



# 175721.00 DC DRIVE-4Q SCR-CHASSIS

The LEESON® 175721.00 full-wave, four-quadrant regenerative SCR drive provides smooth motoring and braking torque for brush-type DC motors from 1/8 through 2 HP, for a single or bi-directional variable speed, without using mechanical contactors. Slide switches allow the 175721.00 to accept either a 115 or 230 VAC input to run 90 or 180 VDC motors. The tach feedback mode virtually guarantees constant set speed under varying load. Applications with overhauling loads, rapid deceleration, basic positioning and high duty cycle reversing and braking benefit from this versatile regenerative drive.

## FEATURES

**Fully Regenerative** - 4-Quadrant drives allow for quick and contactorless braking and/or reversing on-the-fly.

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

**Stopping Modes** - Inhibit (N.O.) for braking, Regen Brake (N.O.) for decelerating, and Enable (N.O.) for coasting to a stop. Can be used for frequent starting and stopping.

**Tach Feedback** - Accepts tachogenerator feedback for tighter speed regulation.

**Line Fusing** - Includes two on-board fuses.

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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: 0.5 - 15 seconds
- Deceleration Time Range: 0.5 - 15 seconds
- Analog Signal Range: 0  $\pm$  10 VDC
- Input Impedance (RB1/S0 to S2): 32K  $\Omega$
- Form Factor: 1.37 at base speed
- Tachogenerator Feedback Range: 0 to 7 - 50 VDC / 1000 RPM Load
- Regulation Armature Feedback: 1% of base speed or better
- Tach Feedback: 0.1% of base speed or better
- Speed Range: 60:1
- Ambient Temperature Range: 10°C - 55°C

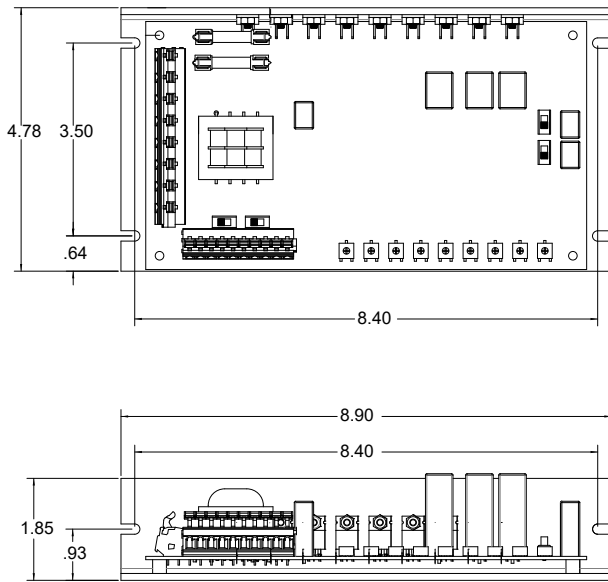
## ORDERING INFO

MODEL #	ENCLOSURE	MAXIMUM CURRENT (ADC)	INPUT VOLTAGE (VAC)	OUTPUT VOLTAGE (VDC)	POWER RANGE		FIELD/ SHUNT SUPPLY (VDC)	BRAKING	REVERSING	ISOLATION
					HP	KW				
175721.00	CHASSIS	10*	115	0-90	1/8-1	.09-.75	YES	YES Regenerative	YES Regenerative	NO
			230	0-90	1/8-1	.09-.75				
				0-180	1/4-2	.19-1.5				

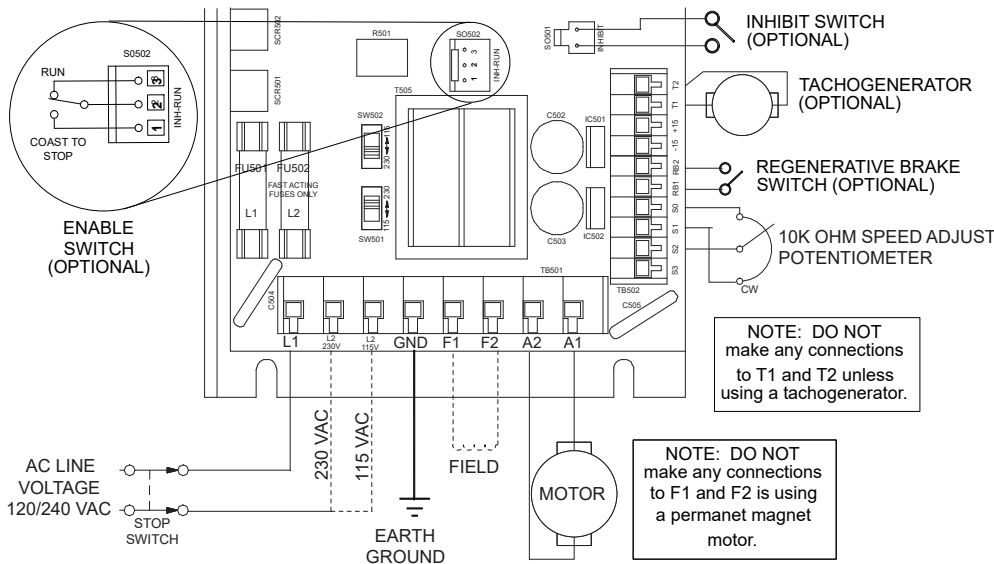
\* Heat sink kit 175722.00 must be used when the continuous output current is above 8 amps.

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## DIMENSIONAL DRAWINGS — INCHES [MILLIMETERS]



## WIRING



## TRIM POTS

- Forward Acceleration IR Compensation
- Forward Current Limit Reverse Acceleration
- Maximum Speed Reverse Current Limit Deadband
- Minimum Speed Tach Feedback

## ACCESSORIES

- 900282.01:** Inhibit Plug with 18" wire leads
- 006708.01:** Potentiometer kit (included with purchase of drive)
- 175722.00:** 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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