

## HVH

### Horizontal or Vertical Discharge Fan Forced Unit Heater

- 2.6 - 50 kW
- 8,900 – 170,600 Btuh
- 208, 240, 277, 480, and 600 volt
- 1 or 3 phase
- Vertical or Horizontal Airflow
- Wall or Ceiling Mounted Configurations
- CSA Certified to US and Canadian Standards
- CE Certified to European Standards

#### Description

The Chromalox HVH self-contained blower heater provides quiet, reliable, fan-forced heat for all types of commercial and industrial applications. The hallmark of the HVH blower heater is its versatility. It can provide vertical or horizontal airflow and can be mounted on walls or ceilings. Optional wall or ceiling swivel mounting brackets help direct airflow exactly where it is needed. Heavy-duty construction affords long, dependable service, while its two-tone gray polyester powder coat finish makes an attractive appearance.

#### Applications

- Shipping and Receiving Areas
- Pump Houses
- Power Generating Stations
- Aircraft Hangars
- Factories
- Warehouses
- Garages

#### Construction

**Cabinet** – Heavy 20-gauge steel, 2.6 to 15 kW models; 18-gauge steel, 25 to 50 kW models. Phosphate undercoated for corrosion resistance. Finished in a two-tone gray polyester powder coat.

**Louvers** – Individually adjustable. Direct air flow up or down as needed. Fintube® Heating Elements Corrosion resistant steel fins furnace-brazed to a tubular heating element, assuring long life and superior heat transfer.



**Fan Motor** – Totally enclosed fan motor is rated for continuous duty with built-in thermal cutout and operates on the same voltage as the heating circuit.

**Dynamically Balanced Fan** – Ensures smooth, quiet operation. Blade pitch is carefully selected so that the volume of air moved results in the optimum discharge air temperature. Pull-through airflow design draws air across heating elements for more even airflow distribution and cooler element operation.

#### Features

- **Integral 24V Control Transformer** is standard on 480V models and eliminates the need for an external control source (120V is optional).
- **Heavy Duty Magnetic Contactors** are standard on all models except 2.6 thru 5 kW single phase models, except for 480V models.
- **Linear Thermal 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 temperature returns to normal.
- **Field Convertible** — Combination 208/240V and 1 or 3 phase operation through 10 kW.

#### VERSATILE MOUNTING CONFIGURATIONS

**Vertical Discharge** Recessed fasteners on the rear of the heater cabinet are internally threaded for suspension of unit in the vertical discharge mode with threaded rods.

**Horizontal Discharge Ceiling Bracket** – The ceiling bracket allows you mount the heater directly to the ceiling or over-head member, simply and easily. The swivel mounting allows you to readily adjust the direction of warm air flow for maximum comfort up to 180° rotation.

**Wall Mounting Bracket** – The wall mounting brackets permits the heater to be rotated to face any direction.

#### Factory Installed or Field Installation Kits

**Summer Fan Switch Kit** – Field installable for circulating warm, stratified air. Available for all models.

**Thermostat Kit** – Field installable on all models. Range 40° to 100°F (4° to 38°C).

**Disconnect Switch Kits** – Field-installable switch enables power to be disconnected while servicing heater. Mounts on the front of the heater.

**Outlet Screen** – Prevents objects from coming in contact with fan

#### Factory Installed options

- Pilot Light (recommended)
  - Time Delay (heat on and off): Provides delay of fan operation until elements have warmed up. The fan stays on until cool.
- Available for 24v or 120v control voltage.**

#### Advantages

- Self Contained
- Versatile, Flexible and High Performance
- Easy Installation
- Minimum Maintenance
- Long Life
- Attractive Appearance

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

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

## HVH

### Horizontal or Vertical Discharge Fan Forced Unit Heater (cont'd.)

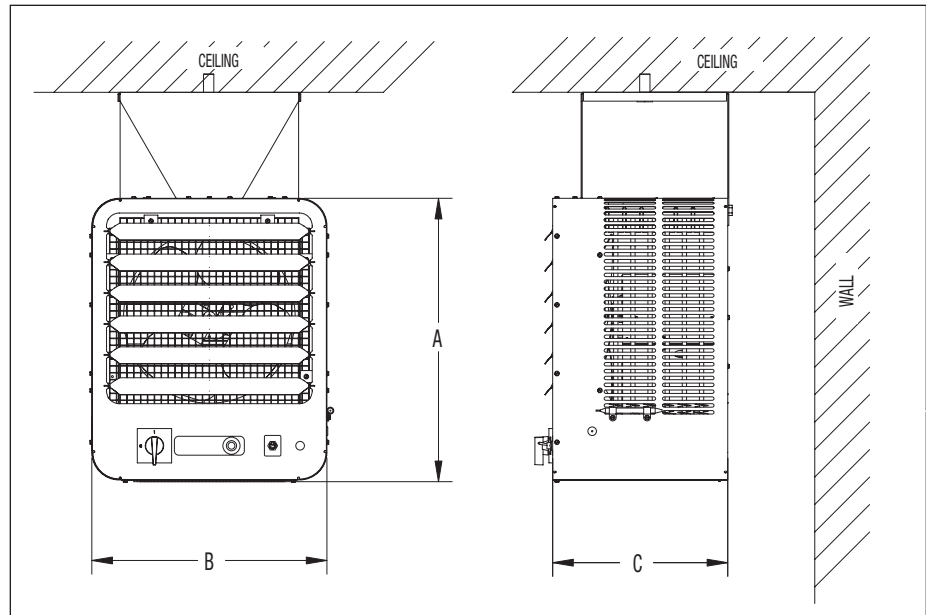
#### Thermostat Kits (40-90°F)

| Model | Rating | PCN    | Stock |
|-------|--------|--------|-------|
| TK-5  | SPST   | 219475 | S     |

