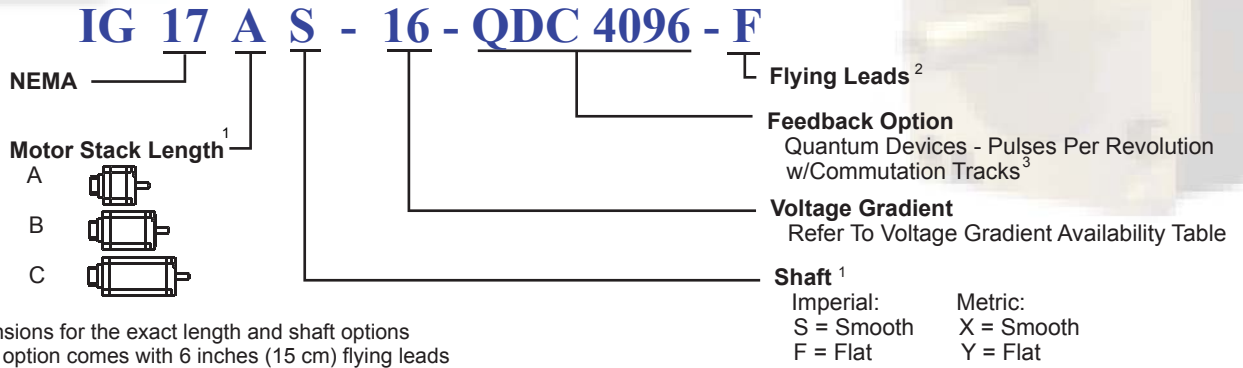


IG 17- F with QDC Feedback

Model Numbering

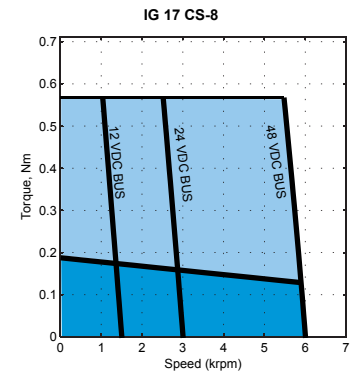
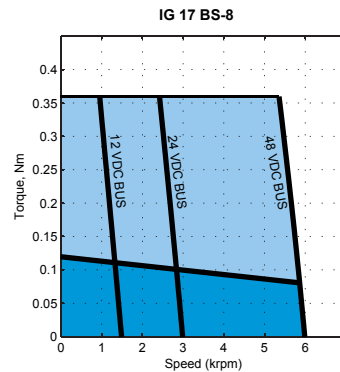
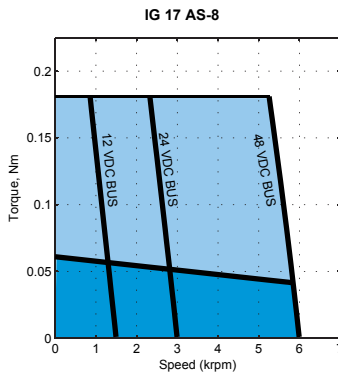


1. Refer to Dimensions for the exact length and shaft options
2. The F housing option comes with 6 inches (15 cm) flying leads
3. Refer to resolution table availability, on page 3

