

# LUH

LUH PDS

## Horizontal Unit Heater



- 2.6 to 45 kW
- 208, 240, 277  
480, 600 Volts
- Single or 3-Phase
- 8,900 to 153,600 BTU/Hour
- Wall or Ceiling Mounting
- Meets UL and CSA  
Requirements  
(600V CSA Certified Only)



**Chromalox**<sup>®</sup>  
PRECISION HEAT AND CONTROL

### Description

The LUH horizontal unit heater provides quiet, reliable fan-forced heating in all types of commercial and industrial structures. Each heater houses a bank of Chromalox patented metal sheath Fintube<sup>®</sup> radiating heating elements with furnace brazed steel fins for long life and superior heat transfer. LUH heaters are versatile, flexible, high performance units that are easily installed in various mounting configurations for primary, supplementary or spot heating applications. Each unit is self-contained in a rugged construction for long life and require little maintenance. Complementary to modern structure, these heaters have a good, clean appearance. For assured safety, all units meet the requirements of UL (File No. E7061) and CSA (File No. LR40859).

### Construction

The cabinet is constructed of heavy 18-gauge steel, phosphate under-coated for corrosion resistance, and finished in almond powder-coat. Quiet, vibration-free operation is enabled through the combination fan guard and motor mount attached to the heating housing with rubber vibration isolators. Quality heating element construction assures years of maintenance-free operation.

### Applications

The clean design and quality construction of the LUH heater, plus meeting UL and CSA requirements, make it a safe, appropriate heating choice for:

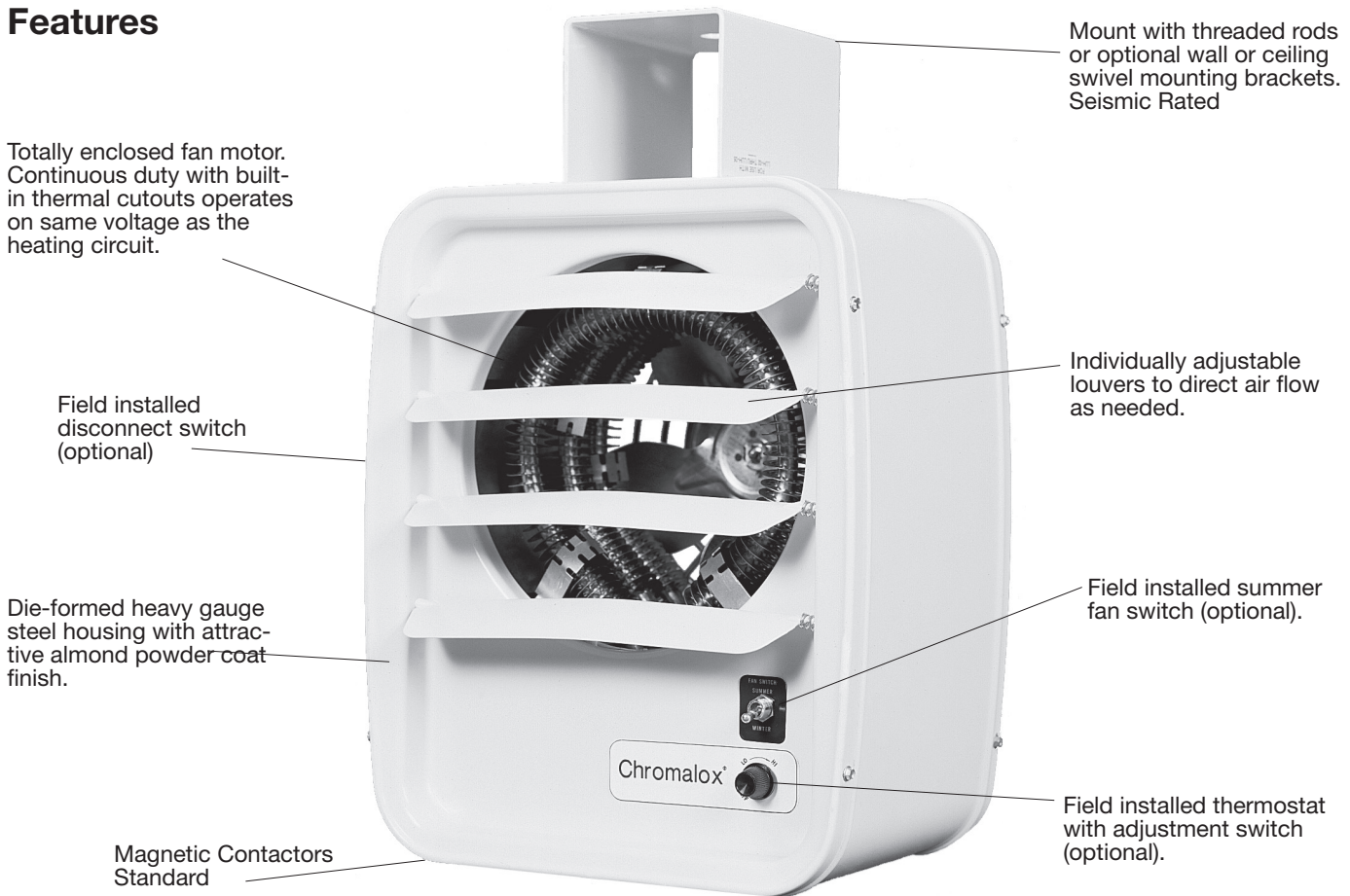
- Shipping Rooms
- Pump Houses
- Power Generating Stations
- Aircraft Hangers
- Factories
- Warehouses
- Garages

Because it has individually adjustable discharge louvers to direct air flow, and can be wall or ceiling (plus swivel) mounted, the LUH heater may be used in a variety of heating applications:

- Primary Heating
- Supplementary Heating
- Dual System Heating
- Spot Heating
- Entryway Air Curtain Heating

# LUH Horizontal Unit Heater

## Features



## Electrical & Control Components

The self-contained electrical and control features of the LUH simplify installation and ensure safe, long term operation.

