



**RoHS
COMPLIANT**



174308.00 & M1740006.00 DC DRIVE-1Q SCR-NEMA 1

The 174308.00 and M1740006.00 series of drives are a reliable and cost-effective solution for controlling your permanent magnet or shunt-wound DC motors in variable-speed applications. They use SCR's to provide full-wave rectification of the AC line input. This dual voltage drive operates using 115 VAC or 230 VAC, 50/60 Hz, to operate 90 or 180 VDC SCR brush-type motors from 1/20 to 2 HP. Packaged in a NEMA 1 enclosure, these user-friendly drives possess diagnostics and options to accommodate user needs.

The 174308.00 and M1740006.00 also provide reversing by using a dynamic braking resistor to bring the motor to a stop quicker than the natural coast of other 1Q drives. The direction switch swaps the armature's leads to change the motors direction of rotation, without the added cost of a regenerative control.

FEATURES

NEMA 1 Enclosure - Prevents accidental contact with the circuit board.

Field Supply - Voltage output to energize the field winding of a shunt-wound motor.

Stopping Modes - Inhibit (N.O.) for coasting to a stop. Can be used for frequent starting and stopping.

Dynamic Brake Resistor - Brakes the motor to zero speed quicker than coasting.

Reversing - Reversing switch swaps armature leads to change the motor direction. Motor must be stopped before direction is changed.

Line Fusing - Includes two fuses.

Diagnostic LEDs - Current Limit.

Case LEDs - Power.

Prewired Switches - Power (ON/OFF), Run (RUN/ BRAKE), Direction (FORWARD/REVERSE).

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SPECIFICATIONS

- AC Line Voltage: 115 / 230 VAC, $\pm 10\%$, 50/60 Hz, 1 \emptyset
- Field Voltage **with 115 VAC Line (230 VAC Line):**
50/100 (100/200) VDC
- Maximum Field Amperage: 1 Amp
- Acceleration Time Range:
with 90V armature: 0.5 - 11 seconds
with 180V armature: 0.5 - 22 seconds
- Deceleration Time Range:
with 90V armature: coast to 13 seconds
with 180V armature: coast to 25 seconds
- Analog Signal Range:
with 90V Armature: 0 - 1.4 VDC
with 180V armature: 0 - 2.8 VDC
- Input Impedance (S1 to S2): >100K Ω
- Form Factor: 1.37 at base speed
- Load Regulation: 1% of base speed or better
- Speed Range: 60:1
- Ambient Temperature Range: 10°C - 40°C

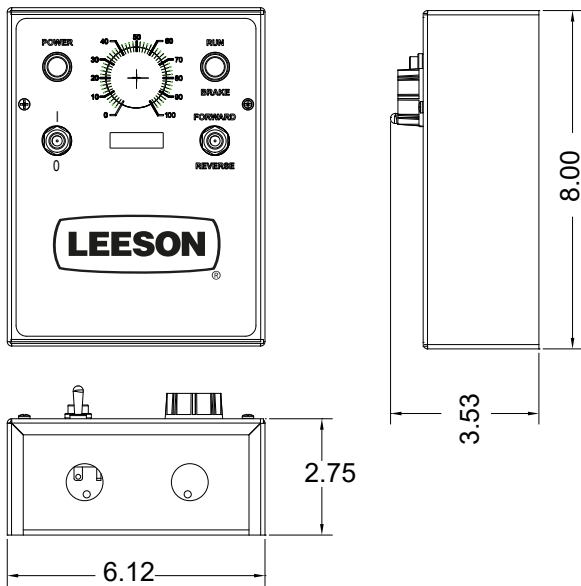
ORDERING INFO

MODEL #	ENCLOSURE	MAXIMUM CURRENT (ADC)	INPUT VOLTAGE (VAC)	OUTPUT VOLTAGE (VDC)	POWER RANGE		FIELD/ SHUNT SUPPLY (VDC)	BRAKING	REVERSING	ISOLATION
					HP	KW				
M1740006.00	NEMA 1	1.5	115	0-90	1/20-1/8	.04-.09	YES	YES Dynamic Breaking Resistor	YES Armature Switching	NO
			230	0-90	1/20-1/8	.04-.09				
				0-180	1/10-1/4	.07-.19				
174308.00	NEMA 1	10*	115	0-90	1/8-1	.09-.75	YES	YES Dynamic Breaking Resistor	YES Armature Switching	NO
			230	0-90	1/8-1	.09-.75				
				0-180	1/4-2	.19-1.5				

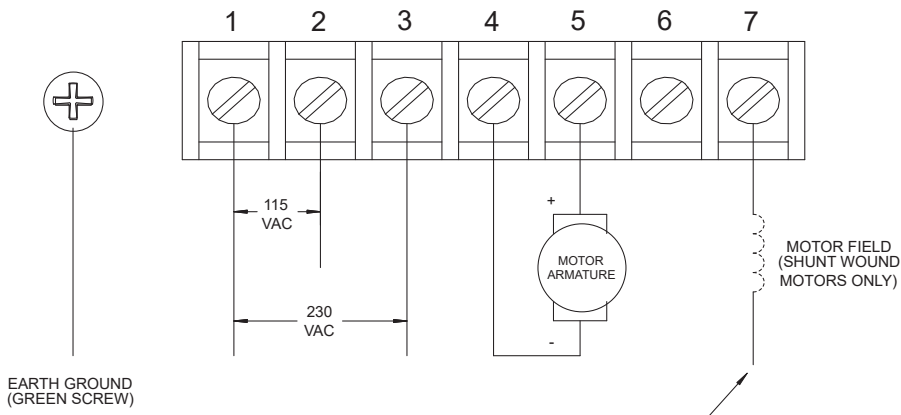
* Heat sink kit 174316.00 must be used when the continuous output current is above 5 amps.

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DIMENSIONAL DRAWINGS — INCHES



WIRING



NOTE: DO NOT make any connections to terminals 6 and 7 if using a permanent magnet motor.

WITH 115 VAC INPUT:
CONNECT TO TERMINAL 1 FOR 50 VOLT FIELD.
CONNECT TO TERMINAL 6 FOR 100 VOLT FIELD.

WITH 230 VAC INPUT:
CONNECT TO TERMINAL 1 FOR 100 VOLT FIELD.
CONNECT TO TERMINAL 6 FOR 200 VOLT FIELD.

TRIM POTS

- Acceleration IR
- Compensation Current Limit
- Maximum Speed Deceleration
- Minimum Speed

ACCESSORIES

- 174316.00:** Heat sink

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APPLICATION CONSIDERATIONS

The proper selection and application of power transmission products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components and the customer should carefully review its requirements. Any technical advice or review furnished by Regal Beloit America, Inc. and/or its affiliates ("Regal") with respect to the use of products and components is given in good faith and without charge, and Regal assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer's risk.

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