Voltage Gradient

Voltage Constant K_E (V/kRPM)	4	8	11	16
Frame Size IG 17				

Performance Curves



Contact factory for torque-speed curves of other motors

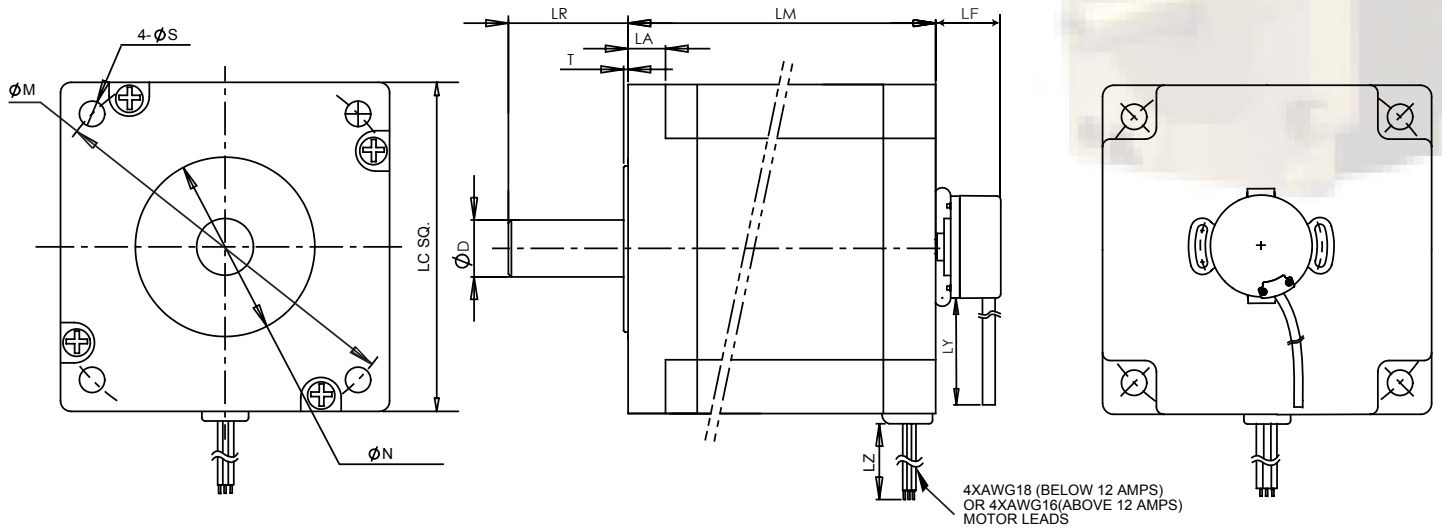
Electrical Specs

NEMA 17																			
Index	Model Number	Weight		Torque Constant (Peak) (L2L)		Voltage Constant	Cont. Stall Torque		Cont. Stall Current		Peak Stall Torque		Peak Stall Current	Max BEMF (Peak) (L2L)	Max Speed	L-to-L Resistance	L-to-L Inductance	Rotor Inertia	
		W		K_T		K_E	T_{cs}		I_{cs}		T_P		I_P	U_{max}	n_{max}	R	L	J	
		kg	lb	Nm/A	lb-in/A	V/krpm	Nm	lb-in	A	Nm	lb-in	A	V	rpm	Ohms	mH	kg-cm ²	lb-in-sec ²	
1	IG 17 AS - 4	0.32	0.71	0.04	0.39	4.00	0.06	0.53	1.36	0.18	1.59	4.08	32.00	8000	0.62	0.53	0.13	0.00012	
2	IG 17 BS - 4	0.48	1.06	0.04	0.39	4.00	0.12	1.06	2.72	0.36	3.19	8.16	32.00	8000	0.27	0.28	0.26	0.00023	
3	IG 17 CS - 4	0.63	1.39	0.04	0.39	4.00	0.19	1.71	4.38	0.57	5.04	12.92	32.00	8000	0.14	0.13	0.39	0.00035	
4	IG 17 AS - 8	0.32	0.71	0.09	0.78	8.00	0.06	0.53	0.68	0.18	1.59	2.04	64.00	8000	2.50	2.10	0.13	0.00012	
5	IG 17 BS - 8	0.48	1.06	0.09	0.78	8.00	0.12	1.06	1.36	0.36	3.19	4.08	64.00	8000	1.05	1.00	0.26	0.00023	
6	IG 17 CS - 8	0.63	1.39	0.09	0.78	8.00	0.19	1.71	2.19	0.57	5.04	6.46	64.00	8000	0.58	0.50	0.39	0.00035	
7	IG 17 AS - 11	0.32	0.71	0.12	1.07	11.00	0.06	0.53	0.49	0.18	1.59	1.48	88.00	8000	5.90	4.70	0.13	0.00012	
8	IG 17 BS - 11	0.48	1.06	0.12	1.07	11.00	0.12	1.06	0.99	0.36	3.19	2.97	88.00	8000	2.30	2.15	0.26	0.00023	
9	IG 17 CS - 11	0.63	1.39	0.12	1.07	11.00	0.19	1.71	1.59	0.57	5.04	4.70	88.00	8000	0.70	1.25	0.39	0.00035	
10	IG 17 AS - 16	0.32	0.71	0.18	1.56	16.00	0.06	0.53	0.34	0.18	1.59	1.02	128.00	8000	10.50	8.40	0.13	0.00012	
11	IG 17 BS - 16	0.48	1.06	0.18	1.56	16.00	0.12	1.06	0.68	0.36	3.19	2.04	128.00	8000	4.10	4.00	0.26	0.00023	
12	IG 17 CS - 16	0.63	1.39	0.18	1.56	16.00	0.19	1.71	1.09	0.57	5.04	3.23	128.00	8000	1.20	2.34	0.39	0.00035	

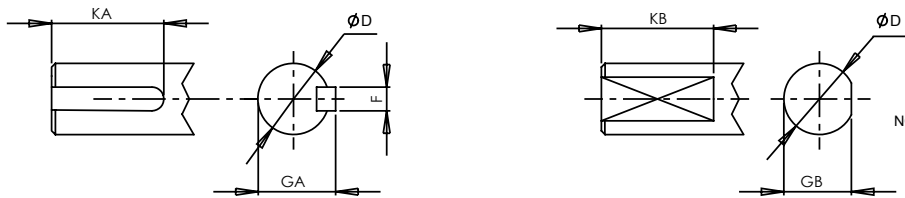
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IG 17- F with QDC Feedback

Motor Drawing



FRONT SHAFT OPTIONS
 (1) SMOOTH SHAFT: AS SHOWN IN THE VIEWS.
 (2) KEYWAY SHAFT



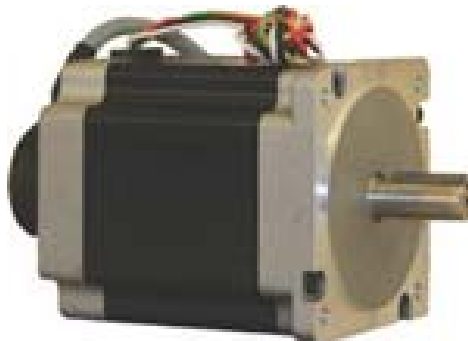
NOTE:
 THE MOTOR HAS IP40 ENCLOSURE
 AND SHAFT PROTECTION.

