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**DC PERMANENT MAGNET MOTORS
 (RARE EARTH COBALT)
 MILITARY QUALITY**

**MODEL RCML
 BULLETIN 127A105**

ELECTRICAL SPECIFICATIONS

Rating: 0.03 hp continuous duty.

Voltage: 6, 12, 27, 50 and 75 VDC are standard. Other voltages are available if required.

Speed: 3,400 rpm to 15,560 rpm are standard, with other speeds available upon request.

Connection Method: Double conductor shielded cables, #20 AWG per MIL-W-16878, type "E".

Rotation: Counter clockwise, when viewed from shaft end, with red lead plus (+) and black lead negative (-).

Reversibility: Motor reverses when voltage is reversed.

Designed to meet military application demands, Model RCML has a very 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.

Design options include special flanges, pinions, filters and brakes. For information on mating planetary gearmotors, see Bulletins 128A200/251 and 129A200/212. For modifications, consult our application engineers.



MODEL RCML

MECHANICAL SPECIFICATIONS

Frame: Machined low carbon steel, cadmium plated per QQ-P-416, Type II, Class 2.

Armature: Varnish impregnated, precision balanced, with diamond turned commutator. Inertia is 15.7×10^{-5} oz. in. sec.² (max.).

Magnet: Samarium-cobalt segments with 24 million energy product.

Brush-holder: Glass filled diallyl phthalate thermo-set, precision molded, with stainless steel bearing insert.

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

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

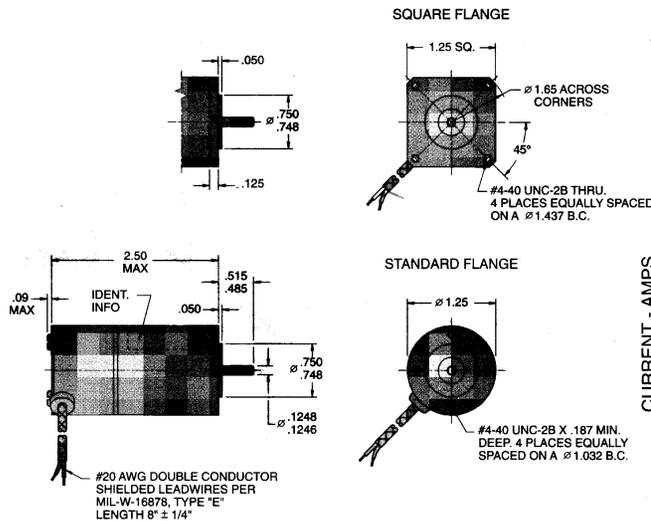
Shaft: Precision ground stainless 17-4 PH, heat treated H-900.

Protection: Steel part cadmium plated per QQ-P-416, Type II, Class 2. Aluminum parts finished per MIL-C-5541A.

Mounting Method: Four #4-40 tapped holes in housing or clamp on frame O.D.

Weight: 7.7 oz. for enclosed unit.

DIMENSIONS



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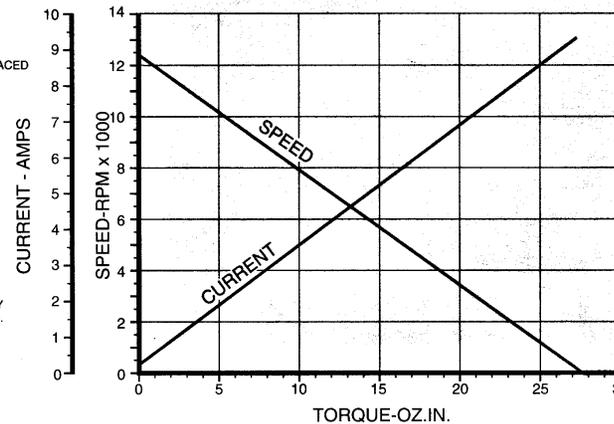
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BASIC MOTOR DATA — STANDARD PART NUMBERS

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 RCML PART NUMBERS
6	10,980	1.7	24.4	0.79	3.00	33.3	127A105-1
6	8,710	2.3	19.4	0.63	3.00	21.0	127A105-2
12	13,800	1.7	30.7	0.50	1.93	26.3	127A105-3
12	10,980	2.5	24.4	0.40	2.06	16.6	127A105-4
12	8,710	3.0	19.4	0.31	1.89	10.5	127A105-5
27	15,560	2.6	34.6	0.25	1.35	14.9	127A105-6
27	12,350	3.2	27.4	0.20	1.26	9.3	127A105-7
27	9,800	4.0	21.8	0.16	1.20	5.9	127A105-8
27	7,780	3.5	17.3	0.13	0.85	3.7	127A105-9
27	6,170	3.5	13.7	0.099	0.66	2.3	127A105-10
50	9,075	2.5	20.2	0.078	0.40	2.7	127A105-11
50	7,200	3.4	16.0	0.062	0.41	1.7	127A105-12
50	5,715	4.0	12.7	0.049	0.38	1.1	127A105-13
75	6,800	3.0	15.1	0.039	0.23	1.0	127A105-14
75	5,400	3.0	12.0	0.031	0.18	0.64	127A105-15
75	4,280	2.1	9.5	0.025	0.11	0.40	127A105-16
75	3,400	1.8	7.5	0.020	0.075	0.25	127A105-17

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

**TYPICAL PERFORMANCE CURVES
 127A105-7 at 27 VDC**



For complete engineering information on plotting speed/torque and current/torque curves for other armatures, see Bulletin E-1. For servo data, 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 RCML 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.