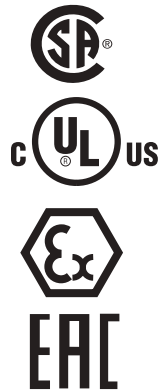


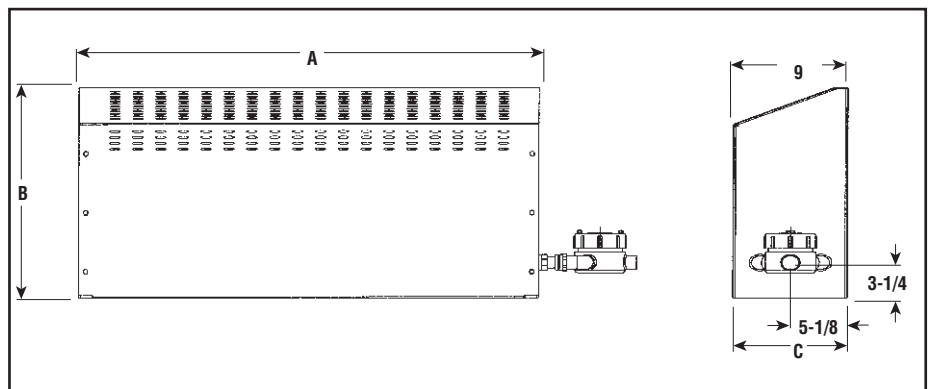
## CVEP

### Explosion Proof Convection Heater

- 1.6 - 9 kW
- 5,459 - 30,708 Btuh
- 120, 208, 240, 277, 480 and 575 Volt
- 1 & 3 Phase
- Built-in & Prewired Control Options
- UL Listed and CSA Certified for Class 1, Division 1 or 2, Group B, C & D Environments
- ATEX and EAC Models Available



#### Dimensions (Inches)



#### Description

Type CVEP explosion proof convection heater is designed to provide a rugged, corrosion-resistant heat source for areas where volatile flammable liquids, gases or vapors are present. All basic models without controls are UL listed and CSA certified for use in areas designated as Class 1, Division 1 or 2 Group B, C or D locations.

#### Applications

- Petroleum Refineries, Gasoline Storage and Dispensing Areas
- Industrial Areas Using Flammable Liquids in Dip Tanks
- Petroleum Refineries
- Dry Cleaning Plants
- Utility and Natural Gas Plants
- Aircraft Hangers/Fueling Areas
- Solvent Extraction Plants
- Storage Areas for Flammable Products or Batteries
- Sewage Treatment Plants
- Hydrogen Atmospheres

#### Dimensions (Inches)

| kW               | A  | B  | C |
|------------------|----|----|---|
| 1.6, 1.8 and 3.6 | 34 | 20 | 9 |
| 3.2 and 7.6      | 58 | 20 | 9 |
| 4.0, 4.5 and 9.0 | 70 | 20 | 9 |

#### Construction

**Cabinet** — Sloped top, constructed of heavy 16 gauge steel, polyester powder coated for maximum corrosion resistance.

**Explosion Proof Junction Box** — For conduit entry and ease of power wiring.

**Heating Elements** — Sealed, metal sheath, heavy-duty, low watt density, enclosed high grade resistance wire embedded in MgO refractory core. Elements are inserted in a copper tube with aluminum fins.

#### Features

Integral Mounting Brackets allow for easy wall installation.

Sloped Top Cabinet ensures maximum ventilation by preventing objects from being placed on the top which would restrict air flow.

#### Designed for Areas Classified

- Class I, Division 1 or 2, Groups B, C, D
  - Temperature Code T3A 180°C (356°F) or T2A 280°C (536°F)
- Ex II2G Ex d IIB T2-T3

#### Optional Features (Factory Installed)

- Thermostat
- Magnetic Contactor
- Control Voltage Transformer

#### Advantages

- Easy Installation
- Clean, Safer Heat Source
- Pre-Wired Control Options
- Long Life

EXPLOSION PROOF  
& CORROSIVE ENV.

