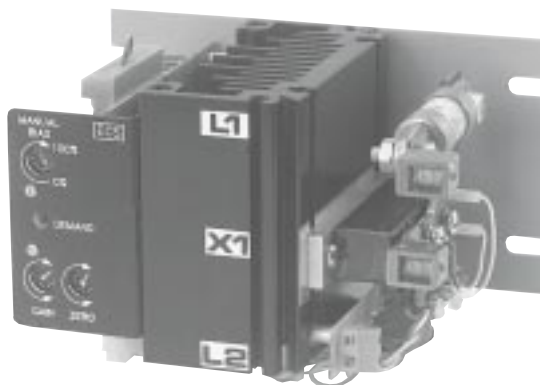




## 7810

### Single Phase SCR Power Pak



- Phase-Angle Firing
- ON/OFF Power Control
- Proportional Power Control
- 120-575 Vac @ 30-400 Amp
- Isolated Control Circuit
- Compact Size and Construction
- Interchangeable Modular (Plug-in) Firing Boards
- Adjustable Zero, Gain and Manual Bias
- Remote Manual Bias (Option)
- dV/dT Voltage Transient Protection

#### Description

The 7810 Single Phase Solid State SCR Power Controller is a highly versatile power pak with plug-in firing control boards, which can be changed in minutes from one firing mode to another. Firing modes include: Phase Angle Firing, ON/OFF Power Control (Contactor) and Proportional Power Control (Zero Voltage Switching, DOT fire). DOT Firing provides the finest resolution of output with the EMI and RFI immunity of a zero-crossover design.

#### Phase Angle Features

- Current Limiting (10-100% of rated current)
- Soft Start (25% demand per second)

#### Mechanical Features

- LED Indication of Firing.
- Electrical Control Connections are made on a Plug-In Screw Type Terminal Block.
- Zero, Gain, Manual Bias and Optional Remote Manual Bias.

- Current Limit Optional
- Heat Sink Mounted Thermostat Protection with N.C. Contact Standard on Forced-Air Cooled Units

#### Safety Features

##### Personnel Safety

- Ground Potential Heat Sink
- SCR to Heat Sink Isolation (2500 Volt)

##### Equipment/Process Safety

- Input to Output Isolation (1500 Volt)
- Transient Overvoltage Protection
- DV/DT Protection
- I<sup>2</sup>T Fusing for SCR Protection
- Emergency Shutdown Input

#### Electrical Features

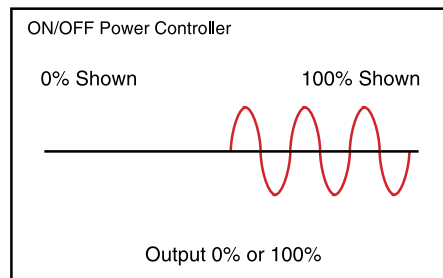
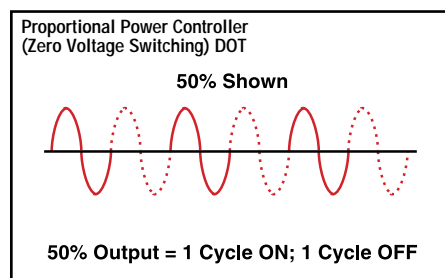
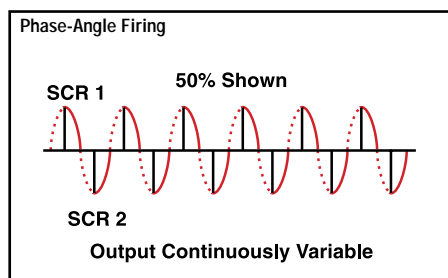
- SCRs PIV 1200V Minimum
- Isolated Semiconductor Power Blocks are used on all Current Ratings.



More Information is Available Online on SCR Power Control.

Bookmark Your Browser to [www.chromalox.com](http://www.chromalox.com) and Select **Manuals**.

#### Wave Form Cycle Rate

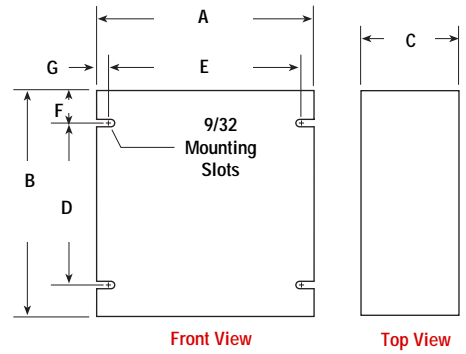


## 7810 Single Phase SCR Power Pak (cont'd.)

### Dimensions

Amps	A	B	C	D	E	F	G
30-50	7 (178)	4 (102)	5.5 (140)	2.50 (64)	6.37 (162)	.75 (19)	.31 (7.87)
75	8.5 (216)	4 (102)	8.5 (216)	2.50 (64)	7.87 (200)	.75 (19)	.31 (7.87)
100, 125, 150	10 (254)	8.5 (216)	8.5 (216)	5.50 (140)	9.37 (238)	1.50 (38)	.31 (7.87)
175-200	10 (254)	12 (305)	8.5 (216)	7.5 (191)	9.37 (238)	2.25 (57)	.31 (7.87)
250-300*	10 (254)	8.5 (216)	8.5 (216)	5.50 (140)	9.37 (238)	1.50 (38)	.31 (7.87)
400*	10 (254)	12 (305)	8.5 (216)	7.5 (191)	9.37 (238)	2.25 (57)	.31 (7.87)

500 Amps and above consult factory for dimensions



Front View

Top View

\* Fan cooled. Allow fan clearance below mounting plate, 4" for 250-400 Amps and 6" on 500 Amps and above.

All Dimensions in Inches (mm)

### Ordering Information

Complete the Model Number using the Matrix provided.

For more options, see SCR Component Options following the 7930 SCR in this catalog.

### In Stock:

Model	PCN
7810-101320-11-F01	307213
7810-101520-11-F01	307221
7810-102320-11-F02	307230
7810-102520-11-F02	307248
7810-104520-11-F04	307256
7810-301320-F01	307272
7810-301520-F01	307280
7810-302320-F02	307299
7810-302520-F02	307301
7810-304520-F04	307310

Model	SCR Power Pak
7810	Single Phase SCR Power Pak
Code	Output Firing Mode
1	Phase Angle Control
2	ON/OFF Control
3	Proportional Control (D.O.T. Firing)
Code	Current at 50° C (122° F)
01	30 Amps
02	50 Amps
03	75 Amps
04	100 Amps
05	125 Amps
06	150 Amps
07	175 Amps
08	200 Amps
09	250 Amps Fan Cooled
10	300 Amps Fan Cooled
11	400 Amps Fan Cooled
X	Consult factory for 500 Amps and above
Code	Voltage
1	120 Vac
2	208 Vac
3	240 Vac
4	277 Vac
5	480 Vac
6	575 Vac
Code	Input
16	0-5 mA into 100 Ohms
17	0-20 mA into 250 Ohms
18	0-50 mA into 100 Ohms
19	1-5 mA into 1000 Ohms
20	4-20 mA into 240 Ohms
21	10-50 mA into 100 Ohms
22	0-5 Vdc into 1000 Ohms
23	0-10 Vdc into 1000 Ohms
24	120 Vac (ON/OFF Control only)
25	240 Vac (ON/OFF Control only)
26	Contact Closures (ON/OFF Control only)
27	3-32 Vdc (ON/OFF Control only)
X	Other (Consult Factory)
Code	Options
	See Option Table at end of this section.

7810 - 2 03 3 27 - F03 Typical Model Number