No external contactors are needed; integral, heavy-duty, 3-pole, magnetic contactors are standard on all heaters.

- All heaters with a total current draw of 48 Amps or greater have electrically balanced, subdivided circuits with individual fuse protection. The fuse compartment is conveniently located for easy access.
- An internal 120 volt control transformer, standard on 480V models, eliminates a need for an external control source.

Horizontal type heaters mount on wall or ceiling. Recessed welded fasteners on top of housing are internally threaded for suspension of unit with threaded rods. Also there are optional ceiling and wall swivel mounting brackets. The ceiling bracket lets you mount the Horizontal Unit Heater direct to the ceiling or overhead member, simply and easily. The wall swivel mounting bracket makes for easy wall mounting. Swivel type mounting lets you readily adjust direction of warm air flow for optimum comfort, 180 degrees if need be.

- The Electric Heat Bank — Chromalox patented metal sheath Fintube® heating elements. Heat radiating fins are steel, furnace brazed to the tubular heating elements for good heat transfer.

They don't come loose! Wide spacing minimizes clogging.

- Thermal overload cutouts open the control circuit and disconnect power to the heating elements if overheating occurs. Automatic reset allows the control circuit to reclose and restore power when the temperature falls to normal levels.
- Dynamically balanced fan for smooth, quiet running. Blade pitch is carefully selected so that the volume of air moved results in the optimum discharge air temperature.

# LUH Horizontal Unit Heater

## Specifications and Ordering Information

To order please specify kW, volts, phase, catalog number, PCN and quantity. See back page for control, thermostat and fan options.