Refer to WR-80EP  
in the Controls section.

**CHROMALOX**



**THORNE &  
DERRICK  
INTERNATIONAL**

**Thorne & Derrick**

+44 (0) 191 410 4292

www.heatingandprocess.com

## CVEP

### Explosion Proof Convection Heater

(cont'd.)

#### Ordering Information

**To Order** — Complete the Model Number using the Matrix provided.

#### Power & Temp. Control Options

| Power Control Combination | Thermostat Option | Figure Number |
|---------------------------|-------------------|---------------|
| 00                        | 00                | 1             |
| 00                        | 40 <sup>1</sup>   | 5             |
| 00                        | 42 <sup>2</sup>   | 2             |
| 30 - 35                   | 00                | 4             |
| 30 - 35                   | 40                | 5             |
| 30 - 35                   | 42                | 3             |

<sup>1</sup> Thermostat option: 40  
Temperature range: 40° - 90° F  
Electrical Rating: 25 Amp 24V, 120V, 240V  
AC 22 Amp 277 VAC  
Higher Voltage or 3  
phase requires magnetic  
contactor option and  
transformer

<sup>2</sup> Thermostat option: 42  
Temperature range: 50° - 90° F  
Electrical Rating: 22 Amps 125/277 VAC  
Higher Voltage or 3  
phase requires magnetic  
contactor option and  
transformer

#### Model Explosion Proof Convection Heater

CVEP

##### Code Watts

|    |      |    |      |
|----|------|----|------|
| 16 | 1600 | 40 | 4000 |
| 18 | 1800 | 45 | 4500 |
| 32 | 3200 | 76 | 7600 |
| 36 | 3600 | 90 | 9000 |

##### Code Voltage

|   |     |   |     |
|---|-----|---|-----|
| 1 | 120 | 6 | 575 |
| 2 | 240 | 7 | 277 |
| 3 | 380 | 8 | 208 |
| 4 | 480 | 9 | 600 |
| 5 | 415 |   |     |

##### Code Phase

|   |        |
|---|--------|
| 1 | Single |
| 3 | Three  |

##### Code Power Control Options (See Options Table)

|    |                                         |
|----|-----------------------------------------|
| 00 | no transformer no contactor             |
| 30 | (24V) transformer and contactor         |
| 31 | no transformer with contactor(24V)      |
| 32 | (120V) transformer and contactor        |
| 33 | no transformer with contactor(120V)     |
| 34 | no transformer with contactor(208/240V) |
| 35 | no transformer with contactor(277V)     |

##### Code Thermo/Class Options (See Options Table)

|    |                        |
|----|------------------------|
| 00 | no thermo B, C & D     |
| 40 | thermo in box B, C & D |
| 42 | thermo C & D           |

CVEP 16 1 1 30 42 Typical Model Number

CE approved models available. Contact your Chromalox representative.

