

BL MOTORS W/TACHOMETER

DC Permanent Magnet Motors

A-2416



general design specification

power rating: .033 hp (24.6 W)

voltage: 6 to 115 VDC

weight: 15 ounces

armature: Dynamically balanced and skewed for low-speed operation

inertia: 5.94×10^{-4} oz. in. sec.²

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: 12" tach leads #26 AWG double conductor shielded cable conductor per MIL-W-16878/4. Shielding per MIL-C-7078 white/red, white/black. Motor leads #22 AWG double conductor shielded cable conductor per MIL-W-16878/4. Shielding per MIL-C-7078 red & black

cover: Aluminum

frame: Die-cast aluminum

marking: Per MIL-STD-130

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

winding temperature rise: 5°C per watt w/8.00" x 8.00" x .25" aluminum heat sink

no load torque: 1.0 oz. in.

winding insulation rating: 180°C

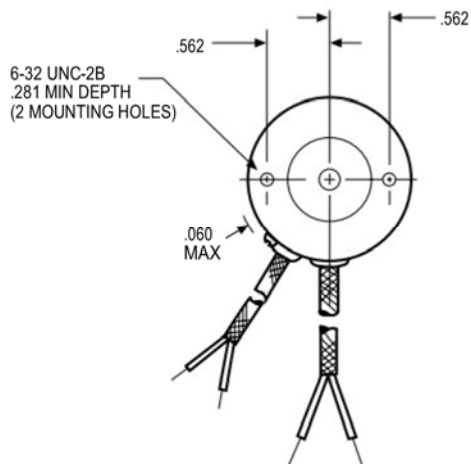
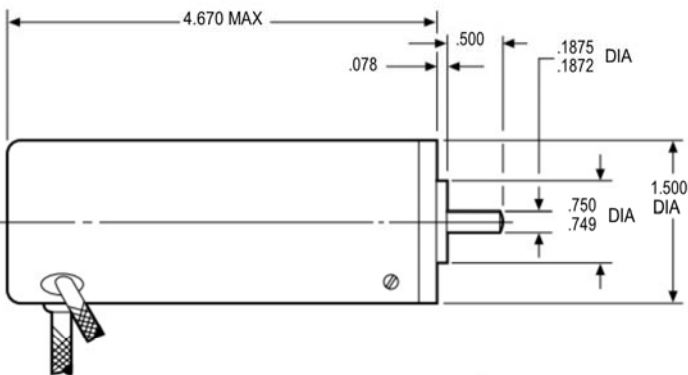
tachometer output:

- 1.5 VDC/1,000 rpm tach
- 5.4 VDC \pm .27 @ 3,600 rpm with 10,000 ohm load
- 3.0 VDC/1,000 rpm tach
- 10.8 VDC \pm .54 @ 3,600 rpm with 10,000 ohm load

options available:

- Gear train (see A-2430 for details)

Dimensions



Standard Part Numbers and Data

VOLTAGE (VDC)	SPEED no load (rpm)	TORQUE		CURRENT			CONSTANTS		STANDARD PART NUMBER*	
		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)	1.5 VDC/ 1,000 rpm tachometer	3.0 VDC/ 1,000 rpm tachometer
6	8,500-10,500	3.8	29.0	1.60	6.50	45.00	.80	.14	100A755-2	100A756-2
6	6,500-8,000	4.8	23.0	1.20	6.50	28.00	1.01	.24	100A755-3	100A756-3
12	10,000-12,500	3.1	37.0	.96	3.50	36.00	1.30	.39	100A755-4	100A756-4
12	8,500-10,500	4.2	29.0	.75	3.50	22.00	1.66	.62	100A755-5	100A756-5
12	6,500-8,000	4.8	23.0	.60	3.50	14.00	2.10	1.00	100A755-6	100A756-6
12	5,100-6,200	5.3	18.0	.48	3.00	9.00	2.63	1.50	100A755-7	100A756-7
27	9,200-11,000	3.5	33.0	.37	1.40	12.00	3.35	2.50	100A755-8	100A756-8
27	7,000-9,000	4.8	27.0	.30	1.40	8.00	4.21	4.10	100A755-9	100A756-9
27	5,500-7,000	5.8	21.0	.24	1.40	5.20	5.24	6.40	100A755-10	100A756-10
50	8,500-10,500	3.6	31.0	.19	.72	5.90	6.57	10.10	100A755-11	100A756-11
50	6,500-8,000	4.8	25.0	.15	.74	3.70	8.23	16.00	100A755-12	100A756-12
50	5,500-7,000	6.3	20.0	.12	.73	2.40	10.34	25.00	100A755-13	100A756-13
50	4,500-5,500	7.3	16.0	.10	.66	1.50	13.05	41.00	100A755-14	100A756-14
50	3,500-4,500	5.8	12.5	.08	.43	.94	16.41	65.00	100A755-15	100A756-15
115	8,500-10,500	4.0	22.0	.08	.34	1.90	15.02	75.00	100A755-16	100A756-16
115	7,000-9,000	4.8	17.0	.07	.40	1.20	18.38	116.00	100A755-17	100A756-17
115	5,500-7,000	4.8	14.0	.06	.28	.77	22.60	180.00	100A755-18	100A756-18
115	4,500-5,500	4.0	11.0	.04	.19	.50	28.37	267.00	100A755-19	100A756-19
115	4,000-5,000	3.3	8.8	.04	.14	.33	33.91	420.00	100A755-20	100A756-20
115	3,000-4,000	2.7	8.1	.03	.10	.21	41.21	645.00	100A755-21	100A756-21

**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: 100A755-8

Typical Performance

Part No.: 100A755-8

Voltage: 27 VDC

