

UHIR SERIES

Unit Heater



Applications

- Factories
- Garages
- Mechanical Rooms
- Pump Houses
- Service Areas in Air Handling Units
- Shipping and Receiving Areas
- Storage Areas
- Warehouses
- Workshops

The UHIR unit heater is available in 50 standard models with ratings up to 50 KW at voltages of 208, 240, 277, and 480 single or three-phase. They are available with a wide variety of factory built-in or field-installed options.

Temperature Control: Single-stage or two-stage control with built-in or remote-mounted thermostats are available on all heaters.

Control Options: Available as factory built-in or field-installed to meet job specifications.

Custom KW's: Custom KW's are available up to 50 KW.

Discharge Direction: The UHIR heater can be mounted for horizontal or vertical discharge using an optional universal wall/ceiling mounting bracket or with field-furnished threaded rods for ceiling mounting.

Color Options: The standard color is camel. Six optional colors are available: grey, yellow, red, white, blue or textured beige. Heaters may also be supplied with unpainted corrosion resistant galvanized steel. See back cover for color samples.



Standard Construction Features

Heating Elements - Industrial grade, 0.475" diameter steel sheath with brazed copper plated steel fins and epoxy sealed ends. Draw-thru airflow design pulls air across the heating elements to ensure cool element operation and even air distribution resulting in long element life.

Housing - Heating elements and motor are enclosed in a heavy gauge galvanized steel cabinet with a durable camel polyester powder coat finish.

Outlet Grille - Individually adjustable louvers are provided to direct airflow. A protective outlet fan guard is provided to prevent insertion of foreign objects.

Fan Motor - Permanently lubricated and thermally protected motor.

Built-in Controls - All units include an automatic reset thermal cutout that will de-energize the heater if an overtem-

perature condition occurs. A manual reset thermal cutout, in addition to an automatic reset thermal cutout, is standard on heaters 10 KW and above. A fan relay is provided to allow the elements to heat up before fan startup and purges the heater of residual heat after shutdown. A 24-volt transformer and disconnecting contactor are provided on most heaters. Single-phase heaters rated at 5 KW or less have line voltage controls; 24-volt control and contactor are available. Power fusing is standard on all heaters rated over 48 amps.

Mounting - Universal horizontal or vertical discharge. Optional diffusers are available for vertical discharge. An Anemostat diffuser can be used to provide draft-free air movement at lower mounting heights. For higher mounting heights, radial diffuser with adjustable fins can be used to increase floor coverage or adjusted for a vertical down blast of air.

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Factory Built-in Options

| Code | Description |
|-----------------|--|
| Consult Factory | Custom KW - CONSULT FACTORY |
| D | Power disconnect switch |
| F | Fusing under 48 Amps, not available on heaters up to 10 KW |
| M | Manual Reset Cutout (In addition to automatic cutout) on heaters up to 10KW |
| P (1) | "Heater On" Pilot Light |
| R1 | Built-in 24V transformer and contactor for 2.5 to 5 KW, single phase heaters. |
| R2 (1) (2) | 120V Transformer to replace 24V Transformer |
| S1 | Summer Fan Switch |
| S2 (1) | Summer Fan Switch - Remote Pilot Duty |
| T | Built-in Thermostat - 1 - Stage |
| | Built-in Thermostat - 2 - Stage (Option 'X' required) |
| V1* | Anemostat (Cone) Diffuser |
| V2 | Radial Diffuser |
| X (2) | 2-Stage Control |

* consult factory for lead times

(1) When specifying Option 'P', 'R2', or 'S2' for single-phase heaters rated up to 5KW; Option 'R1' must also be specified.

(2) Option 'R2' and 'X' cannot be combined on heaters rates up to 5KW.

Field-Installed Options

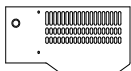
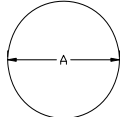
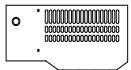
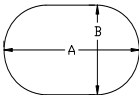
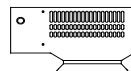
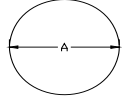
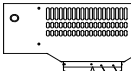
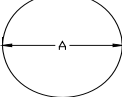
(shipped loose for field installation into heater)

