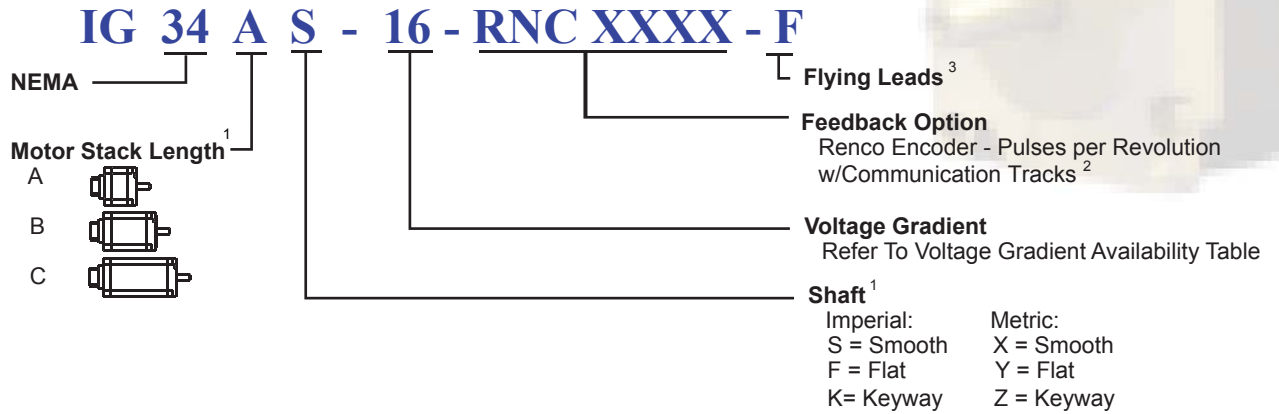


IG 34 - F Housing with RNC Feedback

Model Numbering

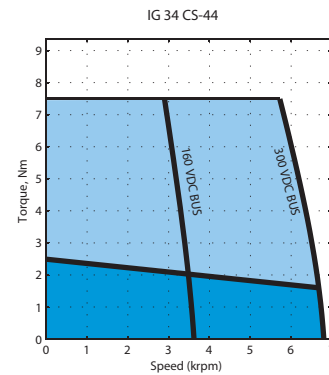
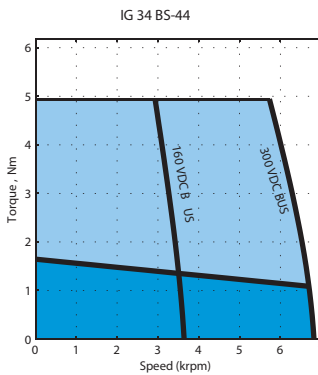
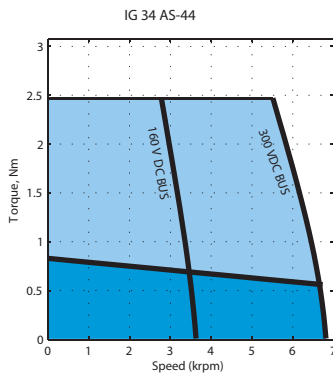


1. Refer to Dimensions for the exact length and shaft options
2. Refer to resolution table on page 4
3. The F housing option comes with 6 inches (15 cm) flying leads