| Electrical Data (60 Hz) |         |               |        |         |         | Fan Motor |        |      |      | Mounting Data |                 |         |          |            |              |          |        |          |
|-------------------------|---------|---------------|--------|---------|---------|-----------|--------|------|------|---------------|-----------------|---------|----------|------------|--------------|----------|--------|----------|
| kW                      | Volts   | Watts         | Ph-ase | Amps    | BTU/H   | Volts     | Ph-ase | RPM  | HP   | Air Fan Dia.  | Temp. Velo. CFM | Rise °F | Max. Ht. | Hor. Throw | Catalog No.  | Stat-us* | PCN    | Wt. lbs. |
| 2.6                     | 208     | 2,667         | 1      | 12.8    | 8,850   | 208       | 1      | 1650 | 1/40 | 9"            | 410             | 21°     | 8'       | 12'        | LUH-02-81-34 | S        | 303001 | 32       |
| 2.0/2.6                 | 208/240 | 2,000/2,667   | 1      | 11.1*** | 8,850   | 240       | 1      | 1650 | 1/40 | 9"            | 410             | 21°     | 8'       | 12'        | LUH-02-21-34 | S        | 303010 | 32       |
| 2.6                     | 277     | 2,667         | 1      | 9.6     | 8,850   | 277       | 1      | 1550 | 1/30 | 9"            | 360             | 24°     | 8'       | 12'        | LUH-02-71-35 | S        | 303028 | 32       |
| 4                       | 208     | 4,000         | 1      | 19.2    | 13,661  | 208       | 1      | 1650 | 1/40 | 9"            | 410             | 31°     | 8'       | 12'        | LUH-04-81-34 | S        | 303036 | 32       |
| 4                       | 208     | 4,000         | 3      | 11.2    | 13,661  | 208       | 1      | 1650 | 1/40 | 9"            | 410             | 31°     | 8'       | 12'        | LUH-04-83-34 | S        | 303044 | 32       |
| 3/4                     | 208/240 | 3,000/4,000   | 1      | 16.7*** | 13,661  | 240       | 1      | 1650 | 1/40 | 9"            | 410             | 31°     | 8'       | 12'        | LUH-04-21-34 | S        | 303052 | 32       |
| 3/4                     | 208/240 | 3,000/4,000   | 3      | 9.6***  | 13,661  | 240       | 1      | 1650 | 1/40 | 9"            | 410             | 31°     | 8'       | 12'        | LUH-04-23-34 | S        | 303060 | 32       |
| 4                       | 277     | 4,000         | 1      | 14.5    | 13,661  | 277       | 1      | 1550 | 1/30 | 9"            | 360             | 35°     | 8'       | 12'        | LUH-04-71-35 | S        | 303079 | 32       |
| 4                       | 480     | 4,000         | 3      | 4.8     | 13,661  | 480       | 1      | 1550 | 1/35 | 9"            | 380             | 33°     | 8'       | 12'        | LUH-04-43-32 | S        | 303087 | 32       |
| 5                       | 208     | 5,000         | 1      | 24.0    | 17,076  | 208       | 1      | 1650 | 1/40 | 9"            | 410             | 39°     | 8'       | 12'        | LUH-05-81-34 | S        | 303095 | 32       |
| 5                       | 208     | 5,000         | 3      | 13.8    | 17,076  | 208       | 1      | 1650 | 1/40 | 9"            | 410             | 39°     | 8'       | 12'        | LUH-05-83-34 | S        | 303108 | 32       |
| 3.75/5                  | 208/240 | 3,750/5,000   | 1      | 20.8*** | 17,076  | 240       | 1      | 1650 | 1/40 | 9"            | 410             | 39°     | 8'       | 12'        | LUH-05-21-34 | S        | 303116 | 32       |
| 3.75/5                  | 208/240 | 3,750/5,000   | 3      | 12.1*** | 17,076  | 240       | 1      | 1650 | 1/40 | 9"            | 410             | 39°     | 8'       | 12'        | LUH-05-23-34 | S        | 303124 | 32       |
| 5                       | 277     | 5,000         | 1      | 18.2    | 17,076  | 277       | 1      | 1550 | 1/30 | 9"            | 360             | 44°     | 8'       | 12'        | LUH-05-71-35 | S        | 303132 | 32       |
| 5                       | 480     | 5,000         | 3      | 6.0     | 17,076  | 480       | 1      | 1550 | 1/35 | 9"            | 380             | 42°     | 8'       | 12'        | LUH-05-43-32 | S        | 303140 | 32       |
| 7.5                     | 208     | 7,500         | 1      | 36.1    | 25,598  | 208       | 1      | 1725 | 1/15 | 12"           | 850             | 28°     | 8'       | 27'        | LUH-07-81-34 | S        | 303159 | 50       |
| 7.5                     | 208     | 7,500         | 3      | 20.9    | 25,598  | 208       | 1      | 1725 | 1/15 | 12"           | 850             | 28°     | 8'       | 27'        | LUH-07-83-34 | S        | 303167 | 50       |
| 5.6/7.5                 | 208/240 | 5,625/7,500   | 1      | 31.1*** | 25,598  | 240       | 1      | 1725 | 1/15 | 12"           | 850             | 28°     | 8'       | 27'        | LUH-07-21-34 | S        | 303175 | 50       |
| 5.6/7.5                 | 208/240 | 5,625/7,500   | 3      | 18.1*** | 25,598  | 240       | 1      | 1725 | 1/15 | 12"           | 850             | 28°     | 8'       | 27'        | LUH-07-23-34 | S        | 303183 | 50       |
| 7.5                     | 277     | 7,500         | 1      | 27.2    | 25,598  | 277       | 1      | 1550 | 1/15 | 12"           | 750             | 32°     | 8'       | 27'        | LUH-07-71-35 | S        | 303191 | 50       |
| 7.5                     | 480     | 7,500         | 3      | 9.0     | 25,598  | 480       | 3      | 1725 | 1/15 | 12"           | 850             | 28°     | 8'       | 27'        | LUH-07-43-32 | S        | 303204 | 50       |
| 7.5                     | 600     | 7,500         | 3      | 7.0     | 25,598  | 575       | 3      | 1725 | 1/3  | 12"           | 850             | 28°     | 8'       | 27'        | LUH-07-63-32 | NS       | 000000 | 50       |
| 9.7                     | 208     | 10,000        | 1      | 48.0    | 34,130  | 208       | 1      | 1725 | 1/15 | 12"           | 850             | 37°     | 9'       | 27'        | LUH-10-81-34 | S        | 303212 | 50       |
| 9.7                     | 208     | 10,000        | 3      | 27.8    | 34,130  | 208       | 1      | 1725 | 1/15 | 12"           | 850             | 37°     | 9'       | 27'        | LUH-10-83-34 | S        | 303220 | 50       |
| 7.5/10                  | 208/240 | 7,500/10,000  | 1      | 41.7*** | 34,130  | 240       | 1      | 1725 | 1/15 | 12"           | 850             | 37°     | 9'       | 27'        | LUH-10-21-34 | S        | 303239 | 50       |