| Catalog Number | Description |
|----------------|---|
| 1024155 | Anemostat (Cone) Diffuser up to 5 kW |
| 1024156 | Anemostat (Cone) Diffuser over 5 kW up to 20 kW |
| 1024157 | Anemostat (Cone) Diffuser over 20 kW |
| 1024152 | Radial Diffuser up to 5 kW |
| 1024153 | Radial Diffuser over 5 kW up to 20 kW |
| 1024154 | Radial Diffuser over 20 kW |
| 1023941 | Horizontal Dust Shield up to 10 kW |
| 1024059 | Horizontal Dust Shield over 20 kW up to 20 kW |
| 1024060 | Horizontal Dust Shield over 20 kW |
| 1024162 | Disconnect Switch, 600V, Three-Pole, 32 Amp |
| 1024163 | Disconnect Switch, 600V, Three-Pole, 64 Amp |
| 1024164 | Disconnect Switch, 600V, Three-Pole, 80 Amp |
| 1024166 | Built-in Thermostat - 1 - Stage |
| 1024167 | Built-in Thermostat - 2 - Stage (Option 'X' required) |
| 1024168 (1) | Heater On Pilot Light (24V) |
| 1024169 (1)(2) | Heater On Pilot Light (120V) |
| 1024170 | Summer Fan Switch - Built-in up to 277V |
| 1024171 | Summer Fan Switch- Built-in, over 277V |
| 1024172 (1) | Summer Fan Switch - Remote, 24V Control |

(1) When specifying Option 'P', 'R2', or 'S2' for single-phase heaters rated up to 5KW; Option 'R1' must also be specified.

(2) Option 'R2' and 'X' cannot be combined on heaters rates up to 5KW.

Vertical Mounting Air Pattern Table

| Description | Used on | Max Mtg. Height ft. (m) | A ft (m) | B ft (m) |
|---|---|--|---|---|
| WITHOUT DIFFUSER For a straight downward air pattern, directional louvers can be removed in order to maximize airflow.   | up to 5 kW over 5 up to 10 kW over 10 up to 20 kW over 20 up to 50 kW | 10 (3.0) 15 (4.6) 20 (6.1) 25 (7.6) | 17 (5.2) 28 (8.5) 38 (11.6) 68 (20.7) | — — — — |
| DIRECTIONAL LOUVERS (standard) Provides a directional (straight line) airflow which results in a rectangular air pattern. Louvers can be adjusted through a 35 degree range of motion   | up to 5 kW over 5 up to 10 kW over 10 up to 20 kW over 20 up to 50 kW | 10 (3.0) 15 (4.6) 20 (6.1) 25 (7.6) | 22 (6.7) 40 (12.2) 53 (16.2) 85 (25.9) | 12 (3.7) 20 (6.1) 27 (8.2) 45 (13.7) |
| ANEMOSTAT DIFFUSER Ideal for low mounting heights. Fabricated using 3 diverging hollow cones which disperse heat to the floor area at a minimum velocity for comfort.   | up to 5 kW over 5 up to 10 kW over 10 up to 20 kW over 20 up to 50 kW | 9 (2.7) 13 (4.0) 17 (5.2) 21 (6.4) | 17 (5.2) 29 (8.8) 40 (12.2) 68 (20.7) | — — — — |
| RADIAL DIFFUSER Ideal for high ceiling mounting. Louvers can be adjusted to direct airflow straight down when fully open to 45 degrees in a radial pattern which increases floor coverage by approximately 20%.   | OPEN up to 5 kW over 5 up to 10 kW over 10 up to 20 kW over 20 up to 50 kW | 10 (3.0) 15 (4.6) 20 (6.1) 25 (7.6) | 20 (6.1) 30 (9.1) 38 (11.6) 65 (19.8) | — — — — |
| | 45° up to 5 kW over 5 up to 10 kW over 10 up to 20 kW over 20 up to 50 kW | 9 (2.7) 11 (3.4) 15 (4.5) 18 (5.5) | 24 (7.3) 36 (11.0) 46 (14.0) 78 (23.8) | — — — — |

