

DC086AS Brushless Motor Series

General Features

- 86 mm square Frame Sizes
- Torques up to 1262.00 Oz-in Peak, 420.00 Oz-in continuous
- Speeds up to 4100 RPM
- Voltage rating up to 310 Vdc (220 Vac)
- Integrated Hall Effect Commutation
- 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



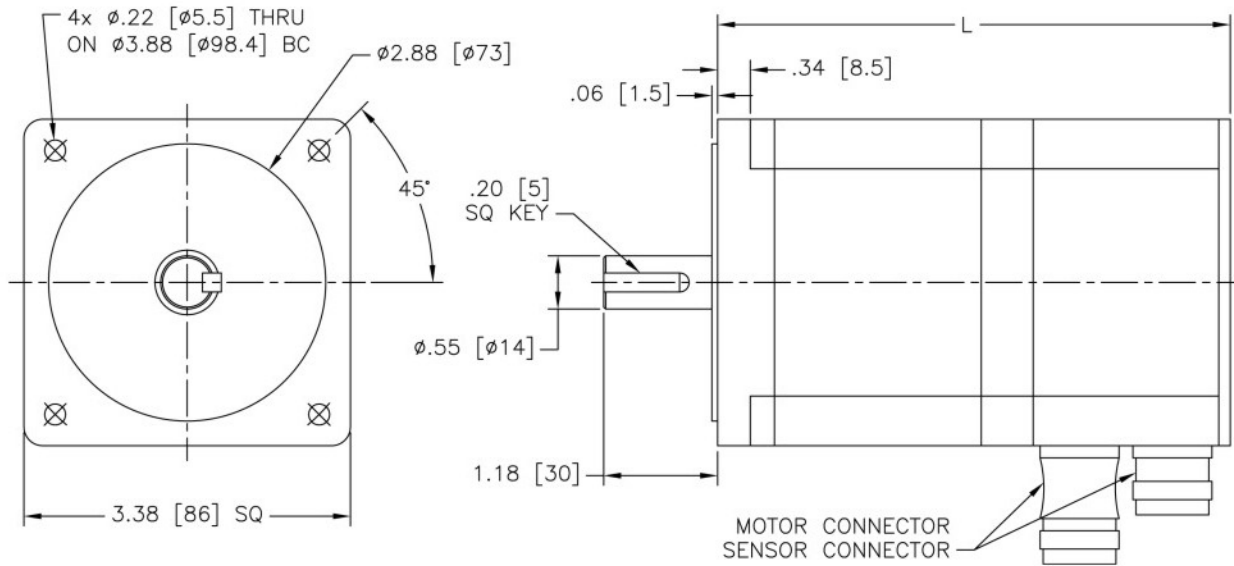
Technical and Performance Data

Model Number		DC086AS100	DC086AS200	DC086AS300	
General					
Maximum Terminal Voltage	Vdc	310.00	310.00	310.00	
Continuous Stall Torque	Oz-in	175.75	318.22	420.76	
	Nm	1.24	2.25	2.97	
Continuous Current (3)	Amps	2.18	3.91	5.23	
Peak Stall Torque	Oz-in	527.24	954.67	1262.27	
	Nm	3.72	6.74	8.91	
Peak Current (3)	Amps	6.12	11.04	14.70	
160 Vdc Bus Rating	Rated Speed	RPM	1200	1200	
	Rated Torque @ Rated Speed	Oz-in	150.00	280.00	368.00
		Nm	1.06	1.98	2.60
	Rated Output Power @ Rated Speed	Watts	133	249	327
	Maximum Speed (1)	RPM	2100	2100	2000
310 Vdc Bus Rating	Rated Speed	RPM	3000	3000	
	Rated Torque @ Rated Speed	Oz-in	100.00	195.00	240.00
		Nm	0.71	1.38	1.69
	Rated Output Power @ Rated Speed	Watts	222	433	533
	Maximum Speed (1)	RPM	4100	4100	4100
Thermal Resistance	° C/W	1.7	1.0	0.8	
Electrical					
Torque Constant (± 10%), (2)	Oz-in/Amp	99.37	99.37	99.01	
	Nm/Amp	0.7017	0.7017	0.6992	
Voltage Constant (± 10%), (2)	V/KRPM	73.88	73.88	73.61	
	V s/rad	0.7017	0.7017	0.6992	
Resistance (± 15%), (2)	Ohms	13.50	7.00	5.30	
Inductance (± 15%), (2)	mH	42.00	20.00	37.00	
Mechanical					
Inertia	Oz-In-Sec ²	0.011329	0.022658	0.016993	
	kg m ²	8.00E-05	1.60E-04	1.20E-04	
Weight	Oz	65.3	91.7	112.9	
	gm	1850.00	2600.00	3200.00	
Length (L)	Inch	5.31	6.38	6.46	
	mm	135.00	162.00	164.00	

