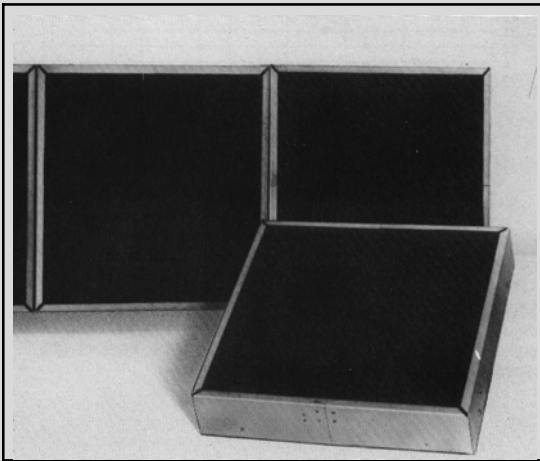


TYPE "PF" INFRARED HEATER



SPECIAL FEATURES

- Specifically designed for Paint Finishing Applications
- Medium Wavelength radiant energy, 2.35-6.5 Microns, with maximum emitter temperature of 1400°F (750°C)
- Dries and/or cures solvent, high solids, waterbase and powder coatings
- Flat solid surface, no reflectors, no wasted energy, no maintenance
- Low cost, heavy duty, durable, replaceable emitter
- Highest ratio of power input to usable radiant energy
- Saves Energy as compared to conventional heaters
- Full radiant output maintained throughout its long life
- Modular construction with standard 12" x 12" & 12" x 48" modules
- 2160 watts per square foot (23.25 KW per square meter)

THE CASSO-SOLAR INFRARED HEATER TYPE "PF" (PAINT FINISHING) is specifically designed for use in tunnel ovens common to the paint finishing industry. The "PF" Heater is a medium wavelength, wide area infrared heater module, provided in two standard building block sizes, that are easy to mount, wire and operate. The "PF" Heaters are available from stock for immediate shipment.

Sales & Technical Information

800-988-4455

All other calls: 845-354-2500
 Fax: 845-362-1856
 Website: www.cassosolar.com
 E-mail: sales@cassosolar.com

With new product and process technology under continuous development, production equipment is required to give precise and flexible control over production quality, while operating efficiently with minimum maintenance. For over forty years, Casso-Solar Corporation has been providing our customers the competitive edge.

HIGH EFFICIENCY, MEDIUM WAVELENGTH WITH THE BLACK RADIANT QUARTZ FACE

The Casso-Solar Infrared Heater, Type "PF", has a woven quartz cloth surface, finished with a special high temperature black emissive coating. The quartz surface acts like a thermopane window, isolating the emitting source within, from the ambient surroundings, minimizing convection losses. System efficiencies of up to 80 percent can be realized in converting electrical power to usable infrared energy.

The "PF" Heater generates its energy at "tunable" wavelengths between 2.35 and 6.5 Microns with emitter temperatures of up to 1400°F (750°C).

MATCHING THE HEATER EMISSION TO THE PRODUCT

Most paints accept infrared energy best between 2.5 and 3.5 microns. Like all Casso-Solar Infrared Heaters, the "PF" can be tuned to match the peak absorption point of the material to be processed. The special coil layout design provides for uniform radiation on the product, when used in the prescribed manner.

MAINTENANCE AND DOWNTIME MINIMIZED

The simple, compact and sturdy construction of the "PF" heater allows it to be used in paint finishing applications. It does not require external reflectors, which need to be periodically cleaned or replaced, and there is no reduction in radiant output over its life. The "PF" Heater is resistant to vibration and shock, due to its one piece bonded construction. Under the rare circumstances that a heater does fail, the emitter is easily replaced. Typical life expectancy is 30,000 hours in properly designed systems.

LOW COST WITH STANDARD SIZES

The Casso-Solar Infrared Heater, Type "PF", is designed for low cost, medium watt density applications for paint finishing, typically drying and/or curing parts hung from an overhead conveyor. Two standard sizes are offered, 12" x 12" and 12" x 48". All heaters are rated at 2160 watts per square foot. The 12" x 12" is available at 240 volts only and the 12" x 48" heater can be field wired for either 240 or 480 volts, single phase.

EASY TO CONTROL

Recommended controls are time proportioning with closed loop feedback from a thermocouple in the heater, where the process can be accurately controlled and repeated. Heaters can be provided with or without an integral type K thermocouple. Fast cycling percentage timers may also be used in many applications. Power to the heaters can be provided through solid state relays interfacing with either of the above control options.



