

Electric Infrared Outdoor Heating Systems

Overhead Infrared Heaters for Snow / Ice and Outdoor Spot Heating Applications

Outdoor Comfort Heat Applications

- Restaurant Waiting Areas
- Outdoor Cafes
- Smoking Shelters
- Bus & Train Stations
- Golf Driving Range
- Remote Work Stations

Outdoor Heater Models Available

- 2 Element Mul-T-Mount Heater
- 3 Element Mul-T-Mount Heater
- Single Element Stainless Steel RPH Heater
- Single Element OCH Heater

Advantages of Electric Infrared

- Instant Heat
- Clean - No Fumes
- No motors, moving parts, blowing air currents or drafts
- No bi-products of combustion
- Maintenance free
- Safe - UL/C-UL Listed for indoor & completely exposed outdoor areas



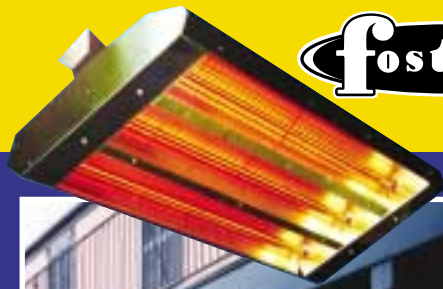
Comfort Heating Systems

A Division of TPI Corporation

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Mul-T-Mount Infrared Series



208-480 Volt Applications

Mul-T-Mount Heaters

Fostoria's "Mul-T-Mount" MTM high-density, Quartz Lamp Infrared Heaters provide instantaneous radiant heat in areas where a forced air heater would require more time and energy to heat. Electric Infrared heats people and objects directly, and re-radiates in the form of convection heat. Objects within the reflector/heat pattern such as tools, work benches and floors are quickly warmed.

The 2 - element MTM heater is offered in either 20 ga. SS (Stainless Steel) or galvanized steel with brown enamel finish. The 3 - element MTM heater is offered



in a 20 ga. SS housing cavity. All Mul-T-Mount heaters include Clear Quartz Infrared Lamps and are equipped with engineered gold anodized aluminum reflectors and end caps.

Because of the generated heat output and versatility, this is the only infrared heater designed for snow and ice control applications. These units are the best infrared heaters for ceiling / overhang heights that exceed 10' feet.

2 & 3 Element Mul-T-Mount Heaters Shipped with Clear Quartz Lamps

SERIES	Dimensions (Inches)			Number of Elements	Available Voltages	BTU'S	KW
	Length	Width	Height				
222	24.0	15.0	7.8	2	208, 240, 277, 480	10,922	3.2
223	24.0	21.5	7.8	3	208, 240, 277, 480	16,382	4.8
342	33.0	15.0	7.8	2	208, 240, 480	17,065	5.0
343	33.0	21.5	7.8	3	208, 240, 480	25,298	7.5
462	46.0	15.0	7.8	2	480, 600	24,915	7.3
463	46.0	21.5	7.8	3	480, 600	37,372	11.0

Model Configuration

SERIES	REFLECTOR PATTERN	TAB HINGE	MATERIAL	VOLTAGE
222	30	TH	Blank = Brown Enamel	208V
223 (*)	60			240V
342	90		SS = Stainless Steel	277V
343 (*)	A30			480V
462	A60			
463 (*)				
Model Example:				
222-	30-	TH	SS-	240V

* - Stainless Steel Housing Material Only.

Notes:

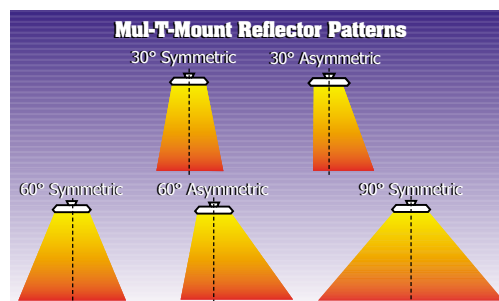
- 462/463 Series offered in 480 & 600 Volts ONLY.
- Infrared heaters can be controlled from various power control options.
- Please consult the factory for complete design and technical assistance regarding your particular heating application.

