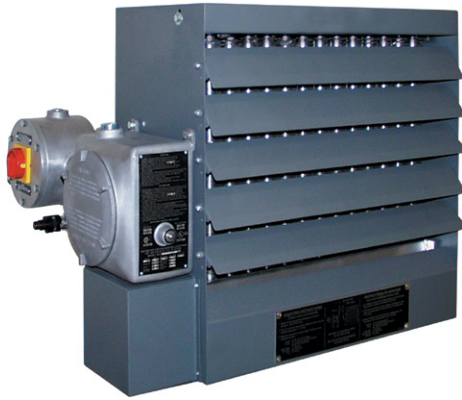


HLA Series Hazardous Location Fan Forced Unit Heater

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.



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.
- ABS (America's Bureau of Shipping) type approved.

Product Specifications

Heat Exchanger and Elements:

Heavy walled, liquid filled heat exchanger 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 single phase, 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.

Disconnect Switch:

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

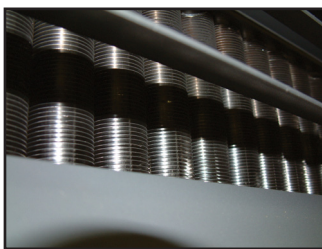
Cabinet With Adjustable Louvers:

The Cabinet shall be 14 Gauge, cold rolled steel with powder coated epoxy finish. Plated fan guards with less than ¼ 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.

HLA Series Hazardous Location Fan Forced Unit Heater



Liquid-to-air heat exchanger



Optional built-in thermostat



Hazardous Location Rated Motor

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.

HLA Series Hazardous Location Fan Forced Unit Heater

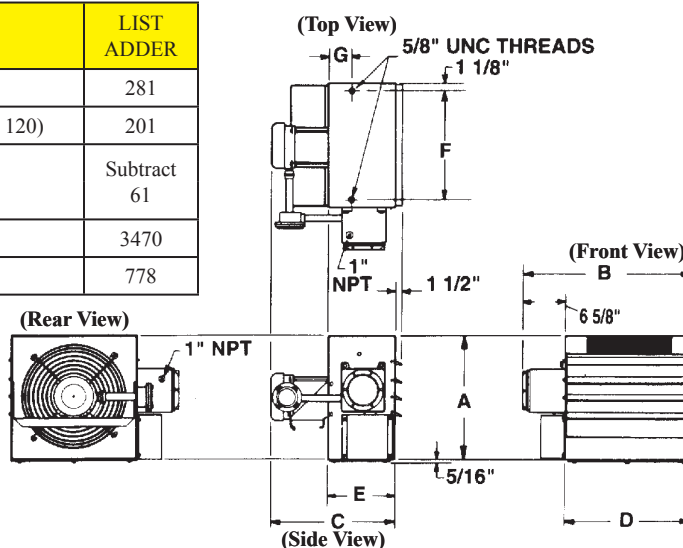
Standard Hazardous Location Models

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.	7935
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.	8269
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.	8597
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.	9094
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.	9488
734219	HLA 20-240360-15.0-24			240	3	38.1							
734226	HLA 20-480360-15.0-24			480	3	19							
734240	HLA 20-480360-20.0-24	20	68300	480	3	25.1		26.2			13'	225 lb.	9855
734264	HLA 20-480360-25.0-24	25	85400	480	3	31.1		32.8			13'	225 lb.	10730

Factory Installed Accessories & Physical Dimensions

SUFFIX	DESCRIPTION	LIST ADDER
T	In-Built single pole thermostat 50° - 90° F	281
120	Control transformer w/ primary fusing (Delete 24 suffix - add 120)	201
208	208/240V Control available on 208/240V units (Delete 24 suffix and add 208 OR 240)	Subtract 61
240		
D	Disconnect Switch	3470
P	Pilot Light	778

