4238 & 4240

SCR Power Control Panels

Pending

- **500 to 800 Amps**
- **Two Leg or Three Leg, Three Phase Control**
- **Zero-Crossover, DOT Fired for Resistive Loads**
- **208-575 Volt**
- **NEMA 12 Enclosure***
- **Shorted SCR Detection**
- **dV/dT Voltage Transient Protection**
- **Sub-Circuit Fusing for SCR and Load Protection**

Description

The 4238 and 4240 SCR panels provide an economical solution for switching large resistive loads up to 800 Amps. The SCR switches the output using Chromalox's DOT firing which provides the most precise switching available for zero crossover power controllers. The shorted SCR detection feature alerts the operator of a shorted SCR via a lamp on the front panel. Although each 4238/4240 has a single SCR device, the user can specify the number of fused circuits for his application. Each fuse provides both load and SCR protection.

The 4238 provide a shutdown contactor with each fused circuit allowing the user to shutdown parts of the heater for maintenance. The 4238 allows for 14 circuits at 70 Amps each, up to 10 circuits at 100 amps each.

The 4240 is identical to the 4238 except that a single shunt trip is provided to shut down the entire panel if a fault is detected. Eliminating the shut down contactors allows space for more fusing options. The 4240 allows for 14 circuits at 70 Amps, up to 2 circuits at 400 Amps each.

Ordering Information

Complete the Model Number using the Matrix provided.

Model — **4238**: NEMA 12* Single-Door SCR Power Control Panel, 86.6" (2200mm) H x 39.4" (1000mm) W x 23.6" (600mm) D. Main Disconnect Switch. Forced Air Cooled through door mounted louvers, up to Fourteen Fused Load Circuits with Shutdown Contactors. DOT Fired Zero-Voltage Switching Proportional Power Controller with Shorted SCR Detection. UL, cUL Pending.

Code — Customer Wiring Entrance and Exit

Code	
2	Top Entrance, Bottom Exit
3	Bottom Entrance, Top Exit

Code — Load Voltage

Code	
1	208 Vac, 3 Phase
2	240 Vac, 3 Phase
3	380 Vac, 3 Phase
4	415 Vac, 3 Phase
5	480 Vac, 3 Phase
6	575 Vac, 3 Phase

Code — Current Rating at 35C*

Code	
1	Two-Leg 500 Amp.
2	Three-Leg 500 Amp.
3	Two-Leg 800 Amp.
4	Three-Leg 800 Amp.

Code — Number of Fused Circuits (includes Shutdown Contactors)

Code	
02 thru 14	(Select Number of Circuits)

Code — Fuse Size (all circuits are fused the same)

Code	
A	70 Amp (Fourteen Circuits Maximum)
B	80 Amp (Fourteen Circuits Maximum)
C	90 Amp (Twelve Circuits Maximum)
D	100 Amp (Ten Circuits Maximum)

Code — Driver Temperature Controller

Code	
0	None-Terminals for Remote Control Signal
1	2104-A0100 Temperature Controller

Code — Overtemperature Controller

Code	
0	None-Terminals for Shutdown
1	One 3101-11000 Hi-Limit Controller
2	Two 3101-11000 Hi-Limit Controllers
3	Three 3101-11000 Hi-Limit Controllers

4238	**-2**	**5**	**3**	**10**	**D**	**1**	**2**	Typical Model Number

*Current rating with a maximum of 35°C (95°F) ambient external to the enclosure.

**Ventilating a Nema 12 enclosure alters the rating to Nema 1

4238 & 4240

SCR Power Control Panels *(cont'd.)*

c UL us
Pending

Ordering Information

Complete the Model Number using the Matrix provided.

Model **Description**

4240 NEMA 12** Single-Door SCR Power Control Panel, 86.6" (2200mm) H x 39.4" (1000mm) W x 23.6" (600mm) D. Forced Air Cooled through Door Mounted Louvers, up to Fourteen Fused Load Circuits. Main Disconnect Switch with Shunt Trip. DOT Fired Zero-Voltage Switching Proportional Power Controller with Shorted SCR Detection. UL, cUL Pending.

Code	Customer Wiring Entrance and Exit
1	Top Entrance, Top Exit
2	Top Entrance, Bottom Exit
3	Bottom Entrance, Top Exit
4	Bottom Entrance, Bottom Exit

Code	Load Voltage
1	208 Vac, 3 Phase
2	240 Vac, 3 Phase
3	380 Vac, 3 Phase
4	415 Vac, 3 Phase
5	480 Vac, 3 Phase
6	575 Vac, 3 Phase

Code	Current Rating at 35°C*
1	Two-Leg 500 Amp.
2	Three-Leg 500 Amp.
3	Two-Leg 800 Amp.
4	Three-Leg 800 Amp.

Code	Number of Circuits of Fusing
02 thru 14	(Select Number of Circuits)

Code	Fuse Size (all circuits are fused the same)
A	70 Amp (Fourteen Circuits Maximum)
B	80 Amp (Fourteen Circuits Maximum)
C	90 Amp (Twelve Circuits Maximum)
D	100 Amp (Ten Circuits Maximum)
E	110 Amp (Nine Circuits Maximum)
F	125 Amp (Eight Circuits Maximum)
G	150 Amp (Seven Circuits Maximum)
H	175 Amp (Six Circuits Maximum)
J	200 Amp (Five Circuits Maximum)
K	250 Amp (Four Circuits Maximum)
L	300 Amp (Three Circuits Maximum)
M	350 Amp (Three Circuits Maximum)
N	400 Amp (Two Circuits Maximum)

Code	Driver Temperature Controller
0	None-Terminals for Remote Control Signal
1	2104-A0100 Temperature Controller

Code	Overtemperature Controller
0	None-Terminals for Shutdown
1	One 3101-11000 High Limit Controller
2	Two 3101-11000 High Limit Controllers

4240	**-1**	**5**	**2**	**5**	**F**	**1**	**1**	Typical Model Number

*Current rating with a maximum of 35°C (95°F) ambient external to the enclosure.
**Ventilating a Nema 12 enclosure alters the rating to Nema 1