Features

- UL & C-UL Listed for suspended, totally exposed (outdoor), high bay (indoor) comfort heating and exterior snow/ice control applications
- UL & C-UL Listed for recessed applications
- 50% higher watt densities for 3-element units
- 2 Lamp wiring, single-phase (consult factory for 3-phase wiring)
- 3 Lamp wiring, three or single-phase
- **New Feature:** Built-in surface mounting bracket allows for fixture adjustment up to a 45° horizontal tilt.
- Snow & Ice Control Systems also available

Optional Mounting Brackets

- Vertical Mounting Bracket (Model VMB-41-SS) Allow units to mount 36" from a vertical surface to the center of the heater
- Recessed Mounting Frames (RMF-Series) Mul-T-Mounts are UL & C-UL Listed for recessed applications such as outdoors canopies or interior ceilings
- Wire Guards (CHWG-Series) Optional wire guards are available for all 2 & 3-Lamp units



Quality Since 1917

Fostoria Industries, Inc. • 1200 N. Main St. • Fostoria, OH 44830 • 1-800-495-4525



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Electric Infrared Heaters Sizing Application Information



Features:

- Compact Design 24" x 5-3/8" x 4-1/2"
- Stainless Steel Housing
- Coilzak Bright Aluminum Reflector
- Red Quartz Lamp (1)
- Top Center Mounting Plate
- Single-Phase Wiring

Accessory:

- Wire Guard (RPHWG)

Models Watts Volts

RPH-208-A	1600W	208V
RPH-240-A	1600W	240V

60° Symmetrical Reflector Pattern
8' Mounting Height

Single Element RPH Infrared Series

Application A

Materials Needed to Raise Temp. 15° to 20° F

Heaters:

- (2) RPH-240-A

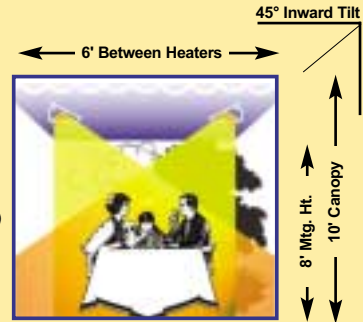
Brackets:

- Uses conduit nipple (supplied by installer) to achieve a 45° inward tilt

Optional Controls:

- Variable Controller
- On/Off Switch
- Contactor Panel.

Application A

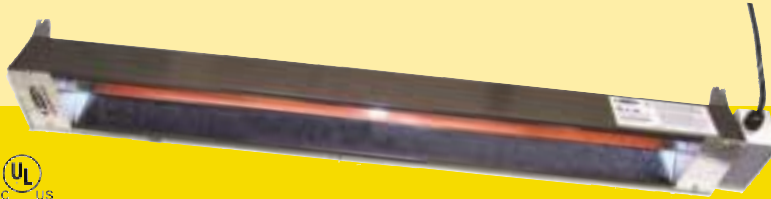


(32 watts per sq. ft.)

2 Heaters Per Table = 3200 Watts

15° to 20° F Temp. Rise

To achieve desired results,
mount heaters 6' apart at
an 8' height and tilt heaters
15° inward.



OCH Infrared Series

Features:

- Brown Baked on Enamel
- Compact Single Element Design
- 46" or 57" (120, 208 & 240 volt)
- Frosted Quartz Tube Included
- Coilzak Bright Aluminum Reflector
- Weather Tight Junction Box
- UL & C-UL Listed for Total Exposed Areas
- 6' Long Cordset (HSW NEMA 5-15P)
- Custom Built Stainless Steel Housing
- Field Converted for Direct Wire

Models Watts Volts

OCH-46	1500W	120V
OCH-46	2000W	240V
OCH-57	3000W	208V
OCH-57	3000W	240V

60° Symmetrical Reflector Pattern
8' Mounting Height

Application A

Materials Needed to Raise Temp. 10° to 15° F

Heaters:

- (1) OCH-57-240V

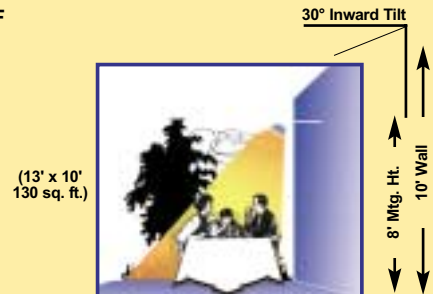
Brackets:

- VMB-41SS (Wall Bracket)

Optional Controls:

- Variable Controller
- On/Off Switch
- Contactor Panel.

