



3204 Rocky River Road, Heath Springs, SC 29058
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Carotron Press Drive

Model P22194-1 5 – 20 HP, 208-230VAC, 3 PH

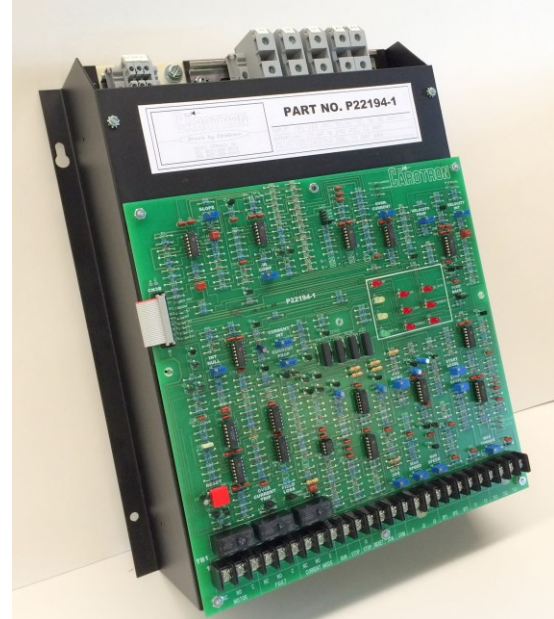
The **P22194-1** is a non-regenerative D.C. motor control providing full range speed and torque control of 5-20 HP D.C. motors rated for NEMA type "C" and "D" power supplies. It is rated for operation on 208-230 VAC 3PH lines and will supply a variable armature voltage up to 240 VDC and a selectable fixed field output of 150, 240, or 300 VDC.

A semiconductor fuse is provided for armature protection. Also provided is fuse protection for the 230 VAC control voltage input.

Standard logic interfaces with customer supplied operators for Start, Stop, Jog, Override Stop, and Reset functions.

Features

- Insensitive to phase rotation of A.C. input.
- Full 10 ampere rated field supply, 150/240/300 VDC selectable.
- Current transformers for isolated armature current sensing.
- High impedance isolation for armature and line voltage sensing.
- Electrically isolated power modules rated at 1400 volts PIV and 1000 volts/microsecond dv/dt.
- Semiconductor armature fuse for power circuit protection.
- Latching Fault logic provides safety shutdown with form "C" contact output and LED indicators for Low Line/Phase Loss, Field Loss, and Over Current Trip conditions.
- Interlock logic with form "C" contact output and LED indicators for Current Limit and Motor Output.
- 5 jumper selectable armature current (HP) ranges to match motor rated armature current.



- Independently adjustable linear acceleration and deceleration for Run function with range of 0.5 to 30 seconds.
- Adjustable linear acceleration/deceleration for Jog function with range of 0.5 to 30 seconds.
- Speed feedback is jumper selectable for Armature Voltage or D.C. Tachometer voltage (21 VDC/1000 RPM).
- D.C. Tachometer voltage input is insensitive to polarity.
- Inner current loop type control circuit for responsive and precise control of motor speed and torque.
- Zero speed logic for controlled ramp-to-stop.
- Additional LED's for operating status: Power On, Run, Jog, Current Mode, Armature Feedback, Motor Output, O-Stop.

SPECIFICATIONS – CAROTRON PRESS DRIVE – P22194-1

Electrical Specifications

A.C. Line Input

195 to 260 VAC, 3 phase, 50/60 Hz \pm 2 Hz, 65 Amp Full Load Max

Armature Output

- 0 to 240 VDC, 72 Amp Full Load Max / 90 Amp Overload Max

Field Output

- 150/240/300 VDC, 10 Amp max

Accessory Outputs

- Power Supplies
 - + 10 VDC @ 5 mA Run Speed pot reference supply
 - + 10 VDC @ 5 mA Jog Speed pot reference supply
 - 6.4 VDC @ 5 mA Torque Limit pot reference supply
- Fault relay output : SPDT, 3 Amp @ 30 VDC /120 VAC
- Current Mode relay output : SPDT, 3 Amp @ 30 VDC /120 VAC
- Motor relay output : SPDT, 3 Amp @ 30 VDC /120 VAC

