

INFRA-RED HEATING ELEMENTS & TEMPERATURE CONTROL

CERAMIC & QUARTZ INFRA-RED ELEMENTS



HIGH EFFICIENCY
INFRA-RED HEATING



FAST RESPONSE
RAPID HEAT-UP
& COOL DOWN



RELIABLE
DURABLE
LONG LIFE



CUSTOM SIZES
& WATTAGES
AVAILABLE

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UCI CERAMIC INFRA-RED ELEMENTS

Ceramic elements provide long wave infrared radiation for efficient, even heat distribution and are ideal for a wide range of industrial heating applications.

- ✓ Maximum surface temperature of 710°C
- ✓ Heating wire embedded in ceramic creates infrared in either focused or parallel rays
- ✓ Long wave emission pattern
- ✓ High infrared energy efficiency – up to 96%
- ✓ Watt densities from 6.45 w/in² to 38.71 w/in² (1 w/cm² to 6 w/cm²)
- ✓ Standard voltages: 120V, 220V, 230V, 240V, 480V
- ✓ Can be supplied complete with thermocouple
- ✓ UL approval and CE compliant
- ✓ Operating temperatures up to 710°C

AVAILABLE SIZES & WATTAGES

SIZE (mm)	AVAILABLE WATTAGES (W)
Curved 245 x 60	150, 200, 250, 300, 350, 400, 450, 500, 600, 650, 700, 750, 800, 1000
Curved 122 x 60	125, 150, 200, 250, 300, 325, 375, 400, 450, 500
Flat 245 x 60	150, 200, 250, 300, 350, 400, 450, 500, 600, 650, 700, 750, 800, 1000
Flat 122 x 60	125, 150, 200, 250, 300, 325, 375, 400, 450, 500
Flat 124 x 124	150, 200, 250, 300, 350, 400, 450, 500, 600, 650, 700, 750, 800, 1000
Flat 60 x 60	100, 125, 150, 200, 250

CERAMIC ELEMENT TEMPERATURE CHART

WATTAGE	PART No.	TEMP IN °C
1000W	UFC1000	710
750W	UFC750	630
650W	UFC650	590
500W	UFC500	480
400W	UFC400	450
350W	UFC350	425
300W	UFC300	400
250W	UFC250	350
200W	UFC200	350
150W	UFC150	260

TYPICAL APPLICATIONS

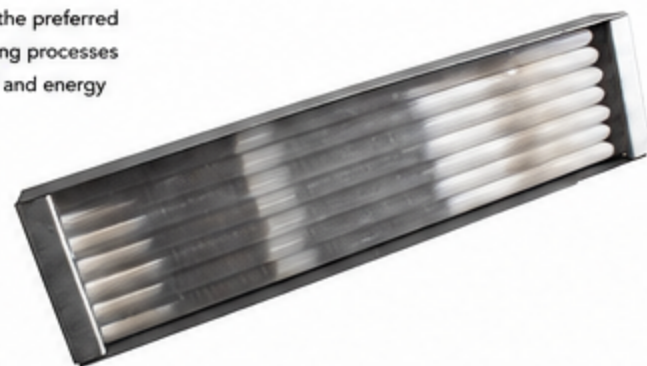
- Plastic thermoforming
- Packaging & sealing
- Drying & curing
- Paint & powder coating
- Food warming
- Shrink wrapping
- Label & ink drying
- Industrial ovens

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UCI QUARTZ INFRA-RED ELEMENTS

Quartz elements provide short to medium wavelength radiation and are the preferred choice where rapid heat response is required. They are ideal for fast cycling processes and applications where quick heat-up and cool-down delivers operational and energy efficiency advantages.

- ✓ Fast response – reaches operating temperature in seconds
- ✓ Rapid heat-up and rapid cool down
- ✓ Short to medium wavelength infrared radiation
- ✓ Highly reflective stainless-steel housing for maximum efficiency
- ✓ High radiant efficiency with low convection losses
- ✓ Watt densities up to 30 w/in² (4.65 w/cm²)
- ✓ Heaters can be manufactured to suit most supply voltages
- ✓ Five standard sizes with a large choice of power ratings
- ✓ Ideal for zone control and precision heating applications



TYPICAL APPLICATIONS



Thermoforming



Roll-fed
Processes



Coating &
Drying Lines



Industrial
Ovens



Electronics
Manufacturing

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QUARTZ ELEMENT TEMPERATURE CHART

248 x 62mm FULL SIZE	PART No.	AVERAGE SURFACE TEMP
1000W	UFQ1000	770°C
750W	UFQ750	650°C
500W	UFQ500	580°C
400W	UFQ500	540°C
300W	UFQ400	470°C
250W	UFQ250	430°C



WHY USE INFRA-RED ELEMENTS?

- Energy efficient – up to 96% of energy converted to heat
- Fast, precise and controllable heating
- Improved product quality and consistency
- Reduced cycle times
- Lower operating costs

INSTALLATION & SAFETY GUIDELINES



OPTIMAL DISTANCE

For best performance, mount elements at a distance equal to 1 to 2.5 times the element length from the target.



VENTILATION

Ensure adequate ventilation to maintain safe operating temperatures and extend element life.



ELECTRICAL

Install in accordance with local electrical codes. Use suitable wiring and protective devices.



CLEAN & INSPECT

Keep element surfaces clean and inspect regularly to ensure optimum performance and safety.

Note: Temperatures are average surface temperatures measured in free air at rated voltage. Actual temperatures may vary depending on mounting, environment and application conditions.

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