

HLA Series Hazardous Location Fan Forced Unit Heater

FAN-FORCED SUSPENDED UNIT HEATERS 3-25 KW FOR CLASS I, GROUP C & D,
DIVISION 1 & 2 AND CLASS II, GROUPS E, F & G, DIVISIONS 1 & 2.

4



Shown with optional pilot light
and disconnect switch



Manufactured in U.S.A.

- Designed for rugged industrial applications in hazardous locations where the possibility of explosion or fire exists due to the presence of certain flammable gases, vapors, powdered metals or dust.
- Permanently sealed, liquid to air, finned tube heat exchanger core.
- Ethylene Glycol to water mixture used as a heat transfer fluid in the heater core, providing -45° C. (-49° F) freeze damage protection.
- High-performance electric motor driven fan blows air across finned tubes to effect uniform heat transfer and area heat distribution.
- Manual Reset capillary type limit provides high temperature regulation and is rated for 6,000 cycles of service.
- Stainless steel and aluminum pressure relief valve for overpressure.
- A back-up contactor is included for additional protection.
- 14 Gauge steel cabinet powder coated epoxy paint finish contains heater core, motor, and fan assembly.
- Narrow gap safety fan guard shields all moving parts.
- Adjustable louvers allow directional control of air.
- Copper conductor wires enclosed in rigid metal conduits carry all electrical power.
- Box lugs furnished for field connections within approved enclosure.

Product Specifications

Heat Exchanger and Elements:

Heavy walled, painted carbon steel with aluminum fins liquid heat exchanger, liquid filled with three-immersion type copper sheathed elements. The elements shall have the highest quality nickel-chromium resistance wire encased in a magnesium oxide dielectric and be hermetically sealed into the heat exchanger core. The heat transfer fluid is Ethylene-glycol solution for operation to -49 degrees F (-45 degrees C). Stainless steel and aluminum pressure relief valve for overpressure.

Thermal Cutout High Limit Protection and Optional Pilot Light:

The capillary type manual reset thermal cutout shall be rated for 6000 cycles of service and mounted in the liquid filled heat exchanger. An optional pilot light to indicate manual reset tripped, if safe operating temperatures are exceeded, is located on control enclosure.

Motor:

The motor shall be a permanent split capacitor type, permanently lubricated, ball bearing type. The motor shall be rated for hazardous location and operate at rated voltage of heater, 60 Hz, 1725 RPM.

Control Enclosure:

All controls shall be factory installed and wired in a hazardous location enclosure. Contactors and back-up contactors are heavy duty type and break all ungrounded conductors and be rated for 100,000 cycles at full load. Standard 24-Volt control circuit shall be supplied by internal class II transformer. An optional factory wired integral thermostat or standard terminal block for field wiring to optional remote wall thermostat are wired in control panel. No fan delay relay.

Disconnect Switch:

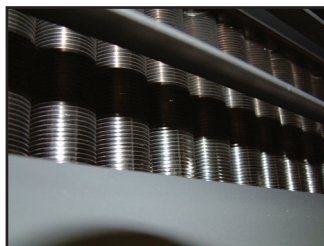
Factory mounted and wired hazardous location disconnect switch is available as optional accessory.

Cabinet With Adjustable Louvers:

The Cabinet shall be 14 Gauge, cold rolled steel with powder coated epoxy finish. Plated fan guards with less than 1/4 inch spacing to cover motor and fan shall conform to OSHA Requirements.

Note:

Before selecting a hazardous location electric heater refer to Article 500 or other applicable standard referenced in the National Electric Code.



Liquid-to-air heat exchanger



Optional built-in thermostat



Hazardous Location Rated Motor

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Rating Definitions

CLASS I: Equipment does not have surface operating temperature in excess of the ignition temperature of the specific gas or vapor.

Application Examples:

- Offshore and land based drilling rigs, petroleum exploration and testing facilities.
- Petroleum refineries, gasoline storage and dispensing areas.
- Industrial firms that use flammable liquids in dip tanks for parts cleaning or other operations.
- Petrochemical companies that manufacture chemicals from gas or oil.
- Dry cleaning facilities where vapors from cleaning fluids may be present.
- Aircraft hangers and fuel servicing areas.
- Utility gas plants and operations involving storage and handling of liquefied petroleum or natural gas.

GROUP C: Atmospheres such as but not limited to acetaldehyde, allyl alcohol, hydrogen sulfide, ethylene, carbon monoxide, or other gases or vapors of equivalent hazard.

GROUP D: Atmospheres such as but not limited to acetone, alcohol, gasoline, lacquer solvent vapors, natural gas, propane or other gases or vapors of equivalent hazard.