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



FEP Series Single Phase Hazardous Location Wall Convectors



T-2A SERIES SINGLE PHASE Class 1, Group B, C & D Division 1 & 2 280° C / 536° F								
UPC 686334	MODEL	WATTS	BTU's	VOLTS	AMPS	CABINET LENGTH	WT. (LBS.)	LIST
445146	FEP-1812-1RA			120	15.0			
445153	FEP-1820-1RA			208	8.7			
445160	FEP-1824-1RA	1800	6143	240	7.5	34"	50	1382
445177	FEP-1827-1RA			277	6.5			
445184	FEP-1848-1RA			480	3.8			
445191	FEP-3620-1RA			208	17.3			
445207	FEP-3624-1RA			240	15.0			
445214	FEP-3627-1RA	3600	12286	277	13.0	34"	54	2109
445221	FEP-3648-1RA			480	7.5			
445238	FEP-3657-1RA			600	6.0			
445245	FEP-3820-1RA			208	18.3			
445252	FEP-3824-1RA			240	15.8			
445269	FEP-38271-RA	3800	12969	277	13.7	58"	80	2237
445276	FEP-3848-1RA			480	7.9			
445283	FEP-7620-1RA			208	36.5			
445290	FEP-7624-1RA			240	31.7			
445306	FEP-7627-1RA	7600	25938	277	27.4	58"	85	2602
445313	FEP-7648-1RA			480	15.8			
445320	FEP-7657-1RA			600	12.7			



T-3A SERIES SINGLE PHASE Class 1, Group B, C & D Division 1 & 2 180° C / 356° F								
445337	FEP-0812-1RA			120	6.7			
445344	FEP-0820-1RA			208	3.8			
445351	FEP-0824-1RA	800	2730	240	3.3	34"	50	1382
445368	FEP-0827-1RA			277	2.9			
445375	FEP-0848-1RA			480	1.7			
445382	FEP-1612-1RA			120	13.3			
445399	FEP-1620-1RA			208	7.7			
445405	FEP-1624-1RA	1600	5460	240	6.7	34"	54	2109
445412	FEP-1627-1RA			277	5.8			
445429	FEP-1648-1RA			480	3.3			
445436	FEP-1657-1RA			600	2.7			
445443	FEP-1712-1RA			120	14.2			
445450	FEP-1720-1RA			208	8.2			
445467	FEP-1724-1RA	1700	5802	240	7.1	58"	80	2237
445474	FEP-1727-1RA			277	6.1			
445481	FEP-1748-1RA			480	3.5			
445498	FEP-3420-1RA			208	16.3			
445504	FEP-3424-1RA			240	14.2			
445511	FEP-3427-1RA	3400	11604	277	12.3	58"	85	2602
445528	FEP-3448-1RA			480	7.1			
445535	FEP-3457-1RA			600	5.7			

- Cabinet size 18" high, 9" wide.
- Bottom In - Front Out air flow.
- Wall mounting bracket supplied.
- Units cannot be operated in room ambients exceeding 104°F (40°C).
- Heavy duty 16 Gauge steel with gray epoxy textured powder coated finish.
- 9" minimum clearance from bottom of heater to floor required.
- Stainless steel cartridge element inserted into aluminum finned copper sheath.
- Standard unit (without EPET thermostat or control section) is NEMA 4 rated.

Manufactured in U.S.A.

Factory Installed Control Options

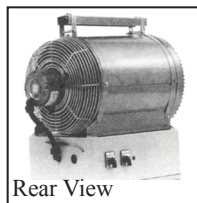
SUFFIX*	DESCRIPTION	LIST	SUFFIX**	DESCRIPTION	LIST
T1	EPETD8S single pole thermostat factory mounted to 120V - 480V units	535	C1-TD	Control section with transformer, 24V contactor, SP thermostat (40°F - 90°F) and disconnect switch (all units)	1839
T2	EPETD8D double pole thermostat factory mounted to 120V - 480V units	555	C1-TDP	Control section with transformer, 24V contactor, SP thermostat (40°F - 90°F), disconnect switch & pilot light (all units)	1910

*Remove - RA suffix and add new suffix. **Remove - RA suffix and add new suffix (Not NEMA washdown rated or rated for Group B atmospheres)

5500 Series Washdown Fan Forced Unit Heater



Manufactured in U.S.A.