Voltage Gradient

Voltage Constant K_E (V/kRPM)	16	22	32	44	64	88	130	180	260	360
IG 34										

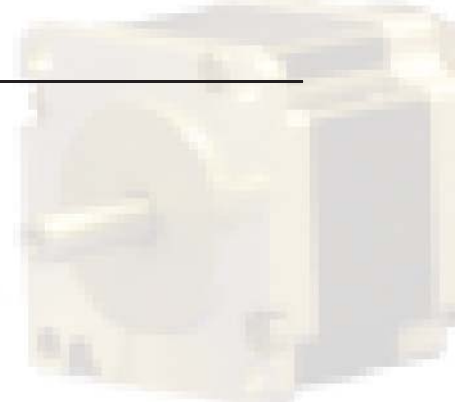
Performance Curves



Contact factory for torque-speed curves of other motors

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IG 34 - F with RNC Feedback



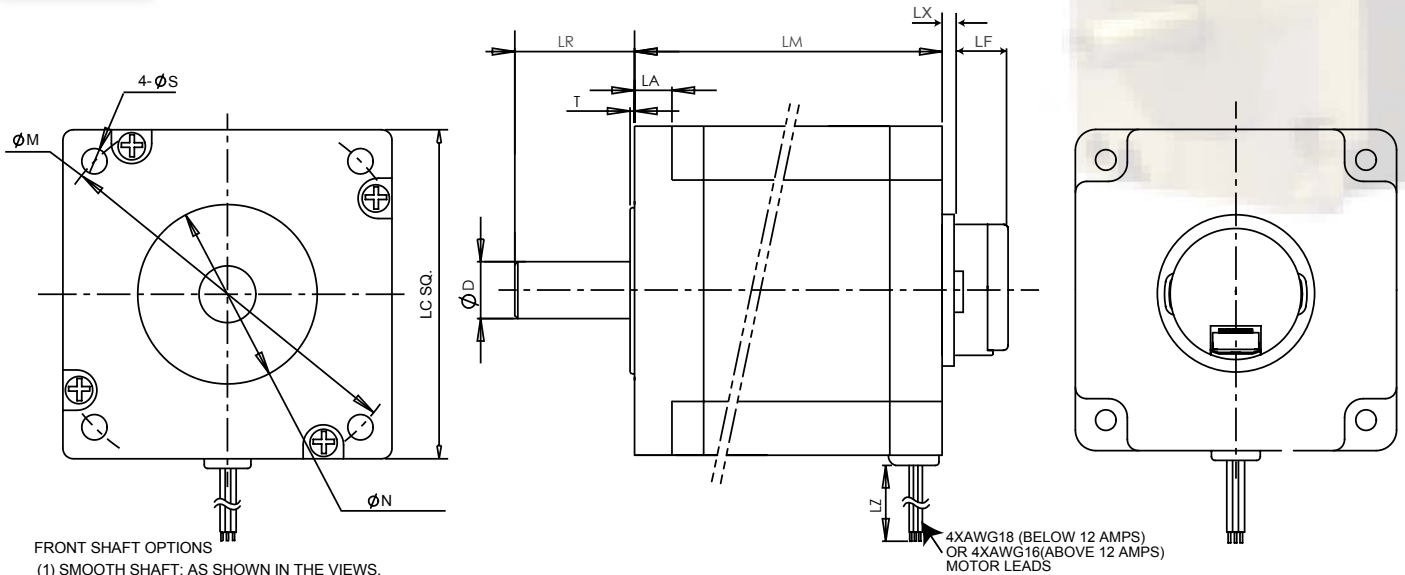
Electrical Specifications

NEMA 34		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	
Index	Model Number	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
43	IG 34 AS - 16	1.90	4.19	0.18	1.56	16.00	0.82	7.26	4.65	2.46	21.77	13.94	128.00	8000	0.34	1.10	0.80	0.00071
44	IG 34 BS - 16	2.90	6.39	0.18	1.56	16.00	1.65	14.60	9.35	4.95	43.81	28.06	128.00	8000	0.14	0.45	1.60	0.00142
45	IG 34 CS - 16	3.90	8.60	0.18	1.56	16.00	2.50	22.13	14.17	7.50	66.38	42.51	128.00	8000	0.10	0.39	2.40	0.00212
46	IG 34 AS - 22	1.90	4.19	0.24	2.15	22.00	0.82	7.26	3.38	2.46	21.77	10.14	176.00	8000	0.81	2.50	0.80	0.00071
47	IG 34 BS - 22	2.90	6.39	0.24	2.15	22.00	1.65	14.60	6.80	4.95	43.81	20.40	176.00	8000	0.56	0.95	1.60	0.00142
48	IG 34 CS - 22	3.90	8.60	0.24	2.15	22.00	2.50	22.13	10.30	7.50	66.38	30.91	176.00	8000	0.20	0.70	2.40	0.00212
49	IG 34 AS - 32	1.90	4.19	0.35	3.12	32.00	0.82	7.26	2.32	2.46	21.77	6.97	256.00	8000	2.10	6.30	0.80	0.00071
50	IG 34 BS - 32	2.90	6.39	0.35	3.12	32.00	1.65	14.60	4.68	4.95	43.81	14.03	256.00	8000	0.74	2.70	1.60	0.00142
51	IG 34 CS - 32	3.90	8.60	0.35	3.12	32.00	2.50	22.13	7.08	7.50	66.38	21.25	256.00	8000	0.40	1.47	2.40	0.00212
52	IG 34 AS - 44	1.90	4.19	0.49	4.29	44.00	0.82	7.26	1.69	2.46	21.77	5.07	352.00	8000	3.80	12.30	0.80	0.00071
53	IG 34 BS - 44	2.90	6.39	0.49	4.29	44.00	1.65	14.60	3.40	4.95	43.81	10.20	352.00	8000	1.50	5.50	1.60	0.00142
54	IG 34 CS - 44	3.90	8.60	0.49	4.29	44.00	2.50	22.13	5.15	7.50	66.38	15.46	352.00	8000	1.10	3.50	2.40	0.00212
55	IG 34 AS - 64	1.90	4.19	0.71	6.25	64.00	0.82	7.26	1.16	2.46	21.77	3.49	512.00	8000	8.60	27.70	0.80	0.00071
56	IG 34 BS - 64	2.90	6.39	0.71	6.25	64.00	1.65	14.60	2.34	4.95	43.81	7.01	512.00	8000	3.45	12.30	1.60	0.00142
57	IG 34 CS - 64	3.90	8.60	0.71	6.25	64.00	2.50	22.13	3.54	7.50	66.38	10.63	512.00	8000	2.10	7.80	2.40	0.00212
