

7710

Single Phase SSR Power Regulator



- **3 Firing Modes**
 - Phase Angle Firing
 - ON/OFF Control
 - Proportional Control
- **Extended Lugs for Ease of Power Line Connection**
- **High Linearity**
- **Compact Size and Construction**
- **MOV Voltage Transient Protection**
- **Internal dV/dT Voltage Transient Protection**

Description

The Chromalox/ECS Model 7710 single phase solid state relay (SSR) power regulator offers reliability coupled with economy. The Model 7710 is available in Phase Angle firing, or two versions of zero crossover firing units (ON/OFF control or Proportional). These three firing mode choices enable the Model 7710 to be used with virtually any single phase load. The SSRs include highly reliable back-to-back SCRs.

The units develop their control circuit power directly from the control signal.

All units come equipped with extended lugs for easier connection of the power wiring. MOV protection and internal DV/DT protection are also standard. These units are available in 10-15 amperes and 120-480 Vac 50/60 Hz (10-30 Amps, 120-240 Vac, 50/60 Hz for Phase Angle).

Applications

- Resistive/Inductive Heating
- Laboratory Baths
- Heating Mantels
- Flask Heaters
- Heating Tapes
- Reactors
- Hot Plates
- Extruders
- Environmental Chambers
- Electric Furnaces

Safety Features

Personnel Safety

- Ground Potential Heat Sink
- SCR to Heat Sink Isolation

Equipment/Process Safety

- Input to Output Isolation
- Transient Overvoltage Protection

Specifications

Phase Angle Control

Input 4-20 mA
2-10 Vdc

On/Off Control

Input 3-32 Vdc
120 Vac
Switching Zero Crossover

Proportional Control

Input 4-20 mA
Time Base4 second at 50% extends to
.8 second at 20% and 80%.
Infinite at 0% and 100%

Compliance Voltage
Requirement 6.3 Vdc±10%
Span and
Linearity Better than 2%

Isolation

Dielectric
Isolation 2500 V
Input/Output
Isolation 1500 V

Heatsink Ground Potential
(Electrically Cold)

Protective

Devices Metal Oxide Varistor (MOV)
DV/DT Internal to SSR

Ambient

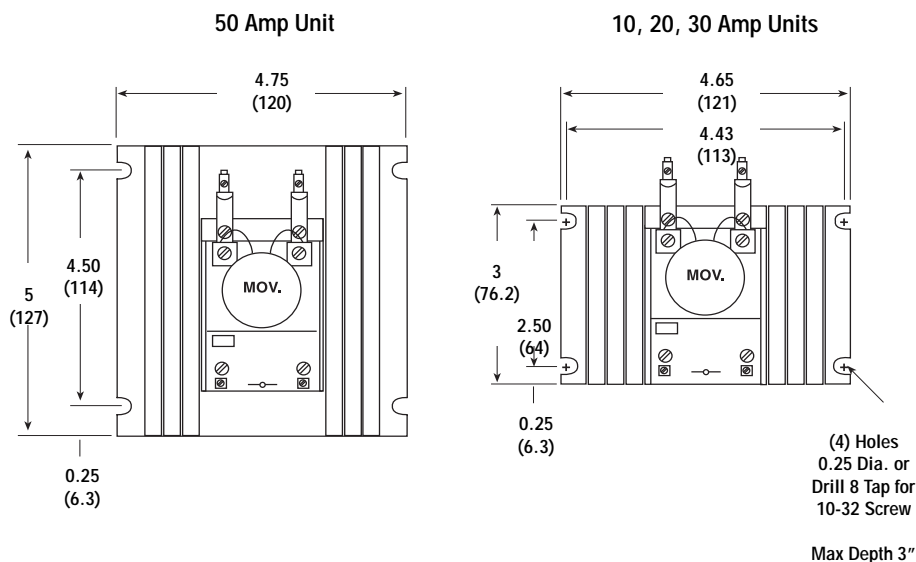
Temperature 0-40°C or 104°F

Supply Voltage . 120-480 Vac ± 10%, 50/60 Hz
(On/Off and Proportional)
120-240 Vac ± 10%, 50/60 Hz
(Phase Angle)

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Single Phase SSR Power Regulator *(cont'd.)*

Dimensions



All Dimensions in Inches (mm)

Ordering Information

Complete the Model Number using the Matrix provided.

Model	SSR Power Regulator
7710	Single Phase, SSR Power Regulator
	Code Output Firing Mode
1	Phase Angle Control
2	ON/OFF Control
3	Proportional Control
	Code Current
01	10 Amps
02	20 Amps
03	30 Amps
05	50 Amps (ON/OFF and Proportional only)
	Code Voltage
3	Up to 240 Vac
5	Up to 480 Vac (ON/OFF and Proportional Only)
	Code Input Signal
20	4-20 mA (Phase Angle and Proportional)
23	2-10 Vdc (Phase Angle Control Only)
24	120 Vac (ON/OFF Control Only)
27	3-32 Vdc (ON/OFF Control Only)
7710 - 1	03 3 20 Typical Model Number