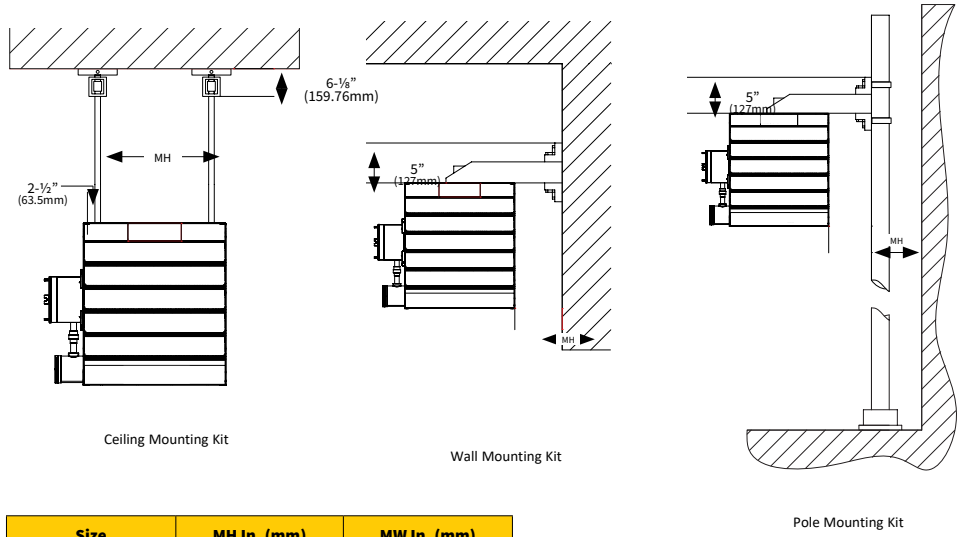


Sample Specification

A specification can be prepared by using the following information. A check box has been supplied so that you may mark those selections which you require. Material which is part of the standard 233 Series Explosion-Proof Unit Heater specification has already been checked.

1. Electric explosion-proof unit heaters shall be Heatrex 233 Series Explosion-proof Unit Heater, of the KW rating, voltage and phase specified in the schedule. They shall be forced fan type, cCSAus Approved for:
- Class I, Divisions 1 and 2, Groups C & D; Class II, Divisions 1 and 2, Groups F & G
Class I, Zone 1 and 2, Group IIB
Ignition Temperature Code No. T3C, 320°F (160°C) (Standard construction)
 - Class II, Divisions 1 and 2, Group E,
Ignition Temperature Code No. T3C, 320°F (160°C) (Group E, Metal Dust)
(Not available with wet location construction)
2. Unit heaters shall have an automatic and a manual reset thermal cutouts for overtemperature protection, controlling magnetic contactor and 24 volt control circuit transformer housed in a NEMA 7, 9 cast aluminum enclosure.
3. The heat exchanger shall be liquid-to-air design, utilizing an all welded steel headers and tube construction with spiral wound aluminum fins. Nontoxic, inhibited, propylene glycol heat transfer fluid shall be used that provides freeze protection down to -49°F (-45°C). Pressure relief valve setting to be 70 psig. The heat exchanger shall include industrial grade Heatrex electric heating elements.
4. Cabinet shall be provided with adjustable outlet louvers having minimum opening safety stops.
5. Fan motor shall include permanently lubricated ball bearings and built-in thermal overload protection. Motor to operate at line voltage and be prewired to the control enclosure to eliminate the need for separate field wiring to the motor.
6. The heater shall be provided with an Heatrex accessory mounting kit designed to bear the weight of the heater assembly (check one):
- Ceiling mounting kit
 - Wall mounting kit
 - Pole mounting kit
7. Construction Type (check one):
- Standard Construction utilizing an all welded heat exchanger consisting of painted steel headers and with spiral wound aluminum fins; industrial grade, corrosion-resistant cabinet fabricated from powder coated 14 gauge steel, epoxy-coated motor; aluminum fan blade; NEMA 7, 9 cast aluminum enclosure.
 - Dirty Duty Corrosion-Resistant Construction (Chemical Plants) with epoxy-coated motor; Heresite® coated heat exchanger, cabinet and fan blade; NEMA 4X, 7, 9 terminal box.
 - 316 Stainless Steel Corrosion-Resistant Construction (Waste Water Treatment Plants) with 316 stainless steel heat exchanger with aluminum fins, 316 stainless steel cabinet; aluminum fan blade; cast aluminum NEMA 4X, 7, 9 terminal box; epoxy-coated motor; aluminum fittings; stainless steel conduit and hardware.
8. Wet Location Construction:
Wet location requirements – IP55 motor rating and Type 4 enclosures. Requires selecting either Dirty Duty or 316 Stainless Corrosion-Resistant Construction.
9. The following factory installed and prewired control options are to be supplied:
- Thermostat: 50-90°F (10-32°C); Indoor, Type 1
 - Thermostat: 40-80°F (5-25°C) IP55, Type 4 (can be specified for all constructions).
 - Disconnect switch with external handle.
 - Manual reset thermal cutout with backup contactor (cannot be provided if selector switch or 120 volt control circuit is also specified).
 - Two-position auto/fan selector switch for fan only control (cannot be provided if manual reset cutout with backup contactor or 120 volt control circuit is also specified).
 - Built-in
 - Remote
 - 120 volt control circuit for special external thermostat circuit (cannot be provided if selector switch or manual reset thermal cutout with backup contactor, nor can both warning and heater on pilot lights be specified).
 - "Heater On" pilot light to indicate when heating elements are energized.
 - "Warning" pilot light to indicate when thermal cutouts have tripped and heater needs to be serviced.
 - 50 Hertz for international requirements.
- Accessory room controls shall be furnished with each heater for remote field mounting.
- Thermostat: 50-90°F (10-32°C); Indoor, Type 1; UL Listed and CSA Certified.
 - Thermostat: 40-80°F (5-25°C) IP55, Type 4: cCSAus Certified.
 - Remote Fan Switch: Auto/fan selector switch for fan only control; Type 1; UL Listed and CSA Certified.
(Cannot be provided if manual rest cutout with backup contactor or 120 volt control circuit is also specified.)
 - Remote Fan Switch: Auto/fan selector switch for fan only control; Type 4; UL Listed and CSA Certified.
(Cannot be provided if manual rest cutout with backup contactor or 120 volt control circuit is also specified.)