#### Available Disconnect Switch Kits

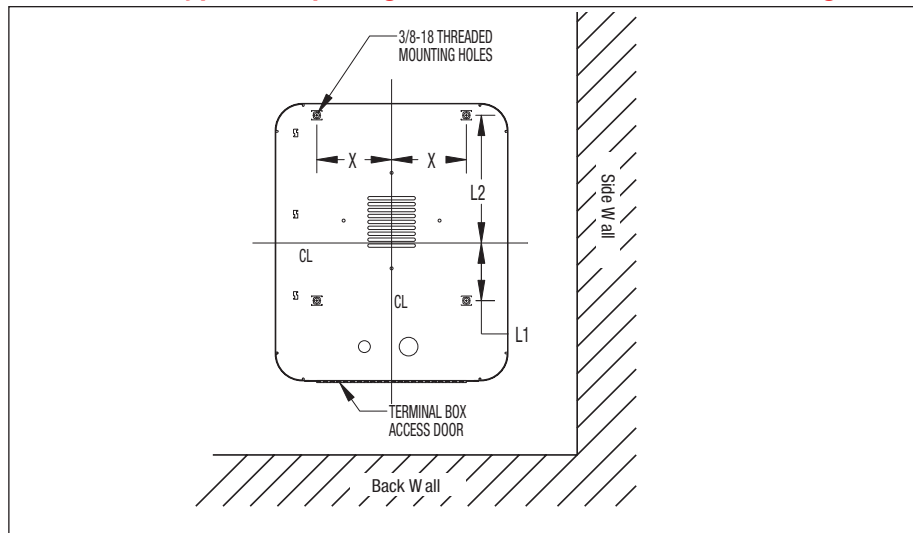
| Model | Rating   | PCN    | Stock |
|-------|----------|--------|-------|
| HDS-1 | 63 Amps  | 219491 | S     |
| HDS-2 | 80 Amps  | 219790 | NS    |
| HDS-3 | 100 Amps | 219803 | NS    |

#### Horizontal Discharge



| Heater                      | Dimensions In. (mm) |               |              |
|-----------------------------|---------------------|---------------|--------------|
|                             | A                   | B             | C            |
| HVH-02 to 05 (Except 600 V) | 16-1/8 (410)        | 13 (330)      | 10 (254)     |
| HVH-07 to 15 (Except 600 V) | 20-5/8 (524)        | 17-1/8 (435)  | 12-3/4 (324) |
| HVH-02 to 15 (600 V)        | 20-5/8 (524)        | 17-1/8 (435)  | 12-3/4 (324) |
| HVH-20 (All Voltages)       | 20-5/8 (524)        | 17-1/8 (435)  | 12-3/4 (324) |
| HVH-25 to 50 (All Voltages) | 29-3/16 (741)       | 26-1/16 (662) | 14-5/8 (371) |

#### Rod Thread Type and Spacing Dimensions for Vertical discharge



#### Mounting Limitations

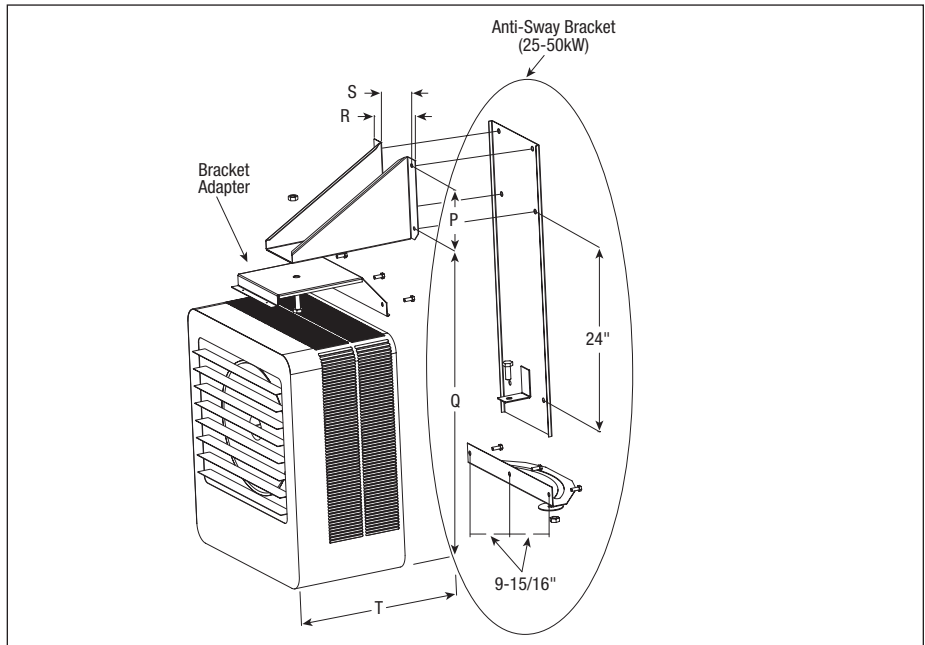
**Hazardous Atmosphere** — Unit heaters should not be used in potentially explosive atmospheres. **Corrosive Atmosphere** — The finish is not intended for direct salt spray exposure in marine applications or the highly corrosive atmospheres of greenhouses, swimming pools, chemical storage bins, etc.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

| Unit           | Rod Thread Type | Dimensions In. (mm) |                |               |
|----------------|-----------------|---------------------|----------------|---------------|
|                |                 | L <sub>1</sub>      | L <sub>2</sub> | X             |
| 2 to 5 kW      | 3/8 - 16        | 2-7/8 (73)          | 7-1/8 (181)    | 3-3/4 (95)    |
| 7-1/2 to 20 kW | 3/8 - 16        | 4-5/16 (110)        | 9-3/8 (238)    | 5-1/2 (140)   |
| 25 to 50 kW    | 3/8 - 16        | 8-5/16 (211)        | 14 (356)       | 9-15/16 (252) |

