

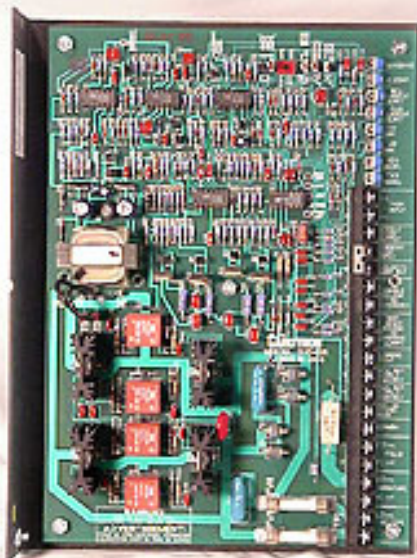
# CAROTRON

Driven by Excellence

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## O.E.M. Models D10425-000 / 200 and C880800-00

### D10425-000/200 1/8 - 2 HP REGENERATIVE



The Carotron Model D10425-XXX Regen Motor Control provides full range - four quadrant - speed control or torque control of shunt wound or permanent magnet D.C. motors from 1/8 to 2 horsepower. The quality design, superior performance and right angle mounting provides the OEM and panel builder with maximum design capability. Innovative design techniques have eliminated normal problem areas often associated with multi-bridge designs necessary for regenerative control. These design techniques combined with Carotron's standard quality features result in a motor control possessing the highest level of performance.

#### Standard Features for D10425-000/200

- Operation from 115 or 230 VAC input for 90 or 180 VDC motor armatures
- Switch selectable armature voltage or tachometer feedback

- 7 or 50 VDC per thousand RPM feedback tachometer input
- Independently adjustable Forward and Reverse Acceleration settings. Two time ranges are available for the Forward and Reverse Acceleration adjustments selectable by programing jumper.
- Single contact stopping by any of three methods:
  - Coast to stop
  - Controlled deceleration to stop
  - Rapid stop (in current limit)
- A Summing Input connected directly to the input of the velocity loop which will accept an Isolated Input signal not to exceed  $\pm 10$  VDC.
- A hard firing, high frequency multipulse gating circuit
- I.C. regulated power supplies, metal film resistors and cermet potentiometers for stable operation under varying conditions of temperature and line voltage.
- On board A.C. line fuses
- Oversized power handling components.
- Line transient suppression by MOV and RC snubber
- Inner current loop type control circuit for fast and stable response under varying load conditions
- Right Angle type mounting to minimize required chassis area
- Speed/torque mode.

#### Specifications for D10425-000/200

##### A.C. INPUT

- 115 VAC  $\pm 10\%$ , 50/60 HZ  $\pm 2\%$
- 230 VAC  $\pm 10\%$ , 50/60 HZ  $\pm 2\%$

##### ARMATURE OUTPUT

- 0 - 90 VDC for 115 VAC input
- 0 - 180 VDC for 230 VAC input

##### FIELD OUTPUT

- 100 VDC @ 1 Amp for 115 VAC input
- 200 VDC @ 1 Amp for 230 VAC input

##### HORSEPOWER RANGE: D10425-000

- 1/8-1/2 HP @ 90 VDC
- 1/4-1 HP @ 180 VDC

**HORSEPOWER RANGE: D10425-200**

- 1/4-1 HP @ 90 VDC
- 1/2-2 HP @ 180 VDC

**SPEED REGULATION**

- Armature feedback:  $\pm 1.0\%$  of base speed
- Tachometer feedback:  $\pm 0.5\%$  of base speed