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Heater Listing

| KW | Volts | Ph | Total Amps* | Approx. Air Temperature Rise °F (°C) | 2-Stage Control | Std. Control Voltage | Unit Size | Catalog Number (2) |
|------|-------|----|-------------|--------------------------------------|-----------------|----------------------|-----------|--------------------|
| 2.5 | 208 | 1 | 12.30 | 23 (13) | 1B | 208 | 1 | 240-U1025C |
| | 240 | 1 | 10.7 | | 1B | 240 | 1 | 240-U1025J |
| | 277 | 1 | 9.40 | | 1B | 277 | 1 | 240-U1025N |
| 3.3 | 208 | 1 | 16.17 | 30 (17) | 1B | 208 | 1 | 240-U1033C |
| | 240 | 1 | 14.05 | | 1B | 240 | 1 | 240-U1033J |
| | 277 | 1 | 12.21 | | 1B | 277 | 1 | 240-U1033N |
| 3.7 | 480 | 3 | 4.66 | 34 (19) | 1A | 24 | 1 | 240-U1037U |
| 3.8 | 208 | 3 | 10.85 | 35 (19) | 1A | 24 | 1 | 240-U1038D |
| | 240 | 3 | 9.44 | | 1A | 24 | 1 | 240-U1038K |
| 5 | 208 | 1 | 24.34 | 46 (26) | 1B | 208 | 1 | 240-U1050C |
| | 240 | 1 | 21.13 | | 1B | 240 | 1 | 240-U1050J |
| | 277 | 1 | 18.35 | | 1B | 277 | 1 | 240-U1050N |
| | 208 | 3 | 14.18 | | 1A | 24 | 1 | 240-U1050D |
| | 240 | 3 | 12.33 | | 1A | 24 | 1 | 240-U1050K |
| | 480 | 3 | 6.22 | | 1A | 24 | 1 | 240-U1050U |
| 6.7 | 208 | 1 | 32.91 | 33 (18) | 1B | 24 | 2 | 240-U2067C |
| | 240 | 1 | 28.62 | | 1B | 24 | 2 | 240-U2067J |
| | 277 | 1 | 24.79 | | 1B | 24 | 2 | 240-U2067N |
| 7.5 | 208 | 1 | 36.80 | 37 (21) | 1B | 24 | 2 | 240-U2075C |
| | 240 | 1 | 32.00 | | 1B | 24 | 2 | 240-U2075J |
| | 208 | 3 | 21.52 | | 1A | 24 | 2 | 240-U2075D |
| | 240 | 3 | 18.74 | | 1A | 24 | 2 | 240-U2075K |
| | 480 | 3 | 9.39 | | 1A | 24 | 2 | 240-U2075U |
| 9.9 | 208 | 1 | 48.30 | 49 (27) | 1B | 24 | 2 | 240-U2099C |
| 10 | 240 | 1 | 42.37 | 49 (27) | 1B | 24 | 2 | 240-U2100J |
| | 277 | 1 | 36.70 | | 1B | 24 | 2 | 240-U2100N |
| | 208 | 3 | 28.46 | | 1A | 24 | 2 | 240-U2100D |
| | 240 | 3 | 24.76 | | 1A | 24 | 2 | 240-U2100K |
| | 480 | 3 | 12.40 | | 1A | 24 | 2 | 240-U2100U |
| 13.2 | 277 | 1 | 48.35 | 28 (16) | 1B | 24 | 3 | 240-U3132N |
| 13.3 | 208 | 1 | 64.79 | 28 (16) | Standard | 24 | 3 | 240-U3133C-X (1) |
| | 240 | 1 | 56.27 | | Standard | 24 | 3 | 240-U3133J-X |
| 15 | 208 | 3 | 42.48 | 32 (18) | 1B | 24 | 3 | 240-U3150D |
| | 240 | 3 | 36.93 | | 1B | 24 | 3 | 240-U3150K |
| | 480 | 3 | 18.44 | | 1B | 24 | 3 | 240-U3150U |
| | 208 | 1 | 96.52 | | Standard | 24 | 3 | 240-U3199C-X (1) |
| 19.9 | 240 | 3 | 48.72 | 43 (24) | 1B | 24 | 3 | 240-U3199K |
| | 240 | 1 | 84.18 | | Standard | 24 | 3 | 240-U3200J-X (1) |
| | 277 | 1 | 72.90 | | Standard | 24 | 3 | 240-U3200N-X (1) |
| | 208 | 3 | 56.36 | | Standard | 24 | 3 | 240-U3200D-X |
| | 480 | 3 | 24.46 | | 1B | 24 | 3 | 240-U3200U |
| 25 | 208 | 3 | 70.90 | 26 (14) | Standard | 24 | 4 | 240-U4250D-X |
| | 240 | 3 | 61.64 | | Standard | 24 | 4 | 240-U4250K-X |
| | 480 | 3 | 30.77 | | 1B | 24 | 4 | 240-U4250U |
| 33.3 | 208 | 3 | 93.93 | 35 (19) | Standard | 24 | 4 | 240-U4333D-X |
| | 240 | 3 | 81.61 | | Standard | 24 | 4 | 240-U4333K-X |
| | 480 | 3 | 40.75 | | 1B | 24 | 4 | 240-U4333U |
| 37.5 | 208 | 3 | 105.59 | 39 (22) | Standard | 24 | 4 | 240-U4375D-X |
| | 240 | 3 | 91.71 | | Standard | 24 | 4 | 240-U4375K-X |
| | 480 | 3 | 45.80 | | 1A | 24 | 4 | 240-U4375U |
| 49.8 | 208 | 3 | 139.73 | 52 (29) | Standard | 24 | 4 | 240-U4498D-X |
| 50 | 240 | 3 | 121.8 | 52 (29) | Standard | 24 | 4 | 240-U4500K-X |
| | 480 | 3 | 60.84 | | Standard | 24 | 4 | 240-U4500U-X |