## HVH

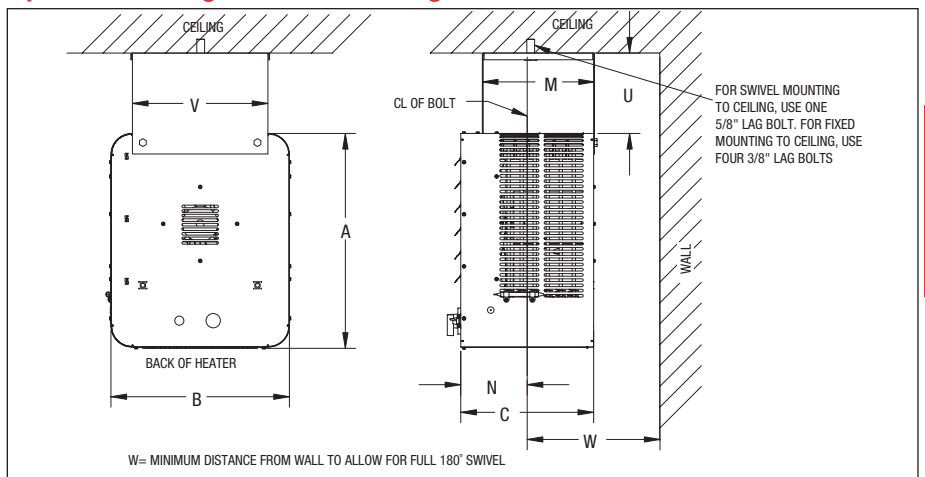
### Horizontal or Vertical Discharge Fan Forced Unit Heater *(cont'd.)*

#### Optional Wall Swivel Mounting Bracket



| Bracket Model No. | Dimensions In. (mm) |                |              |             |               | Bracket Wt. lbs. (kg.) | Use With                                    |
|-------------------|---------------------|----------------|--------------|-------------|---------------|------------------------|---------------------------------------------|
|                   | P                   | Q              | R            | S           | T             |                        |                                             |
| HVW-1             | 6 (152)             | 18-7/8 (479)   | 7 (178)      | 5 (127)     | 17-5/8 (448)  | 4 (1.8)                | HVH-02 to 05                                |
| HVW-2             | 6 (152)             | 23-1/4 (591)   | 7 (178)      | 5 (127)     | 18-5/8 (473)  | 6 (2.7)                | HVH-07 to 15                                |
| HVW-3             | 6 (152)             | 23-7/16 (595)  | 7 (178)      | 5 (127)     | 20-1/16 (510) | 6 (2.7)                | HVH-02 to 15 (600 V), HVH-20 (All Voltages) |
| HVW-4             | 8 (203)             | 23-13/16 (605) | 10-3/8 (264) | 8-1/2 (216) | 22-7/16 (570) | 27 (12.3)              | HVH-25 to 50                                |

#### Optional Ceiling Swivel Mounting Bracket



| Bracket Model No. | Dimensions In. (mm) |               |               |               |              |             |               |              | Bracket Wt. lbs. (kg.) | Use With                                   |
|-------------------|---------------------|---------------|---------------|---------------|--------------|-------------|---------------|--------------|------------------------|--------------------------------------------|
|                   | A                   | B             | C             | M             | N            | U           | V             | W            |                        |                                            |
| HVC-1             | 16-1/8 (410)        | 13 (330)      | 10 (254)      | 8-3/8 (213)   | 5-3/4 (146)  | 7-3/4 (197) | 9-3/4 (248)   | 12 (305)     | 4 (1.8)                | HVH-02, 04, 05                             |
| HVC-2             | 20-5/8 (524)        | 17-1/8 (435)  | 12-3/4 (324)  | 10-3/4 (273)  | 6-3/4 (171)  | 7-3/4 (197) | 12 (305)      | 12 (305)     | 8 (3.6)                | HVH-07, 10, 12, 15                         |
| HVC-3             | 20-5/8 (524)        | 17-1/8 (435)  | 14-1/16 (357) | 12-1/16 (306) | 8-1/16 (205) | 7-3/4 (197) | 13-5/16 (338) | 8 (203)      | 8 (3.6)                | HVH-02 to 15 (600V), HVH-20 (All Voltages) |
| HVC-4             | 29-13/16 (757)      | 26-1/16 (662) | 14-5/8 (371)  | 11-3/4 (298)  | 8-3/16 (208) | 7-3/4 (197) | 22-5/16 (567) | 8-7/16 (214) | 17 (7.7)               | HVH-25 to 50                               |

#### Optional Fan Only Kits

| Description             | Model  | PCN    | Stock |
|-------------------------|--------|--------|-------|
| Fan switch (no relay)   | HVF-01 | 219504 | S     |
| Fan switch (24V relay)  | HVF-02 | 219512 | NS    |
| Fan switch (120V relay) | HVF-03 | 219520 | NS    |