58	IG 34 AS - 88	1.90	4.19	0.97	8.59	88.00	0.82	7.26	0.85	2.46	21.77	2.54	704.00	8000	13.50	45.20	0.80	0.00071
59	IG 34 BS - 88	2.90	6.39	0.97	8.59	88.00	1.65	14.60	1.70	4.95	43.81	5.10	704.00	8000	5.50	19.00	1.60	0.00142
60	IG 34 CS - 88	3.90	8.60	0.97	8.59	88.00	2.50	22.13	2.58	7.50	66.38	7.73	704.00	8000	3.50	12.50	2.40	0.00212
61	IG 34 AS - 130	1.90	4.19	1.43	12.69	130.00	0.82	7.26	0.57	2.46	21.77	1.72	1,040.00	8000	22.50	72.80	0.80	0.00071
62	IG 34 BS - 130	2.90	6.39	1.43	12.69	130.00	1.65	14.60	1.15	4.95	43.81	3.45	1,040.00	8000	8.30	30.00	1.60	0.00142
63	IG 34 CS - 130	3.90	8.60	1.43	12.69	130.00	2.50	22.13	1.74	7.50	66.38	5.23	1,040.00	8000	5.10	20.00	2.40	0.00212
64	IG 34 AS - 180	1.90	4.19	1.98	17.57	180.00	0.82	7.26	0.41	2.46	21.77	1.24	1,440.00	8000	46.00	141.30	0.80	0.00071
65	IG 34 BS - 180	2.90	6.39	1.98	17.57	180.00	1.65	14.60	0.83	4.95	43.81	2.49	1,440.00	8000	17.60	56.70	1.60	0.00142
66	IG 34 CS - 180	3.90	8.60	1.98	17.57	180.00	2.50	22.13	1.26	7.50	66.38	3.78	1,440.00	8000	10.20	38.00	2.40	0.00212
67	IG 34 AS - 260	1.90	4.19	2.87	25.38	260.00	0.82	7.26	0.29	2.46	21.77	0.86	2,080.00	8000	97.20	295.30	0.80	0.00071
68	IG 34 BS - 260	2.90	6.39	2.87	25.38	260.00	1.65	14.60	0.58	4.95	43.81	1.73	2,080.00	8000	33.50	118.50	1.60	0.00142
69	IG 34 CS - 260	3.90	8.60	2.87	25.38	260.00	2.50	22.13	0.87	7.50	66.38	2.62	2,080.00	8000	20.50	79.00	2.40	0.00212
70	IG 34 AS - 360	1.90	4.19	3.97	35.14	360.00	0.82	7.26	0.21	2.46	21.77	0.62	2,880.00	8000	173.00	568.00	0.80	0.00071
71	IG 34 BS - 360	2.90	6.39	3.97	35.14	360.00	1.65	14.60	0.42	4.95	43.81	1.25	2,880.00	8000	67.30	227.00	1.60	0.00142
72	IG 34 CS - 360	3.90	8.60	3.97	35.14	360.00	2.50	22.13	0.63	7.50	66.38	1.89	2,880.00	8000	18.70	153.00	2.40	0.00212

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IG 34 - F with RNC Feedback

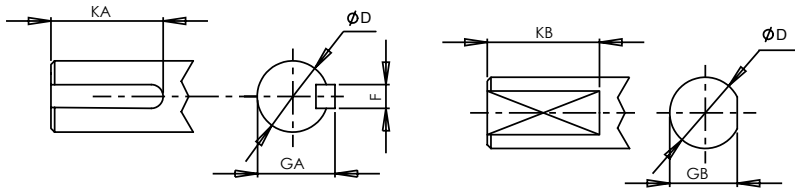
Drawing



FRONT SHAFT OPTIONS

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

(3) FLAT SHAFT



- NOTE:**
- (1) THE MOTOR HAS IP40 ENCLOSURE AND SHAFT PROTECTION.
 - (2) ADAPTER IS USED FOR IG34 AND 42

Units: inches (mm)