#### Dimensions (Inches)

Figure 1

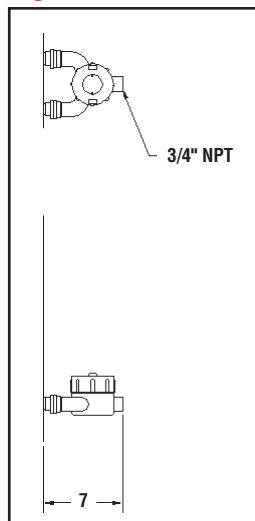


Figure 2

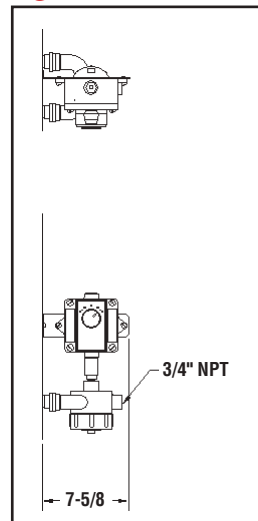


Figure 3

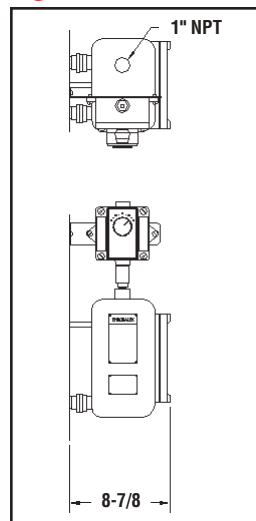


Figure 4

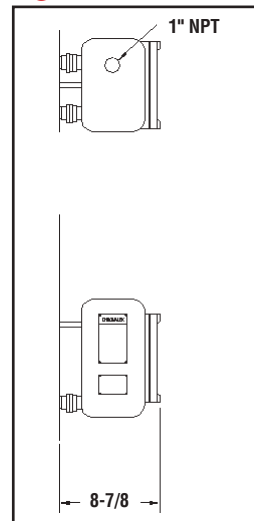
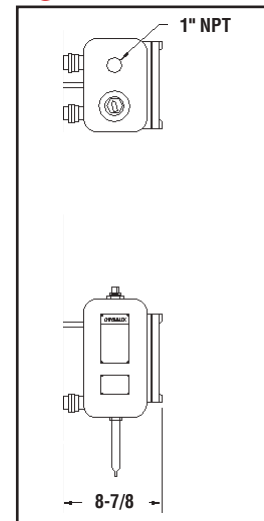


