

Ultimag® Size 6EM

Part Number: 197126-0XX

All catalog products manufactured after April 1, 2006 are RoHS Compliant

Specifications

Dielectric Strength	1000 VRMS (23 awg); 1200 VRMS (24-33 awg)
Recommended Minimum Heat Sink	Maximum watts dissipated by the Ultimag are based on an unrestricted flow of air at 20°C, with the Ultimag mounted on the equivalent of an aluminum plate measuring 12-3/8" square by 1/8" thick (31.43 cm sq. x 0.32 cm)
Thermal Resistance	3.58°C/watt with heatsink; 8.52°C/watt without heatsink
Rotor Inertia	5.676 x 10 ⁻⁶ (kgm ²)
Peak Torque Rating (Tp)	225 oz.in. (1.6 Nm)
Power Input	320 watts (stalled at Tp; 25°C; Pp)
Number of Phases	1
Static Friction (Tf)	1 oz.in. max. (7mNm)
-3dB Closed Loop	12.8 Hz
Maximum Winding	180°C
Number of Poles	6
Weight:	1.6 lbs. (0.73 kg)
Dimensions:	Ø2.312" x 1.60" L (Ø58.72 mm x 40.6 mm L) See page B10.



Performance

Maximum Duty Cycle	100%	50%	25%	10%
Maximum ON Time (sec) when pulsed continuously ¹	∞	40	15	5
Maximum ON Time (sec) for single pulse ²	∞	143	47	11
Typical Energize Time (msec) ³	17	12	10.5	8.5
Watts (@ 20°C)	32	64	128	320
Ampere Turns (@ 20°C)	980	1386	1960	3100

Coil Data						
awg (0XX) ⁴	Resistance (@20°C)	# Turns ⁵	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
23	2.65	267	9.2	13.0	18.4	29.1
24	5.02	396	12.7	17.9	25.4	40.1
25	7.03	444	15.0	21.2	30.0	47.4
26	12.60	625	20.1	28.4	40.2	63.5
27	17.60	700	23.8	33.6	47.5	75.1
28	29.90	936	30.9	43.7	61.9	97.8
29	49.50	1225	39.8	56.3	80.0	126.0
30	79.70	1560	51.0	71.4	101.0	160.0
31	126.50	1962	64.0	90.0	127.0	201.0
32	198.30	2440	80.0	112.6	159.0	252.0
33	306.20	2992	99.0	140.0	198.0	313.0

How to Order

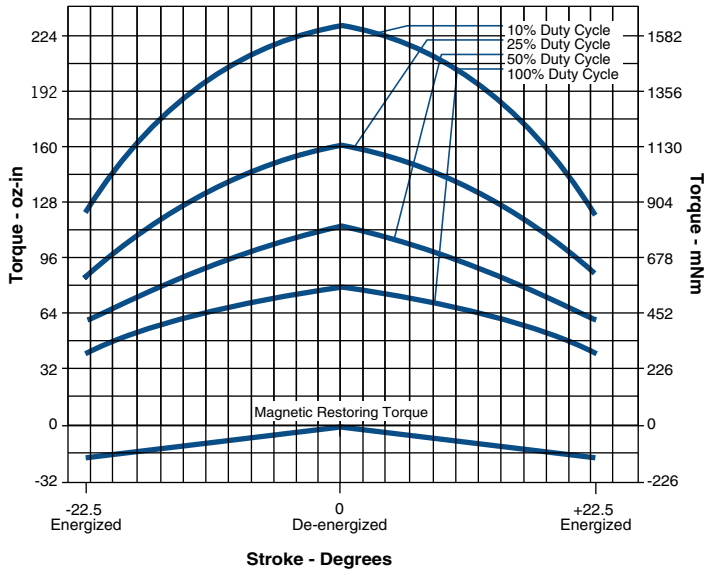
Add the coil awg number (0XX) to the part number (for example: to order a 25% duty cycle rated at 25.4 VDC, specify 197126-024).

Please see www.ledex.com (click on Stock Products tab) for our list of stock products available through our North American distributors.

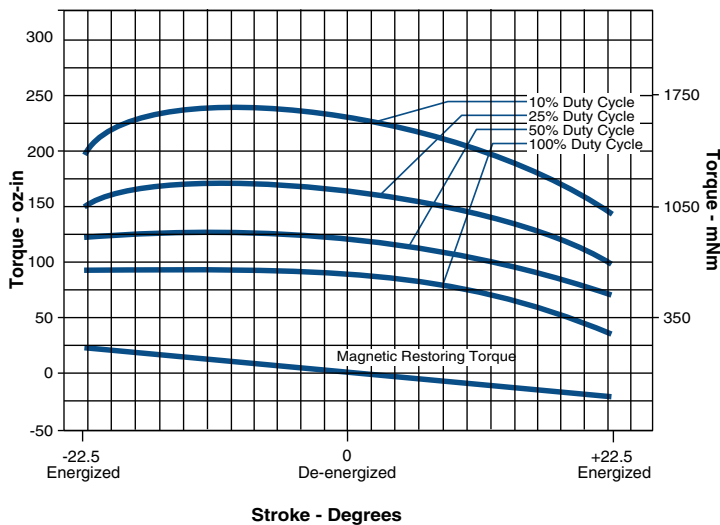
- ¹ Continuously pulsed at stated watts and duty cycle
- ² Single pulse at stated watts (with coil at ambient room temperature 20°C)
- ³ Typical energize time based on no load condition. Times shown are for half of full rotary stroke starting at center-off position.
- ⁴ Other coil awg sizes available — please consult factory
- ⁵ Reference number of turns

WARNING: Exposed Magnet may affect pacemakers. In the event a product unit's magnet is exposed due to product disassembly, Pacemaker Wearers should distance themselves 10 feet from exposed magnet.