| 7.5/10                  | 208/240 | 7,500/10,000  | 3      | 24.0*** | 34,130  | 240       | 1      | 1725 | 1/15 | 12"           | 850             | 37°     | 9'       | 27'        | LUH-10-23-34 | S        | 303247 | 50       |
| 10                      | 480     | 10,000        | 3      | 12.0    | 34,130  | 480       | 3      | 1725 | 1/15 | 12"           | 850             | 37°     | 9'       | 27'        | LUH-10-43-32 | S        | 303255 | 50       |
| 10                      | 600     | 10,000        | 3      | 10.0    | 34,130  | 575       | 3      | 1725 | 1/3  | 12"           | 850             | 37°     | 9'       | 27'        | LUH-10-63-32 | NS       | 000000 | 50       |
| 12.5                    | 208     | 12,500        | 3      | 34.8    | 42,663  | 208       | 1      | 1725 | 1/15 | 12"           | 850             | 47°     | 9'       | 27'        | LUH-12-83-34 | S        | 303263 | 50       |
| 9.3/12.5                | 208/240 | 9,375/12,500  | 3      | 30.1*** | 42,663  | 240       | 1      | 1725 | 1/15 | 12"           | 850             | 47°     | 9'       | 27'        | LUH-12-23-34 | S        | 303271 | 50       |
| 12.5                    | 480     | 12,500        | 3      | 15.1    | 42,663  | 480       | 3      | 1725 | 1/15 | 12"           | 850             | 47°     | 9'       | 27'        | LUH-12-43-32 | S        | 303280 | 50       |
| 12.5                    | 600     | 12,500        | 3      | 12.0    | 42,663  | 575       | 3      | 1725 | 1/3  | 12"           | 850             | 47°     | 9'       | 27'        | LUH-12-63-32 | NS       | 000000 | 50       |
| 15                      | 208     | 15,000        | 3      | 41.8    | 51,195  | 208       | 1      | 1725 | 1/15 | 12"           | 850             | 56°     | 10'      | 27'        | LUH-15-83-34 | S        | 303298 | 50       |
| 11.25/15                | 208/240 | 11,250/15,000 | 3      | 36.2*** | 51,195  | 240       | 1      | 1725 | 1/15 | 12"           | 850             | 56°     | 10'      | 27'        | LUH-15-23-34 | S        | 303300 | 50       |
| 15                      | 480     | 15,000        | 3      | 18.1    | 51,195  | 480       | 3      | 1725 | 1/15 | 12"           | 850             | 56°     | 10'      | 27'        | LUH-15-43-32 | S        | 303319 | 50       |
| 15                      | 600     | 15,000        | 3      | 15.0    | 51,195  | 575       | 3      | 1725 | 1/3  | 12"           | 850             | 56°     | 10'      | 27'        | LUH-15-63-32 | NS       | 000000 | 50       |
| 14.5/19.4               | 208/240 | 15,000/20,000 | 3      | 48.0*** | 68,460  | 240       | 3      | 1725 | 1/3  | 14"           | 1240            | 53°     | 11'      | 31'        | LUH-20-23-34 | S        | 303327 | 73       |
| 20                      | 480     | 20,000        | 3      | 24.0    | 68,460  | 480       | 3      | 1725 | 1/3  | 14"           | 1240            | 53°     | 11'      | 31'        | LUH-20-43-32 | S        | 303335 | 73       |
| 20                      | 600     | 20,000        | 3      | 19.0    | 68,460  | 575       | 3      | 1725 | 1/3  | 14"           | 1240            | 53°     | 11'      | 31'        | LUH-20-63-32 | NS       | 000000 | 73       |
| 25                      | 480     | 25,000        | 3      | 30.0    | 85,525  | 480       | 3      | 1725 | 1/3  | 14"           | 1350            | 60°     | 12'      | 31'        | LUH-25-43-32 | S        | 303343 | 73       |
| 25                      | 600     | 25,000        | 3      | 24.0    | 85,525  | 575       | 3      | 1725 | 1/3  | 14"           | 1350            | 60°     | 12'      | 31'        | LUH-25-63-32 | NS       | 000000 | 73       |
| 30                      | 208     | 30,000        | 3      | 83.4    | 102,390 | 240       | 3      | 1725 | 1/3  | 14"           | 1555            | 64°     | 13'      | 46'        | LUH-30-83-34 | S        | 303351 | 106      |
| 22.5/30                 | 208/240 | 22,500/30,000 | 3      | 72.2*** | 102,390 | 240       | 3      | 1725 | 1/3  | 14"           | 1555            | 64°     | 13'      | 46'        | LUH-30-23-34 | S        | 303360 | 106      |
| 30                      | 480     | 30,000        | 3      | 36.1    | 102,390 | 480       | 3      | 1725 | 1/3  | 14"           | 1555            | 64°     | 13'      | 46'        | LUH-30-43-32 | S        | 303378 | 106      |
| 30                      | 600     | 30,000        | 3      | 29.0    | 102,390 | 575       | 3      | 1725 | 1/3  | 14"           | 1555            | 64°     | 13'      | 46'        | LUH-30-63-32 | NS       | 000000 | 106      |
| 26.25/35                | 208/240 | 26,250/35,000 | 3      | 84.3*** | 119,455 | 240       | 3      | 1725 | 1/3  | 14"           | 1555            | 71°     | 14'      | 45'        | LUH-35-23-34 | S        | 303386 | 106      |
| 35                      | 480     | 35,000        | 3      | 42.1    | 119,455 | 480       | 3      | 1725 | 1/3  | 14"           | 1555            | 71°     | 14'      | 45'        | LUH-35-43-32 | S        | 303394 | 106      |
| 35                      | 600     | 35,000        | 3      | 34.0    | 119,455 | **        | 3      | 1725 | 1/3  | 14"           | 1555            | 71°     | 14'      | 45'        | LUH-35-63-32 | NS       | 000000 | 106      |
| 28.5/38                 | 208/240 | 30,000/40,000 | 3      | 96.0*** | 136,520 | 240       | 3      | 1725 | 1/3  | 14"           | 1555            | 84°     | 15'      | 44'        | LUH-40-23-34 | S        | 303407 | 106      |
| 39                      | 480     | 40,000        | 3      | 48.0    | 136,520 | 480       | 3      | 1725 | 1/3  | 14"           | 1555            | 84°     | 15'      | 44'        | LUH-40-43-32 | S        | 303415 | 106      |
| 40                      | 600     | 40,000        | 3      | 39.0    | 136,520 | **        | 3      | 1725 | 1/3  | 14"           | 1555            | 84°     | 15'      | 44'        | LUH-40-63-32 | NS       | 000000 | 106      |
| 45                      | 480     | 45,000        | 3      | 54.1    | 153,585 | 480       | 3      | 1725 | 1/3  | 14"           | 1555            | 94°     | 17'      | 42'        | LUH-45-43-32 | S        | 303423 | 106      |
| 45                      | 600     | 45,000        | 3      | 43.0    | 153,585 | **        | 3      | 1725 | 1/3  | 14"           | 1555            | 94°     | 17'      | 42'        | LUH-45-63-32 | NS       | 000000 | 106      |