**SPEED RANGE**

- 20:1, motor dependent

**TORQUE REGULATION**

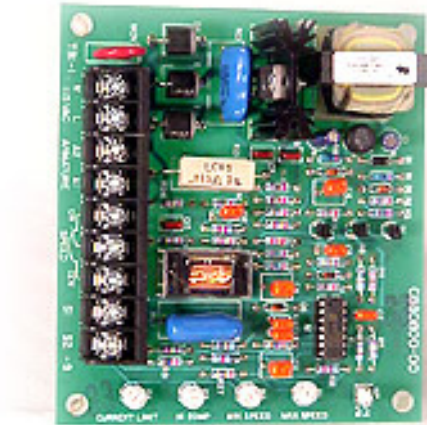
- $\pm 2\%$  of range selected

**ADJUSTMENTS**

- Max speed: 45 to 110% of rated Armature voltage
- Current limit: 0 to 150% of Current Range selected
- Accel: linear, independently adjustable forward and reverse, 2 ranges, 1-4 sec. or 4-25 seconds
- Deadband: Zero to 0.2 volts of Velocity Loop Integrator output
- IR Compensation: range set by current range jumper

**TEMPERATURE RANGE**

- Chassis - 0 to 55 C

**C880800-00****1/8 - 1/4 HP NON-REGENERATIVE**

The Carotron Model C880800-00 motor controller provides full range speed control of permanent magnet D.C. motors from 1/8 to 1/4 horsepower.

**Standard Features for C880800-00**

- Armature voltage feedback
- On board relay to control starting and stopping
- A hard firing gating circuit
- Inner current loop for fast stable response under varying load conditions
- Metal film resistors and cermet potentiometers for stable operation with fluctuations in temperature

**Specifications for C880800-00****A.C. INPUT**

- 115 VAC  $\pm 10\%$ , 50/60 Hz  $\pm 2$  Hz

**ARMATURE OUTPUT**

- 0-90 VDC

**HORSEPOWER RANGE**

- 1/8 - 1/4 HP

**ADJUSTMENTS**

- Min: 0 to 25% of full speed
- Max: 80 to 110% of full speed
- Current Limit: 0 to 150% of current range (HP jumper)
- IR Compensation: Range set by current range (HP jumper)

**SPEED REGULATION**

- Armature Feedback:  $\pm 2\%$  of base speed

**SPEED RANGE**

- 20 to 1

**TEMPERATURE RANGE**

- 0 - 50 C

110 VAC input	230 VAC input	Model Number	Description	Approx. Shpg. Wt.	Dim.	Conn.
1/8 - 1/2 HP	1/4 - 1 HP	D10425-000	Chassis only, regenerative control	4 lbs.	Fig. A.1	Fig. A.2
1/4 - 1 HP	1/2 - 2 HP	D10425-200	Chassis only, regenerative control	4 lbs.	Fig. A.1	Fig. A.2
1/8 - 1/4 HP	-	C880800-00	Chassis only, non-regenerative control	1 lbs.	Fig. A.3	Fig. A.4

