

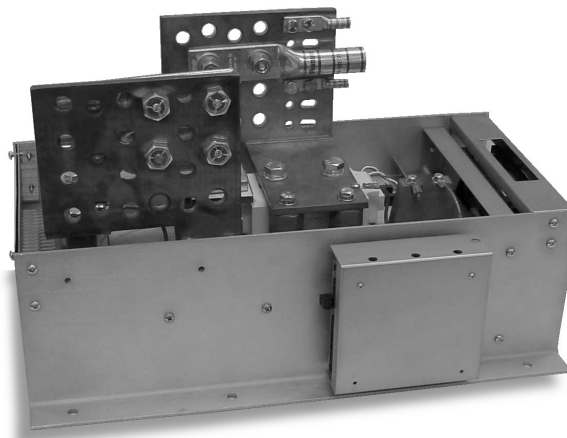
MaxPac IP

Single Phase SCR Power Pak

- 120-575 Vac @ 100-1200 Amp
- Phase Angle Firing
- Isolated Control Circuit Inputs:
0-5 mA, 0-20 mA,
0-50 mA, 1-5 mA
4-20 mA, 10-50 mA
0-5 Vdc, 0-10 Vdc
- Flexible I/O Power Wiring
- Optional Current Limit
- Easy Customer Interface
- Remote Shutdown
- Soft Start
- Compact Size and Construction
- Touch-Safe (option on
100 to 650 Amp models)
- dv/dt Transient Voltage
Protection
- MOV Protection

Applications

- Resistive Heaters
- Electric Ovens
- Furnaces
- Kilns



Touch Safe Design



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, I²t fusing with 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 NC
- Built-In Power Distribution

Electrical Features

- SCRs PIV 1200V Minimum (1400 Volts on 575 Volt model)
- Isolated Semiconductor Power Blocks are used on all Current Ratings up to 650 Amps

Safety Features

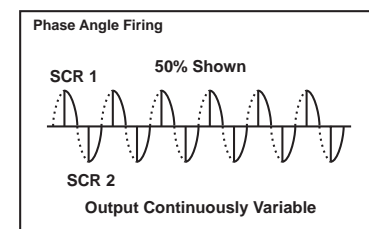
Personnel Safety

- Ground Potential Heat Sink up to 650 Amps
- SCR to Heat Sink Isolation up to 650 Amps
- Touch-Safe Option

Equipment/Process Safety

- Input to Output Isolation
- dv/dt Transient Voltage Protection
- Optional I²t Fusing
- Remote Shutdown
- MOV
- Current Limit
- Soft Start

Wave Form Cycle Rate



MaxPac IP

Single Phase
SCR Power Pak (cont'd.)

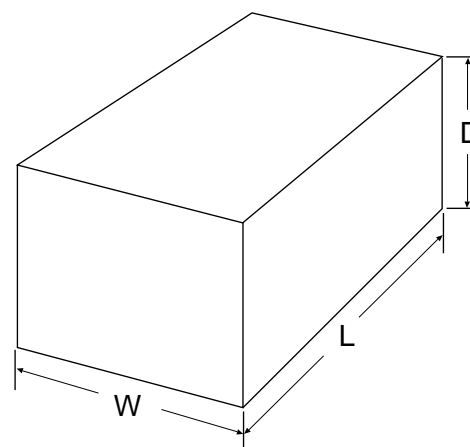
Mounting Dimensions

MaxPac IP Open

	Width	Length	Depth
Amps	W	L	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
800	12	20	15
1000	12	20	15
1200	12	20	15

MaxPac IP Closed

	Width	Length	Depth
Amps	W	L	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
15	800 Amp	OpenDesign
16	1000 Amp	OpenDesign
17	1200 Amp	OpenDesign

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.

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 Vac		
Code	Fan Power		
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 (1) For < 500 Vac Applications, Select One		
F00	None		
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)		
F07	800 Amp PAK (1000 Amp Fuse)		
F08	1000 Amp PAK (1200 Amp Fuses)		
F09	1200 Amp PAK (Two 1000 Amp Fuses)		
<i>For 575 Vac Applications, Select One (2)</i>			
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)		
F17	800 Amp PAK (1000 Amp Fuse)		
F18	1000 Amp PAK (1200 Amp Fuse)		
F19	1200 Amp PAK (Two 1000 Amp Fuses)		
Code	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.

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