\* S = Stock; NS = Non-Stock

\*\* Check factory for motor data

\*\*\* 208v amperage is 86% of 240v value

## Notes:

1. All heaters have built-in contactors and stock 480 volt models have built-in control transformers and contactor with 120 volt holding coils. All stock 208 and 240 volt models have 208/240 volt holding coils. All stock 277 volt models have 277 volt holding coils.

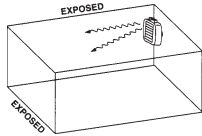
2. Optional contactors are available with 120 volt or 24 volt holding coils on made to order models.

When total heater capacity exceeds 48 amps, built-in fusing is provided behind a hinged and latched door in the side which allows easy access.

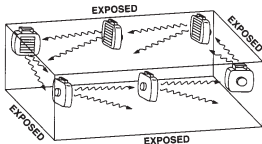
# LUH Horizontal Unit Heater

## Application Tips

**Small rooms** can be heated by a one (1) unit heater. Where two (2) walls are exposed, heater should be mounted as shown.



**Large rooms** require multi-unit installations. Number and capacity of units will be determined by volume of building and square feet of floor area to be heated. Arrange units to provide perimeter air circulation.



To prevent air stratification, total CFM capacity of all units should circulate the room air volume at least 3 times per hour. Units should be located so their air streams wipe exposed walls without blowing directly at them.

**In multiple unit heater installations**, locate units so each unit supports the air stream from another, thus setting up circulatory air movement.

**In warehouse type applications**, for maintaining minimum temperature, one or more large heaters can be used to reduce initial installation expense.

**For individual spaces** total heating capacity is calculated in the conven-

ventional way, using formulas in the ASHRAE "Guide" or those found in the NEMA handbook.

**For pedestrian entryways** when heating capacity is not known, a "rule of thumb" is 3000-5000 watts per door. Use 3000 watts per door for a low traffic single-door entry. For a large multiple-door entry, or a high traffic single-door entry, use 5000 watts per door.

**Loading Docks.** Unit heaters are used to combat cold air inrush when loading dock doors are opened. For such applications, one or more units should be arranged to blow warm air across the opening, not toward it.

## Mounting Recommendations

**Hazardous Atmosphere** - LUH Horizontal Unit heaters should not be used in potentially explosive atmospheres.

**Corrosive Atmosphere** - The finish is not intended for direct salt spray exposure in marine applications or the highly corrosive atmosphere of greenhouses, swimming pools, chemical storage bins, etc.

**Mounting Height** - Do not install heaters above recommended maximum mounting height.

**Obstructions** - Must not block heater air inlet or discharge.

**Warning** - This heater is not intended for use in hazardous atmospheres where flammable vapors, gases, liquids or other combustible atmospheres are present as defined in the National Electric Code. Failure to comply can result in explosion or fire.

## Suggested Engineering Specifications

Furnish and install Chromalox type LUH Horizontal Unit Heaters with heating and air delivery capacities as shown on the heating schedule. Mounting brackets designed for either ceiling or wall swivel mounting shall be furnished as shown on the heating schedule. The cabinet shall be of 18 gauge die formed furniture grade steel. Individual adjustable louvers shall be furnished to provide desired control of discharge air. All metal surfaces of the casing shall be phosphate coated to resist corrosion, and finished in almond powder coated paint.

The electric heating bank shall consist of Chromalox metal sheath

Fintube® heating elements. Automatic reset thermal overload protection shall be wired for instantaneous pilot operation of built-in control contactor holding coil.

All heaters drawing more than 48 amperes shall have built-in branch circuit fusing for protection.

Motors shall be of the totally enclosed continuous fan-duty sleeve bearing type equipped with built-in thermal overload protection. Each unit shall be equipped with a combination fan guard/motor support resiliently mounted at four points to absorb any motor vibration. Fans shall be aluminum, directly connected to fan motor, dynamically balanced and

designed specifically for unit heater application.

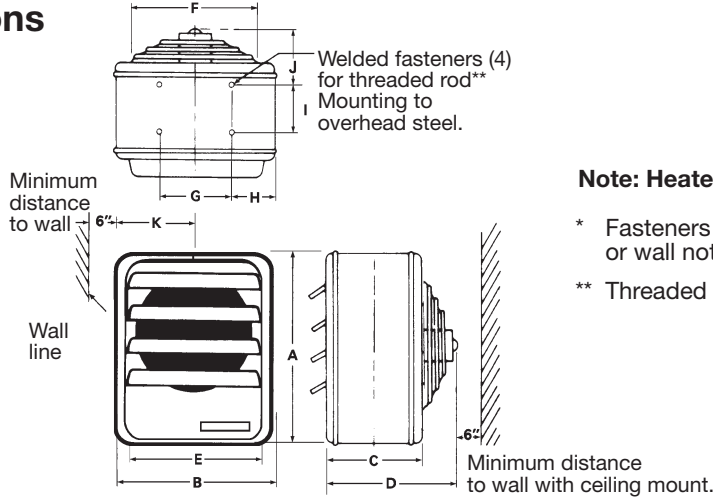
Optional control transformers shall be available to internally develop safer low voltage for pilot-duty control circuits. Fan switching devices shall be available to independently operate the fan motor for summer circulation and winter heat recovery.

Individual optional built-in comfort control thermostat is integral or remote fan only switch and disconnect switch shall be available, for all models. All heaters should be UL Listed and CSA Certified and meet the requirements of the National Electrical Code.



# LUH Horizontal Unit Heater

## Dimensions



**Note: Heater must be mounted at least 7' above floor.**

\* Fasteners for mounting bracket to ceiling or wall not supplied.

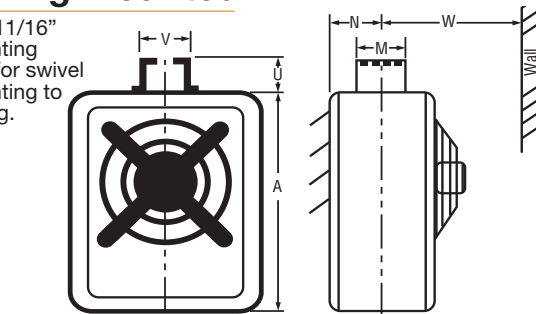
\*\* Threaded rod not supplied.