### Dimensions for D10425-000/200 Regen

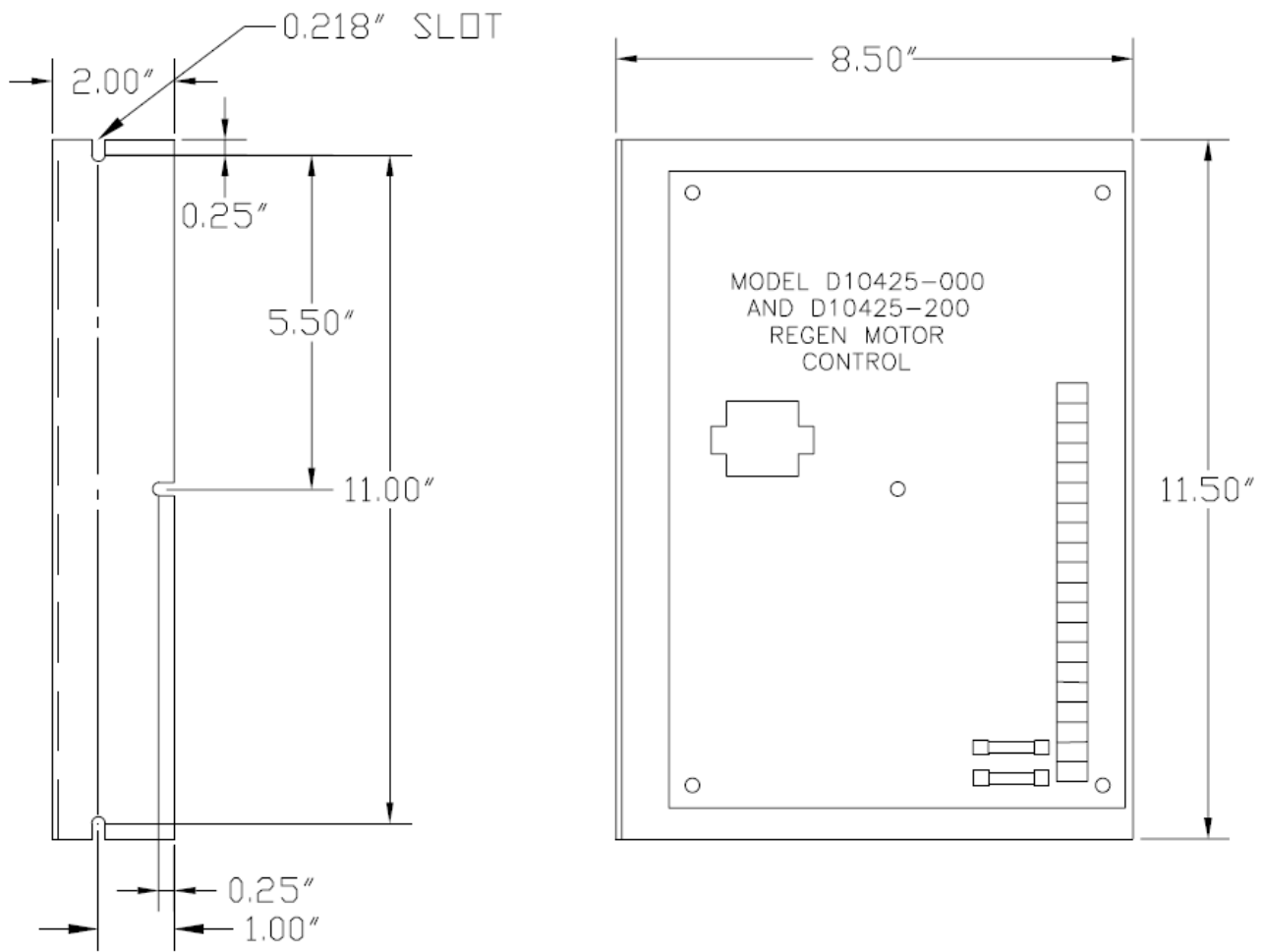


Fig. A.1

## Connections for D10425-000/200 Regen

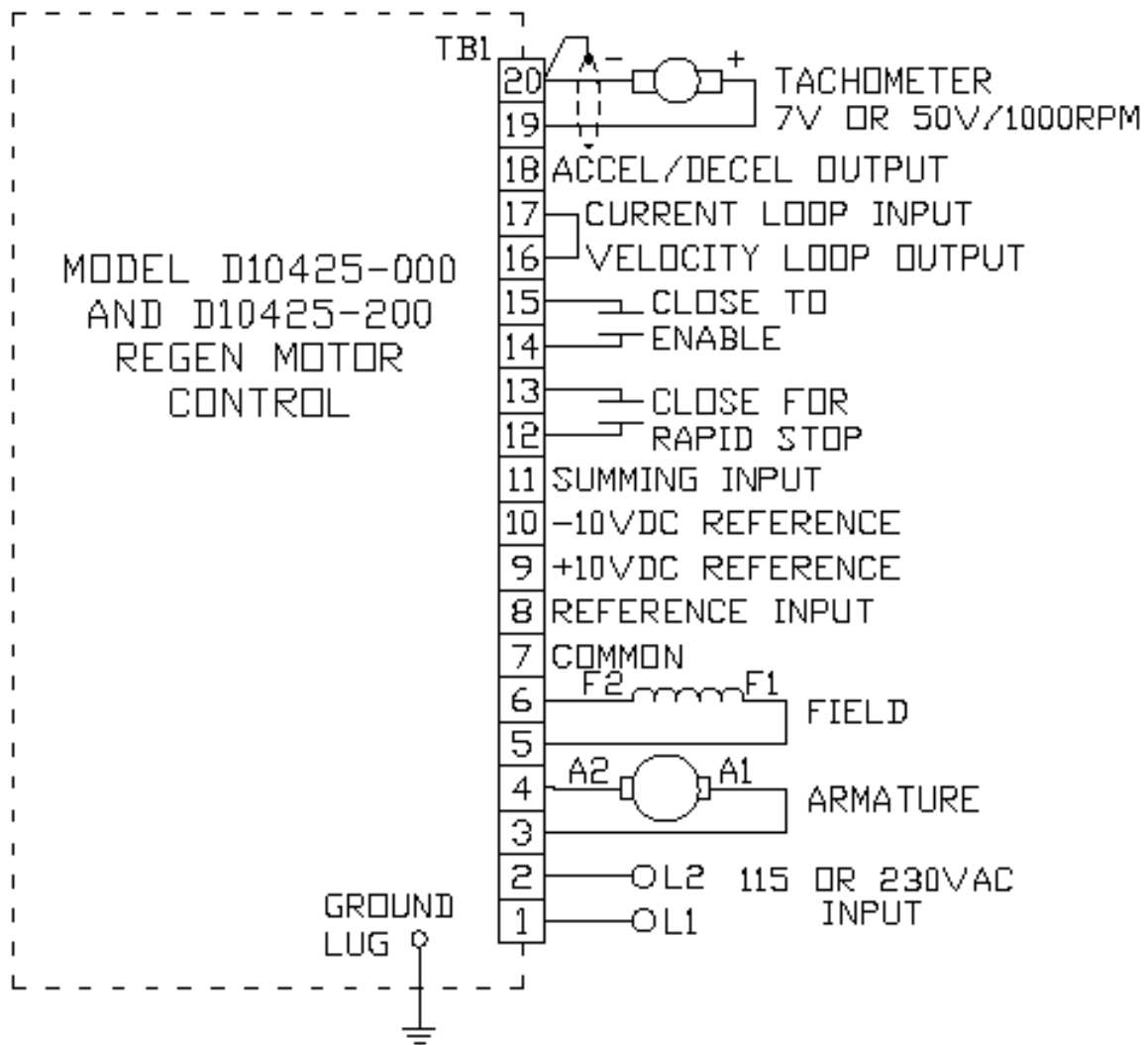


Fig. A.2

