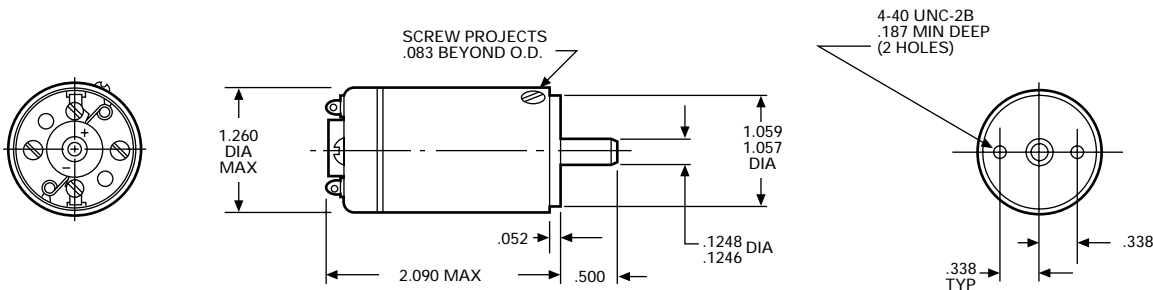


power rating: .015 hp (11.2 W)  
 voltage: 6 to 75 VDC  
 weight: 5.2 ounces  
 armature: Dynamically balanced  
 inertia:  $7.4 \times 10^{-5}$  oz. in. sec.<sup>2</sup>  
 electrical time constant: 0.5 millisecond max  
 mechanical time constant: 15.0 milliseconds max  
 typical no load torque: 0.5 oz. in.  
 shaft: Precision-ground stainless steel. Options: length, smaller diameter, flats, pinions, gears, holes (through or tapped), threaded ends and tapers. Shaft material may change depending upon options selected  
 magnets: Alnico V  
 bearings: Ball bearings are double shielded, life-lubricated  
 cover: Corrosion-resistant aluminum  
 frame: Die-cast aluminum  
 end bell: Precision-molded, fiberglass-filled Diallyl Phthalate  
 winding temperature rise: 7°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 train (see Bulletin E-2030)

## Dimensions



ROTATION (VIEWED FROM SHAFT END)  
 CCW - POSITIVE VOLTAGE TO (+), NEGATIVE VOLTAGE TO (-)  
 CW - REVERSE POLARITY

**NOTE:** Consult factory prior to preparing spec control prints. Dimensions are for reference only

## Standard Part Numbers and Data

VOLTAGE (VDC)	SPEED no load (rpm)	TORQUE		CURRENT			CONSTANTS		STANDARD PART NUMBERS*
		max rated (oz. in.)	** theoretical stall (oz. in.)	max no load (amps)	max rated load (amps)	** nominal stall (amps)	K <sub>T</sub> (oz. in./amp)	R (ohms)	
6	7,600-9,400	1.60	5.5	.70	2.00	7.00	.90	.80	313A102-5
12	11,500-14,000	1.10	8.7	.52	1.70	8.40	1.20	1.35	313A102-24
12	9,000-11,000	1.70	6.9	.42	1.20	5.30	1.51	2.13	313A102-3
24	16,000-19,000	.75	11.0	.36	1.00	7.30	1.74	3.12	313A102-21
24	14,400-17,000	.85	11.0	.32	.85	6.50	1.96	3.50	313A102-4
24	12,000-14,500	1.00	8.7	.28	.80	4.50	2.26	5.08	313A102-7
24	10,400-12,300	1.10	6.9	.23	.75	3.30	2.71	7.68	313A102-1
24	7,400-8,900	1.60	5.5	.17	.70	1.70	3.77	13.43	313A102-2
24	6,900-8,200	1.80	4.3	.16	.65	1.20	4.05	18.28	313A102-8
24	6,200-7,400	1.80	3.4	.14	.60	.89	4.52	25.59	313A102-22
24	5,200-6,200	1.20	3.4	.12	.45	.74	5.42	30.70	313A102-10
50	7,600-9,400	1.50	7.5	.09	.25	.92	7.25	51.55	313A102-11
75	14,000-17,000	1.00	8.6	.10	.29	1.60	6.33	45.10	313A102-25
75	9,000-11,000	1.70	6.8	.07	.29	.85	9.36	84.10	313A102-16
75	8,000-10,000	1.80	5.4	.06	.26	.60	10.56	119.40	313A102-12
75	6,500-8,000	1.20	4.3	.05	.20	.37	13.58	194.00	313A102-15
75	4,500-5,300	1.00	3.4	.04	.10	.23	16.89	303.00	313A102-13

\*\*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: 313A102-1

## Typical Motor Performance

Part No.: 313A102-1

Voltage: 24 VDC