### Dimensions — Inches

| Catalog Number     | A      | B      | C      | D       | Welded Fasteners | E      | F     | G     | H      | I      | J      | K     |
|--------------------|--------|--------|--------|---------|------------------|--------|-------|-------|--------|--------|--------|-------|
| LUH-02 thru -05    | 16     | 13-1/8 | 8-7/8  | 11-1/16 | 5/16-18          | 10-1/4 | 9-3/4 | 5-1/2 | 4-1/16 | 4-1/2  | 4-1/2  | 6-1/8 |
| LUH-07, 10, 12, 15 | 20-1/2 | 17-1/4 | 11-1/2 | 15      | 3/8-16           | 13-7/8 | 13    | 8-1/4 | 4-1/2  | 6-1/4  | 6-1/4  | 8-1/8 |
| LUH-20, 25         | 24     | 20-1/8 | 11-1/2 | 17-3/4  | 3/8-16           | 16-1/4 | 16    | 8-1/4 | 6      | 8-1/4  | 6-1/4  | 10    |
| LUH-30, 35, 40, 45 | 24     | 20-1/8 | 17     | 23-7/8  | 3/8-16           | 16-1/4 | 16    | 8-1/4 | 6      | 11-3/4 | 11-3/4 | 10    |

## Ceiling Mounted

One 11/16" mounting hole for swivel mounting to ceiling.



Ceiling must be smooth wood, plaster or metal surface with adequate strength to support heater. Not adaptable to acoustic tile or suspended ceilings.



Four bolts are provided for field attachment of swivel bracket to welded fasteners on top of unit.

### Ceiling Mounted Heaters

| Heater Model       | Dimensions — Inches |                   |                   |   |                  |                   | Ceiling Bracket Cat. # |
|--------------------|---------------------|-------------------|-------------------|---|------------------|-------------------|------------------------|
|                    | A                   | M                 | N                 | U | V                | W                 |                        |
| LUH-02 thru -05    | 16                  | 6                 | 4 <sup>7/16</sup> | 4 | 4 <sup>3/4</sup> | 10 <sup>1/2</sup> | <b>WUH-04A</b>         |
| LUH-07, 10, 12, 15 | 20 <sup>1/2</sup>   | 8                 | 4 <sup>3/4</sup>  | 6 | 7 <sup>1/4</sup> | 16                | <b>WUH-05</b>          |
| LUH-20, 25         | 24                  | 8                 | 6 <sup>1/4</sup>  | 6 | 7 <sup>1/4</sup> | 17 <sup>1/2</sup> | <b>WUH-05</b>          |
| LUH-30, 35, 40, 45 | 24                  | 13 <sup>3/4</sup> | 9 <sup>5/16</sup> | 6 | 7 <sup>1/4</sup> | 21                | <b>WUH-06</b>          |

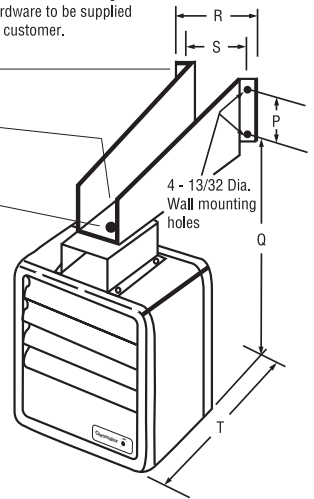
## Wall Mounted Universal Bracket

4-13/32" diameter mounting holes for fastening to wall.\*

Stop for limiting rotation.

Swivel bolt permits heater to be rotated to face desired direction. Four bolts are provided for field attachment of swivel bracket to welded fasteners on top of unit.

NOTE: Wall mounting hardware to be supplied by customer.



## Mounting Limitations

Hazardous Atmosphere — Unit heaters should not be used in potentially explosive atmospheres. Corrosive Atmosphere — The finish is not intended for direct salt spray exposure in marine applications or the highly corrosive atmospheres of greenhouses, swimming pools, chemical storage bins, etc. Mounting Height — Do not install Unit Heaters above recommended maximum mounting height. Obstructions must not block unit heater air inlet or discharge.

### Clearance Requirements

| Mounting Limitations |              |             |
|----------------------|--------------|-------------|
| Back To Wall         | Side To Wall | Top To Wall |
| 6 inches             | 6 inches     | 6 inches    |

### Wall Mounted Heaters

| Heater Model       | Dimensions — Inches |                     |                  |                  |                    | Wall Bracket Cat. # |
|--------------------|---------------------|---------------------|------------------|------------------|--------------------|---------------------|
|                    | P                   | Q                   | R                | S                | T                  |                     |
| LUH-02 thru -05    | 1 <sup>1/2</sup>    | 21 <sup>1/2</sup>   | 6 <sup>3/4</sup> | 5 <sup>5/8</sup> | 14 <sup>1/2</sup>  | <b>WUH-01A</b>      |
| LUH-07, 10, 12, 15 | 2 <sup>3/32</sup>   | 28 <sup>19/32</sup> | 9 <sup>1/2</sup> | 8 <sup>3/8</sup> | 19 <sup>5/8</sup>  | <b>WUH-02</b>       |
| LUH-20, 25         | 2 <sup>3/32</sup>   | 28 <sup>19/32</sup> | 9 <sup>1/2</sup> | 8 <sup>3/8</sup> | 19 <sup>5/8</sup>  | <b>WUH-02</b>       |
| LUH-30, 35, 40, 45 | 5 <sup>1/2</sup>    | 30 <sup>3/4</sup>   | 5                | 3 <sup>1/2</sup> | 32 <sup>9/16</sup> | <b>WUH-03</b>       |

