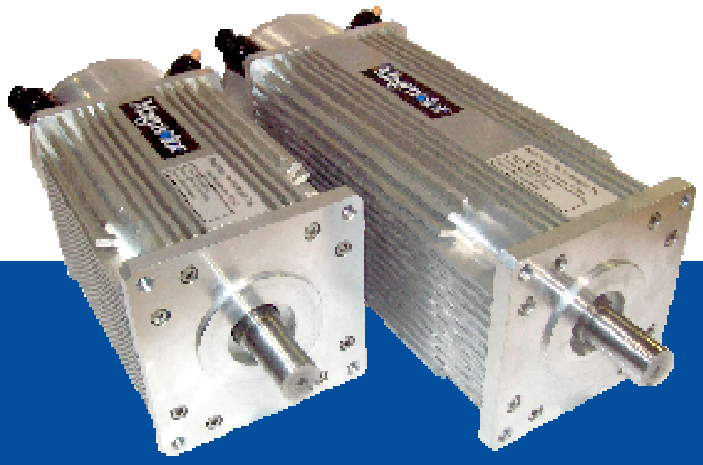
Magmotor

925-2500 oz-in Continuous Torque
2.4-7.5HP Continuous Power



Key Performance Features

- High Energy Neodynium Magnets
- Operating speeds to 6000RPM
- High Torque to Size ratio
- 24-600VDC typical Bus voltage
- Custom Designed To Your Performance Requirements

BFA56 BRUSHLESS MOTOR SERIES

Motor Characteristics

(8 Pole Design)

FRAME SIZE	STACK LENGTH	Peak Stall Torque (Tp) oz-in	Cont. Stall Torque (Tc) oz-in	Friction & Cogging Torque (Tf) oz-in	Rotor Inertia (Jm) oz-in-sec^2	Thermal Resistance (Rth) degC/Watt	Max Recom'd Speed RPM	Max Winding Temp C	Elec Time Constant (Te) msec	Power Range W	Weight lb
BFA56	- 200	2775	925	28.5	0.204	0.15	6000	155	5.5	1800	21.4
BFA56	- 400	4350	1540	47.0	0.395	0.13	6000	155	6.9	3000	35.7
BFA56	- 600	5940	1980	65.5	0.589	0.11	6000	155	7.8	4200	50.0
BFA56	- 800	7500	2500	84	0.777	0.09	6000	155	9.4	5400	64.4

Sample Windings

CONSULT MAGMOTOR APPLICATION STAFF FOR OTHER AVAILABLE WINDINGS

	BFA56 - 200				BFA56 - 400				BFA56 - 600				BFA56 - 800			
	3C	3D	3E	3F	3C	3D	3E	3F	3C	3D	3E	3F	3C	3D	3E	3F
Torque Constant (Kt) oz-in/amp	21.1	27.1	33.9	41.4	42.2	54.3	67.8	82.9	63.2	81.2	101.5	124.1	84.1	108.2	135.2	165.2
Voltage Constant (Ke) Volts/Krpm	15.6	20.1	25.1	25.1	31.2	40.1	50.2	61.3	46.7	60.1	75.1	91.7	62.2	80.0	100.0	122.2
L-L Resistance (Ra Ohms (cold)	0.03	0.05	0.08	0.13	0.05	0.08	0.12	0.19	0.06	0.10	0.16	0.25	0.08	0.13	0.20	0.32
Inductance (L-L) mH	0.18	0.28	0.44	0.70	0.33	0.53	0.83	1.31	0.50	0.79	1.25	1.97	0.75	1.19	1.87	2.96
Peak Current (A) Amps	76	60	44	28	76	60	44	28	76	60	44	28	76	60	44	28

VALUES AS LISTED ARE TEST CONDITIONS. ACTUAL RESULTS MAY VARY

BFA56 Series Options

- Optical Encoders
- Hall Sensor or Encoder Commutation Gear Boxes and Brakes
- Application Specific Windings and Mechanical designs
- Custom Cables and Connectors
- IP 67 Sealing

Typical Applications

- Hybrid & Electrical Vehicle Systems Commercial, Fleet & Military
- Off-Road applications
- Power Steering
- Vehicle hydraulic accessories

For more options, see magmotor.com custom solutions, or call us.

BFA SQUARE FINNED BODY