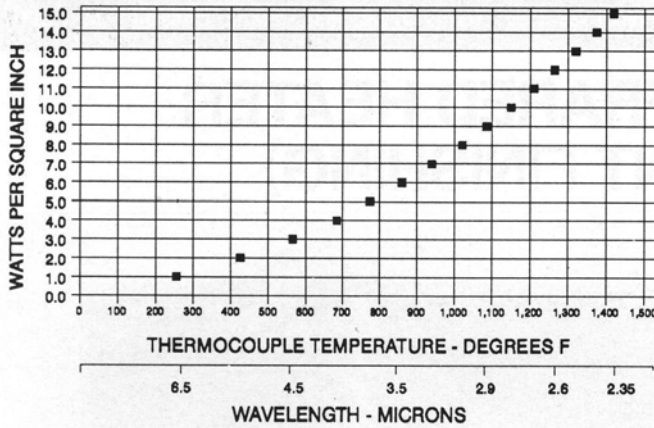
CASSO-SOLAR
CORPORATION



230 US Route 202, P.O. Box 163, Pomona, NY 10970

TYPE "PF" INFRARED HEATER

EMISSION OUTPUT CURVE — TYPE "PF" HEATER



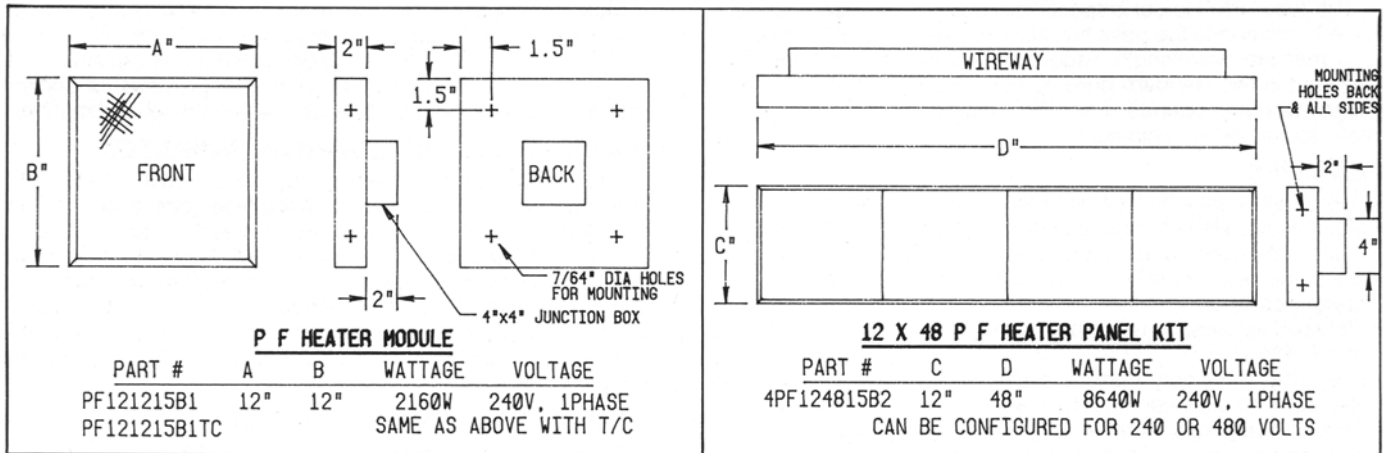
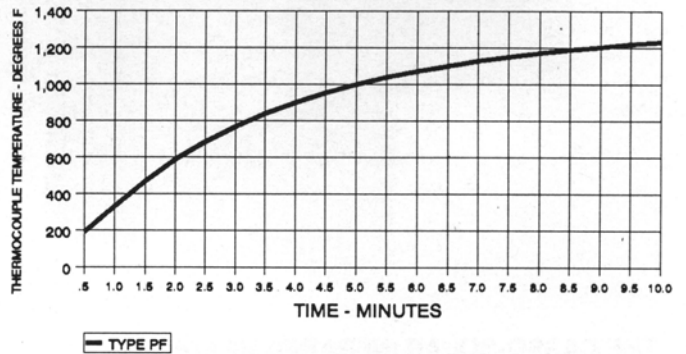
EMISSION OUTPUT CURVE

The emission output curve at the left shows emitter temperature versus watt density and the corresponding wavelength emitted for a specific emitter temperature. For example, an emitter temperature of 1000°F would correspond to a peak wavelength of 3.1 microns with a free air watt density of 8.0 watts per square inch. The key to efficiency is to select the emitter wavelength that best matches the peak absorption of the product to be processed.

WARM-UP CURVE

The warm-up curve at right shows the response time of the Casso-Solar Infrared Heater®, Type PF in free air, from a cold start to full output measured by an internal thermocouple. Warm-up times will decrease when the heaters are placed into an enclosed and insulated oven.

WARMUP CURVE — TYPE "PF" HEATERS



WARRANTY

Casso-Solar offers a two year warranty on the Type "PF" heater, installed in approved applications, against failure due to manufacturing defects. See separate complete warranty for details.

CAUTION:

The Casso-Solar Infrared Heater, Type "PF", is specifically designed for use in overhead paint finishing systems. It is not intended for use in other applications. The purchaser of these heaters is obligated to design and install the heaters in accordance with NFPA specifications, insurance carrier requirements and all applicable local codes.