Rear View



Control Panel

The Washdown Series unit heaters are electric unit heaters constructed for use in areas that require washing or hosing of equipment due to dirty or dusty industrial environments in non-hazardous locations. The totally enclosed water-tight construction made with corrosion-resistant material make this series ideal for industrial heating applications. The Washdown Series is constructed with all built-in controls and safety temperature controls wired in a non-metallic Nema 4x control panel with single-point power connections.

- Heavy-duty 304 16 Gauge stainless steel shroud.
- 316 stainless construction available.
- Nema 4x non-metallic control panel.
- 24-Volt transformer and control panel.
- 3-position switch (off-heat-fan).
- Capillary thermostat with stainless steel sensor.
- Automatic reset thermal cutout.
- Totally enclosed U.L. listed motor.
- Pilot light (power on indicator).

- Stainless steel finned tubular element. Constructed of 304 or 316 stainless rod and fins.
- Control panel on bottom of unit for ease of installation and service.
- Disconnect switch with enclosure door interlock.
- Front grill rotates to direct airflow.
- Single-point power connection.
- Fan Blade Epoxy coated Aluminum.
- Epoxy painted cold roll steel model available - consult factory.
- Meets all U.L., NEC, and OSHA requirements (when installed as directed).
- Corrosion-resistant in high humidity and water-saturated areas (for areas where corrosion resistance is needed in non-explosive areas, contact factory for heater applications and optional materials).
- ABS (American Bureau of Shipping) type approved.



Mounting Bracket Kits & Product Dimensions

SIZE KW	UPC# 686334	STAINLESS STEEL COMBINATION BRACKET	LIST	UPC# 686334	WALL MTG. BRACKET *	LIST	UPC# 686334	HANGING BRACKET *	LIST	UPC# 686334	PIPE MTG. BRACKET *	LIST
3.3-15	713672	A5520/UHB	261	709002	W5520/WMK	372	713702	H5520/HMK	261	713689	P5520/PMK	372
20-48		----	-	713733	W5550/WMK		713719	H5550/HMK		713696	P5550/PMK	

* Material: Heavy Duty Epoxy Powder Coat Finish.

A5520
3-15 Kw ONLY

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

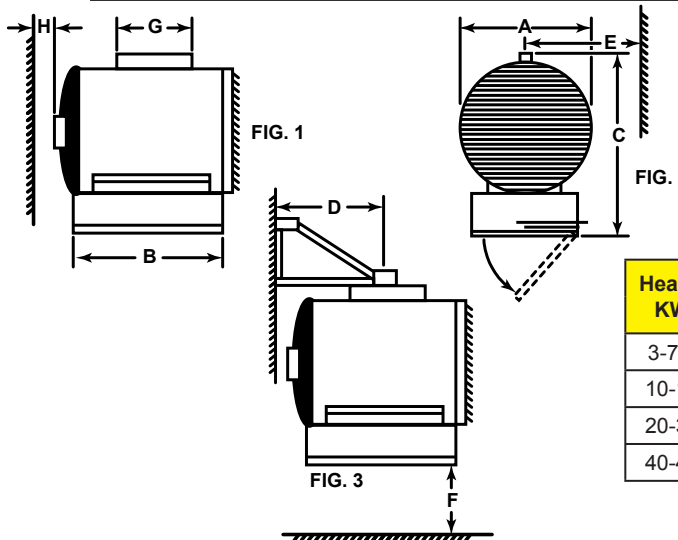
W5550

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

H5550

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

P5550



Heater KW	Heater Dimension in Inches unless otherwise stated.							
	A	B	C	D	E	F	G	H
3-7.5	12.00	18.00	19.75	15.25	16.25	6 ft.	8.00	6.00
10-15	14.00	19.00	21.75	15.25	18.00		8.00	6.00
20-30	16.00	27.00	28.75	19.50	17.50		15.50	4.50
40-48	18.00	31.00	30.75	19.50	19.50		21.75	2.75

