

MUL-T-MOUNT INFRARED HEATERS

OVERHEAD INFRARED HEATERS FOR SNOW & ICE CONTROL, OUTDOOR SPOT HEATING & ALL INDOOR HEATING APPLICATIONS



FEATURES

- ETL C/US listed for suspended, totally exposed outdoor and indoor spot comfort heating applications, including exterior snow/ice control applications.
- ETL C/US listed for recessed applications.
- Clear Quartz Lamp heating elements, offered in both 2-Lamp & 3-Lamp heaters that operate on 208, 240, or 480 Volt.
- Gold anodized one-piece reflector offered in 30°, 60°, or 90° symmetrical patterns for various distribution of infrared heat (*).
- Feature two different housing materials: Stainless Steel or Galvannealed Steel painted with a high temperature brown powder-coat.
- Built-in surface mounting bracket allows for fixture adjustment up to a 45° horizontal tilt.
- 2-Lamp heaters wire for single-phase operation (consult factory for 3-phase wiring).
- All 3-Lamp heaters wire for either single or three-phase wiring.

208, 240 & 480 VOLT APPLICATIONS

BENEFITS

- Heats people and objects to a desired temperature level, creating a safe and clean atmosphere.
- High-intensity radiant infrared heating element provides the maximum heat output in less than 60-seconds.
- Provides staging and zone control flexibility.
- Highly engineered and proven, our gold anodized aluminum reflectors and end caps provide maximum reflectivity and longevity for a variety of applications.

APPLICATION SOLUTIONS

- Outdoor spot heating for hotel & hospital entrance areas, patio & restaurant areas, bus shelters, airport terminals, etc.
- Indoor spot heating for over workstation areas, vestibule areas, high-bay buildings, process applications for parts, etc.
- Heaters can provide a snow & ice control-heating system by suspending units accordingly. By heating surfaces to desired temperature levels, this will eliminate the build-up of snow and ice for an affected area.

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 - lamp element MTM heater is offered in either 20 ga. SS (Stainless Steel) or galvannealed steel with brown powder-coat finish. The 3 - lamp element MTM heater is only 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.

This is the only infrared heater designed for snow and ice control applications, because of the generated heat output and versatility. These units are the best infrared heaters for ceilings and overhangs that exceed 10'.

WHAT TO LOOK FOR

- Measure the affected area that requires the infrared heating system.
- Determine heating application type (Indoor or Outdoor Application).
- No controls included with these heaters, all units require direct wire installations!



Snow & Ice Control Heating Systems



Outdoor Spot Heating

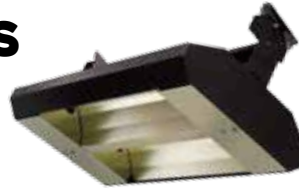


Indoor Spot Heating

MUL-T-MOUNT INFRARED HEATERS

OVERHEAD INFRARED HEATERS

FOR SNOW & ICE CONTROL, OUTDOOR SPOT HEATING
& ALL INDOOR HEATING APPLICATIONS



2-LAMP MTM SERIES

PAINTED HOUSING		STAINLESS STEEL HOUSING		kW	BTUs	VOLTS	AMPS	PHASE	REFLECTOR PATTERN (*)	WT. (lbs.)	REPL ELEMENT
GRAINGER MODEL #	MFG MODEL #	GRAINGER MODEL #	MFG MODEL #								
5E159	222-30-TH-208V	3UD51	222-30-THSS-208V	3.2	10,922	208	15.4	1	30° Symmetrical	20	1UMN3
4E217	222-30-TH-240V	3UD52	222-30-THSS-240V			240	13.3				1UMN4
5E160	222-30-TH-277V	3UD53	222-30-THSS-277V			277	11.6				29XR22
2KCX3	222-30-TH-480V	2KCX4	222-30-THSS-480V			480	6.7				2KCZ8
5E161	222-60-TH-208V	3UD54	222-60-THSS-208V			208	15.4		60° Symmetrical		1UMN3
4E218	222-60-TH-240V	3UD55	222-60-THSS-240V			240	13.3				1UMN4
5E162	222-60-TH-277V	3UD56	222-60-THSS-277V			277	11.6				29XR22
2KCX5	222-60-TH-480V	2KCX6	222-60-THSS-480V			480	6.7				2KCZ8
5E163	222-90-TH-208V	3UD57	222-90-THSS-208V			208	15.4		90° Symmetrical		1UMN3
5E164	222-90-TH-240V	3UD58	222-90-THSS-240V			240	13.3				1UMN4
5E165	222-90-TH-277V	3UD59	222-90-THSS-277V			277	11.6				29XR22
2KCX7	222-90-TH-480V	2KCX8	222-90-THSS-480V			480	6.7				2KCZ8
2KCX9	342-30-TH-480V	2KCY1	342-30-THSS-480V	5.0	17,065	480	10.4	1	30° Sym.	25	2KDA1
2KCY2	342-60-TH-480V	2KCY3	342-60-THSS-480V						60° Sym.		2KDA1
2KCY4	342-90-TH-480V	2KCY5	342-90-THSS-480V						90° Sym.		2KDA1
4E219	462-30-TH-480V	3UD66	462-30-THSS-480V	7.3	24,915	480	15.2	1	30° Sym.	32	1UMN5
4E220	462-60-TH-480V	3UD67	462-60-THSS-480V						60° Sym.		1UMN5
2KCY6	462-90-TH-480V	2KCY7	462-90-THSS-480V						60° Sym.		1UMN5