Application A



(23 watts per sq. ft.)

Application B

Materials Needed to Raise Temp. 15° to 20° F

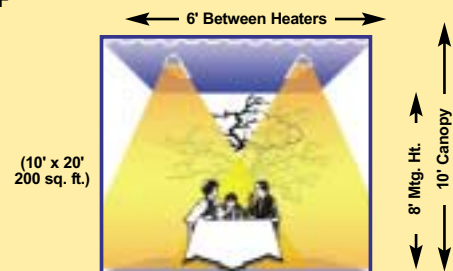
Heaters:

- (2) OCH-57-240V

Optional Controls:

- Variable Controller
- On/Off Switch
- Contactor Panel.

Application B



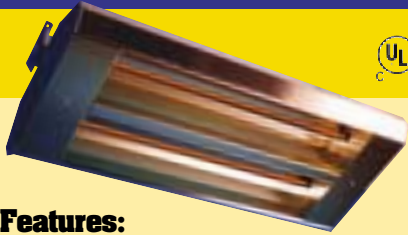
(30 watts per sq. ft.)



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Electric Infrared Heaters

Sizing Application Information



Two Element Mul-T-Mount Heaters

Features:

- Dual Reflector Design 24" x 15" x 7-7/8"
- Brown Baked on Enamel, or Stainless Steel Housing
- Gold Anodized Aluminum Reflector
- Clear Quartz Lamps (2)
- Full-Length Top Wiring Channel
- UL & C-UL Listed for Recessed Applications

Accessories:

- Wire Guard (CHWG-222)
- Ruby Red Vycor Sleeves (31939009)
- Also Available at 3200W / 277V (24"L), or 5000W / 480V (33"L) - Consult Factory
- VMB-41SS (Vertical Mounting Bracket)

Models

Models	Watts	Volts
222-60-THSS-208V	3200W	208V
222-60-THSS-240V	3200W	240V
222-60-THSS-480V	3200W	480V

60° Symmetrical Reflector Pattern
8' - 10' Mounting Height

Application A

Materials Needed to Raise Temp. 15° to 20° F

Heaters:

- (1) 222-60-THSS-240V
- (2) 31939009 (Vycor Sleeves)*

Brackets:

- (1) VMB-41SS (Wall Bracket)

Optional Controls:

- Variable Controllers
- On/Off Switch
- Contactor Panel.

* - Optional sleeves, reduces 90% of element brightness

Application A

(10' x 10'
100 sq. ft.)



(32 watts per sq. ft.)

Application B

Materials Needed to Raise Temp. 20° to 25° F

Heaters:

- (4) 222-60-THSS-240V
- (8) 31939009 (Vycor Sleeves)*

Optional Controls:

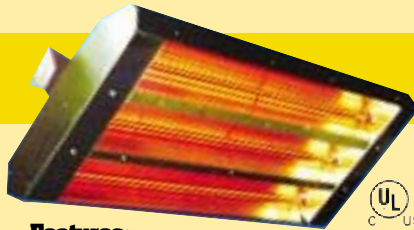
- Variable Controllers
- On/Off Switch
- Contactor Panel.

Application B

(10' x 32'
320 sq. ft.)



(40 watts per sq. ft.)