Figure 5



## CVEP

Convection Heater  
For Hazardous  
Locations



### Specifications and Ordering Information

| Electrical                                            |       |       |      |        | Model                         | Stock    | PCN           | Wt.<br>(Lbs.) |
|-------------------------------------------------------|-------|-------|------|--------|-------------------------------|----------|---------------|---------------|
| kW                                                    | Volts | Phase | Amps | Btuh   |                               |          |               |               |
| Temperature Code T3A (356°F, 180°C) Group B, C, and D |       |       |      |        |                               |          |               |               |
| 1.6                                                   | 208   | 1     | 7.7  | 5,500  | CVEP-16-81-00-00              | NS       | 088336        | 58            |
| 1.6                                                   | 208   | 3     | 4.5  | 5,500  | CVEP-16-83-00-00              | NS       | 086844        | 58            |
| 1.6                                                   | 240   | 1     | 6.7  | 5,500  | CVEP-16-21-00-00              | NS       | 086852        | 58            |
| 1.6                                                   | 240   | 3     | 3.8  | 5,500  | CVEP-16-23-00-00              | NS       | 086860        | 58            |
| 1.6                                                   | 277   | 1     | 5.8  | 5,500  | CVEP-16-71-00-00              | NS       | 086879        | 58            |
| 1.6                                                   | 480   | 1     | 3.3  | 5,500  | CVEP-16-41-00-00              | NS       | 086887        | 58            |
| 1.6                                                   | 480   | 3     | 1.9  | 5,500  | CVEP-16-43-00-00              | NS       | 086895        | 58            |
| 1.6                                                   | 575   | 1     | 2.8  | 5,500  | CVEP-16-61-00-00              | NS       | 086908        | 58            |
| 3.2                                                   | 208   | 1     | 15.4 | 11,000 | CVEP-32-81-00-00              | NS       | 086916        | 94            |
| 3.2                                                   | 208   | 3     | 9.0  | 11,000 | CVEP-32-83-00-00              | NS       | 086924        | 94            |
| 3.2                                                   | 240   | 1     | 13.3 | 11,000 | CVEP-32-21-00-00              | NS       | 086932        | 94            |
| 3.2                                                   | 240   | 3     | 7.7  | 11,000 | CVEP-32-23-00-00              | NS       | 086940        | 94            |
| 3.2                                                   | 277   | 1     | 11.6 | 11,000 | CVEP-32-71-00-00              | NS       | 086959        | 94            |
| 3.2                                                   | 480   | 1     | 6.7  | 11,000 | CVEP-32-41-00-00              | NS       | 086967        | 94            |
| 3.2                                                   | 480   | 3     | 3.8  | 11,000 | CVEP-32-43-00-00              | NS       | 086975        | 94            |
| 3.2                                                   | 575   | 1     | 5.6  | 11,000 | CVEP-32-61-00-00              | NS       | 086983        | 94            |
| 4                                                     | 208   | 1     | 19.2 | 13,600 | CVEP-40-81-00-00              | NS       | 086991        | 112           |
| 4                                                     | 208   | 3     | 11.1 | 13,600 | CVEP-40-83-00-00              | NS       | 087003        | 112           |
| 4                                                     | 240   | 1     | 16.7 | 13,600 | CVEP-40-21-00-00              | NS       | 087011        | 112           |
| 4                                                     | 240   | 3     | 9.6  | 13,600 | CVEP-40-23-00-00              | NS       | 087020        | 112           |
| 4                                                     | 277   | 1     | 14.4 | 13,600 | CVEP-40-71-00-00              | NS       | 087038        | 112           |
| 4                                                     | 480   | 1     | 8.3  | 13,600 | CVEP-40-41-00-00              | NS       | 087046        | 112           |
| 4                                                     | 480   | 3     | 4.8  | 13,600 | CVEP-40-43-00-00              | NS       | 087054        | 112           |
| 4                                                     | 575   | 1     | 7    | 13,600 | CVEP-40-61-00-00              | NS       | 087062        | 112           |
| Temperature Code T2A (536°F, 280°C) Group B, C, and D |       |       |      |        |                               |          |               |               |
| 1.8                                                   | 120   | 1     | 15   | 6,140  | CVEP-18-11-00-00              | NS       | 028759        | 46            |
| 1.8                                                   | 208   | 1     | 8.7  | 6,140  | CVEP-18-81-00-00              | NS       | 028767        | 46            |
| 1.8                                                   | 208   | 3     | 5    | 6,140  | CVEP-18-83-00-00              | NS       | 028775        | 46            |
| 1.8                                                   | 240   | 1     | 7.5  | 6,140  | <b>CVEP-18-21-00-00</b>       | <b>S</b> | <b>028783</b> | 46            |
| 1.8                                                   | 240   | 3     | 4.4  | 6,140  | CVEP-18-23-00-00              | NS       | 028791        | 46            |
| 1.8                                                   | 277   | 1     | 6.5  | 6,140  | CVEP-18-71-00-00              | NS       | 028804        | 46            |
| 1.8                                                   | 480   | 1     | 3.7  | 6,140  | CVEP-18-41-00-00              | NS       | 028812        | 46            |
