

TYPE "FHT" INFRARED HEATER



SPECIAL FEATURES

EASE OF INSTALLATION

The Casso-Solar Infrared Heater, Type "FHT", is a self-contained, high temperature furnace heater module, designed for ease of installation. The "FHT" maximizes productivity through high energy transfer rates, uniform energy distribution, and accurate process control.

All modules contain the complete oven wall insulation, typically 6 inches thick, providing an oven interior composed of high temperature ceramic refractory board and resistance heating elements. All metal parts are kept behind the heater faces with stainless steel used in hot areas. The "FHT" heater modules can be placed 4 to 5 inches away from the product, minimizing convection losses and providing product uniformity of +/- 2° F.

All electrical terminals are on the cold, outside surface, reducing the requirements for ultra high temperature electrical connection materials & terminal purge air cooling.

HIGH PERFORMANCE AND FLEXIBLE DESIGN

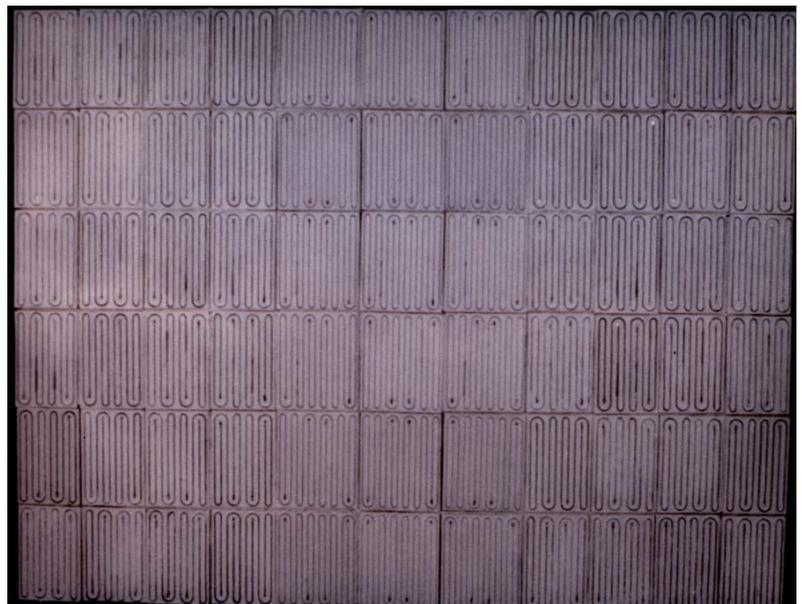
Heater performance is monitored with replaceable thermocouples, to give closed loop process control. Modules are typically one square foot or less and may be constructed with multiple independently controlled zones. System voltages can be designed from 208 to 600 volts.

The Casso-Solar Infrared Heater Type "FHT" can create operating environments up to 1600° F. Energy watt densities are available to 40 watts per square inch (6.2 watts per square centimeter) or 5.76 KW per square foot).

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 TEMPERATURE ELECTRIC INFRARED FURNACE MODULE

- Operating Environment Up To 1600°F
- Energy Watt Densities To 40 Watts Per Square Inch
- Fully Contained With 6 Inch Insulation
- Multiple Zone Capability
- Control Process To +/- 2° F
- Modular Construction
- Extended Life



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



CASSO-SOLAR
CORPORATION

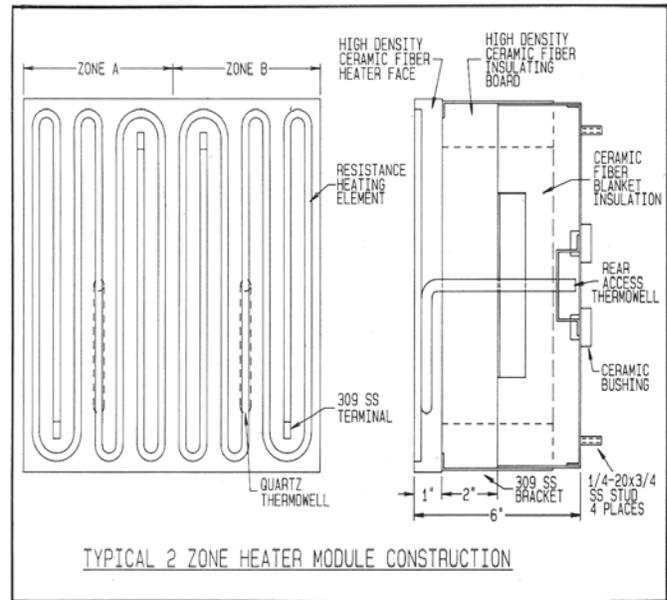


230 US Route 202, P.O. Box 163, Pomona, NY 10970

TYPE "FHT" INFRARED HEATER

TECHNICAL SPECIFICATIONS

- Size:** Custom design, up to 12" x 12", 6" thick
(30 cm x 30 cm x 15.25 cm thick)
- Wattage Density:** Maximum 40 watts per square inch
(6.2 watts per square centimeter)
or 5.76 KW per square foot
- Voltage:** 208 to 600 volts depending on size and
wattage density, 50/60 Hz.
- Thermocouple:** Chromel/Alumel, ISA-K removable
from back of module or mounted
through the heater for ambient control.
- Maximum Operating Environment:** 1600° F
(880° C)
- Heater Temperature Range:** Up to 1900° F
(1050° C)
- Weight:** Approximately 10 lbs per square foot
- Wavelength Emission:** 2.5-6.0 microns
- Zoning:** Multiple within a single module
- Life Expectancy:** 30,000+ hours on approved
applications.
- Warranty:** 1 year for manufacturing defects on
approved applications



INSULATION PROPERTIES

Module face in furnace, exterior case exposed
to open ambient — typical

FURNACE AMBIENT	EXTERIOR CASE
1600 degrees F (880 degrees C)	125 degrees F (52 degrees C)
1500 degrees F (820 degrees C)	120 degrees F (50 degrees C)
1400 degrees F (760 degrees C)	115 degrees F (48 degrees C)
1300 degrees F (700 degrees C)	111 degrees F (45 degrees C)
1200 degrees F (650 degrees C)	106 degrees F (42 degrees C)
1100 degrees F (600 degrees C)	103 degrees F (40 degrees C)
1000 degrees F (545 degrees C)	99 degrees F (39 degrees C)
900 degrees F (485 degrees C)	96 degrees F (37 degrees C)
800 degrees F (430 degrees C)	93 degrees F (35 degrees C)

TYPICAL APPLICATIONS

- Glass tempering, annealing & bending
 - Firing ceramic inks on glass
 - Cure phosphorus coatings in lamps
 - Preheat aluminum, steel, or copper for cladding
 - Drying and firing precision ceramic parts

INSTALLATION REQUIREMENTS

1. Heater modules may be operated in horizontal; face up or face down; or in vertical mode.
2. Heater modules are to be mounted to an external structural steel frame.
3. It is recommended to use minimum 250° C high temperature nickel-clad copper stranded conductor wire with high temperature monel, nickel or stainless steel hardware.
4. Wiring area should be guarded with expanded metal or other covering means, to allow ambient air circulation.
5. Nominal distance from heater module face to the product is 4-6 inches.
6. Closed loop control is required to maintain system warranty.
7. On face up applications, where product can fall on heater face, contact Casso-Solar's engineering department for recommended solutions.