



Key Performance Features:

- High Energy Neodymium Magnets
- Operating Speeds to 6,000 RPM
- High Torque to Size Ratio
- 24-400 VDC Typical Bus Voltage
- CE Certificate Available

BFA42/BA42 BRUSHLESS SERVO MOTOR SERIES

Motor Characteristics (8 pole design)

FRAME SIZE	STACK LENGTH	PEAK STALL TORQUE (T _s) OZ-IN	CONT. STALL TORQUE (T _c) OZ-IN	FRICTION TORQUE (T _f) OZ-IN	ROTOR INERTIA (J _m) OZ-IN-SEC ²	THERMAL RESISTANCE (RM) °C/WATT	MAX RECOMMEND SPEED RPM	MAX WINDING TEMP. C°	ELEC. TIME CONSTANT MSEC	POWER RANGE W	WEIGHT LB
BFA42	-- 200	1950	650	22.0	0.041	0.35	6000	155	5.4	1200	9.7
BFA42	-- 300	2700	900	31.0	0.062	0.31	6000	155	5.5	1700	12.8
BFA42	-- 400	3600	1200	40.0	0.082	0.28	6000	155	5.6	2000	16
BFA42	-- 600	4800	1600	60	0.124	0.20	6000	155	5.65	2800	24.2

BFA42-500 & -700 ARE ALSO AVAILABLE. CONSULT MAGMOTOR FOR SIZES NOT LISTED OR FRACTIONAL SIZES

Sample Windings

CONSULT MAGMOTOR APPLICATION STAFF FOR OTHER AVAILABLE WINDINGS

	BFA42 -- 200				BFA42 -- 300				BFA42 -- 400				BFA42 -- 600			
	5E	5G	5I	5K	5E	5G	5I	5K	5E	5G	5I	5K	5E	5G	5I	5K
Torque Constant (Kt) oz-in/amp	9.9	15.7	24.9	39.5	14.8	23.5	37.3	59.2	19.7	31.3	49.8	79	29.6	47	74.6	118.5
Voltage Constant (Ke) Volts/Krpm	7.3	11.6	18.4	29.2	10.9	17.4	27.6	43.8	14.6	23.2	36.8	58.4	21.9	34.8	55.2	87.6
L-L Resistance (Rt) Ohms (cold)	0.02	0.046	0.14	0.33	0.035	0.071	0.165	0.4	0.045	0.095	0.22	0.57	0.15	0.21	0.46	0.88
Inductance (L-L) mH	0.08	0.19	0.47	1.18	0.114	0.29	0.71	1.77	0.152	0.39	0.95	2.37	0.23	0.59	1.43	3.6
Peak Current (A) Amps	195	125	78	49	182	114	72	45	183	115	72	45	162	102	64	40

VALUES AS LISTED ARE TEST CONDITIONS, ACTUAL RESULTS MAY VARY

▼ BFA42 Series Options

- Optical Encoders
- Hall Sensor or Encoder Commutation
- Gear Boxes and Brakes
- Application Specific Windings and Mechanical designs
- Custom Cables and Connectors
- 8-Pole Design Available
- IP 65 Sealing
- For more options, see 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
- Drive Motor for Small Electric Vehicle

Magmotor™

BFA SQUARE FINNED BODY

