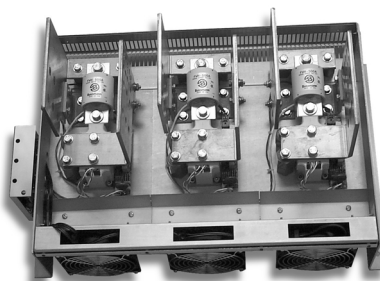




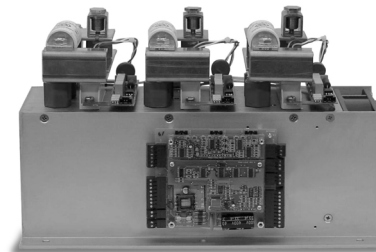
MaxPac III

Three Phase, Six-SCR Power Pak

- 120-575 Vac @ 100-1200 Amp
- Zero Cross-Over Firing
- Isolated Control Circuit
 - On/Off Control Inputs: 120 Vac, 240 Vac, 5-32 Vdc Dry Contact Closure
 - Proportional (DOT firing) Inputs: 4-20 mA, 0-5 Vdc, 1-5 Vdc, 0-10 Vdc
- Remote Manual Adjust, Remote Auto Manual Switch
- Flexible I/O Power Wiring
- Shorted SCR Detection (option)
- Easy Customer Interface
- Remote Shutdown
- Electronically Protected with Temperature Warning and Shutdown System
- Compact Size and Construction
- Touch-Safe (option on 100 to 650 Amp models)
- dv/dt Transient Voltage Protection
- MOV Protection
- Six SCR Full Converter
- MOV Protection
- Three Phase Delta, 3-Wire Wye or 4-Wire Wye Connected Loads
- Single or Three Cycle Resolution (Jumper selectable)



Touch Safe Design
*Shown without cover



Open Design

Description

The MaxPac Series is specifically designed for the OEM market. The plug-in options, flexible I/O power wiring, space saving footprint, optional lug kits, I²t fusing and universal approvals make it an excellent candidate for your product.

The Chromalox Model MaxPac III is a Solid State, highly versatile power pak with optional plug-in proportional Firing and Shorted SCR Detection Boards. Firing techniques include: "ON/OFF Power Control" (Contactor) and "Proportional Power Control" (Zero Voltage Switching, DOT fire).

Chromalox's exclusive DOT (Demand Oriented Transfer) firing switches the fewest number of cycles to provide the most precise zero crossover control. At 50% output the unit's output alternates between three electrical cycles on and three cycles off. At 51% the output continues with three cycles on / three cycles off and gradually integrates three extra "on" cycle for the additional one percent. With the exception of phase angle firing, DOT firing is the most precise method of SCR control. DOT firing is preferred in many applications because phase angle firing creates unwanted RFI. DOT is excellent for applications where consistent heater/process temperature control is critical.

Mechanical Features

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

Electrical Features

- PIV 1200V Min at 480Vac
PIV 1400V Min at 575Vac
- Isolated Semiconductor Power Blocks are used on all Current Ratings up to 650 Amps

Safety Features

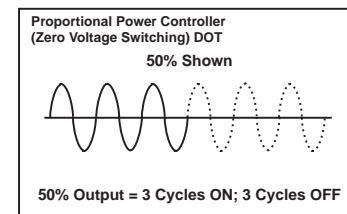
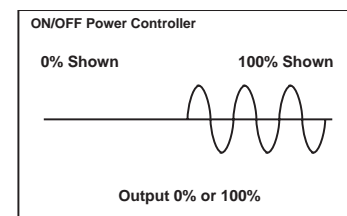
Personnel Safety

- Ground Potential Heat Sink up to 650 Amps
- SCR to Heat Sink Isolation up to 650 Amps

Equipment/Process Safety

- Input to Output Isolation
- dv/dt Transient Voltage Protection
- Optional I²t Fusing
- Remote Shutdown
- Optional Shorted SCR Detection

Wave Form Cycle Rate



Applications

- Resistive Heaters
- Electric Ovens
- Furnaces
- Kilns
- Environmental Chambers

MaxPac III

Three Phase, Six-SCR Power Pak (cont'd.)

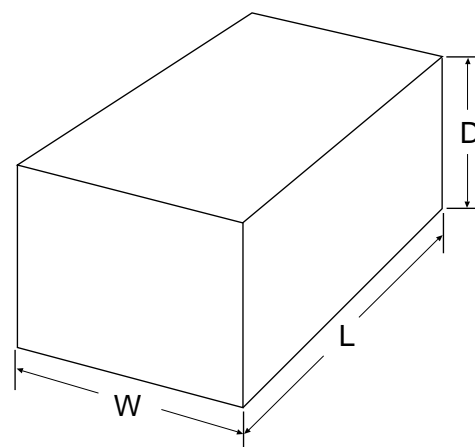
Mounting Dimensions

MaxPac III Open

	Width	Length	Depth
Amps	W	L	D
100	9	14.75	10
150	9	14.75	10
200	9	14.75	10
300	22.75	14.75	10
400	22.75	14.75	11
550	27	17.75	11
650	27	17.75	11
800	26	20	15
1000	26	20	15
1200	26	20	15

MaxPac III Closed

	Width	Length	Depth
Amps	W	L	D
100	22.75	14.75	11.8
150	22.75	14.75	11.8
200	22.75	14.75	11.8
300	22.75	14.75	11.8
400	22.75	14.75	11.8
550	27	20	17.75
650	27	20	17.75



Ordering Information

Complete the model number using the matrix provided.

Model SCR Power Pack

MXPC III 3 Phase Six SCR Power Pack

Code	Control Configuration
1	On/Off Standard (Accepts: 120Vac, 240Vac, 5-32Vdc, Dry Contact Closure)
2	On/Off Control with Shorted SCR Detection
3	Proportional Control, DOT Firing (Accepts: 4-20 mA, 1-5 Vdc, 0-5 Vdc, 0-10 Vdc)
4	Proportional Control, DOT Firing with Shorted SCR Detection

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 III- 1 04 (Continued on next page)

MaxPac III

Three Phase, Six-SCR Power Pak (cont'd.)

Ordering Information (cont'd.)

Complete the model number using the matrix provided.

Model SCR Power Pack
MXPC III 3 Phase Six SCR Power Pack

Code	Line Voltage
1	120 Vac - 480 Vac
2	575 Vac
Code	Instrument Power
1	120 Vac 50/60 Hz
2	230 Vac 50/60 HZ
Code	Compression Lug Kits (Open Design up to 200 Amps) For Other Ranges See Crimp Lug Chart
L0	None
L1	100-150 Amp PAK (#2 - 4/0)/connection
L2	200 Amp PAK (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)
For 575 Vac Applications, Select One (2)	
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)
Remote Manual Adjust/Auto Manual Switch	
0	None
1	Pot with 0 - 100% dial and Local/Remote Switch(2) Single Turn 1KΩ Potentiometer

(cont'd.) 1 1 L1 F02 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).
CE application requires filters.

Chromalox Part Numbers

0005-60056 - Line filter, three phase, 440VAC
 0005-60057 - Line filter, 120-230VAC

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