

Specifications: DC Permanent Magnet Motor CMR 120A100/101

ELECTRICAL SPECIFICATIONS

Rating: 0.01 hp continuous duty

Voltage: 3, 6, 12, 27 and 50 VDC are standard; other direct current voltages available as required.

Speed: 5,500 rpm to 24,000 rpm are standard; other speeds available upon request.

Connection Method: Shielded, double conductor leads for enclosed version. Solder terminals on open unit.

Rotation: Direction is CCW when positive terminal is plus and viewing shaft end.

Reversibility: Motor reverses when voltage is reversed.

MECHANICAL SPECIFICATIONS

Frame: Machined aluminum impact extrusion for rigidity

Armature: Varnish impregnated, precision balanced, with diamond-turned commutator

Inertia: 6.4×10^{-5} oz.in. sec.² (max.)

Magnet: Precision ground Alnico 5

Brush-holder: Glass filled Diallyl Phthalate thermo-set, precision molded

Bearings: Double shielded, life lubricated, R-2 precision ball bearings

Lubrication: Grease per MIL-G-3278; other lubricants available.

Shaft: Precision ground stainless 17-4 PH, heat treated H-900

Mounting Method: Two, #4-40 tapped holes in front endbell or non-magnetic clamp on frame O.D.

Weight: 4.3 oz. for open frame, 4.5 oz. for enclosed unit

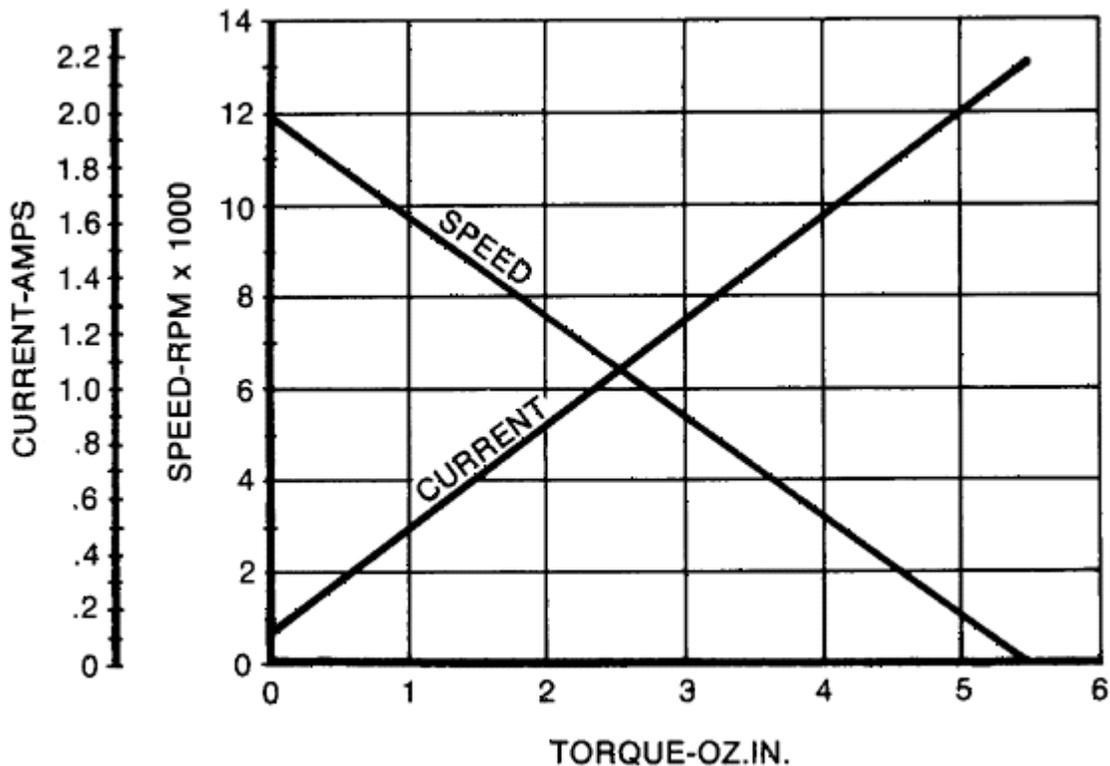
DC Motor Data CMR 120A100/101

Basic DC Motor Data for -Standard Part Numbers

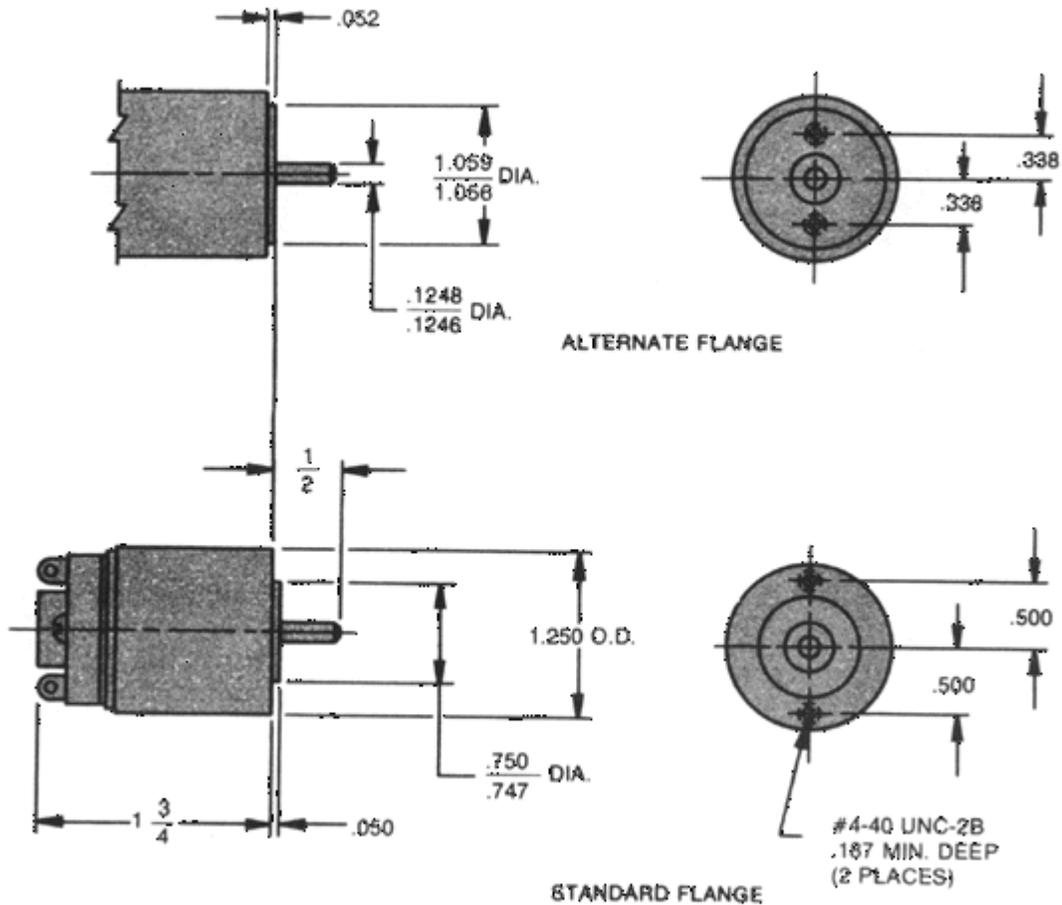
| INPUT VOLTAGE DC | NO-LOAD SPEED* RPM | RATED TORQUE OZ.IN. | STALL TORQUE* OZ.IN. | NO-LOAD CURRENT* AMPS | RATED TORQUE CURRENT* AMPS | STALL CURRENT* AMPS | STANDARD CMR PART NUMBERS | |
|------------------|--------------------|---------------------|----------------------|-----------------------|----------------------------|---------------------|---------------------------|------------|
| | | | | | | | OPEN | ENCLOSED |
| 3 | 12,200 | 1.0 | 5.7 | 1.2 | 4.8 | 21 | 120A100-1 | 120A101-1 |