## HVV Horizontal or Vertical Discharge Fan Forced Unit Heater

| Electrical (60 Hz) |         |                  |                   |               | Motor |       |      |       | Air Delivery                                          |                             |                       |                         | Ordering                            |              |       |        |               |
|--------------------|---------|------------------|-------------------|---------------|-------|-------|------|-------|-------------------------------------------------------|-----------------------------|-----------------------|-------------------------|-------------------------------------|--------------|-------|--------|---------------|
| kW                 | Volts   | Ckt & Phase      | Amps              | Control Volts | Volts | Phase | HP   | RPM   | Air Flow<br>ft <sup>3</sup> /min (m <sup>3</sup> /hr) | Air Speed<br>ft/min (m/min) | Temp. Rise<br>°F (°C) | Horiz. Throw<br>ft. (m) | Mtg. <sup>5</sup> Height<br>ft. (m) | Model        | Stock | PCN    | Wt. lbs. (kg) |
| 2.6                | 208     | 1-1              | 13.1              | N/A           | 208   | 1     | 1/40 | 1,650 | 410 (697)                                             | 880 (268.2)                 | 21 (11.7)             | 12 (3.7)                | 8 (2.4)                             | HVV-02-81-00 | S     | 219096 | 32 (14.5)     |
| 2/2.6              | 208/240 | 1-1              | 11.4 <sup>2</sup> | N/A           | 240   | 1     | 1/40 | 1,650 | 410 (697)                                             | 880 (268.2)                 | 21 (11.7)             | 12 (3.7)                | 8 (2.4)                             | HVV-02-21-00 | S     | 219109 | 32 (14.5)     |
| 2.6                | 277     | 1-1              | 9.6               | N/A           | 277   | 1     | 1/30 | 1,550 | 360 (612)                                             | 770 (234.7)                 | 24 (13.3)             | 12 (3.7)                | 8 (2.4)                             | HVV-02-71-00 | S     | 219117 | 32 (14.5)     |
| 4                  | 208     | 1-1              | 19.8              | N/A           | 208   | 1     | 1/40 | 1,650 | 410 (697)                                             | 880 (268.2)                 | 31 (17.2)             | 12 (3.7)                | 8 (2.4)                             | HVV-04-81-00 | S     | 219125 | 32 (14.5)     |
| 4                  | 208     | 1-3 <sup>3</sup> | 11.7              | 208/240       | 208   | 1     | 1/40 | 1,650 | 410 (697)                                             | 880 (268.2)                 | 31 (17.2)             | 12 (3.7)                | 8 (2.4)                             | HVV-04-83-34 | S     | 219133 | 32 (14.5)     |
| 3/4                | 208/240 | 1-1              | 17.2 <sup>2</sup> | N/A           | 240   | 1     | 1/40 | 1,650 | 410 (697)                                             | 880 (268.2)                 | 31 (17.2)             | 12 (3.7)                | 8 (2.4)                             | HVV-04-21-00 | S     | 219141 | 32 (14.5)     |
| 3/4                | 208/240 | 1-3              | 10.2 <sup>2</sup> | 208/240       | 240   | 1     | 1/40 | 1,650 | 410 (697)                                             | 880 (268.2)                 | 31 (17.2)             | 12 (3.7)                | 8 (2.4)                             | HVV-04-23-34 | S     | 219150 | 32 (14.5)     |
| 4                  | 277     | 1-1              | 14.6              | N/A           | 277   | 1     | 1/30 | 1,550 | 360 (612)                                             | 770 (234.7)                 | 35 (19.4)             | 12 (3.7)                | 8 (2.4)                             | HVV-04-71-00 | S     | 219168 | 32 (14.5)     |
| 4                  | 480     | 1-3              | 5.1               | 24            | 480   | 1     | 1/35 | 1,550 | 380 (646)                                             | 815 (248.4)                 | 33 (18.2)             | 12 (3.7)                | 8 (2.4)                             | HVV-04-43-30 | S     | 219176 | 32 (14.5)     |
| 5                  | 208     | 1-1              | 24.6              | N/A           | 208   | 1     | 1/40 | 1,650 | 410 (697)                                             | 880 (268.2)                 | 39 (21.7)             | 12 (3.7)                | 8 (2.4)                             | HVV-05-81-00 | S     | 219184 | 32 (14.5)     |
| 5                  | 208     | 1-3 <sup>3</sup> | 14.5              | 208/240       | 208   | 1     | 1/40 | 1,650 | 410 (697)                                             | 880 (268.2)                 | 39 (21.7)             | 12 (3.7)                | 8 (2.4)                             | HVV-05-83-34 | S     | 219192 | 32 (14.5)     |
| 3.75/5             | 208/240 | 1-1              | 21.4              | N/A           | 240   | 1     | 1/40 | 1,650 | 410 (697)                                             | 880 (268.2)                 | 39 (21.7)             | 12 (3.7)                | 8 (2.4)                             | HVV-05-21-00 | S     | 219205 | 32 (14.5)     |
| 3.75/5             | 208/240 | 1-3 <sup>3</sup> | 12.6              | 208/240       | 240   | 1     | 1/40 | 1,650 | 410 (697)                                             | 880 (268.2)                 | 39 (21.7)             | 12 (3.7)                | 8 (2.4)                             | HVV-05-23-34 | S     | 219213 | 32 (14.5)     |
| 5                  | 277     | 1-1              | 18.3              | N/A           | 277   | 1     | 1/30 | 1,550 | 360 (612)                                             | 770 (234.7)                 | 44 (24.4)             | 12 (3.7)                | 8 (2.4)                             | HVV-05-71-00 | S     | 219221 | 32 (14.5)     |
| 5                  | 480     | 1-3              | 6.3               | 24            | 480   | 1     | 1/35 | 1,550 | 380 (646)                                             | 815 (248.4)                 | 42 (23.3)             | 12 (3.7)                | 8 (2.4)                             | HVV-05-43-30 | S     | 219230 | 32 (14.5)     |
| 7.5                | 208     | 1-1 <sup>3</sup> | 36.5              | 208/240       | 208   | 1     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 28 (15.6)             | 27 (8.2)                | 8 (2.4)                             | HVV-07-81-34 | S     | 219248 | 50 (22.7)     |