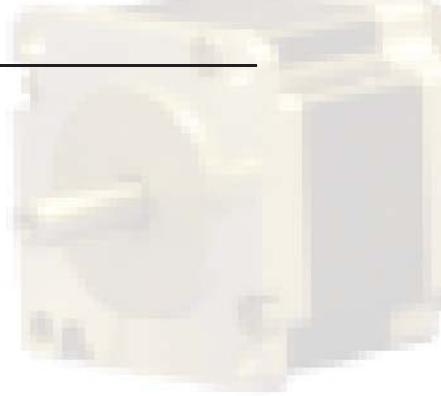
IG	LM	LF	LA	T	LR	LC	LZ	LX	N	S	M	
34	A	2.795 (71)	0.55 (14.0)	0.33 (8.38)	0.059 (1.5)	1.260 (32)	3.386 (86.0)	12 (304.8)	0.15 (4)	2.875 ⁰ _{-0.0012} (73.03 ⁰ _{-0.031})	0.216 (5.5)	3.875 (98.43)
	B	3.858 (98)										
	C	4.921 (125)										

IG	Imperial Shaft Option (S/F/K), Units: inches						Metric Shaft Option (X/Y/Z), Units: mm					
	D	F	GA	KA	GB	KB	D	F	GA	KA	GB	KB
34	0.5000 ⁰ _{-0.0005}	0.1250 ⁰ _{-0.001}	0.555 ⁰ _{-0.004}	1.0	0.473 ⁰ _{-0.004}	1.0	14 ⁰ _{-0.013}	5 ⁰ _{-0.03}	16.0 ⁰ _{-0.1}	45	13.0 ⁰ _{-0.1}	45.0



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IG 42 - F with RNC Feedback



Power Cable Wire Code

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

Renco Encoder

Renco Encoder Data

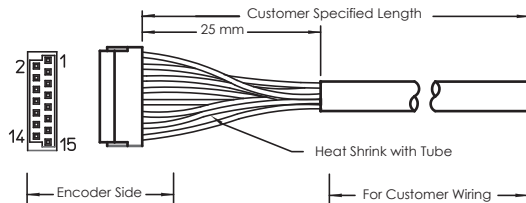
Parameter	Values
Input Voltage	5 VDC \pm 10% Single Supply
Input Current Requirement	175 mA
Output Data	Line driver
Output Format	Square wave two channel quadrature with index & commutation signals
Frequency Response	500 kHz
Minimum Edge Separation	45° electrical angle
Commutation Format	Three commutation channels, 4 cycles/360° electrical angle for eight poles
Termination	15 pins JAE P/N F1_W15P_HF interface
Operating Temperature	-30°C to 115°C
Storage Temperature	-40°C to 125°C
Available line counts	250, 256, 500, 512, 1000, 1024, 2000, 2048, 4000, 4096, 8000, 8192 ppr

Encoder Wiring Diagram

Pin #	Function	* Color
1	CH A	BRN with BLK
2	CH A-	BLK with BRN
3	CH B	BLU with BLK
4	CH B-	BLK with BLU
5	INDEX	ORN with BLK
6	INDEX-	BLK with ORN
7	CH U	YEL with BLK
8	CH U-	BLK with YEL
9	CH V	GRN with BLK
10	CH V-	BLK with GRN
11	CH W	RED with BLK
12	CH W-	BLK with RED
13	+5VDC	WHT with BLK
14	GND	BLK with WHT
15	SHIELD	SHIELD

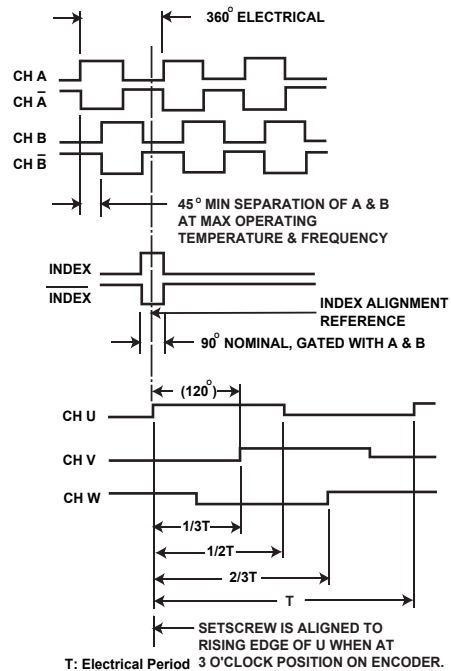
* Optional:

Connector with shielded 3M cable per customer specified length



Mating Connector: JAE P/N F1-W15P-HF

Encoder Output Waveforms



Sep, 26, 07