# LUH Horizontal Unit Heater

## Optional Control Accessories and Remote Thermostats

### Thermostat Kits

| Catalog Number | PCN    |
|----------------|--------|
| LUH-TK1 (SPST) | 301129 |
| LUH TK2 (DPST) | 300530 |

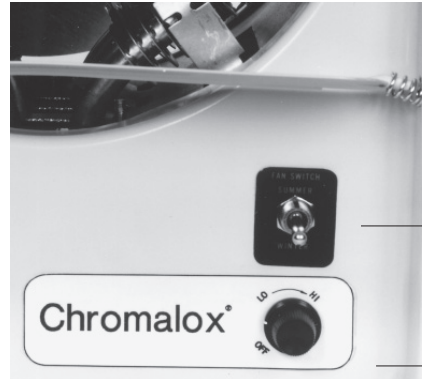
### Power Disconnect Kits



3 Pole, 600V Rating

| Catalog Number | Rating  | PCN    |
|----------------|---------|--------|
| EDS-1          | 40 Amp  | 303431 |
| EDS-2          | 80 Amp  | 303440 |
| EDS-3          | 100 Amp | 303458 |

### Fan Only Operation Kits



Summer Fan Switch

Thermostat Kit

A fan only operation (optional) is available by means of a built-in switch or by external control.

| Catalog Number | Description                   | (2-15 kW)<br>PCN | (20-45 kW)<br>PCN |
|----------------|-------------------------------|------------------|-------------------|
| ISFS-02        | Internal Summer Fan Switch    | 305007           |                   |
| ISFS-02        | 208 through 277Volts          | 305007           | ESFS-40           |
| External*      | Summer Fan Switch             | 305015           | ESFS-40A 305058   |
|                | With Relay (24 Volt control)  |                  |                   |
| ESFS-41        | External* Summer Fan Switch   | 305023           | ESFS-41A 305066   |
|                | With Relay (120 Volt control) |                  |                   |
| ESFS-42        | External* Summer Fan Switch   | 305031           | ESFS-42A 305074   |
|                | With Relay (240 Volt control) |                  |                   |
| ESFS-47        | External* Summer Fan Switch   | 305040           | — —               |
|                | With Relay (277 Volt control) |                  |                   |

\*Kit includes wall plate (discard plate if switch is to be installed on the heater.)

# LUH Horizontal Unit Heater

## Recommended Remote Wall Thermostats

### Industrial Rated

NOT A FAIL-SAFE DEVICE

Maximum Rating (Amps/Watts) AC

| 120V    | 240V    | 277V    | 480V   | DC†<br>115V | DC†<br>230V | Catalog<br>Number | Sta-<br>tus | PCN    |
|---------|---------|---------|--------|-------------|-------------|-------------------|-------------|--------|
| 25/3000 | 22/5280 | 18/5000 | 125VA* | 125VA**     | 125VA**     | WR-80             | S           | 263177 |
| 25/3000 | 22/5280 | 18/5000 | 125VA* | 125VA**     | 125VA**     | WR-90             | S           | 263185 |

\*Pilot Duty (Use With AC Contactor)

\*\*Pilot Duty (Use With DC Contactor)

†DC Ratings Not UL Listed



WR-80  
SPST  
40°F - 80°F  
UL Listed



WR-90  
SPST  
20°F - 90°F  
UL Listed

### Light Duty

NOT A FAIL-SAFE DEVICE

Maximum Rating (Amps/Watts) AC

| 120V    | 208V    | 240V    | 277V    | Pilot Duty<br>(VA) | Catalog<br>Number | Sta-<br>tus | PCN    |
|---------|---------|---------|---------|--------------------|-------------------|-------------|--------|
| 22/2640 | 22/4575 | 22/5280 | 18/5000 | 125                | WT-121            | S           | 309999 |
| 22/2640 | 22/4575 | 22/5280 | 18/5000 | 125                | WT-122            | S           | 310000 |



Line Voltage

WT-121  
SPST  
45°F - 75°F



Low Voltage

WTL-121  
SPST  
40°F - 80°F  
30 VAC  
1 Amp

### Thermostat and Fan Switch

NOT A FAIL-SAFE DEVICE

| Catalog<br>Number    | Status | PCN    |
|----------------------|--------|--------|
| RTC-90               | S      | 227360 |
| Surface mounting box | S      | 227379 |

**Electrical Rating**

| VAC | Inductive |      | Pilot Duty<br>(VA) | Resistive<br>(Amps) |
|-----|-----------|------|--------------------|---------------------|
|     | FLA       | LRA  |                    |                     |
| 125 | 5.8       | 34.8 | 125                | 10                  |
| 250 | 2.9       | 17.4 | 125                | 5.0                 |
| 277 | 2.4       | 14.4 | 125                | 4.2                 |



RTC-90  
50°F - 90°F  
UL Listed

# LUH Horizontal Unit Heater

## Model Numbers

When ordering LUH heaters, specify the model number and corresponding PCN (Product Code Number). If controls or thermostat/fan options are required, designate these options in the model number when ordering, as shown below. Always specify voltage, phase and kW by listing them on the purchase order product specifications.