*Total Amps = Heating element amps and motor amps.

(1) Disconnect switch unavailable.

(2) All Standard heaters are supplied with 24V transformer and contactor except up to 5 KW single-phase units. Optional low voltage transformer and contactor are available for these heaters, see Factory Built-in Option 'R1'.

2-stage heaters can be field wired as single stage.

1A = Optional 2-stage control, unbalanced (option X)

1B = Optional 2-stage control, balanced (option X).

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Heater Dimensions

| KW | W In. (mm) | H In. (mm) | Depth In. (mm) | A In. (mm) | B In. (mm) | C In. (mm) | D In. (mm) | E In. (mm) | F In. (mm) | G In. (mm) | H In. (mm) | I In. (mm) | J In. (mm) |
|------------|------------------|------------------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| up to 5 | 12.875 (327) | 17.750 (450) | 7.625 (194) | 8 (203) | 10.188 (284) | 18 (457) | 10 (254) | 8 (203) | 16 (406) | 5 (127) | 6.44 (164) | 6.44 (164) | 5 (127) |
| 5.1 to 10 | 16.875 (429) | 24.250 (616) | 7.625 (194) | 6 (152) | 10.188 (237) | 18 (457) | 10 (254) | 8 (203) | 16 (406) | 5 (127) | 6.44 (164) | 6.44 (164) | 5 (127) |
| 10.1 to 20 | 16.875 (429) | 24.250 (616) | 11.375 (289) | 6 (152) | 8.313 (237) | 18 (457) | 12 (305) | 12 (305) | 32 (813) | 5 (127) | 10.13 (257) | 5 (127) | 10.13 (257) |
| 20.1 to 50 | 26.937 (684) | 35.500 (902) | 15.625 (397) | 6.281 (236) | 11.937 (380) | 13 (330) | 12 (305) | 16 (406) | 32 (813) | 7 (178) | 12.92 (328) | 7 (178) | 12.92 (328) |

