CHROMALOX

PCA

Power Control Assembly

- **Voltage Rating 120 to 600 volts**
- **Up to 1200 Amps**
- **Single or Three phase Operation**
- **Single or Multi Circuit Operation**
- **Shutdown Capability**
- **Additional Shutdown Connection Capability**
- **Short Circuit Current Rating is rated to a minimum of 5kA**
- **Exterior Visual Indication includes lighted indicators for Power On, Heater On, and Overtemperature Condition**
- **Enclosure Cooling**

DESCRIPTION

Chromalox model PCA (Power Control Assembly) provides the core power control needs for any electric heating application.

PCA models are specifically designed for Chromalox heating equipment to provide proper power and temperature control. This allows for smooth installation and easy on-site operation of the equipment. Core features are pre-engineered in the design. The only selections needed are the heater ratings and on-site environmental conditions.

STANDARD FEATURES ON ALL UNITS

- Voltage Rating can range from 120 to 600 volts with single or three phase operation.
- Single or Multi Circuit operation to match the heater loading.
- Installation Conditions are suited for areas with NEMA12/IP52 rating and a maximum of 40°C and a minimum of 0°C ambient, in partial sunlight.
- Shutdown Capability is provided by dedicated shutdown contactor.

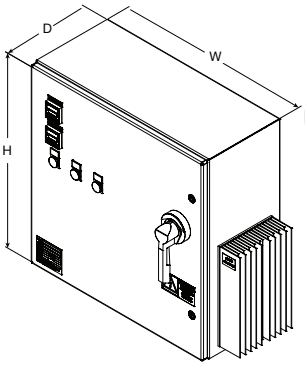
Note: Image of a base PCA with door mounted controllers, and disconnect. Actual PCA may vary based on selected features.

STANDARD FEATURED (Cont.)

- Additional Shutdown Connections are provided jumpered, and can be reconfigured to accept a user relay signal for heater enable/disable operation.
- Short Circuit Current Rating is rated to a minimum of 5kA.
- Exterior Visual Indication includes lighted indicators for Power On, Heater On, and Overtemperature Condition.
- Enclosure Cooling is provided in accordance with the both the environmental and enclosure ratings, when needed.

SELECT FEATURES

- Enclosure Exterior can be upgraded to NEMA 4 (Power Coated Steel) or NEMA 4X (Stainless Steel). Both enclosures are rated IP66.
- Power Control can be selected for Contactor or Fully Proportional to match the heating application needs.
- Process and Overtemperature Controls can be selected as a User Supplied Signal, Interior (DIN) mounted controllers, or Exterior (Door) mounted controllers. Chromalox controllers are equipped with RS-485 Digital Communications and remote process temperature setpoint capability.
- Third Party Certification can be selected as cULus or CE marked.



Dimensions are a range of enclosure sizes only. Final size will be determined based on amperage and features.

Depth: 12-16in (305-407mm)
Width: 24-74in (610-1880mm)
Height: 24-72 (610mm-1830mm)

OPTIONAL FEATURES/PACKAGES

- Integral Disconnect can be added for localized shutdown of incoming power.
- Purging Kit feature to allow for use in Class 1, Division 2 area (ATEX Zone 2).
- Outdoor Location Package provides a Stainless Steel Enclosure (NEMA 4X/IP66), Anti-Condensation. Heater with adjustable thermostat, and Weatherproof Sealing.
- Local Interface Package provides an External E-Stop Button to disengage the heater and Interlock Alarm Light for the additional Shutdown Connections to visually display operating status.
- Ground Fault Trip Package provides a visual inidcation of a ground fault trip instance with a resetable push button and customer adjustable setting.

Note: Additional features not listed above may be possible, please contact your local Chromalox Representative for details.