Horsepower Range

- 5 to 20 HP @ 240 VDC

Speed Regulation

- Armature Feedback : $\pm 1\%$ of base speed
- Tachometer Feedback : $\pm 0.5\%$ of base speed

Torque Regulation

- $\pm 2\%$ of range selected

Speed Range

- 20:1 motor dependent

Temperature Range

- Chassis : 0 to 50 degrees C

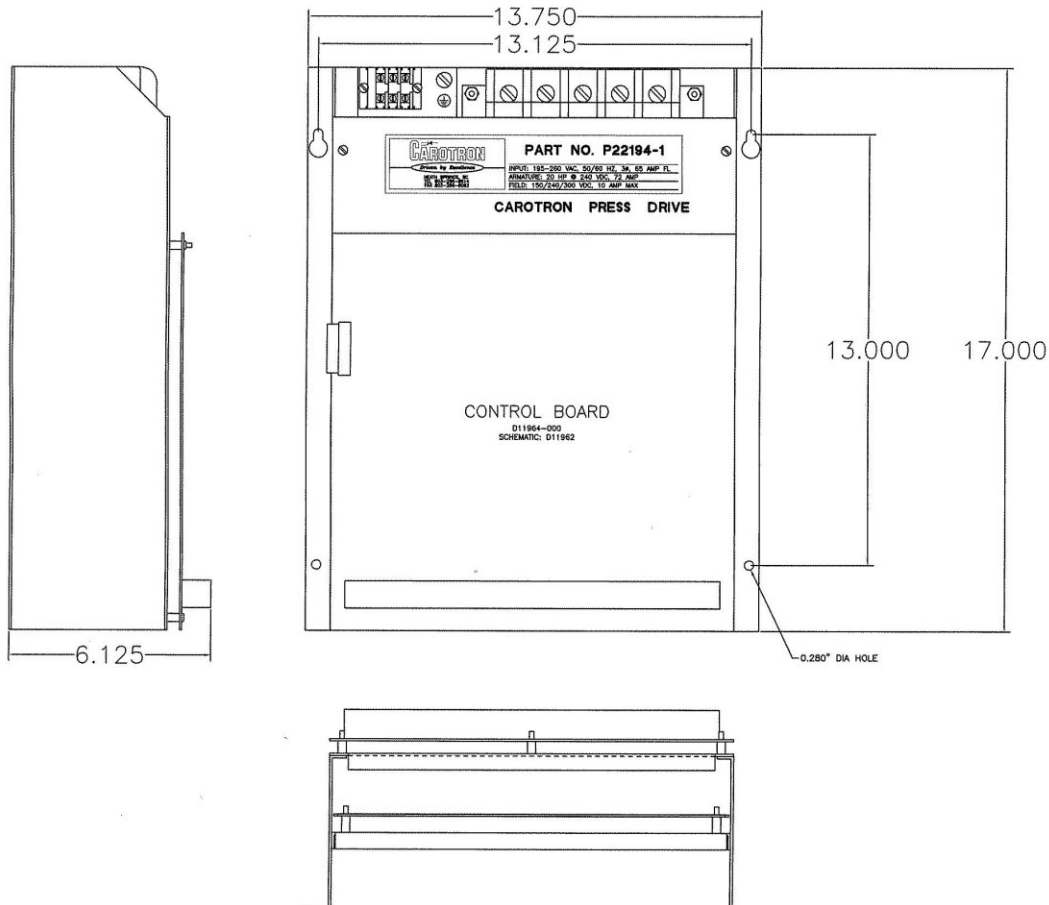
Control Board Adjustments

- P1 Integral Null
- P2 Slope
- P3 IR Comp
- P4 I (Current) Integral
- P5 I (Current) Proportional
- P6 Max Jog Speed
- P7 Jog Accel/Decel
- P8 Max Run Speed
- P9 Over Current
- P10 Min Run Speed
- P11 Velocity Proportional
- P12 Start Accel
- P13 Stop Decel
- P14 Max Torque
- P15 Velocity Integral

Physical Specifications

Dim's: 17.00"H x 13.750"W x 6.125"D

Shipping Weight: 35 lbs.



Carotron, Inc.

Reference: MAN2001-0D

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