| 7.5                | 208     | 1-3              | 21.3              | 208/240       | 208   | 1     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 28 (15.6)             | 27 (8.2)                | 8 (2.4)                             | HVV-07-83-34 | S     | 219256 | 50 (22.7)     |
| 5.6/7.5            | 208/240 | 1-1 <sup>3</sup> | 31.7 <sup>2</sup> | 208/240       | 240   | 1     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 28 (15.6)             | 27 (8.2)                | 8 (2.4)                             | HVV-07-21-34 | S     | 219264 | 50 (22.7)     |
| 5.6/7.5            | 208/240 | 1-3              | 18.5 <sup>2</sup> | 208/240       | 240   | 1     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 28 (15.6)             | 27 (8.2)                | 8 (2.4)                             | HVV-07-23-34 | S     | 219272 | 50 (22.7)     |
| 7.5                | 277     | 1-1              | 27.7              | 24            | 277   | 1     | 1/15 | 1,550 | 750 (1274)                                            | 920 (280.4)                 | 32 (17.8)             | 27 (8.2)                | 8 (2.4)                             | HVV-07-71-30 | S     | 219280 | 50 (22.7)     |
| 7.5                | 480     | 1-3              | 9.9               | 24            | 480   | 3     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 28 (15.6)             | 27 (8.2)                | 8 (2.4)                             | HVV-07-43-30 | S     | 219299 | 50 (22.7)     |
| 7.5                | 600     | 1-3              | 7.6               | 24            | 575   | 3     | 1/3  | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 28 (15.6)             | 27 (8.2)                | 8 (2.4)                             | HVV-07-63-30 | NS    | —      | 50 (22.7)     |
| 9.7                | 208     | 1-1 <sup>3</sup> | 47.1              | 208/240       | 208   | 1     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 37 (20.6)             | 27 (8.2)                | 9 (2.7)                             | HVV-10-81-34 | S     | 219301 | 50 (22.7)     |
| 9.7                | 208     | 1-3              | 27.4              | 208/240       | 208   | 1     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 37 (20.6)             | 27 (8.2)                | 9 (2.7)                             | HVV-10-83-34 | S     | 219310 | 50 (22.7)     |
| 7.5/10             | 208/240 | 1-1 <sup>3</sup> | 42.1 <sup>2</sup> | 208/240       | 240   | 1     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 37 (20.6)             | 27 (8.2)                | 9 (2.7)                             | HVV-10-21-34 | S     | 219328 | 50 (22.7)     |
| 7.5/10             | 208/240 | 1-3              | 24.5 <sup>2</sup> | 208/240       | 240   | 1     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 37 (20.6)             | 27 (8.2)                | 9 (2.7)                             | HVV-10-23-34 | S     | 219336 | 50 (22.7)     |
| 10                 | 480     | 1-3              | 12.9              | 24            | 480   | 3     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 37 (20.6)             | 27 (8.2)                | 9 (2.7)                             | HVV-10-43-30 | S     | 219344 | 50 (22.7)     |
| 10                 | 600     | 1-3              | 10.6              | 24            | 575   | 3     | 1/3  | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 37 (20.6)             | 27 (8.2)                | 9 (2.7)                             | HVV-10-63-30 | NS    | —      | 50 (22.7)     |
| 12.5               | 208     | 1-3              | 35.2              | 208/240       | 208   | 1     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 47 (26.1)             | 27 (8.2)                | 9 (2.7)                             | HVV-12-83-34 | S     | 219352 | 50 (22.7)     |
| 9.3/12.5           | 208/240 | 1-3              | 30.6              | 208/240       | 240   | 1     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 47 (26.1)             | 27 (8.2)                | 9 (2.7)                             | HVV-12-23-34 | S     | 219360 | 50 (22.7)     |
| 12.5               | 480     | 1-3              | 15.9              | 24            | 480   | 3     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 47 (26.1)             | 27 (8.2)                | 9 (2.7)                             | HVV-12-43-30 | S     | 219379 | 50 (22.7)     |
| 12.5               | 600     | 1-3              | 12.6              | 24            | 575   | 3     | 1/3  | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 47 (26.1)             | 27 (8.2)                | 9 (2.7)                             | HVV-12-63-30 | NS    | —      | 50 (22.7)     |
| 15                 | 208     | 1-3              | 42.1              | 208/240       | 208   | 1     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 56 (31.1)             | 27 (8.2)                | 10 (3.0)                            | HVV-15-83-34 | S     | 219387 | 50 (22.7)     |
| 11.25/15           | 208/240 | 1-3              | 36.6 <sup>2</sup> | 208/240       | 240   | 1     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 56 (31.1)             | 27 (8.2)                | 10 (3.0)                            | HVV-15-23-34 | S     | 219395 | 50 (22.7)     |
| 15                 | 480     | 1-3              | 19.0              | 24            | 480   | 3     | 1/15 | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 56 (31.1)             | 27 (8.2)                | 10 (3.0)                            | HVV-15-43-30 | S     | 219408 | 50 (22.7)     |
| 15                 | 600     | 1-3              | 15.6              | 24            | 575   | 3     | 1/3  | 1,725 | 850 (1444)                                            | 1040 (317.0)                | 56 (31.1)             | 27 (8.2)                | 10 (3.0)                            | HVV-15-63-30 | NS    | —      | 50 (22.7)     |
| 14.7/19.8          | 208/240 | 1-3              | 47.7              | 24            | 240   | 3     | 1/3  | 1,725 | 1500 (2549)                                           | 1750 (533.4)                | 49 (27.2)             | 27 (8.2)                | 13 (4.0)                            | HVV-20-23-30 | NS    | 219563 | 65 (29.5)     |
| 19.8               | 480     | 1-3              | 23.9              | 24            | 480   | 3     | 1/3  | 1,725 | 1500 (2549)                                           | 1750 (533.4)                | 49 (27.2)             | 27 (8.2)                | 13 (4.0)                            | HVV-20-43-30 | NS    | 219571 | 65 (29.5)     |