## Dimensions for C880800-00 Non-Regen

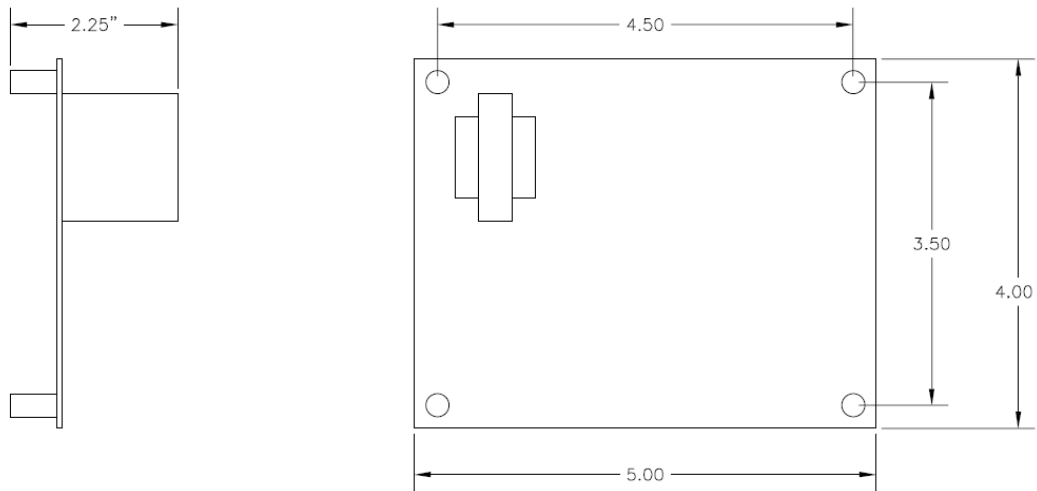


Fig. A.3

## Connections for C880800-00

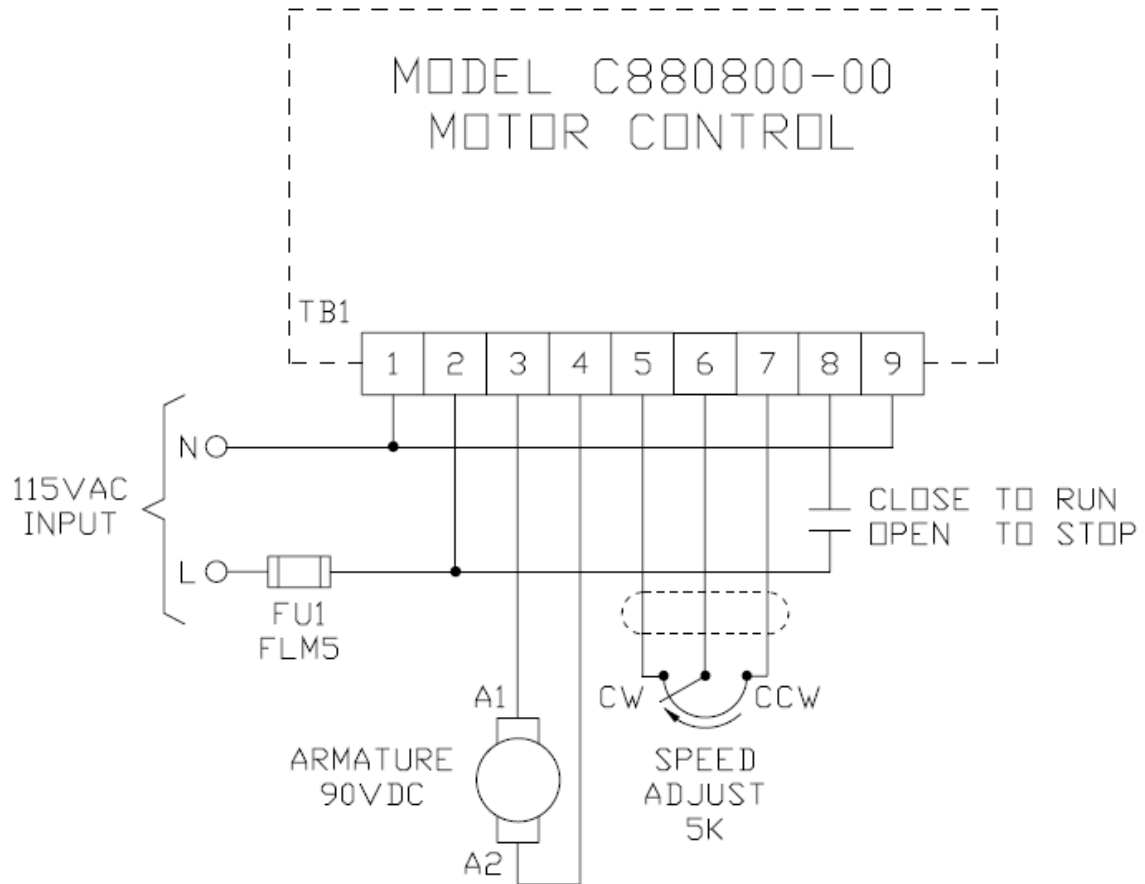


Fig. A.4

## **O.E.M. Models D10425-000 / 200 and C880800-00**

View or download the complete Instruction Manuals for O.E.M. products from [www.carotron.com](http://www.carotron.com) .



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