OPTIONAL VARIABLE HEAT CONTROLLER - VHC-32



FEATURES

- Designed to operate Quartz Lamp or Quartz Tube Heating Elements up to a maximum of 3200 watts
- 208/240V rated "in-line" single phase variable controller device can heat loads up to 15.4 amps
- Positive "Off" and built-in On/Off rocker switch lights red when the controller is operational
- NEMA-1 aluminum enclosure with a stainless steel face plate

BENEFITS

- Designed for wall mounting in a semi-protected areas
- Will operate the following infrared heating elements
 - One (1) or two (2) quartz lamps totaling up to 3200W or;
 - One (1) or two (2) quartz tubes totaling up to 3000W

The VHC-32 controller is used in conjunction with Fostoria's Electric Infrared Heaters (new or existing) to provide the ability to control the "delivered" amount of wattage from the unit, thus regulating the heating output to the target. This device allows you to control the output from zero to 100%, based on your individual desired comfort level!



MFG MODEL #	OPERATING WATTAGE
All MTM 222-Series (208 & 240V)	3200
OCH-46-208V	2000
OCH-46-240V	2000
OCH-57-208V	3000
OCH-57-240V	3000
RPH-208V-A	1600
RPH-240V-A	1600

GRAINGER MODEL #	MFG MODEL #	DESCRIPTION	FITS MODELS	WT. (lbs.)
1UMN2	VHC-32	Variable Heat Controller	222-Series 208 & 240V, RPH & OCH-Series	3



MUL-T-MOUNT INFRARED HEATERS

3-LAMP MTM SERIES



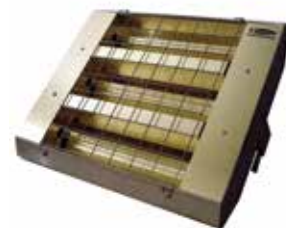
STAINLESS STEEL HOUSING (3-LAMP)		kW	BTUs	VOLTS	AMPS	PHASE	REFLECTOR PATTERN (*)	WT. (lbs.)	REPLACEMENT ELEMENT
GRAINGER MODEL #	MFG MODEL #								
3UD60	223-30-THSS-208V	4.8	16,382	208	13.3	3	30° Symmetrical	25	1UMN3
3UD61	223-30-THSS-240V			240	11.5				1UMN4
2KCY8	223-30-THSS-480V			480	5.8				2KCZ8
3UD62	223-60-THSS-208V			208	13.3		60° Symmetrical		1UMN3
3UD63	223-60-THSS-240V			240	11.5				1UMN4
2KCY9	223-60-THSS-480V			480	5.8				2KCZ8
3UD64	223-90-THSS-208V			208	13.3		90° Symmetrical		1UMN3
3UD65	223-90-THSS-240V			240	11.5				1UMN4
2KCZ1	223-90-THSS-480V			480	5.8				2KCZ8
2KCZ2	343-30-THSS-240V	7.5	25,298	240	18.0	3	30° Symmetrical	33	2KCZ9
2KCZ3	343-30-THSS-480V			480	9.0		60° Symmetrical		2KDA1
2KCZ4	343-60-THSS-240V			240	18.0				2KCZ9
2KCZ5	343-60-THSS-480V			480	9.0				2KDA1
2KCZ6	343-90-THSS-240V			240	18.0		90° Symmetrical		2KCZ9
2KCZ7	343-90-THSS-480V			480	9.0				2KDA1
3UD68	463-30-THSS-480V	10.95	37,372	480	13.1	3	30° Symmetrical	41	1UMN5
3UD69	463-60-THSS-480V						60° Symmetrical		1UMN5
3UD70	463-90-THSS-480V						90° Symmetrical		1UMN5

