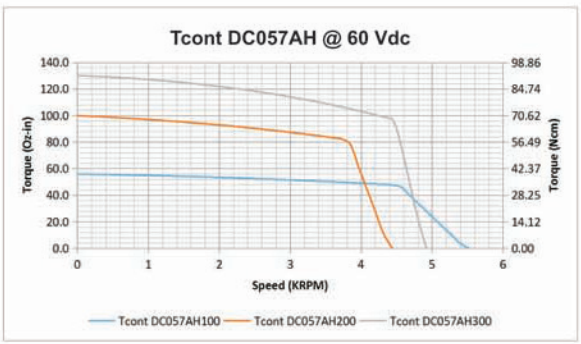
Outline Drawing and Dimensional Data

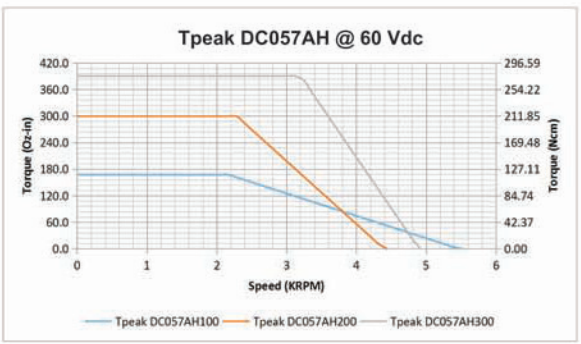


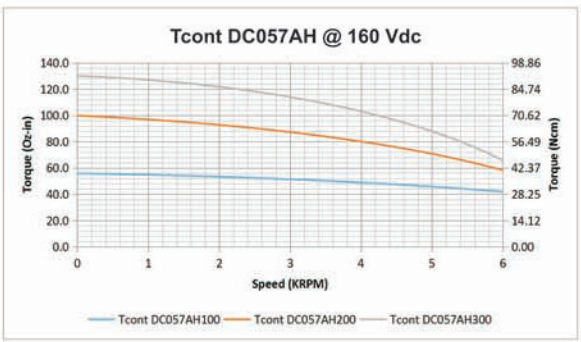
Performance Curves

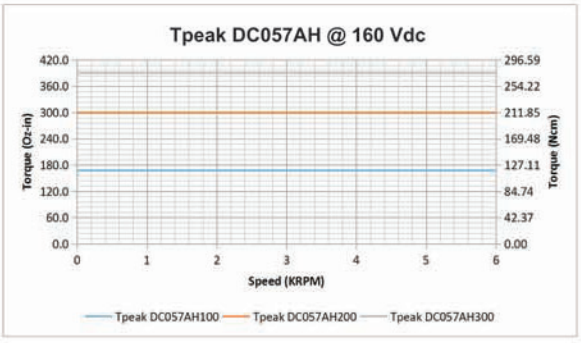












* *Motor performance curves may vary with the drive technology used*

** *Motor performance curves may vary based upon the quality of the input voltage*