OPTIONAL ACCESSORY PACKAGES

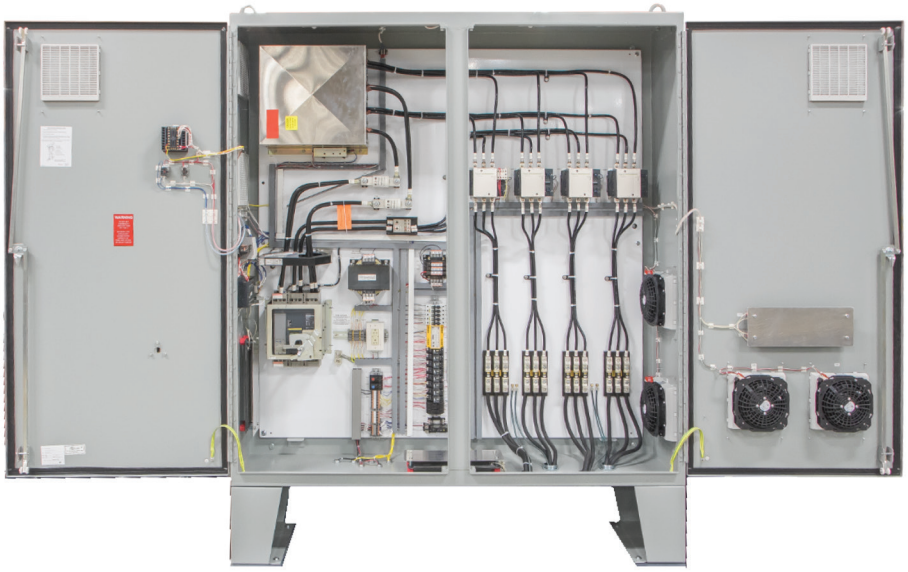
Chromalox offers temperature and liquid level sensor packages to ensure a complete heating solution. Refer to the Sensor Equipment catalog pages to choose the appropriate equipment.

Please contact Chromalox for price, delivery, or any other needs. Call 1-800-443-2640 or visit www.chromalox.com

CHROMALOX

PCS

Power Control Assembly



DESCRIPTION

Chromalox Model PCS (Power Control System) is an expanded capability control offering. Designed for applications that require a more custom solution for power and temperature control.

EXPANDED CAPABILITIES

- **Hybrid Power Control for cost savings**
- **Multi-zone Control with multiple process controllers**
- **SCCR ratings up to 100kA**
- **Programmable logic controller (PLC) for expanded communications and controls**
- **HMI Display for easier on-site interface**
- **Custom Enclosure Sizes**
- **Air Conditioner**
- **Custom Alarms**
- **Special Paint Requirements**
- **Marine Environment Packages**
- **Expanded Temperature Ratings for extreme environments**
- **Custom Labeling**

Note: The above is intended to show some of the custom features we have provided to our customers and is not meant to be a comprehensive list of our capabilities.
For a quote on a custom Power Control System please contact your local Chromalox Sales Representative.

ADDITIONAL ACCOMMODATIONS SUCH AS:

- **Certificate of Conformance**
- **Export Packaging**
- **Inspection Test Plan(ITP)**
- **Megger Test**
- **Di-Electric Test(High Voltage)**
- **Audible Noise Test(Decibels)**
- **Functional Test Report**
- **Factory Acceptance Test(FAT)**
- **Waveform Recording**
- **Static SCR Burn-In Test**
- **RFI Susceptibility Test**
- **Harmonic Analysis at small load**

PCA & PCS Model Table

TYPICAL MODEL DESCRIPTION

Model	Power Control Systems
PCA	Power Control Assembly
PCS	Power Control System

Code	Total Amperage Rating of Assembly
XX	Assembly Amerage Rating, whole numbers

Code	Power Type
C	Contactor - On/Off Power Control
S	Proportional Control Firing - SCR, Thyristor, SSR, etc.

Code	Process Control
C	Customer Supplied Control Signal Input(s)
H	DIN Rail Mounted PID Control(s)
V	Door Mounted PID Control(s)

Code	Enclosure Purge
(blank)	None
P	Enclosure Purge System Included

Code	Enclsoure IP Rating
IP52	Powder Coated / Painted Steel (NEMA 12)
CIP66	Powder Coated / Painted Steel (NEMA 4)
SIP66	Stainless Steel (NEMA 4X)

Code	Nominal Voltage Rating
120	(110-130V)
208	(201-215V)
240	(220-240V)
400	(380-415V)
480	(460-480V)
600	(575-600V)

Code	Number of Circuits
X	Total Heater Circuits

Code	Phase
1P	Single Phase
3P	Three Phase

Code	Kilowatts
XX	kW

PCA-	75-	C	V-	P	CIP66	480V	1-	3P	25kW	Typical Model Number

Note: This is not a comprehensive model description list, for full unit specfications please reach out to your local Chromalox Representative.