

# Radiant Process Heaters



## Series CRH, CRD E-Mitters

### Insulated Flat Face Short Neck Series CRH and Long Neck Series CRD Ceramic E-Mitters



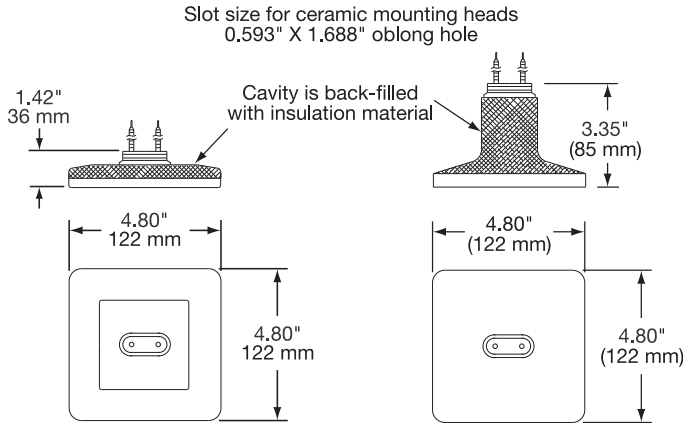
CRH shown in white and CRD in metamorphosing rose (cold) to grey (hot)

#### CRH and CRD E-Mitter Construction

1. **LESS MASS.** A special manufacturing process allows construction with thin walls that withstand larger temperature gradients. The embedded resistance coils heat up the low mass body at a faster rate, providing considerable energy savings.
2. **SUPERIOR INSULATING MATERIAL.** The hollow inner area is filled with low-mass ceramic fiber to further insulate the contact region from the e-mitter surface, resulting in an improved operating life.

#### Design Features

- \* *Universal mount designed to be dropped into existing systems regardless of manufacturer*
- \* *Standard colors are metamorphosing rose (cold) to grey (hot), and traditional white. Optional colors are metamorphosing yellow (cold) to orange (hot), and black*
- \* *Standard stocked voltage: 120 or 220/240V as noted; other voltages are available*
- \* *Available with built-in type K thermocouple. Optional type J thermocouple is also available.*
- \* *Long operating life – over 10,000-plus hours of continuous operation under normal conditions*
- \* *Performance is unaffected by vibration or adverse atmospheric conditions*
- \* *2.5 to 6µm infrared radiation wavelength*



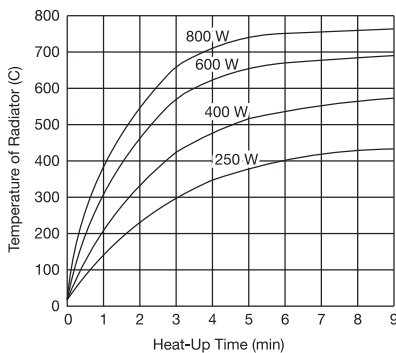
Series CRH Dimensions

Series CRD Dimensions

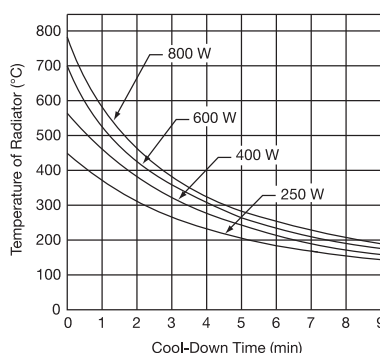
#### Optional Features

- \* *Additional Power or Thermocouple Lead Lengths (page 7-23)*
- \* *Two-Piece Wave Mounting Clip (page 7-14)*
- \* *Reflectors and Other Accessories (pages 7-20 through 7-23)*
- \* *Arrays and Power/Temperature Control Panels (start on page 7-15)*