| 1.8                                                   | 480   | 3     | 2.2  | 6,140  | CVEP-18-43-00-00              | NS       | 028820        | 46            |
| 3.6                                                   | 208   | 1     | 17.3 | 12,300 | <b>CVEP-36-81-00-00</b>       | <b>S</b> | <b>087070</b> | 58            |
| 3.6                                                   | 208   | 3     | 10   | 12,300 | CVEP-36-83-00-00              | NS       | 087089        | 58            |
| 3.6                                                   | 240   | 1     | 15   | 12,300 | <b>CVEP-36-21-00-00</b>       | <b>S</b> | <b>087097</b> | 58            |
| 3.6                                                   | 240   | 3     | 8.7  | 12,300 | CVEP-36-23-00-00              | NS       | 087100        | 58            |
| 3.6                                                   | 277   | 1     | 13   | 12,300 | CVEP-36-71-00-00              | NS       | 087118        | 58            |
| 3.6                                                   | 480   | 1     | 7.5  | 12,300 | <b>CVEP-36-41-00-00</b>       | <b>S</b> | <b>087126</b> | 58            |
| 3.6                                                   | 480   | 3     | 4.3  | 12,300 | CVEP-36-43-00-00              | NS       | 087134        | 58            |
| 3.6                                                   | 575   | 1     | 6.3  | 12,300 | CVEP-36-61-00-00              | NS       | 087142        | 58            |
| 7.6                                                   | 208   | 1     | 36.5 | 24,000 | CVEP-76-81-00-00              | NS       | 085913        | 94            |
| 7.6                                                   | 208   | 3     | 21.1 | 24,000 | CVEP-76-83-00-00              | NS       | 085921        | 94            |
| 7.6                                                   | 240   | 1     | 31.7 | 24,000 | <b>CVEP-76-21-00-00</b>       | <b>S</b> | <b>085930</b> | 94            |
| 7.6                                                   | 240   | 3     | 18.3 | 24,000 | CVEP-76-23-00-00              | NS       | 085948        | 94            |
| 7.6                                                   | 277   | 1     | 27.4 | 24,000 | CVEP-76-71-00-00              | NS       | 085956        | 94            |
| 7.6                                                   | 480   | 1     | 15.8 | 24,000 | CVEP-76-41-00-00              | NS       | 085964        | 94            |
| 7.6                                                   | 480   | 3     | 9.2  | 24,000 | CVEP-76-43-00-00              | NS       | 085972        | 94            |
| 7.6                                                   | 575   | 1     | 13.2 | 24,000 | CVEP-76-61-00-00              | NS       | 085980        | 94            |
| 9                                                     | 208   | 1     | 43.3 | 30,700 | CVEP-90-81-00-00              | NS       | 087230        | 112           |
| 9                                                     | 208   | 3     | 25   | 30,700 | CVEP-90-83-00-00              | NS       | 087249        | 112           |
| 9                                                     | 240   | 1     | 37.5 | 30,700 | CVEP-90-21-00-00              | NS       | 087257        | 112           |
| 9                                                     | 240   | 3     | 21.7 | 30,700 | CVEP-90-23-00-00              | NS       | 087265        | 112           |
| 9                                                     | 277   | 1     | 32.5 | 30,700 | CVEP-90-71-00-00              | NS       | 087273        | 112           |
| 9                                                     | 480   | 1     | 18.8 | 30,700 | CVEP-90-41-00-00              | NS       | 087281        | 112           |
| 9                                                     | 480   | 3     | 10.8 | 30,700 | CVEP-90-43-00-00              | NS       | 087290        | 112           |
| 9                                                     | 575   | 1     | 15.7 | 30,700 | CVEP-90-61-00-00              | NS       | 087302        | 112           |
| Stock CVEP with Built-in Thermostat                   |       |       |      |        |                               |          |               |               |
| 1.8                                                   | 120   | 1     | 15   | 6,140  | <b>CVEP-18-11-00-42</b>       | <b>S</b> | <b>028839</b> | 59            |
| 1.8                                                   | 208   | 1     | 8.7  | 6,140  | <b>CVEP-18-81-00-42</b>       | <b>S</b> | <b>028847</b> | 59            |
| 1.8                                                   | 240   | 1     | 7.5  | 6,140  | CVEP-18-21-00-42              | NS       | 028855        | 59            |
| 1.8                                                   | 277   | 1     | 6.5  | 6,140  | CVEP-18-71-00-42              | NS       | 028863        | 59            |
| 1.8                                                   | 480   | 1     | 3.7  | 6,140  | CVEP-18-41-32-42 <sup>1</sup> | NS       | 028871        | 69            |
| 3.6                                                   | 208   | 1     | 17.3 | 12,300 | <b>CVEP-36-81-00-42</b>       | <b>S</b> | <b>028644</b> | 60            |
| 3.6                                                   | 240   | 1     | 15   | 12,300 | <b>CVEP-36-21-00-42</b>       | <b>S</b> | <b>028660</b> | 60            |
| 3.6                                                   | 480   | 1     | 7.5  | 12,300 | CVEP-36-41-32-42 <sup>1</sup> | NS       | 028652        | 70            |

**Stock Status:** S = stock AS = assembly stock NS = non-stock  
**To Order**—Specify model, PCN, kW, volts, phase and quantity.  
 CE approved models available. Contact your Chromalox representative.

**Note —**

- Includes control transformer and contactor
- Other sizes and configurations available, contact your Local Chromalox Sales office.