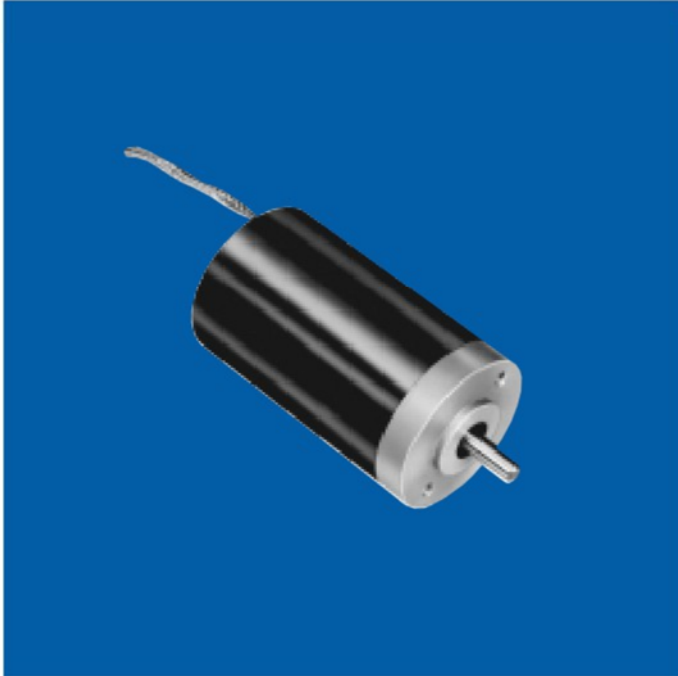


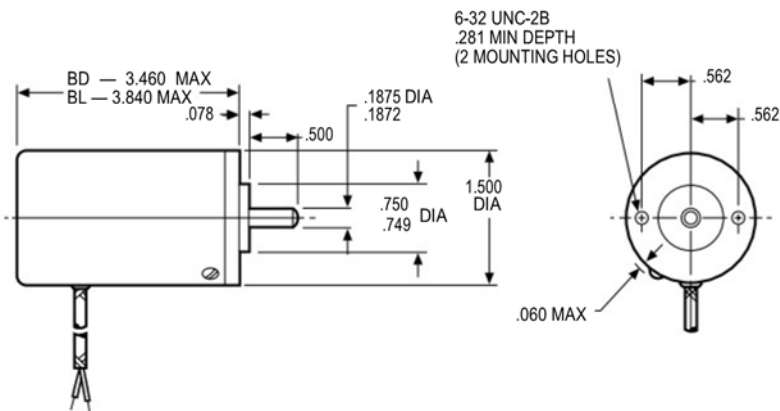
BD/BL MOTORS W/SERIES BRAKE

DC Permanent Magnet Motors

A-2410



Dimensions



general design specification power rating:

BD — .01 hp (7.5 W)

BL — .02 hp (14.9 W)

voltage: 27 and 110 VDC

weight: BD — 14 ounces

BL — 16 ounces

armature: Dynamically balanced

inertia: BD — 5.3×10^{-4} oz. in. sec.²

BL — 7.3×10^{-4} oz. in. sec.²

electrical time constant: 2.0 milliseconds max

mechanical time constant: 55.0 milliseconds max

typical no load torque: BD — .65 oz. in.

BL — .75 oz. in.

brake holding torque: 3.00 oz. in. minimum

protection: Varnish impregnated

shaft: Precision-ground, through-hardened (RC 40-50) 420 stainless steel per ASTM A582. Options: length, smaller diameter, flats, pinions, gears, holes (through or tapped), threaded ends and tapers. Type of steel used may change depending upon variation selected

magnets: Alnico V

bearings: Double shielded, life-lubricated for -55°C to +85°C operation. Special lubricants available for temperature extremes

cables/leads: 8" shielded cable per MIL-C-7078 #22 AWG conductors per MIL-W-16878/4

cover: Aluminum

frame: Die-cast aluminum

marking: Per MIL-STD-130

life: 1,000 hours continuous duty for 27 VDC units

winding temperature rise: BD — 5.5°C per watt;
BL — 5.0°C per watt w/8.00" x 8.00" x .25" aluminum heat sink

winding insulation rating: 130°C (higher temperature windings available)

options available:

- Gear trains (see A-2430 for details)
- RFI filters to meet MIL-I-6181, MIL-I-26600 or MIL-STD-461

A-2410

Standard Part Numbers and Data

Type BD

VOLTAGE (VDC)	SPEED no load (rpm)	TORQUE		CURRENT			CONSTANTS		VARIABLE LEAD COLOR	STANDARD PART NUMBERS*
		max rated (oz. in.)	** theoretical stall (oz. in.)	max no load (amps)	max rated load (amps)	** nominal stall (amps)	K _T (oz. in./amp)	R (ohms)		
27	14,000-16,500	1.50	16.0	.39	1.26	7.6	2.22	3.58	RED/ORG	100A805-8
27	11,000-13,000	2.00	12.7	.30	1.24	4.8	2.79	5.64	RED/YLW	100A805-9
27	9,000-10,500	2.25	9.7	.24	1.10	3.0	3.47	9.02	RED/GRN	100A805-10
27	7,000-8,500	2.50	7.8	.20	.94	2.0	4.35	13.88	RED/BLU	100A805-11
110	8,500-10,000	1.75	5.3	.60	.20	.4	14.97	275.00	BLK/WHT	100A805-18

**Because of brush drop and field distortion, current and torque indicated will not always be attainable

Type BL

VOLTAGE (VDC)	SPEED no load (rpm)	TORQUE		CURRENT			CONSTANTS		VARIABLE LEAD COLOR	STANDARD PART NUMBERS*
		max rated (oz. in.)	** theoretical stall (oz. in.)	max no load (amps)	max rated load (amps)	** nominal stall (amps)	K _T (oz. in./amp)	R (ohms)		
27	11,500-14,000	2.50	21.0	.40	1.60	8.50	2.63	3.2	RED/ORG	100A806-7
27	8,500-10,500	3.00	17.0	.28	1.50	5.30	3.35	5.1	RED/YLW	100A806-8
27	7,000-9,000	3.25	13.0	.22	1.25	3.25	4.21	8.3	RED/GRN	100A806-9
27	5,500-7,000	3.50	10.0	.18	1.10	2.20	5.24	12.7	RED/BLU	100A806-10
110	7,000-9,000	2.50	7.0	.06	.24	.45	18.38	256.0	BLK/WHT	100A806-17

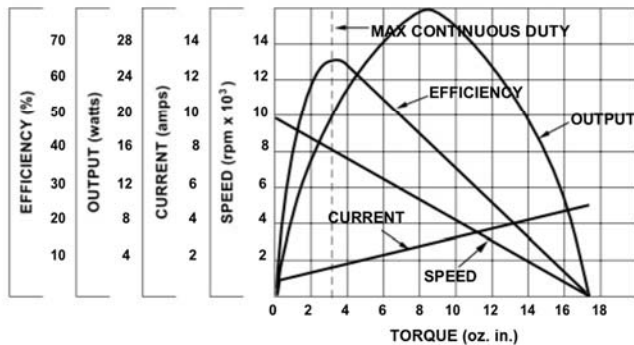
**Because of brush drop and field distortion, current and torque indicated will not always be attainable

*When You Order

Units shown above are standard and may be ordered by part number. Remember to include armature winding dash number.
EXAMPLE: 100A806-8

Typical Performance

Part No.: 100A806-8
Voltage: 27 VDC



Schematic Wiring