|            |   |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
|------------|---|---|--|---|--|-------------------------------------|----------------------------------|--------------------------|---------------------------------|---|-----------------------------------|---------------------------------------|----------------------------------|---|--|---|----------------------------------|---|--|
| <b>LUH</b> | <b>05</b>   | <b>21</b>   | <b>34</b>  | <b>41</b>   | <b>1</b>   |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
|            |   |   |  |   | <p><b>Disconnect Switch</b></p> <table border="1"> <tr><td><b>1</b></td><td>40 Amp</td></tr> <tr><td><b>2</b></td><td>80 Amp</td></tr> <tr><td><b>3</b></td><td>100 Amp</td></tr> </table> | <b>1</b>                            | 40 Amp                           | <b>2</b>                 | 80 Amp                          | <b>3</b>                                  | 100 Amp                           |                                       |                                  |   |  |   |                                  |   |  |
| <b>1</b>   | 40 Amp  |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
| <b>2</b>   | 80 Amp  |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
| <b>3</b>   | 100 Amp   |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
|            |   |   |  | <p><b>Control</b></p> <table border="1"> <tr><td><b>0 0</b></td><td>No Thermostat, No Summer Fan Switch</td></tr> <tr><td><b>4 0</b></td><td>Internal Thermostat Only</td></tr> <tr><td><b>4 1</b></td><td>Internal Therm. and Internal Sum. Fan Sw.</td></tr> <tr><td><b>4 2</b></td><td>External Sum. Fan Sw. Only (Not 480V)</td></tr> <tr><td><b>4 3</b></td><td>External Sum. Fan Sw. and Fan Relay (All Volts)</td></tr> <tr><td><b>4 4</b></td><td>Rem. Fan Sw. and Internal Therm. (Not 480V)</td></tr> <tr><td><b>4 5</b></td><td>Rem. Fan Sw., Fan Relay and Int. Therm. (All Volts)</td></tr> </table> | <b>0 0</b>   | No Thermostat, No Summer Fan Switch | <b>4 0</b>                       | Internal Thermostat Only | <b>4 1</b>                      | Internal Therm. and Internal Sum. Fan Sw. | <b>4 2</b>                        | External Sum. Fan Sw. Only (Not 480V) | <b>4 3</b>                       | External Sum. Fan Sw. and Fan Relay (All Volts) | <b>4 4</b>   | Rem. Fan Sw. and Internal Therm. (Not 480V) | <b>4 5</b>                       | Rem. Fan Sw., Fan Relay and Int. Therm. (All Volts) |  |
| <b>0 0</b> | No Thermostat, No Summer Fan Switch   |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
| <b>4 0</b> | Internal Thermostat Only  |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
| <b>4 1</b> | Internal Therm. and Internal Sum. Fan Sw.   |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
| <b>4 2</b> | External Sum. Fan Sw. Only (Not 480V)   |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
| <b>4 3</b> | External Sum. Fan Sw. and Fan Relay (All Volts)   |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
| <b>4 4</b> | Rem. Fan Sw. and Internal Therm. (Not 480V)   |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
| <b>4 5</b> | Rem. Fan Sw., Fan Relay and Int. Therm. (All Volts)   |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
|            |   |   | <p><b>Control</b></p> <table border="1"> <tr><td><b>0 0</b></td><td>No Contactor(s)</td></tr> <tr><td><b>3 0</b></td><td>24V Control Internal Transformer</td></tr> <tr><td><b>3 1</b></td><td>24V Control Externally Supplied</td></tr> <tr><td><b>3 2</b></td><td>120V Control Internal Transformer</td></tr> <tr><td><b>3 3</b></td><td>120V Control Externally Supplied</td></tr> <tr><td><b>3 4</b></td><td>208/240V Control Internally Supplied, No Transformer</td></tr> <tr><td><b>3 5</b></td><td>277V Control Internally Supplied</td></tr> </table> | <b>0 0</b>  | No Contactor(s)  | <b>3 0</b>                          | 24V Control Internal Transformer | <b>3 1</b>               | 24V Control Externally Supplied | <b>3 2</b>                                | 120V Control Internal Transformer | <b>3 3</b>                            | 120V Control Externally Supplied | <b>3 4</b>                                      | 208/240V Control Internally Supplied, No Transformer | <b>3 5</b>                                  | 277V Control Internally Supplied |   |  |
| <b>0 0</b> | No Contactor(s)   |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
| <b>3 0</b> | 24V Control Internal Transformer  |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
| <b>3 1</b> | 24V Control Externally Supplied   |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
| <b>3 2</b> | 120V Control Internal Transformer   |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
| <b>3 3</b> | 120V Control Externally Supplied  |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
| <b>3 4</b> | 208/240V Control Internally Supplied, No Transformer  |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
| <b>3 5</b> | 277V Control Internally Supplied  |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
|            |   | <p><b>Heater Voltage and Phase</b></p> <p><b>81</b> = 208V, 1 Phase<br/> <b>83</b> = 208V, 3 Phase<br/> <b>21</b> = 240V, 1 Phase<br/> <b>23</b> = 240V, 3 Phase<br/> <b>71</b> = 277V, 1 Phase<br/> <b>43</b> = 480V, 3 Phase<br/> <b>63</b> = 600V, 3 Phase</p> |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |
|            | <p><b>Heating Elements</b></p> <p><b>02</b> = 2.6 kW<br/> <b>04</b> = 4.0 kW<br/> <b>05</b> = 5.0 kW<br/> <b>07</b> = 7.5 kW<br/> <b>10</b> = 10.0 kW<br/> <b>12</b> = 12.5 kW<br/> <b>15</b> = 15.0 kW<br/> <b>20</b> = 20.0 kW<br/> <b>25</b> = 25.0 kW<br/> <b>30</b> = 30.0 kW<br/> <b>35</b> = 35.0 kW<br/> <b>40</b> = 40.0 kW<br/> <b>45</b> = 45.0 kW</p> |   |  |   |  |                                     |                                  |                          |                                 |   |                                   |                                       |                                  |   |  |   |                                  |   |  |

Chromalox Horizontal Unit Heater

PF 309-3  
PDS LUH  
APR 09