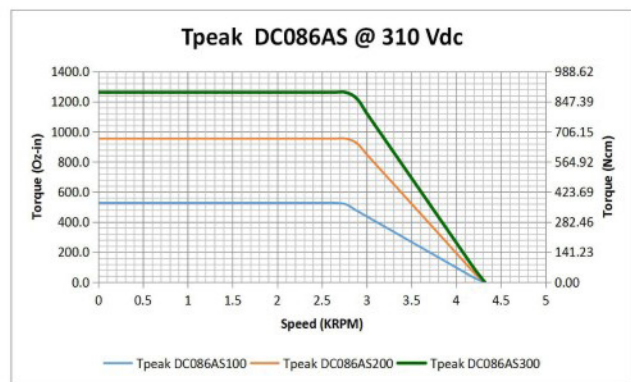
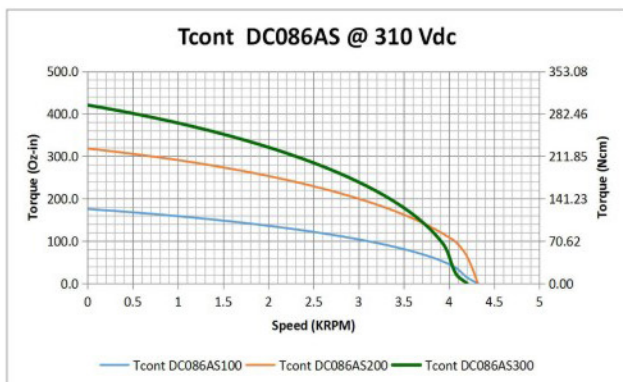
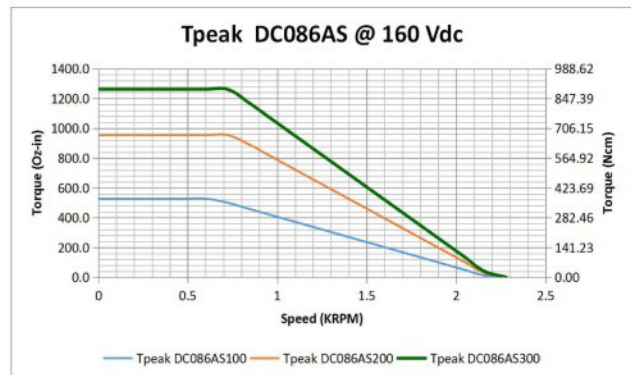
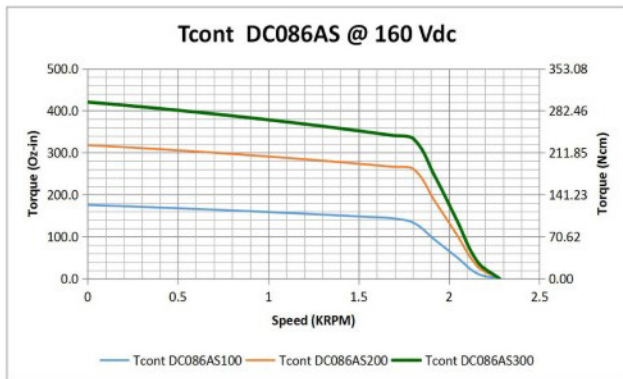
(1) Maximum Speed can be limited by bus voltage and feedback types
 (3) Current values are at maximum allowable winding temperature 125 °C

(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