| 19.8               | 600     | 1-3              | 19.4              | 24            | 575   | 3     | 1/3  | 1,725 | 1500 (2549)                                           | 1750 (533.4)                | 49 (27.2)             | 27 (8.2)                | 13 (4.0)                            | HVV-20-63-30 | NS    | 219580 | 65 (29.5)     |
| 18.7/24.9          | 208/240 | 1-3              | 60.1              | 24            | 240   | 3     | 1/3  | 1,725 | 2500 (4248)                                           | 1650 (502.9)                | 27 (15.0)             | 36 (11.0)               | 13 (4.0)                            | HVV-25-23-30 | NS    | 219598 | 90 (40.9)     |
| 25.0               | 480     | 1-3              | 30.2              | 24            | 480   | 3     | 1/3  | 1,725 | 2500 (4248)                                           | 1650 (502.9)                | 27 (15.0)             | 36 (11.0)               | 13 (4.0)                            | HVV-25-43-30 | NS    | 219600 | 90 (40.9)     |
| 25.0               | 600     | 1-3              | 24.3              | 24            | 575   | 3     | 1/3  | 1,725 | 2500 (4248)                                           | 1650 (502.9)                | 27 (15.0)             | 36 (11.0)               | 13 (4.0)                            | HVV-25-63-30 | NS    | 219619 | 90 (40.9)     |
| 22.4/29.9          | 208/240 | 1-3              | 72                | 24            | 240   | 3     | 1/3  | 1,725 | 2500 (4248)                                           | 1650 (502.9)                | 34 (18.9)             | 36 (11.0)               | 13 (4.0)                            | HVV-30-23-30 | NS    | 219627 | 90 (40.9)     |
| 30.0               | 480     | 1-3              | 36.2              | 24            | 480   | 3     | 1/3  | 1,725 | 2500 (4248)                                           | 1650 (502.9)                | 34 (18.9)             | 36 (11.0)               | 13 (4.0)                            | HVV-30-43-30 | NS    | 219635 | 90 (40.9)     |
| 30.0               | 600     | 1-3              | 29                | 24            | 575   | 3     | 1/3  | 1,725 | 2500 (4248)                                           | 1650 (502.9)                | 34 (18.9)             | 36 (11.0)               | 13 (4.0)                            | HVV-30-63-30 | NS    | 219643 | 90 (40.9)     |
| 25.6/34.0          | 208/240 | 1-3              | 82.1              | 24            | 240   | 3     | 1/3  | 1,725 | 3100 (5267)                                           | 2100 (640.1)                | 40 (22.2)             | 36 (11.0)               | 13 (4.0)                            | HVV-35-23-30 | NS    | 219651 | 90 (40.9)     |
| 34.0               | 480     | 1-3              | 41.1              | 24            | 480   | 3     | 1/3  | 1,725 | 3100 (5267)                                           | 2100 (640.1)                | 40 (22.2)             | 36 (11.0)               | 13 (4.0)                            | HVV-35-43-30 | NS    | 219660 | 90 (40.9)     |
| 34.2               | 600     | 1-3              | 33                | 24            | 575   | 3     | 1/3  | 1,725 | 3100 (5267)                                           | 2100 (640.1)                | 40 (22.2)             | 36 (11.0)               | 13 (4.0)                            | HVV-35-63-30 | NS    | 219678 | 90 (40.9)     |
| 28.1/37.4          | 208/240 | 1-3              | 90.1              | 24            | 240   | 3     | 1/3  | 1,725 | 3100 (5267)                                           | 2100 (640.1)                | 45 (25.0)             | 36 (11.0)               | 16 (4.9)                            | HVV-40-23-30 | NS    | 219686 | 100 (45.5)    |
| 37.4               | 480     | 1-3              | 45.1              | 24            | 480   | 3     | 1/3  | 1,725 | 3100 (5267)                                           | 2100 (640.1)                | 45 (25.0)             | 36 (11.0)               | 16 (4.9)                            | HVV-40-43-30 | NS    | 219694 | 100 (45.5)    |
| 37.5               | 600     | 1-3              | 36.2              | 24            | 575   | 3     | 1/3  | 1,725 | 3100 (5267)                                           | 2100 (640.1)                | 45 (25.0)             | 36 (11.0)               | 16 (4.9)                            | HVV-40-63-30 | NS    | 219707 | 100 (45.5)    |
| 33.7/44.8          | 208/240 | 1-3              | 108               | 24            | 240   | 3     | 1/3  | 1,725 | 3100 (5267)                                           | 2100 (640.1)                | 51 (28.3)             | 36 (11.0)               | 16 (4.9)                            | HVV-45-23-30 | NS    | 219715 | 100 (45.5)    |
| 44.8               | 480     | 1-3              | 54                | 24            | 480   | 3     | 1/3  | 1,725 | 3100 (5267)                                           | 2100 (640.1)                | 51 (28.3)             | 36 (11.0)               | 16 (4.9)                            | HVV-45-43-30 | NS    | 219723 | 100 (45.5)    |
| 45.2               | 600     | 1-3              | 43.6              | 24            | 575   | 3     | 1/3  | 1,725 | 3100 (5267)                                           | 2100 (640.1)                | 51 (28.3)             | 36 (11.0)               | 16 (4.9)                            | HVV-45-63-30 | NS    | 219731 | 100 (45.5)    |
| 38.4/51.1          | 208/240 | 1-3              | 123.1             | 24            | 240   | 3     | 1/3  | 1,725 | 3100 (5267)                                           | 2100 (640.1)                | 57 (31.7)             | 36 (11.0)               | 16 (4.9)                            | HVV-50-23-30 | NS    | 219740 | 100 (45.5)    |
| 51.1               | 480     | 1-3              | 61.6              | 24            | 480   | 3     | 1/3  | 1,725 | 3100 (5267)                                           | 2100 (640.1)                | 57 (31.7)             | 36 (11.0)               | 16 (4.9)                            | HVV-50-43-30 | NS    | 219758 | 100 (45.5)    |
| 51.3               | 600     | 1-3              | 49.5              | 24            | 575   | 3     | 1/3  | 1,725 | 3100 (5267)                                           | 2100 (640.1)                | 57 (31.7)             | 36 (11.0)               | 16 (4.9)                            | HVV-50-63-30 | NS    | 219766 | 100 (45.5)    |