| 3 | 10,400 | 1.0 | 4.8 | .97 | 3.9 | 15 | 120A100-2 | 120A101-2 |
| 6 | 15,900 | 0.7 | 7.4 | .74 | 2.5 | 17.8 | 120A100-3 | 120A101-3 |
| 6 | 12,600 | 1.0 | 5.8 | .59 | 2.4 | 11.1 | 120A100-4 | 120A101-4 |
| 12 | 20,300 | 0.5 | 9.4 | .47 | 1.3 | 14.6 | 120A100-5 | 120A101-5 |
| 12 | 16,300 | 0.7 | 7.6 | .38 | 1.3 | 9.4 | 120A100-6 | 120A101-6 |
| 12 | 12,800 | 1.0 | 5.9 | .30 | 1.25 | 5.8 | 120A100-7 | 120A101-7 |
| 27 | 24,000 | 0.4 | 11.0 | .25 | .65 | 9.1 | 120A100-8 | 120A101-8 |
| 27 | 18,500 | 0.6 | 8.6 | .19 | .65 | 5.3 | 120A100-9 | 120A101-9 |
| 27 | 15,100 | 0.7 | 7.0 | .16 | .60 | 3.6 | 120A100-10 | 120A101-10 |
| 27 | 11,800 | 1.0 | 5.5 | .12 | .50 | 2.2 | 120A100-11 | 120A101-11 |
| 27 | 9,700 | 1.0 | 4.5 | .10 | .40 | 1.5 | 120A100-12 | 120A101-12 |
| 27 | 7,700 | 1.0 | 3.5 | .08 | .33 | .92 | 120A100-13 | 120A101-13 |
| 50 | 11,500 | 1.0 | 5.3 | .084 | .25 | 1.11 | 120A100-14 | 120A101-14 |
| 50 | 8,700 | 1.0 | 4.0 | .049 | .20 | .64 | 120A100-15 | 120A101-15 |
| 50 | 7,000 | 0.8 | 3.2 | .039 | .14 | .42 | 120A100-16 | 120A101-16 |
| 50 | 5,500 | 0.7 | 2.5 | .031 | .10 | .26 | 120A100-17 | 120A101-17 |

*The standard production tolerance on no-load speed, stall torque and stall current is +/- 10%. The tolerance on no-load current is +25%. The tolerance on current at rated torque is +15%.

NOMINAL PERFORMANCE CURVES 120A100-11 at 27 VDC



Dimensions: DC Motor CMR 120A100/101



ORDERING

For standard motors, order using the part number listed above corresponding to the performance required.

Special modifications to the CMR motor are available and are ordered as follows:

1. Reference the closest standard P/N in your order.
2. Call out all the special requirements by stating exactly what is required.

A special part number will be assigned to identify custom/modified motors. For complete engineering information on plotting speed/torque and current/torque curves for other armatures, see Bulletin E-1.