CLASS II: Equipment does not have surface temperature greater than the ignition temperature of the specified dust.

Application Examples:

- Coal preparation plants and other carbon handling or processing areas.
- Grain elevators, flour and feed mills.
- Plants which manufacture, use or store Magnesium or Aluminum powders.
- Plants that have chemical or metallurgical processes.
- Producers of starch products or candy.
- Spice grinding plants, sugar plants and cocoa plants.

GROUP E: Atmosphere containing combustible metal dust regardless of resistivity, or other combustible dust of similar hazard characteristics having resistivity of less than 10^5 OHM - Centimeter.

GROUP F: Atmosphere containing carbon black, charcoal, coal or coke dust.

GROUP G: Atmospheres containing combustible dust having resistivity of 10^5 OHM-Centimeter or greater.

DIVISION I: A location in which ignitable concentrations of flammable material exist under normal operating conditions.

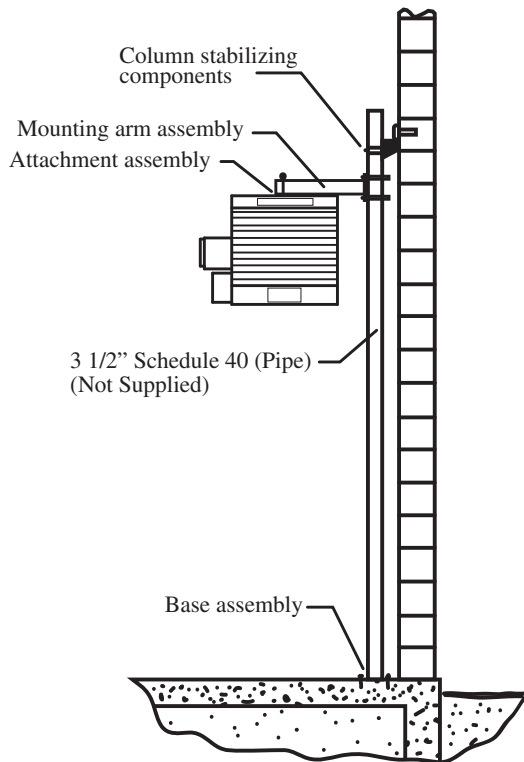
DIVISION II: Locations in which flammable materials will normally be confined within closed containers and escape only in the case of accidental rupture, breakdown or during maintenance operations. Any equipment approved for Division I is automatically also approved for Division II.

Standard Hazardous Location Models

UPC# 686334	MODEL	KW	BTU's	VOLTS	PH	AMPS	Control Voltage	Temp Rise °F	Air Throw	CFM	Recom'd Mounting Ht.	WT.	LIST
734356	HLA 12-208160-3.0-24	3	10250	208	1	16.3	24	16.5			8'	167 lb.	8999
734004	HLA 12-208360-3.0-24			208	3	9.8							
734011	HLA 12-240160-3.0-24			240	1	14.8							
734028	HLA 12-240360-3.0-24			240	3	8.6							
734035	HLA 12-480360-3.0-24			480	3	4.3							
734363	HLA 12-208160-5.0-24	5	17100	208	1	26		27.6	24'	580	8'	167 lb.	9378
734059	HLA 12-208360-5.0-24			208	3	15.4							
734066	HLA 12-240160-5.0-24			240	1	23.1							
734073	HLA 12-240360-5.0-24			240	3	13.4							
734080	HLA 12-480360-5.0-24			480	3	6.7							
734370	HLA 12-208160-7.5-24	7.5	25600	208	1	38		41.4			8'	167 lb.	9749
734103	HLA 12-208360-7.5-24			208	3	22.3							
734110	HLA 12-240160-7.5-24			240	1	33.6							
734127	HLA 12-240360-7.5-24			240	3	19.4							
734134	HLA 12-480360-7.5-24			480	3	9.7							
734158	HLA 16-208360-10.0-24	10	34150	208	3	29.3	21.7	40'	1500	10'	193 lb.	10313	
734165	HLA 16-240160-10.0-24			240	1	44							
734172	HLA 16-240360-10.0-24			240	3	25.5							
734189	HLA 16-480360-10.0-24			480	3	12.7							
734202	HLA 20-208360-15.0-24	15	51200	208	3	43.5	19.2	43'	2450	13'	193 lb.	10760	
734219	HLA 20-240360-15.0-24			240	3	38.1							
734226	HLA 20-480360-15.0-24			480	3	19							
734233	HLA 20-600360-15.0-24			600	3	15.2							
734240	HLA 20-480360-20.0-24			480	3	25.1							
734257	HLA 20-600360-20.0-24	20	68300	600	3	20	26.2			225 lb.	11176		
734264	HLA 20-480360-25.0-24	480	3	31.1	32.8								
734271	HLA 20-600360-25.0-24	25	85400	600			3	24.9					

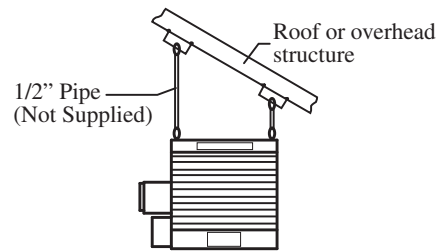
Note: Products listed in this section are custom built and subject to 100% cancellation/restock charges.

