

**DC PERMANENT MAGNET MOTORS
MILITARY QUALITY**

**MODEL DMR
BULLETIN 150A100**

2796 Culver Ave., Dayton, Ohio 45429
513/294-1041

ELECTRICAL SPECIFICATIONS

Rating: 0.025 hp continuous duty.

Voltage: 3 to 115 VDC are the charted standards but other voltages are available.

Speed: 6,550 to 16,700 rpm are standard with almost any variation easily made.

Connection Method: Double conductor shielded leads.

Rotation: Direction is CCW when plus (red) lead is positive and viewing shaft end.

Reversibility: Motor rotation reverses when applied voltage is reversed.

The Motor Technology, Inc. Model DMR motor is designed to meet typical military application demands. The unit has a high power-to-weight ratio, reliability and excellent efficiency. It is designed to meet the applicable portions of MIL-M-8609 and MIL-E-5272, including the rugged environmental and explosion proof requirements.

Special flanges, pinions, filters and brakes are among the more common examples of design options available. If you have a particular requirement, tell us. Our engineers are responsive and we want to help you make your application a success. For information on mating planetary gearmotors, see Bulletin 151A100/116.



MODEL DMR

MECHANICAL SPECIFICATIONS

Frame: Rigid, aluminum impact extrusion, fully machined.

Armature: Varnish impregnated, precision balanced with diamond turned commutator. Inertia is 24×10^{-5} oz. in. sec.² (max.).

Magnet: Cast Alnico 5, precision ground.

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

Bearings: Double shielded, life lubricated, R-3 precision ball bearings.

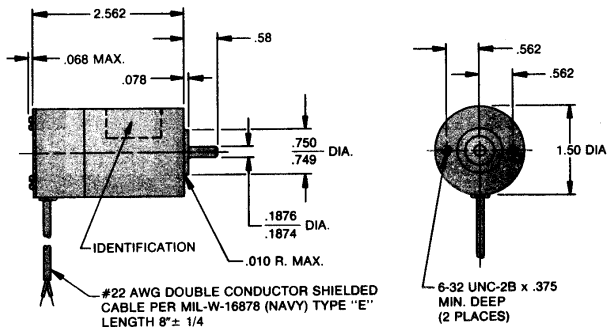
Lubrication: Grease per MIL-G-3278. Other lubes available.

Shaft: Precision Ground 17-4PH stainless steel hardened R_c 40-42.

Mounting Method: Two tapped holes for #6-32 screws or a non-magnetic clamp over motor O.D.

Weight: 9.5 oz. (max.)

DIMENSIONS



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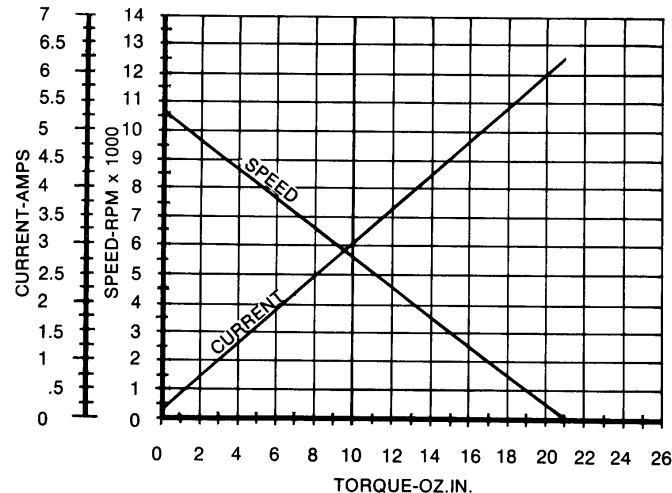
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BASIC MOTOR DATA — STANDARD PART NUMBERS

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 DMR PART NUMBERS
3	8,350	2.0	16.7	1.67	6.2	40.0	150A100-1
6	13,360	2.0	26.7	1.33	5.0	50.4	150A100-2
6	11,130	2.5	22.2	1.11	4.8	33.4	150A100-3
6	8,900	3.5	17.8	.890	4.8	21.2	150A100-4
12	14,850	2.0	29.7	.742	2.6	28.0	150A100-5
12	11,620	2.5	23.2	.581	2.5	17.4	150A100-6
12	9,200	3.5	18.4	.460	2.5	11.0	150A100-7
27	16,700	2.0	33.4	.371	1.3	15.7	150A100-8
27	13,360	2.0	26.7	.297	1.0	10.0	150A100-9
27	10,550	2.7	21.1	.234	1.0	6.30	150A100-10
27	8,700	3.5	17.4	.193	1.0	4.12	150A100-11
27	6,830	3.0	13.7	.152	0.7	2.55	150A100-12
50	10,210	3.0	20.4	.122	.55	3.03	150A100-13
50	8,000	3.0	16.0	.096	.42	1.89	150A100-14
50	6,550	3.0	13.1	.079	.33	1.22	150A100-15
115	11,960	2.5	23.9	.062	.24	1.77	150A100-16
115	9,660	3.0	19.3	.050	.21	1.14	150A100-17
115	7,270	3.0	14.5	.038	.17	.68	150A100-18

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

**NOMINAL PERFORMANCE CURVES
150A100-10 at 27 VDC**



For complete engineering information on plotting speed/torque, current/torque curves for other armatures, see Bulletin E-1. For Servo information, see Bulletin E-2.

ORDERING

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

Special modifications to the DMR 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.

We will then assign a special part number to identify your motor. For quick and accurate processing of future orders, just refer to this number.