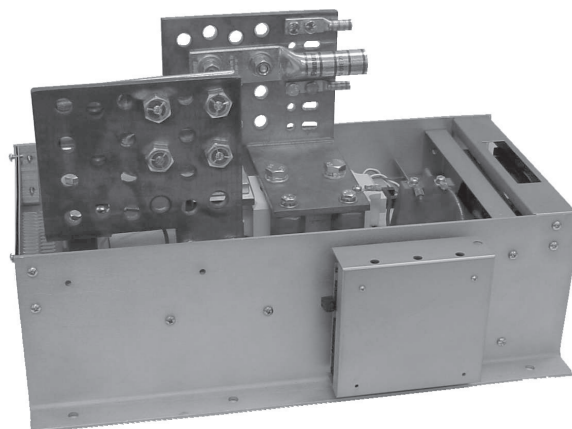




## MaxPac IP Single Phase SCR Power Pak



Touch Safe Design (Shown without Cover)

- 120-600 VAC @ 100-650 Amp
- Phase Angle Firing
- Isolated Control Circuit Inputs:  
1-5mA, 0-20mA,  
0-50mA, 1-5mA  
4-20mA, 10-50mA  
0-5 VDC, 0-10 VDC
- Flexible I/O Power Wiring
- Built-In Power Distribution
- Optional Current Limit
- Easy Customer Interface
- Remote Shutdown
- Soft Start
- Compact Size and Construction
- Touch-Safe
- dv/dt Transient Voltage Protection
- MOV Protection

### Applications

- Resistive Heaters
- Electric Ovens
- Furnaces
- Kilns

### Description

The MaxPac Series is specifically designed for the OEM market. The current limit, soft start option, flexible I/O power wiring, space saving footprint, optional lug kits, I<sup>2</sup>t fusing, UL and cUL approvals make it an excellent candidate for your product.

The Chromalox Model MaxPac IP utilizes Phase Angle firing to modulate power to an inductive or resistive load. Phase Angle control has the advantage of proportioning every cycle thereby providing very fine resolution of power. Fast responding loads in which the resistance changes as a function of temperature are excellent candidates for Phase Angle control. The MaxPac Soft Start feature assures that the load power is gradually increased from zero to the value set by the command signal in the event of a power interruption. In addition, the Soft Start feature, optional Current Limit is used to protect the load, fuses, SCR controller, and the total system from large surge currents that could occur at startup. Chromalox MaxPac offers separate and adjustable Zero, Gain, Manual Bias, and Current Limit potentiometers for ease of calibration. Screw type plug-in connectors for input signals, remote shutdown, and optional Remote Manual Bias are standard for easy customer interface.

### Mechanical Features

- LED Indication of Firing
- Customer Control Connections are made on a Plug-In Screw Type Terminal Block
- Optional Remote Manual Adjust
- Heatsink Mounted Temperature Thermostat
- Built-In Power Distribution

### Electrical Features

- SCRs PIV 1200V Minimum on 480 V (1500 Volts on 600 Volt model)
- Isolated Semiconductor Power Blocks are used on all Current Ratings up to 650 Amps

### Safety Features

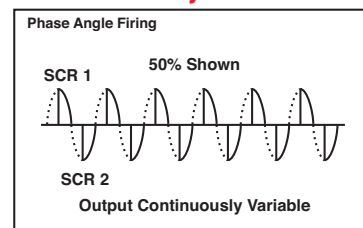
#### Personnel Safety

- Ground Potential Heat Sink up to 650 Amps
- SCR to Heat Sink Isolation up to 650 Amps
- Touch-Safe Option
- UL 508 for units 650 Amps and under

#### Equipment/Process Safety

- Input to Output Isolation
- dv/dt Transient Voltage Protection
- Optional I<sup>2</sup>t Fusing
- Remote Shutdown
- MOV
- Current Limit
- Soft Start

### Wave Form Cycle Rate



## MaxPac IP

### Single Phase SCR Power Pak

(cont'd.)

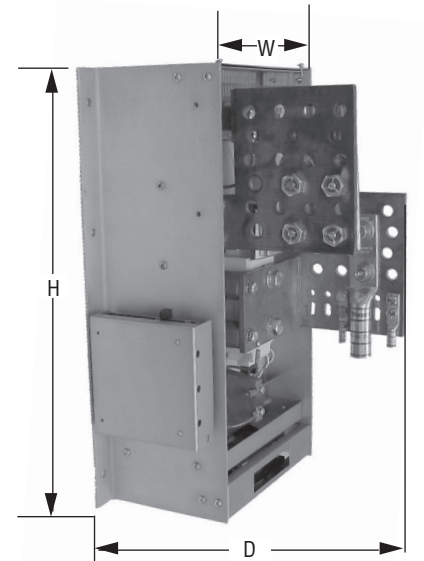
#### Mounting Dimensions

##### MaxPac IP Open

	Width	Height	Depth
Amps	W	H	D
100	7.75	9.75	10
150	7.75	9.75	10
200	7.75	9.75	10
300	7.75	9.75	10
400	9.5	14.75	11
550	11	17.75	11
650	11	17.75	11

##### MaxPac IP Closed

	Width	Height	Depth
Amps	W	H	D
100	9.5	14.75	11.8
150	9.5	14.75	11.8
200	9.5	14.75	11.8
300	9.5	14.75	11.8
400	9.5	14.75	11.8
550	11	17.75	11.8
650	11	17.75	11.8



#### Ordering Information

Complete the model number using the matrix provided.