Mounting Bracket Kits



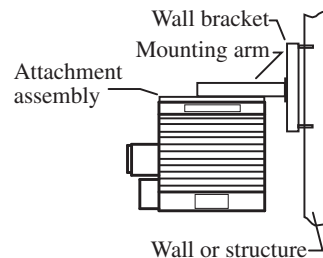
HLPM Pipe Mounting Kit

Particularly useful in buildings with insufficient strength to use other types of mounts. Requires 3 1/2" pipe (4" O.D. - not supplied).



HLHM Hanging Mounting Kit

Simple and economical if adequate overhead structure exists. Requires 1/2" pipe, cut and threaded (not supplied).



HLWM Wall Mounting Kit

Ideal for use in buildings that have substantial walls. Arm only can also be bolted directly to structural steel.

UPC#	MODEL	USE WITH HEATERS	WT. (LBS.)	LIST
686334				
734288	HLPM37	3.0 kW - 7.5 kW	37	479
734295	HLPM10	10.0 kW	38	
734301	HLPM1525	15.0 kW - 25.0 kW	40	
734318	HLHM	ALL	5	191
734325	HLWM37	3.0 kW - 7.5 kW	27	399
734332	HLWM10	10.0 kW	28	
734349	HLWM1525	15.0 kW - 25.0 kW	29	

EPET Series and HLT Series Hazardous Location Thermostats For Single Phase



HLT Series



Motor Rating (full load): 3/4 HP @ 125V, 1 1/2 HP @ 250V
 Pilot Duty Rating 125VA @ 24VAC
 NEMA Class Seven Div. 1 Approved
 Class I Group C & D, Class II Group E, F, & G
 Not rated for Group B

UPC#	MODEL	DESCRIPTION	LOAD RATINGS	RANGE	LIST
686334					
538077	EPETD8D	DPDT - Bi-Metal	22A @120-277VAC	50-90°F	476
538107	EPETD8S	SPDT - Bi-Metal	22A @120-277VAC	50-90°F	451
528078	EPETP8D	DPDT - Bi-Metal	22A @120-480VAC	50-90°F	490
528061	EPETP8S	SPDT - Bi-Metal	22A @120-480VAC	50-90°F	464
523158	HLT-1	SPDT - Capillary	22A @120-277VAC	40-110°F	500
523165	HLT-2	DPDT - Capillary	22A @120-277VAC	40-110°F	527

Master ctn: 4 pcs, 24 lbs (varies slightly by model), 16" x 14.5" x 6"

EPET Series incorporate plastic knob & Bi-Metal Sensor housing.

HLT Series incorporates screwdriver temperature adjustment slot and all metal housing. External bulb and capillary sensor.

Features

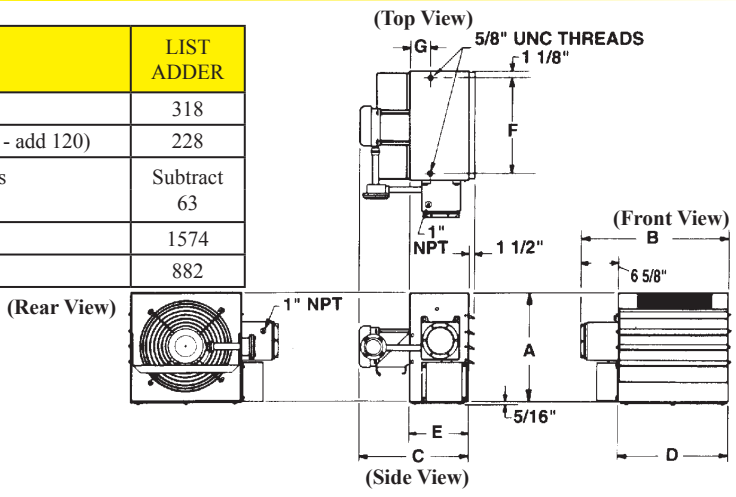
- SPDT & DPDT Models
- Heat or cool compatible
- Celsius and Fahrenheit temperature scale
- Bi-Metal or capillary sensor
- Snap action switch
- Casting tapped top and bottom for 3/4" conduit
- 1/2" thick cast aluminum housing
- Dimension 5.75" x 6.375" x 5.57"