MUL-T-MOUNT ACCESSORIES

GRAINGER MODEL #	MFG MODEL #	DESCRIPTION		FOR USE WITH	WT. (lbs.)
2KDD1	VMB-41-SS	Wall Mounting Brackets (2)		All Mul-T-Mount Models	12
2KDD2	CHWG-222	Stainless Steel Wire Guards		222 Series	2
2KDD3	CHWG-342			342 Series	
2KDD4	CHWG-462			462 Series	
2KDD5	CHWG-223			223 Series	
2KDD6	CHWG-343			343 Series	
2KDD7	CHWG-463			463 Series	
		Recessed Mounting Frames (UL)			
		Ceiling Cutout (in.)	Frame Size (in.)		
3UD76	RMF-222-SS-A	27 x 17-7/8	29-1/8 x 20	222 Series Stainless	6
3UD75	RMF-222-A	27 x 17-7/8	29-1/8 x 20	222 Series Painted	
2KDD8	RMF-342-SS-A	36 x 17-7/8	38-1/8 x 20	342 Series Stainless	9
2KDD9	RMF-342-A	36 x 17-7/8	38-1/8 x 20	342 Series Painted	
3UD79	RMF-462-SS-A	49 x 17-7/8	51-1/8 x 20	462 Series Stainless	11
2KDE2	RMF-462-A	49 x 17-7/8	51-1/8 x 20	462 Series Painted	
3UD77	RMF-223-SS	32 x 29-3/8	34-1/8 x 31-1/2	223 Series Stainless	15
2KDE1	RMF-343-SS	41 x 29-3/8	43-1/8 x 31-1/2	343 Series Stainless	18
2KDE3	RMF-463-SS	54 x 29-3/8	56-1/8 x 31-1/2	463 Series Stainless	20
1UMR1	31939009	Red Vycor Sleeves Reduces Quartz Lamp Brightness by 90%		All 1600W Qtz. Lamp	2
2KDA2	31940009			All 2500W Qtz. Lamp	
1UMR2	31941009			All 3650W Qtz. Lamp	
31TP48	632-1620	Red Quartz Lamps; 1.6kw, 208v		222, 223, & RPH Series	2
31TP49	632-1624	Red Quartz Lamps; 1.6kw, 240v			
31TP50	632-2548	Red Quartz Lamps; 2.5kw, 480v		342 & 343 Series	