Architect's and Engineer's Specifications



Size	MH In. (mm)	MW In. (mm)
1	11.063 (281)	9 (228.6)
2	15.063 (382.6)	7 (177.8)
3	19.063 (484.2)	5 (127)

Dimensions, Airflows and Weights

Frame Size	Size 1	Size 2	Size 3	
Overall Heater Dimensions	'X' In. (mm)	21.75 (552.45)	21.75 (552.45)	22.75 (577.85)
	'Y' In. (mm)	19.375 (492.125)	23.375 (593.725)	27.375 (695.325)
	'Z' In. (mm)	16.063 (408)	20.188 (512.775)	24.188 (614.375)
Weight	Net Lbs. (kgs)	110 (49.89)	150 (68.03)	190 (86.18)
	Shipping Lbs (kgs)	130 (58.96)	169 (76.65)	216 (97.97)



60 Hertz Heaters

KW Range	3 - 5	7.5 - 10	15	20	25	30
Airflow Characteristics	Air Volume CFM (cubic meter/hr.)	650 (1104)	850 (1444)	1800 (3058)	3110 (5283)	3850 (6541)
	Air Throw Feet (m)	15 (4.5)	25 (7.6)	45 (13.7)	65 (19.8)	75 (22.8)
Motor/Fan	RPM	1725				
	HP	1/4		1/2		
	Fan Blade Dia. In. (mm)	12 (304.8)	16 (406.4)	20 (508)		

50 Hertz Heaters

KW Range	2.5 - 4.2	6.3 - 8.4	12.5	16.7	21 - 25	
Airflow Characteristics	Air Volume CFM (cubic meter/hr.)	550 (934)	700 (1189)	1500 (2549)	2600 (4417)	
	Air Throw Feet (m)	13 (4)	22 (7)	39 (12)	57 (17)	
Motor/Fan	RPM	1438				
	HP	1/4		1/2		
	Fan Blade Dia. In. (mm)	12 (304.8)	16 (406.4)	20 (508)		