#### Model SCR Power Pack

##### MXPC IP Single Phase SCR Power Pack

Code	Control Configuration		
1	Phase Angle Control (Accepts: 0-5mA, 0-20mA, 0-50mA, 1-5mA, 4-20mA, 10-50mA, 0-5 VDC, 0-10 VDC)		
2	Phase Angle Control with Current Limit		
Code	Current at 50°C (122°F)		
01	100 Amp	Open Design	
02	100 Amp	Touch Safe Design	
03	150 Amp	OpenDesign	
04	150 Amp	Touch Safe Design	
05	200 Amp	OpenDesign	
06	200 Amp	Touch Safe Design	
07	300 Amp	OpenDesign	
08	300 Amp	Touch Safe Design	
09	400 Amp	OpenDesign	
10	400 Amp	Touch Safe Design	
11	550 Amp	OpenDesign	
12	550 Amp	Touch Safe Design	
13	650 Amp	OpenDesign	
14	650 Amp	Touch Safe Design	

MXPC IP- 2 03 (Continued on next page)

## MaxPac IP

### Single Phase

### SCR Power Pak

(cont'd.)

#### Ordering Information (cont'd.)

Complete the model number using the matrix provided.

Crimp Lug Chart		
Chromalox #	Panduit #	Conductor Size
0135-10002	LCD8-14A-L	#8 AWG
0135-10003	LCD6-14A-L	#6 AWG or #6 Weld
0135-10004	LCD4-14A-L	#4 AWG or #4 Weld
0135-10005	LCD2-56B-Q	#2 AWG
0135-10006	LCD1-56C-E	#1 AWG or #2 Weld
0135-10007	LCD1/0-12-X	#1/0 AWG or #1 Weld
0135-10008	LCD2/0-12-X	#2/0 AWG or #1/0 Weld
0135-10009	LCD3/0-12-X	#3/0 AWG or #2/0 Weld
0135-10010	LCD4/0-12-X	#4/0 AWG or #3/0 Weld
0135-10011	LCD250-12-X	250 MCM or #4/0 Weld
0135-10012	LCD300-12-X	300 MCM
0135-10013	LCD350-12-6	350 MCM
0135-10014	LCD400-12-6	400 MCM
0135-10015	LCD500-12-6	500 MCM

Model **SCR Power Pack**

MXPC IP Single Phase SCR Power Pack

Code	Voltage
1	120 VAC
2	208 VAC
3	240 VAC
4	277 VAC
5	480 VAC
6	575/600 VAC

Code Fan Power (100 Va Required)

1	120 VAC 50/60 Hz
2	230 VAC 50/60 HZ

Code Compression Lug Kits (Open Design up to 300 Amps)  
For Other Ranges See Crimp Lug Chart

L0	None
L1	100-150 Amp PAK (#2 - 4/0)/connection
L2	200 - 300 Amp PAK 1(1/0 - 500mcm)/connection

Code Fusing Option <sup>(1)</sup>

F00	None
For < 500 VAC Applications, Select One	
F01	100-150 Amp PAK (200 Amp Fuse)
F02	200 Amp PAK (250 Amp Fuse)
F03	300 Amp PAK (400 Amp Fuse)
F04	400 Amp PAK (500 Amp Fuse)
F05	550 Amp PAK (700 Amp Fuse)
F06	650 Amp PAK (800 Amp Fuse)

For 575/600 VAC Applications, Select One <sup>(2)</sup>

F10	100 Amp PAK (125 Amp Fuse)
F11	150 Amp PAK (175 Amp Fuse)
F12	200 Amp PAK (250 Amp Fuse)
F13	300 Amp PAK (400 Amp Fuse)
F14	400 Amp PAK (500 Amp Fuse)
F15	550 Amp PAK (700 Amp Fuse)
F16	650 Amp PAK (800 Amp Fuse)

Remote Manual Adjust/Auto Manual Switch

0	None
1	Pot with 0 - 100% dial Single Turn 1KΩ Potentiometer

(cont'd.) 1 1 L1 F01 1 Typical Model Number

1) SCR Fusing is for semiconductor protection only, not wire protection.

2) Supplied Loose for Customer Mounting.

#### Note:

Storage Temperature 14°F to 158°F (-10°C to 70°C). SCR units calibrated for 4-20mA input.

Current Rating	Open Design		Closed Design	
	Input Bus	Output Bus	Input Bus	Output Bus
100, 150, 200, 300	1 Crimp Lug / Phase	1 Crimp Lug / Phase	3 / Phase*	3 / Phase*
400	3 / Phase*	10 / Phase*	3 / Phase*	10 / Phase*
550, 650	4 / Phase*	12 / Phase*	4 / Phase*	12 / Phase*

\* Accepts up to this number of NEMA standard lugs (See Crimp Lug Chart)