HEATER WITH WIRE GUARD

Wire guard sold separately



HEATER WITH RECESSED FRAME

Recessed frame sold separately



RUBY RED SLEEVE

Reduces brightness by 90%



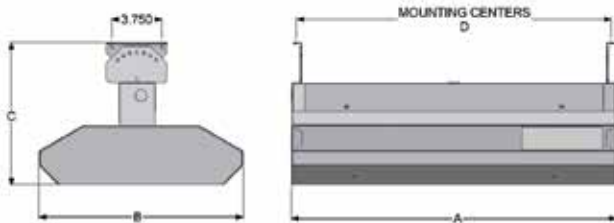
MUL-T-MOUNT INFRARED HEATERS

SIZING CHART - MUL-T-MOUNT SERIES																
Reflective Pattern (°)	Heater Output (kW)	# of Qtz. Lamps	Mounting Heights (feet)							Watts Delivered per Square Foot						
			8	10	12	14	16	18	20	8	10	12	14	16	18	20
			Heat Pattern Coverage @ Floor Level													
			L x W	L x W	L x W	L x W	L x W	L x W	L x W							
30°	3.2	2 - Quartz Lamp Heaters	5.5 x 4	6.5 x 5.5	7.5 x 6.5	8.5 x 7.5	9.5 x 8.5	10.5 x 9.5	11.5 x 10.5	145.5	89.5	65.6	50.2	39.6	32.1	26.5
60°	3.2		10.5 x 9.5	13 x 12	15 x 14	17 x 16	N / R	N / R	N / R	32.1	20.5	15.2	11.8	-	-	-
90°	3.2		17 x 16	21 x 20	N / R	N / R	N / R	N / R	N / R	11.8	7.6	-	-	-	-	-
30°	5.0		6 x 4	7.5 x 5.5	8.5 x 6.5	9.5 x 7.5	10.5 x 8.5	11.5 x 9.5	12.5 x 10.5	208.3	121.2	90.5	70.2	56.0	45.8	38.1
60°	5.0		11.5 x 9.5	14 x 12	16 x 14	18 x 16	20.5 x 18.5	23 x 21	N / R	45.8	29.8	22.3	17.4	13.2	10.4	-
90°	5.0		18 x 16	22 x 20	26 x 24	N / R	N / R	N / R	N / R	17.4	11.4	8.0	-	-	-	-
30°	7.3		N / R	8.5 x 5.5	9.5 x 6.5	10.5 x 7.5	11.5 x 8.5	12.5 x 9.5	13.5 x 10.5	-	156.1	118.2	92.7	74.7	61.5	51.5
60°	7.3		12 x 10.5	15 x 12	17 x 14	19 x 16	21.5 x 18.5	24 x 21	N / R	57.9	40.6	30.7	24.0	18.4	14.5	-
90°	7.3		19 x 16	23 x 20	27 x 24	N / R	N / R	N / R	N / R	24.0	15.9	11.3	-	-	-	-
30°	4.8	3 - Quartz Lamp Heaters	5.5 x 5	6.5 x 6.5	7.5 x 7.5	8.5 x 8.5	9.5 x 9.5	10.5 x 10.5	11.5 x 11.5	174.5	113.6	85.3	66.4	53.2	43.5	36.3
60°	4.8		10.5 x 10.5	13 x 13	15 x 15	17 x 17	21 x 21	N / R	N / R	43.5	28.4	21.3	16.6	10.9	-	-
90°	4.8		17 x 17	21 x 21	N / R	N / R	N / R	N / R	N / R	16.6	10.9	-	-	-	-	-
30°	7.5		N / R	7.5 x 6.5	8.5 x 7.5	9.5 x 8.5	10.5 x 9.5	11.5 x 10.5	12.5 x 11.5	-	153.8	117.6	92.9	75.2	62.1	52.2
60°	7.5		11.5 x 10.5	14 x 13	16 x 15	18 x 17	20.5 x 19.5	23 x 22	N / R	62.1	41.2	31.3	24.5	18.8	14.8	-
90°	7.5		18 x 17	22 x 21	26 x 25	N / R	N / R	N / R	N / R	24.5	16.2	11.5	-	-	-	-
30°	10.95		N / R	8.5 x 6.5	9.5 x 7.5	10.5 x 8.5	11.5 x 9.5	12.5 x 10.5	13.5 x 11.5	-	198.2	153.7	122.7	100.2	83.4	70.5
60°	10.95		12 x 11	15 x 13	17 x 15	19 x 17	21.5 x 19.5	24 x 22	N / R	83.0	56.2	42.9	33.9	26.1	20.7	-
90°	10.95		19 x 17	23 x 21	27 x 25	N / R	N / R	N / R	N / R	33.9	22.7	16.2	-	-	-	-

N / R = Not Recommended

MOUNTING CLEARANCE REQUIREMENTS

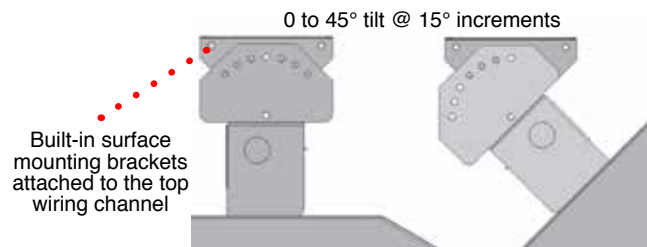
2 & 3-Lamp Models 3" from ceiling
 2&3-Lamp Models 24" from vertical surface
 2-Lamp Models 72" from face of heater to combustible surface
 3-Lamp Models 96" from face of heater to combustible surface
 2 & 3-Lamp Models 36" from another heater



RECOMMENDED MOUNTING HEIGHTS

30° Symmetric Reflector - Indoor: 14'-30'
 60° Symmetric Reflector - Indoor: 12'-18'
 90° Symmetric Reflector - Indoor: 8'-12'
 30° Symmetric Reflector - Outdoor: 8'-12'

SPECIAL MOUNTING FEATURES



Outdoor Spot Heating Application



PRODUCT DIMENSIONS						
HEATER SERIES	HEATER (KW)	# OF LAMPS	L	W	H	MTG. CTRS.
222	3.2	2	24"	15"	10.9"	23.5"
223	4.8	3		21.5"		
342	5.0	2	33"	15"	10.9"	32.5"
343	7.5	3		21.5"		
462	7.3	2	46"	15"	10.9"	45.5"
463	10.95	3		21.5"		

