

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 metamorphing rose (cold) to grey (hot)

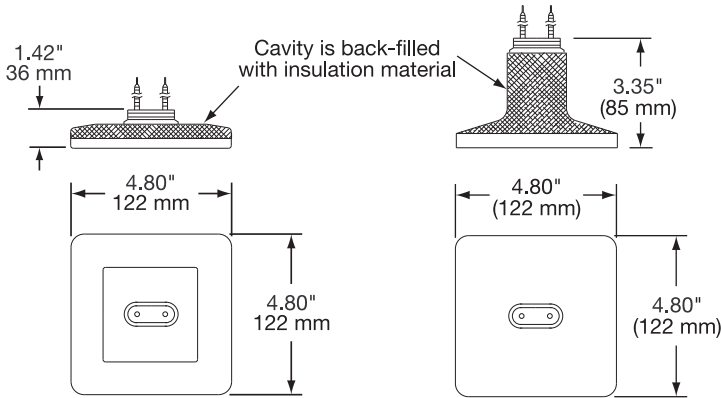
CRH and CRD E-Mitter Construction

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 metamorphing rose (cold) to grey (hot), and traditional white. Optional colors are metamorphing 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*

Slot size for ceramic mounting heads
0.593" X 1.688" oblong hole



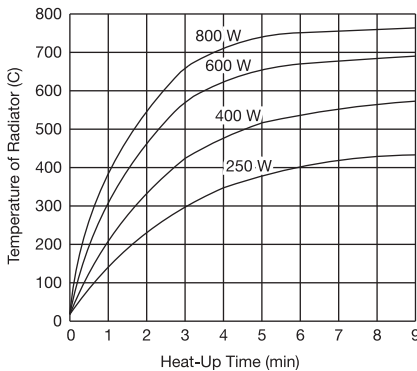
Series CRH Dimensions

Series CRD Dimensions

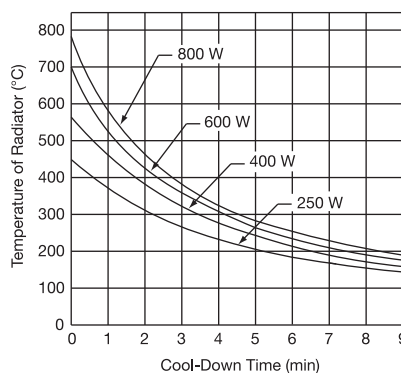
Optional Features

- * *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)*

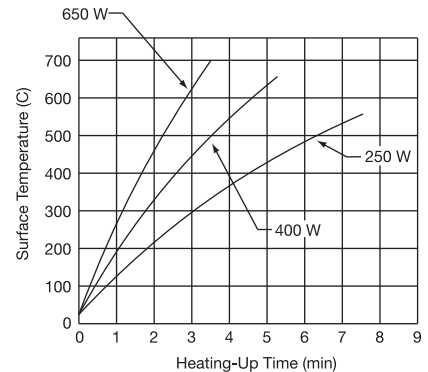
Warm-up Curve
CRH Short Shaft



Cool-Down Curve
CRH Short Shaft



Warm-up Curve
CRD Long Shaft



Series CRB Curved Face Ceramic E-Mitter Specifications

Series CRB – Size: 60 mm × 245 mm (2.36" × 9.65") Watts/Square Inch vs. Temperature Data

Watts	Surface W/in ² *	Heater Body °F Rise	Heater Body Temp @ 72°F**	Primary Emitted Wavelength*** (μm)
100	4.32	357	429	5.87
125	5.40	426	498	5.45
150	6.48	488	560	5.11
163	7.04	518	590	4.97
200	8.64	596	668	4.63
250	10.80	684	756	4.29
300	12.95	756	828	4.05
325	14.03	788	860	3.95
350	15.11	817	889	3.87
400	17.27	870	942	3.72
500	21.59	960	1032	3.50
600	25.91	1043	1115	3.31
650	28.07	1084	1156	3.23
700	30.23	1126	1198	3.15
750	32.39	1169	1241	3.07
800	34.55	1211	1283	2.99
875	37.78	1271	1343	2.89
900	38.86	1290	1362	2.86
1000	43.18	1348	1420	2.78

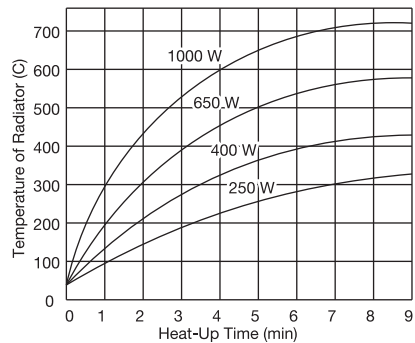
* **Watt density** calculated using heater face surface area.

** **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.

*** **Peak infrared radiation wavelength** as calculated from Wien's Law, for operating temperature shown. Expressed in microns (μm).

Typical Heating and Cooling Behavior of CRB Ceramic E-Mitters

Warm-Up Time Graph



Cool-Down Time Graph