Units: Inches (mm)

IG	LM	LF	T	LR	LC	LH	LP	LY	LZ	N	S	M	
17	A	1.496 (38)	1.00 (25.4)	0.079 (2.0)	0.945 (24)	1.665 (42.3)	1.665 (42.3)	0.354 (9)	12 (304.8)	12 (304.8)	0.866 ⁰ _{-0.002} (22.00 ⁰ _{-0.05})	0.118 (3.0)	1.725 (43.815)
	B	2.126 (54)											
	C	2.756 (70)											

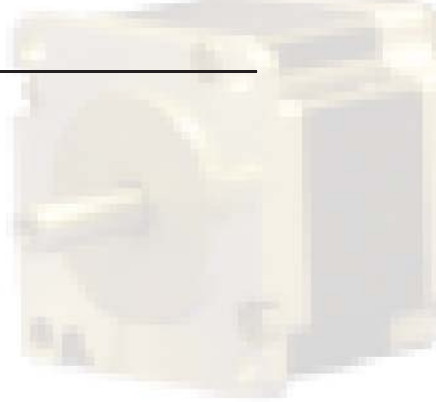
For IG17, dimension S is M3*0.5 min depth 0.2 (5.1) threaded hole

Imperial Shaft Option (S/F/K), Units: inches						Metric Shaft Option (X/Y/Z), Units: mm						
IG	D	F	GA	KA	GB	KB	D	F	GA	KA	GB	KB
17	0.1969 ⁰ _{-0.0005}	-	-	-	0.177 ⁰ _{-0.004}	0.50	5 ⁰ _{-0.013}	-	-	-	4.5 ⁰ _{-0.1}	12.7



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IG 17- F with QDC Feedback



Power Cable Wire Code

Wire Color	Function
YEL	PHASE U
GRN	PHASE V
BLU	PHASE W
GRN/YEL	PE

Quantum Devices

Quantum Devices Data

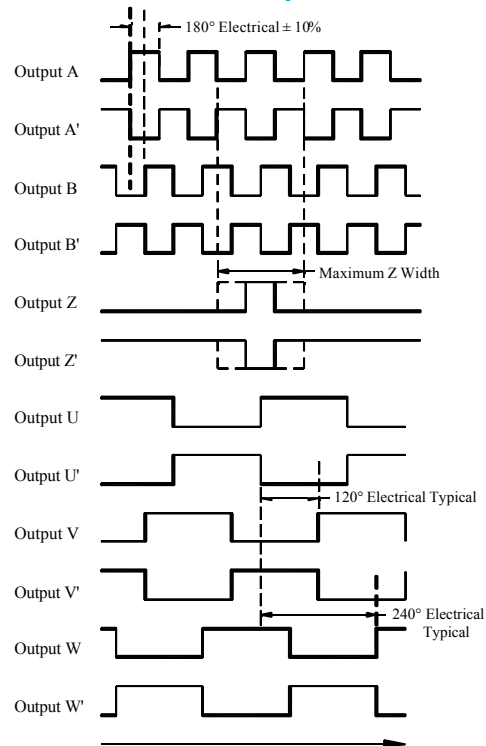
Parameter	Values
Input Voltage	5 VDC \pm 10% Fixed Voltage
Input Current Requirement	100 mA max (65 mA typical) with no output load
Output Data	Incremental - Two square waves in quadrature with channel A leading B for clockwise shaft rotation as viewed from the encoder mounting face
Output Format	Line Driver - 20mA max per channel (meets RS 422 at 5 VDC)
Frequency Response	200 kHz standard, 300 kHz optional
Minimum Edge Separation	67.5° electrical
Commutation Format	8 poles
Commutation Accuracy	1° mechanical
Maximum Speed	8000 RPM
Termination	18" cable (foil and braid shield, 24 AWG conductors non-commutated, 28 AWG commutated),
Operating Temperature	-20 to +85° C standard
Storage Temperature	-25 to +85° C
Available line counts	200, 250, 256, 500, 512, 600, 1000, 1024, 1250, 2000, 2048, 2500, 4096, 5000

Quantum Devices Wiring Diagram

Wire Color	Function
Red	+VDC
Black	Common
Brown	Output A
White	Output A'
Blue	Output B
Green	Output B'
Orange	Output Z
Yellow	Output Z'
Violet	Output U
Gray	Output U'
Brown/White	Output V
Red/White	Output V'
Orange/White	Output W
Yellow/White	Output W'
Black/White	Case Ground
Drain Wire	Cable Shield



Quantum Devices Output Waveforms



Clockwise Shaft Rotation As Viewed
Looking At The encoder Face

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