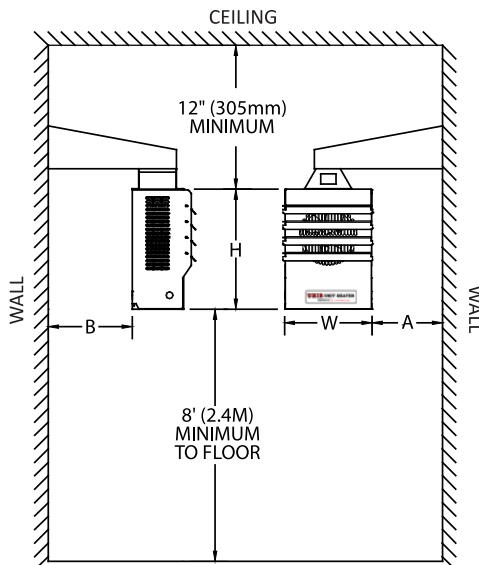


FIG. 1 HORIZONTAL WALL MOUNTING WITH MOUNTING ARM

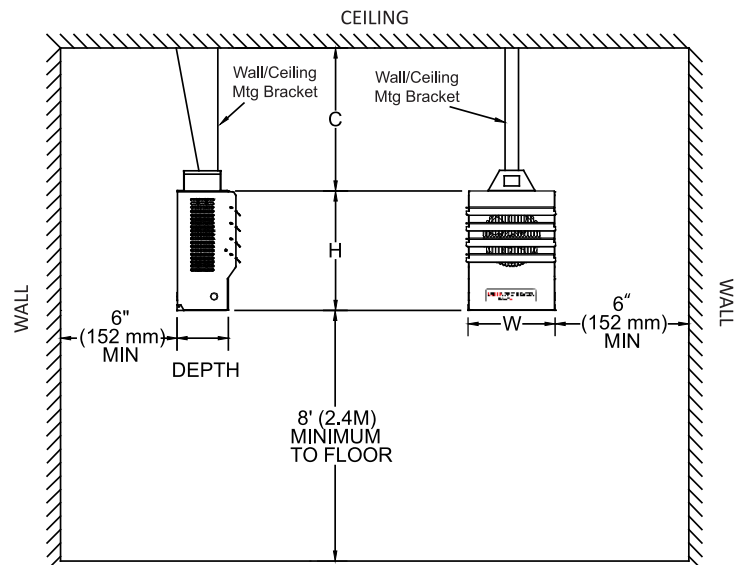


FIG. 2 HORIZONTAL CEILING MOUNT WITH MTG ARM

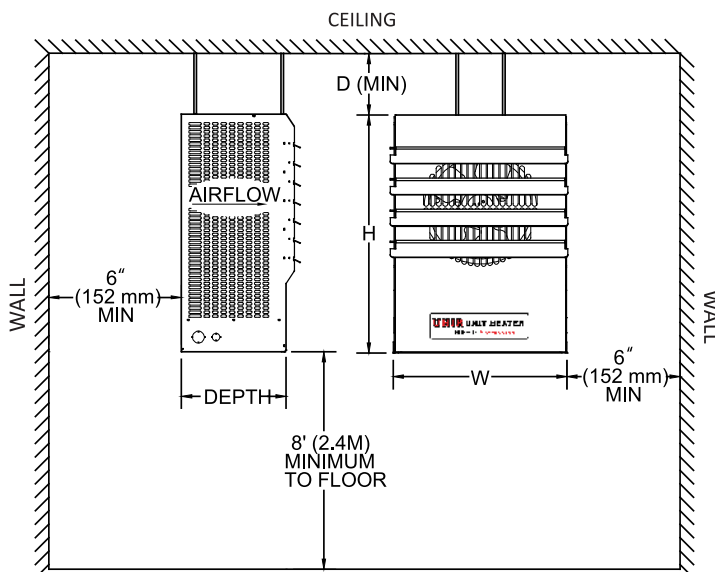


FIG. 3 HORIZONTAL CEILING MOUNT WITH THREADED ROD

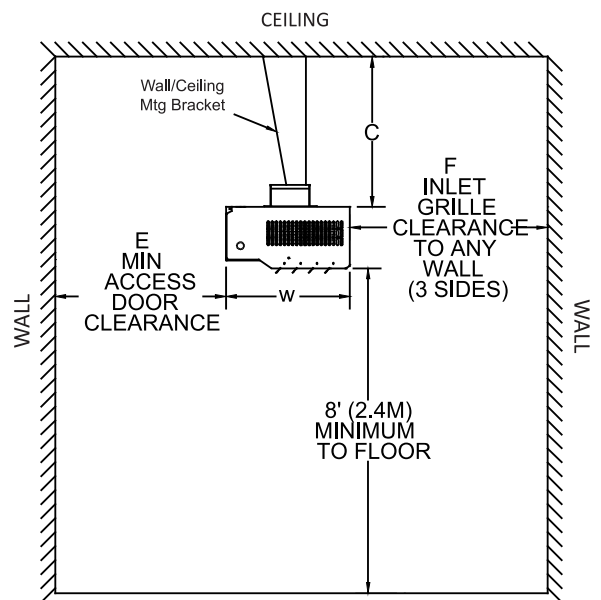


FIG. 4 VERTICAL CEILING MOUNT WITH MTG ARM

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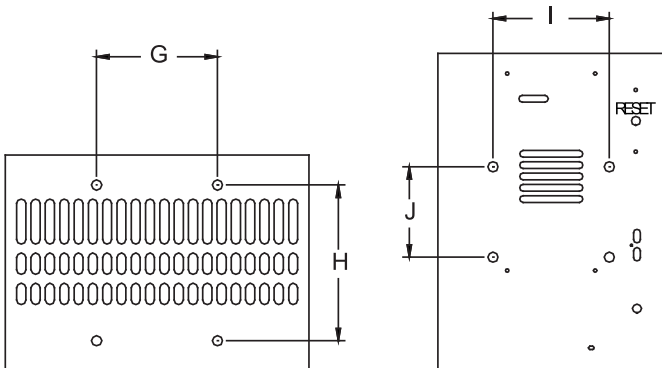