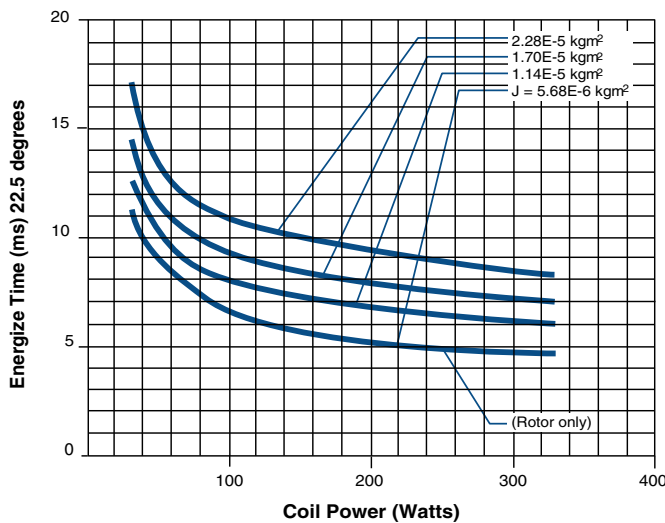
All specifications subject to change without notice.



Graph 1 shows three position operation. In any mode, the armature seeks center of stroke at zero power. Applying a positive or negative voltage causes the shaft to rotate clockwise or counter clockwise. When power is removed, the restoring torque is applied to the load, or alternatively, the shaft can be driven to center under power.



Graph 2 shows operation end-to-end. Note the high starting torque for high starting acceleration or for stopping the load by means of reverse voltage at the end of the stroke. If the device is used in a full stroke application, the load can be externally latched, detented, or biased to either end of stroke.



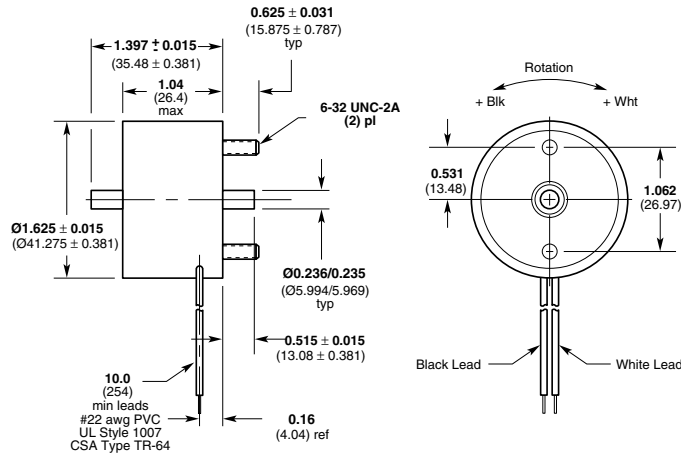
Graph 3 shows how speed varies with load. Each curve represents a different inertial load, which is a multiple of the armature inertia.

Calculate the inertia of your system, then use this chart to determine Ultimag speed in your application. Inertia determination of simple shapes is shown in most engineering handbooks; complex shapes are calculated in solid modeling software or are measured empirically. This graph represents half of the full rotary stroke starting at the center-off position.

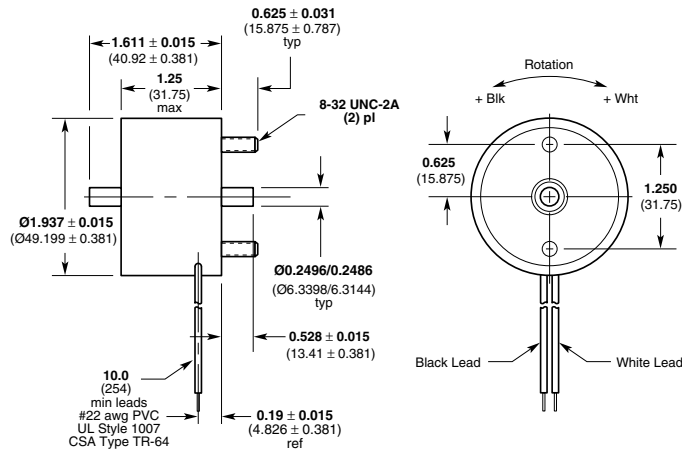
Ultimag® Dimensions

inches (mm)

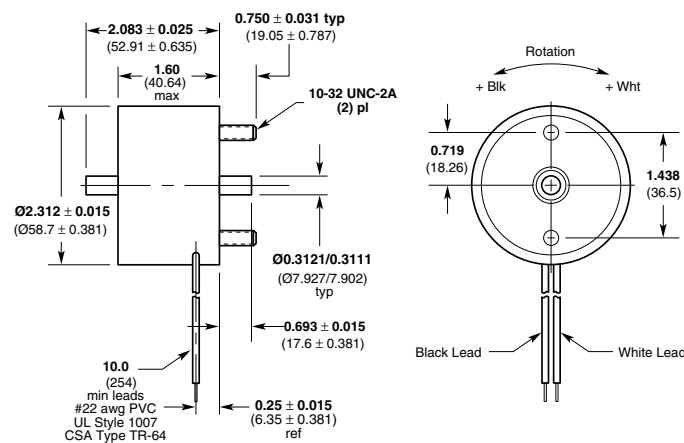
4EM



5EM



6EM



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