



## Key Performance Features:

- High Energy Neodymium Magnets
- Operating Speeds to 6,000 RPM
- High Torque to Size Ratio
- Encoder Ready
- 24-300 VDC Typical Bus Voltage
- CE Certificate Available

# BFA34/BA34

BRUSHLESS  
SERVO  
MOTOR  
SERIES

## Motor Characteristics (8 pole design)

FRAME SIZE	STACK LENGTH	PEAK STALL TORQUE (T <sub>s</sub> ) OZ-IN	CONT. STALL TORQUE (T <sub>c</sub> ) OZ-IN	FRICTION TORQUE (T <sub>f</sub> ) OZ-IN	ROTOR INERTIA (J <sub>r</sub> ) OZ-IN-SEC <sup>2</sup>	THERMAL RESISTANCE (RM) °C/WATT	MAX RECOMMEND SPEED RPM	MAX WINDING TEMP. °C	ELEC. TIME CONSTANT MSEC	POWER RANGE W	LENGTH IN	WEIGHT LB
BFA34/BA34 -- 200		810	270	10.5	0.0088	0.52	6000	155	2.8	325	4.74	5.8
BFA34/BA34 -- 300		1130	380	13.8	0.0138	0.51	6000	155	3.0	540	5.74	7.4
BFA34/BA34 -- 400		1460	490	17.0	0.0126	0.49	6000	155	3.1	760	6.74	9.0
BFA34/BA34 -- 500		1780	600	20.0	0.0220	0.48	6000	155	3.2	970	7.74	10.6

## Sample Windings

CONSULT MAGMOTOR APPLICATION STAFF FOR OTHER AVAILABLE WINDINGS

	BF34 -- 200				BF34 -- 300				BF34 -- 400				BF34 -- 500			
	E	G	I	K	E	G	I	K	E	G	I	K	E	G	I	K
<b>Torque Constant (Kt)</b> oz-in/amp	28.4	42.6	68.2	108.2	41.0	63.4	100.6	153.8	56.8	85.9	136.3	216.4	70.9	107.3	170.4	270.5
<b>Voltage Constant (Ke)</b> Volts/Krpm	21.0	31.5	50.4	80.0	30.3	46.9	74.4	113.7	42.0	63.5	100.8	160.0	52.5	79.4	126.0	200.0
<b>L-L Resistance (R)</b> Ohms (cold)	0.84	2.09	5.21	13.0	1.1	2.6	6.5	16.5	1.3	3.2	7.9	19.6	1.5	3.6	9.2	22.9
<b>Inductance (L-L)</b> mH	2.6	6.49	16.2	40.5	3.5	9.0	22.5	57.1	4.9	12.1	30	77	5.9	14.7	36.8	91.7
<b>Peak Current (A)</b> Amps	40	30	20	10	40	30	20	10	40	30	20	10	40	30	20	10

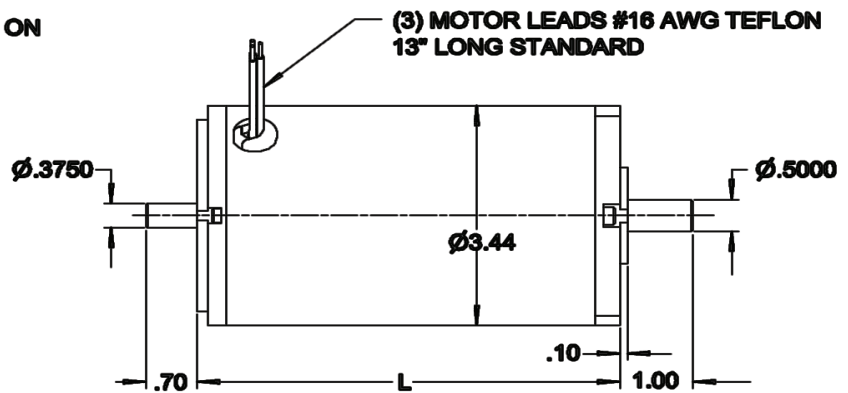
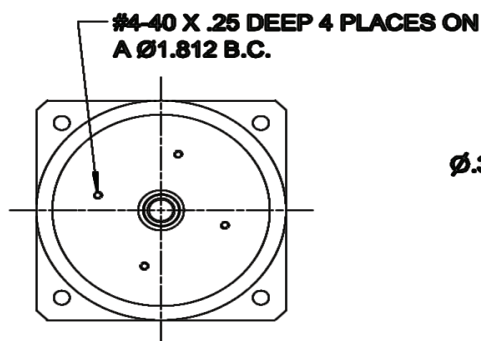
VALUES AS LISTED ARE TEST CONDITIONS, ACTUAL RESULTS MAY VARY

## ▼ BF34 Series Options

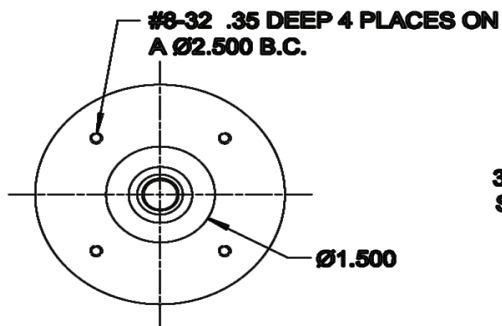
- Optical Encoders
- Hall Sensor or Commutation Encoder
- Gearboxes and Brakes
- Application Specific Windings and Mechanical designs
- Custom Cables and Connectors
- 8-Pole Design Available
- For more options, see [magmotor.com](http://magmotor.com) custom solutions, or call us.

## ▼ Typical Applications

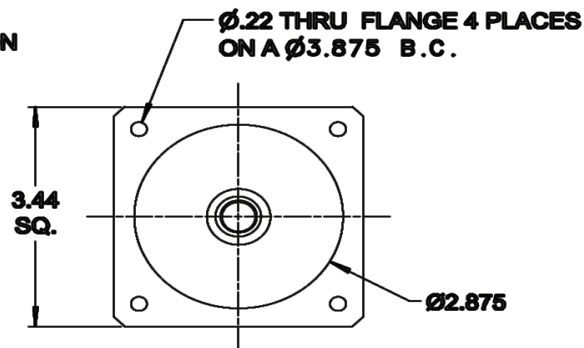
- Semiconductor Equipment
- Medical Equipment
- Automated Assembly Machines
- Laboratory Equipment
- Pharmaceutical Equipment
- X-Y-Z Positioning Machines



BF34-100 3.80"  
 BF34-200 4.80"  
 BF34-300 5.80"  
 BF34-400 6.80"  
 BF34-500 7.80"



**OPTIONAL  
 ROUND FACE MOUNT**



**NEMA 34  
 FLANGE MOUNT**