FIG. 5 THREADED ROD (3/8 - 16) ATTACHMENT POINT DIMENSIONS

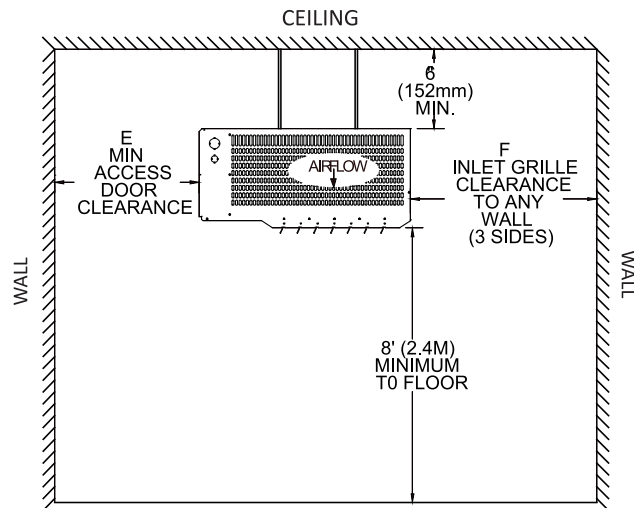


FIG. 6 VERTICAL CEILING MOUNT WITH THREADED ROD

Mounting Brackets

| Catalog Number | Description |
|----------------|--|
| 1024149 | Universal wall & ceiling mounting bracket up to 10 KW |
| 1024150 | Universal wall & ceiling mounting bracket over 10 KW up to 20 KW |
| 1024151 | Universal wall & ceiling mounting bracket over 20 KW |

Remote Thermostat Selection Chart

| KW | Catalog Number | Volts | Ph | 1-Stage Line Voltage | 1-Stage Low Voltage (b) | 2-Stage Low Voltage (b) |
|-------------------------------|----------------|-------|----|----------------------|-------------------------|-------------------------|
| 2.5 | 240-U1025C | 208 | 1 | 1007014 | 1006998 (a) | 1007030 (a) |
| | 240-U1025J | 240 | 1 | 1007014 | 1006998 (a) | 1007030 (a) |
| | 240-U1025U | 277 | 1 | 1007014 | 1006998 (a) | 1007030 (a) |
| 3.3 | 240-U1033C | 208 | 1 | 1007014 | 1006998 (a) | 1007030 (a) |
| | 240-U1033J | 240 | 1 | 1007014 | 1006998 (a) | 1007030 (a) |
| | 240-U1033N | 277 | 1 | 1007014 | 1006998 (a) | 1007030 (a) |
| 3.7 | 240-U1037U | 480 | 3 | NA | 1006998 | 1007030 |
| 3.8 | 240-U1038D | 208 | 3 | NA | 1006998 | 1007030 |
| | 240-U1038K | 240 | 3 | NA | 1006998 | 1007030 |
| 5 | 240-U1050C | 208 | 1 | NA | 1006998 (a) | 1007030 (a) |
| | 240-U1050J | 240 | 1 | 1007014 | 1006998 (a) | 1007030 (a) |
| | 240-U1050N | 277 | 1 | 1007014 | 1006998 (a) | 1007030 (a) |
| All Other UHIR Heaters | | | | NA | 1006998 | 1007030 |



1007030



1007014



1006998

(a) Add option 'R1' for 24V control on these units.
 (b) Option 'R2' is unavailable with any Indeeco supplied remote low voltage thermostats.

Finish/Color Options

| Code | Finish | Color |
|------|-----------------------|------------|
| None | Polyester Powder Coat | Camel |
| A0 | | Grey |
| A1 | | Yellow |
| A2 | | Red |
| A3 | | White |
| A4 | Blue | |
| A5 | Steel (unpainted) | Galvanized |
| A7 | Polyester Powder Coat | Beige |

Airflows, Weights and Air Throw

| Unit Size | CFM | Installed Weight lb (kg) | Max. Air Throw ft. (m) |
|-----------|------|--------------------------|------------------------|
| 1 | 350 | 25 (11.3) | 15 (4.6) |
| 2 | 650 | 40 (18.1) | 18 (5.5) |
| 3 | 1500 | 55 (25) | 41 (12.5) |
| 4 | 3100 | 155 (70.3) | 62 (18.9) |