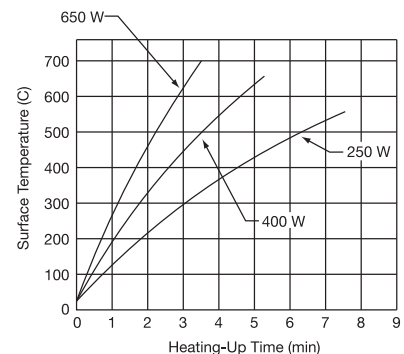
Warm-up Curve  
CRH Short Shaft



Cool-Down Curve  
CRH Short Shaft



Warm-up Curve  
CRD Long Shaft

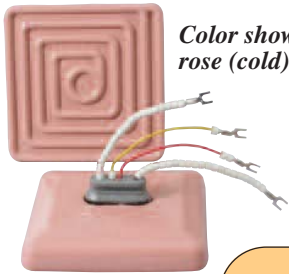




# Radiant Process Heaters

## Series CRH, CRD E-Mitters

### Series CRH E-Mitters – Size: 122 mm (4.80") square



Color shown is  
rose (cold) to grey (hot)

#### Optional Features

- \* Additional Power or Thermocouple Lead Lengths (page 7-23)
- \* Two-Piece Wave Mounting Clip (page 7-14)
- \* Reflectors and Other Accessories (pages 7-20 through 7-23)
- \* Arrays and Power/Temperature Control Panels (start on page 7-15)

#### Standard (Non-Stock) CRH E-Mitters

E-Mitters listed have 3.50" ceramic bead insulated leads, #8-10 spade terminals, and a one-piece spring clip for mounting.

Wattage	Voltage	Color	Watt Density*		Heater Body Temp.**		Part Number	
			(W/in <sup>2</sup> )	(W/cm <sup>2</sup> )	(Typical Operating) °F	°C	Without Thermocouple	With Type K Thermocouple
250	220/240	Rose to Grey	10.84	1.68	757	403	CRH10029	CRH10030
250	220/240	White	10.84	1.68	757	403	CRH00029	CRH00030
400	220/240	Rose to Grey	17.34	2.69	943	506	CRH10018	CRH10005
400	220/240	White	17.34	2.69	943	506	CRH00018	CRH00005
600	220/240	Rose to Grey	26.01	4.03	1117	603	CRH10010	CRH10011
600	220/240	White	26.01	4.03	1117	603	CRH00010	CRH00011
800	220/240	Rose to Grey	34.68	5.38	1286	697	CRH10001	CRH10019
800	220/240	White	34.68	5.38	1286	697	CRH00001	CRH00019

### Series CRD E-Mitters – Size: 122 mm (4.80") square



Color shown is  
rose (cold) to grey (hot)

#### Optional Features

- \* Additional Power or Thermocouple Lead Lengths (page 7-23)
- \* Two-Piece Wave Mounting Clip (page 7-14)
- \* Reflectors and Other Accessories (pages 7-20 through 7-23)
- \* Arrays and Power/Temperature Control Panels (start on page 7-15)

#### Standard (Non-Stock) CRD E-Mitters

E-Mitters listed have 3.50" ceramic bead insulated leads, #8-10 spade terminals, and a one-piece spring clip for mounting.

Wattage	Voltage	Color	Watt Density*		Heater Body Temp.**		Part Number	
			(W/in <sup>2</sup> )	(W/cm <sup>2</sup> )	(Typical Operating) °F	°C	Without Thermocouple	With Type K Thermocouple
250	220/240	Rose to Grey	10.84	1.68	757	403	CRD10001	CRD10005
250	220/240	White	10.84	1.68	757	403	CRD00001	CRD00005
400	220/240	Rose to Grey	17.34	2.69	943	506	CRD10002	CRD10006
400	220/240	White	17.34	2.69	943	506	CRD00002	CRD00006
650	220/240	Rose to Grey	28.18	4.37	1158	626	CRD10004	CRD10008
650	220/240	White	28.18	4.37	1158	626	CRD00004	CRD00008

\* **Watt density** calculated using heater face surface area.

\*\* **E-Mitter heater body temperature** as measured with internal thermocouple when mounted facedown in stock CRK reflector and operating in 72°F (22°C) room ambient.