Stock Status: S = Stock NS = Non-Stock.

To order specify model, PCN, kW, volts, phase and quantity.

- For motor data, see table.
- 208V amperage is 86% of 240V value.
- Models can be field wired for 1 or 3 phase.
- Includes motor amps.
- Max. mounting height for effective heat distribution. Min. height is 7 ft.

### Other Notes:

- All heaters have built-in contactors except 2.6 kW thru 5 kW single phase models, and stock 480V models have built-in control transformers and contactors with 24V holding coils. Stock 208V and 240V, 3 phase models, 4 kW through 15 kW, have 208/240V holding coils while stock 208V and 240V 3 phase models above 15 kW have 24V holding coils. All stock 277V models have 277V holding coils.
- Optional contactors holding coil voltages of 24V or 120V and control voltage transformers, are available as made-to-order models for all heater ratings.

## HVH Horizontal or Vertical Discharge Fan Forced Unit Heater

### Recommended Control Options

| Heater                    |        | Field Installed Options |                 |                 |                 |                         |                 |                 |                 |                       |                 |                 |                    |                    |                 |                 |                    | Factory Installed Options |                    |                   |
|---------------------------|--------|-------------------------|-----------------|-----------------|-----------------|-------------------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-----------------|--------------------|--------------------|-----------------|-----------------|--------------------|---------------------------|--------------------|-------------------|
|                           |        | Wall Bracket Options    |                 |                 |                 | Ceiling Bracket Options |                 |                 |                 | Outlet Screen Options |                 |                 | Thermostat Options | Disconnect Options |                 |                 | Fan Switch Options |                           |                    |                   |
| Model No.                 | PCN    | HVW-1<br>219416         | HVW-2<br>219424 | HVW-3<br>219782 | HVW-4<br>219820 | HVC-1<br>219432         | HVC-2<br>219440 | HVC-3<br>219811 | HVC-4<br>219838 | HVS-1<br>219459       | HVS-2<br>219467 | HVS-3<br>219774 | TK-5<br>219475     | HDS-1<br>219491    | HDS-2<br>219790 | HDS-3<br>219803 | HVF-01<br>219504   | HVF-02<br>219512          | HFD-1 <sup>a</sup> | PL-1 <sup>b</sup> |
| HVH-02-81-00              | 219096 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 |                    | X                  |                 |                 |                    |                           |                    | X                 |
| HVH-02-21-00              | 219109 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 |                    | X                  |                 |                 |                    |                           |                    | X                 |
| HVH-02-71-00              | 219117 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 |                    | X                  |                 |                 |                    |                           |                    |                   |
| HVH-04-81-00              | 219125 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 |                    | X                  |                 |                 |                    |                           |                    | X                 |
| HVH-04-83-34              | 219133 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-04-21-00              | 219141 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 |                    | X                  |                 |                 |                    |                           |                    | X                 |
| HVH-04-23-34              | 219150 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-04-71-00              | 219168 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 |                    | X                  |                 |                 |                    |                           |                    | X                 |
| HVH-04-43-30              | 219176 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 | X                  | X                  |                 |                 | X                  |                           | X                  | X                 |
| HVH-05-81-00              | 219184 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 |                    | X                  |                 |                 |                    |                           |                    | X                 |
| HVH-05-83-34              | 219192 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-05-21-00              | 219205 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 |                    | X                  |                 |                 |                    |                           |                    | X                 |
| HVH-05-23-34              | 219213 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-05-71-00              | 219221 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 |                    | X                  |                 |                 |                    |                           |                    |                   |
| HVH-05-43-30              | 219230 | X                       |                 |                 |                 | X                       |                 |                 |                 | X                     |                 |                 | X                  | X                  |                 |                 | X                  |                           | X                  | X                 |
| HVH-07-81-34              | 219248 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-07-83-34              | 219256 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-07-21-34              | 219264 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-07-23-34              | 219272 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-07-71-30              | 219280 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           | X                  |                   |
| HVH-07-43-30              | 219299 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  | X                         | X                  | X                 |
| HVH-10-81-34              | 219301 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-10-83-34              | 319310 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-10-21-34              | 219328 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-10-23-34              | 219336 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-10-43-30              | 219344 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  | X                         | X                  | X                 |
| HVH-12-83-34              | 219352 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-12-23-34              | 219360 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-12-43-30              | 219379 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  | X                         | X                  | X                 |
| HVH-15-83-34              | 219387 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-15-23-34              | 219395 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           |                    | X                 |
| HVH-15-43-30              | 219408 |                         | X               |                 |                 |                         | X               |                 |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  | X                         | X                  | X                 |
| HVH-20-23-30              | 219563 |                         |                 | X               |                 |                         |                 | X               |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           | X                  | X                 |
| HVH-20-43-30              | 219571 |                         |                 | X               |                 |                         |                 | X               |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           | X                  | X                 |
| HVH-20-63-30              | 219580 |                         |                 | X               |                 |                         |                 | X               |                 |                       | X               |                 | X                  | X                  |                 |                 | X                  |                           | X                  | X                 |
| HVH-25-23-30              | 219598 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  |                    | X               |                 | X                  |                           | X                  | X                 |
| HVH-25-43-30              | 219600 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  | X                  |                 |                 | X                  |                           | X                  | X                 |
| HVH-25-63-30              | 219619 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  | X                  |                 |                 | X                  |                           | X                  | X                 |
| HVH-30-23-30              | 219627 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  |                    |                 | X               | X                  |                           | X                  | X                 |
| HVH-30-43-30              | 219635 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  | X                  |                 |                 | X                  |                           | X                  | X                 |
| HVH-30-63-30              | 219643 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  | X                  |                 |                 | X                  |                           | X                  | X                 |
| HVH-35-23-30 <sup>c</sup> | 219651 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  |                    |                 |                 | X                  |                           | X                  | X                 |
| HVH-35-43-30              | 219660 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  | X                  |                 |                 | X                  |                           | X                  | X                 |
| HVH-35-63-30              | 219678 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  | X                  |                 |                 | X                  |                           | X                  | X                 |
| HVH-40-23-30 <sup>c</sup> | 219686 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  |                    |                 |                 | X                  |                           | X                  | X                 |
| HVH-40-43-30              | 219694 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  | X                  |                 |                 | X                  |                           | X                  | X                 |
| HVH-40-63-30              | 219707 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  | X                  |                 |                 | X                  |                           | X                  | X                 |
| HVH-45-23-30 <sup>c</sup> | 219715 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  |                    |                 |                 | X                  |                           | X                  | X                 |
| HVH-45-43-30              | 219723 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  |                    | X               |                 | X                  |                           | X                  | X                 |
| HVH-45-63-30              | 219731 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  |                    | X               |                 | X                  |                           | X                  | X                 |
| HVH-50-23-30 <sup>c</sup> | 219740 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  |                    |                 |                 | X                  |                           | X                  | X                 |
| HVH-50-43-30              | 219758 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  |                    | X               |                 | X                  |                           | X                  | X                 |
| HVH-50-63-30              | 219766 |                         |                 |                 | X               |                         |                 |                 | X               |                       |                 | X               | X                  |                    | X               |                 | X                  |                           | X                  | X                 |

#### Notes:

- A. HFD-1 is a fan delay on / fan delay off. Fan delay is standard on heaters 20 kW and above
- B. PL-1 is a green pilot indicating power to heater
- C. Factory installed disconnect switch not available
- D. Field installed thermostat kits not available on models with control code 00.