HLA Series Hazardous Location Fan Forced Unit Heater

Factory Installed Accessories & Physical Dimensions

SUFFIX	DESCRIPTION	LIST ADDER
T	In-Built single pole thermostat 50° - 90° F	318
120	Control transformer w/ primary fusing (Delete 24 suffix - add 120)	228
208	208/240V Control available on 208/240V units (Delete 24 suffix and add 208 OR 240)	Subtract
240		63
D	Disconnect Switch	1574
P	Pilot Light	882

MODEL	A	B	C		D	E	F	G
			3 ph.	1 ph.				
HLA 12	17 3/4	22 3/8	19 3/4	20 5/8	16 1/4	10 1/2	14	3
HLA 16	20 3/4	26 3/8	20 3/4	21 5/8	20 1/4	11 1/2	18	4
HLA 20	24 3/4	30 3/8	22 1/2	N/A	24 1/4	12 1/2	22	4 1/2



PHLA Series Portable Hazardous Location Fan Forced Unit Heater



- 3.0 through 25 KW rating
- 208, 240, 480, 600 Volt available in selected capacities
- Cart has anti-static wheels to reduce the risk of static discharge
- Wheeled cart allows for easy maneuverability
- Cart has integrated fork-lift channels to provide ease of lifting on to ramps or trucks
- Excellent for providing seasonal heating in hazardous environments
- All units have disconnect switch, pilot light, and thermostat - standard
- 24 Volt control, transformer, and contactor in NEMA 7 enclosure
- Durable epoxy coating on heater housing
- Hazardous location unit mounted male / female plug
- Adjustable louvers; manual reset

Standard Portable Hazardous Location Models

UPC #	MODEL	KW	BTU	VOLTS	PH	AMPS	TEMP RISE F	AIR THROW	CFM	WT	LIST
686334											
739344	PHLA12-208160-3.0-24-TDP	3	10,250	208	1	16.3	16.5	24'	580	167	19,950
739337	PHLA12-208360-3.0-24-TDP			208	3	9.8					
739320	PHLA12-240160-3.0-24-TDP			240	1	14.8					
739313	PHLA12-240360-3.0-24-TDP			240	3	8.6					
739306	PHLA12-480360-3.0-24-TDP			480	3	4.3					
739436	PHLA12-600360-3.0-24-TDP			600	3	3.5					
739290	PHLA12-208160-5.0-24-TDP	5	17,100	208	1	26	27.6	24'	580	167	20,300
739283	PHLA12-208360-5.0-24-TDP			208	3	15.4					
739276	PHLA12-240160-5.0-24-TDP			240	1	23.1					
739269	PHLA12-240360-5.0-24-TDP			240	3	13.4					
739252	PHLA12-480360-5.0-24-TDP			480	3	6.7					
739429	PHLA12-600360-5.0-24-TDP			600	3	5.4					
739245	PHLA12-208160-7.5-24-TDP	7.5	25,600	208	1	38	41.4	24'	580	167	20,700
739238	PHLA12-208360-7.5-24-TDP			208	3	22.3					
739221	PHLA12-240160-7.5-24-TDP			240	1	33.6					
739214	PHLA12-240360-7.5-24-TDP			240	3	19.4					
739207	PHLA12-480360-7.5-24-TDP			480	3	9.7					
739412	PHLA12-600360-7.5-24-TDP			600	3	7.8					
739191	PHLA16-208360-10.0-24-TDP	10	34,150	208	3	29.3	21.7	40'	1500	193	22,400
739184	PHLA16-240160-10.0-24-TDP			240	1	44					
739177	PHLA16-240360-10.0-24-TDP			240	3	25.5					
739160	PHLA16-480360-10.0-24-TDP			480	3	12.7					
739405	PHLA16-600360-10.0-24-TDP			600	3	10.2					
739153	PHLA20-208360-15.0-24-TDP			208	3	43.5					
739146	PHLA20-240360-15.0-24-TDP	240	3	38.1	19.2	43'	2450	193	24,140		
739139	PHLA20-480360-15.0-24-TDP	480	3	19							
739399	PHLA20-600360-15.0-24-TDP	600	3	15.2							
739122	PHLA20-480360-20.0-24-TDP	20	68,300	480	3	25.1	26.2	43'	2450	225	24,600
739382	PHLA20-600360-20.0-24-TDP			600	3	20					
739115	PHLA20-480360-25.0-24-TDP	25	85,400	480	3	31.1	32.8	43'	2450	225	25,400
739375	PHLA20-600360-25.0-24-TDP			600	3	24.9					

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