Three Element Mul-T-Mount Heaters

Features:

- Triple Reflector Design 24" x 21-1/2" x 7-7/8"
- Stainless Steel Housing
- Gold Anodized Aluminum Reflector
- Clear Quartz Lamps (3)
- Full-Length Top Wiring Channel
- Single or Three-Phase Wiring
- UL & C-UL Listed for Recessed Applications

Accessories:

- Wire Guard (CHWG-222)
- Ruby Red Vycor Sleeves (31939009)
- Also Available at 3200W / 277V (24"L), or 7500W / 480V (33"L) - Consult Factory
- VMB-41SS (Vertical Mounting Bracket)

Models

Models	Watts	Volts
223-60-THSS-208V	4800W	208V
223-60-THSS-240V	4800W	240V
223-60-THSS-480V	4800W	480V

60° Symmetrical Reflector Pattern
8' - 10' Mounting Height

Application A

Materials Needed to Raise Temp. 20° to 25° F

Heaters:

- (1) 223-60-THSS-240V
- (3) 31939009 (Vycor Sleeves)*

Brackets:

- (1) VMB-41SS (Wall Bracket)

Optional Controls:

- Variable Controllers
- On/Off Switch
- Contactor Panel.

Application A

(10' x 10'
100 sq. ft.)



(48 watts per sq. ft.)

Application B

Materials Needed to Raise Temp. 20° to 25° F

Heaters:

- (2) 223-60-THSS-240V
- (6) 31939009 (Vycor Sleeves)*

Optional Controls:

- Variable Controllers
- On/Off Switch
- Contactor Panel.

Application B

(10' x 20'
200sq. ft.)



(48 watts per sq. ft.)

* Optional Sleeves, Reduces 90% of Element Brightness.



Power Control Options Snow & Ice Control Devices & Contactor Equipment

APS-3B Snow and Ice Detector (Commercial and Industrial)

The APS-3B is the main control unit for Fostoria's Automatic Snow & Ice Control systems. By sensing both temperature and moisture, the system activates and melts any accumulation until snow and ice conditions subside. A preset "hold-on" period dries any remaining moisture.

The enclosure is UL Listed for NEMA 3R applications. The unit houses all of the timers and switching electronics to operate the system. Installation is easy and should be completed by a certified electrician. Please read all instruction manuals prior to installation.

It has the capability to monitor up to 6 sensors (above ground and/or pavement mounted) and will automatically activate and deactivate unlimited infrared heaters. The system can be manually activated at the main control unit or from an optional remote switch (RCU-1).

The preset "hold-on" timer and "heat cycle" functions activate the system from zero to ten hours after snow and ice conditions subside to evaporate remaining moisture and melt blowing snow.

RCU-1 Remote Control Switch (Optional)

This standard size switch allows for a convenient and economical way to monitor and **manually** control the snow and ice melting system from a **remote** location. It provides indication of system power and heater operation status.

The switch is suitable for flush or surface mounting in a standard switch box or weather-tight box for outdoor applications.



APS-3B Snow and Ice Control Unit



Optional RCU-1 remote switching device

CIT-1 Snow Sensor (Above Ground)

This sensor can be positioned anywhere above ground to maximize the sensors capability. Unit will detect falling or blowing precipitation at temperatures below 38° F.



CIT-1 remote, above ground snow sensor

SIT-5E Snow Sensor (In Pavement)

Incredible durability, strength and sensitivity! This sensor is positioned directly into the pavement and senses actual pavement conditions. It will (when below 38° F), detect the presence of snow and ice, "tracked-in" slush, frost and even black ice. A built-in microprocessor control effectively eliminates ice bridging, so there is no need for a separate temperature sensor.



SIT-5E In-pavement mounted snow sensor

FPC Pre-Wired Contactor Panel

Fostoria provides the contactor panels matched to the needs of your application. A contactor panel is necessary to handle the heating kW load in a given infrared installation.

Since infrared heaters do not have contactors built into the units, it is necessary that they be supplied elsewhere. With a pre-wired "FPC" from Fostoria, the installer only needs to supply fuses and an optional main disconnect or circuit breaker.



Model No. FPC-463-2FA

Contact the factory direct to order your easy to follow Electric Infrared Selection Slide Guide and Heating Manual. These reference tools will assist you in heater selection and sizing information to meet all application types.



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