## HVH Horizontal or Vertical Discharge Fan Forced Unit Heater

When ordering HVH heaters, specify the model number and corresponding PCN (Product Code Number). If controls (thermostat, fan switch, transformer, disconnect) or other 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 specifications.

| HVH                                     | Horizontal or Vertical Discharge Blower Heater   |    |         |    |    |   |    |    |    |    |                      |
|-----------------------------------------|--------------------------------------------------|----|---------|----|----|---|----|----|----|----|----------------------|
| kW                                      |                                                  |    |         |    |    |   |    |    |    |    |                      |
| 02                                      | 2.6 kW                                           | 20 | 19.8 kW |    |    |   |    |    |    |    |                      |
| 04                                      | 4.0 k W                                          | 25 | 25.0 kW |    |    |   |    |    |    |    |                      |
| 05                                      | 5.0 kW                                           | 30 | 30.0 kW |    |    |   |    |    |    |    |                      |
| 07                                      | 7.5 kW                                           | 35 | 33.3 kW |    |    |   |    |    |    |    |                      |
| 10                                      | 10.0 kW                                          | 40 | 37.5 kW |    |    |   |    |    |    |    |                      |
| 12                                      | 12.5 kW                                          | 45 | 45.0 kW |    |    |   |    |    |    |    |                      |
| 15                                      | 15.0 kW                                          | 50 | 50.0 kW |    |    |   |    |    |    |    |                      |
| Volts                                   |                                                  |    |         |    |    |   |    |    |    |    |                      |
| 2                                       | 240V                                             |    |         |    |    |   |    |    |    |    |                      |
| 4                                       | 480V                                             |    |         |    |    |   |    |    |    |    |                      |
| 6                                       | 600V                                             |    |         |    |    |   |    |    |    |    |                      |
| 7                                       | 277V                                             |    |         |    |    |   |    |    |    |    |                      |
| 8                                       | 208V                                             |    |         |    |    |   |    |    |    |    |                      |
| A                                       | 220V                                             |    |         |    |    |   |    |    |    |    |                      |
| B                                       | 380V                                             |    |         |    |    |   |    |    |    |    |                      |
| C                                       | 400V                                             |    |         |    |    |   |    |    |    |    |                      |
| D                                       | 415V                                             |    |         |    |    |   |    |    |    |    |                      |
| Phase                                   |                                                  |    |         |    |    |   |    |    |    |    |                      |
| 1                                       | 1                                                |    |         |    |    |   |    |    |    |    |                      |
| 3                                       | 3                                                |    |         |    |    |   |    |    |    |    |                      |
| Control                                 |                                                  |    |         |    |    |   |    |    |    |    |                      |
| 00                                      | No Contactor                                     |    |         |    |    |   |    |    |    |    |                      |
| 30                                      | Contactor with 24V Transformer                   |    |         |    |    |   |    |    |    |    |                      |
| 31                                      | Contactor with 24V Externally Supplied           |    |         |    |    |   |    |    |    |    |                      |
| 32                                      | Contactor with 120V Transformer                  |    |         |    |    |   |    |    |    |    |                      |
| 33                                      | Contactor with 120V Externally Supplied          |    |         |    |    |   |    |    |    |    |                      |
| 34                                      | Contactor with 208/240V Internally Supplied      |    |         |    |    |   |    |    |    |    |                      |
| 35                                      | Contactor with 277V Internally Supplied          |    |         |    |    |   |    |    |    |    |                      |
| Integral Thermostat                     |                                                  |    |         |    |    |   |    |    |    |    |                      |
| 0                                       | None                                             |    |         |    |    |   |    |    |    |    |                      |
| TL                                      | 40-100°F Range (4° to 38°C)                      |    |         |    |    |   |    |    |    |    |                      |
| Disconnect Switch                       |                                                  |    |         |    |    |   |    |    |    |    |                      |
| 0                                       | None                                             |    |         |    |    |   |    |    |    |    |                      |
| D                                       | Yes                                              |    |         |    |    |   |    |    |    |    |                      |
| Fan Only Switch                         |                                                  |    |         |    |    |   |    |    |    |    |                      |
| 00                                      | None                                             |    |         |    |    |   |    |    |    |    |                      |
| FI                                      | Internal (In Heater)                             |    |         |    |    |   |    |    |    |    |                      |
| FE                                      | External (On Wall)                               |    |         |    |    |   |    |    |    |    |                      |
| Time Delay (Standard on 20kW and above) |                                                  |    |         |    |    |   |    |    |    |    |                      |
| 0                                       | None                                             |    |         |    |    |   |    |    |    |    |                      |
| R                                       | Yes (Available for 24v or 120v control voltage.) |    |         |    |    |   |    |    |    |    |                      |
| Pilot Light                             |                                                  |    |         |    |    |   |    |    |    |    |                      |
| 0                                       | None                                             |    |         |    |    |   |    |    |    |    |                      |
| P                                       | Yes                                              |    |         |    |    |   |    |    |    |    |                      |
| Outlet Screen                           |                                                  |    |         |    |    |   |    |    |    |    |                      |
| 0                                       | None                                             |    |         |    |    |   |    |    |    |    |                      |
| S                                       | Yes                                              |    |         |    |    |   |    |    |    |    |                      |
|                                         |                                                  |    |         |    |    |   |    |    |    |    |                      |
| HVH                                     | 05                                               | 2  | 1       | 34 | TL | D | FI | -0 | -0 | -0 | Typical Model Number |

**Note:** 20-50 kW models available in 208/240, 480, and 600 V only.  
Units with thermostats must include built-in contactor.