

HUHAA SERIES UNIT HEATER



IDEAL SPACES

- Factories
- Warehouses
- Garages
- Stairwells
- Shipping Docks
- Power Stations
- Mechanical Rooms

COLORS

- Statuary Bronze

DIMENSIONS

- Varies (see diagram)

TEMP RANGE

- 40°– 90°F

CFM

- 350 – 3000



- Wide range of optional control kits are field-installable, increasing the unit's adaptability to specification market
- Small- to medium-case construction is 20-gauge steel with larger cabinet 18-gauge steel; completely enclosed fan motor
- Advanced pull-through air flow design draws air across heating element for even air distribution and cooler element operation
- Specially designed venturi outlet to meet required additional air throw in vertical position
- Branch circuit fusing (when required)
- 2-speed fan selector switch (25 to 50 kW models) and optional fan-only switch for air movement with no heat
- 1- or 3-phase wiring on 5 kW through 10 kW 208/240V and 15 kW 208V units (field-interchangeable)
- Aluminum-finned, copper-clad steel sheath heating element extends life due to cooler sheath temperature and faster heat dissipation
- 24V control transformer standard on most models, providing safer and more accurate means of temperature control. 3 kW and 5 kW, 208-277V, have line voltage controls as standard (24V control available on made-to-order basis)
- Automatic reset linear thermal cut-out, capillary type, provides protection over entire length of element areas (manual reset protection available on made-to-order basis)
- No piping flues, valves or traps needed for installation
- Individual stainless steel adjustable louvers to direct air flow

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For Technical Services, Call 800-642-4328

ITEM# BFLY_HUHAA_0618-1

 **BERKO**[®]
A Marley Engineered Products Brand

HUHAA SERIES UNIT HEATER

MODELS & SPECIFICATIONS

| CATALOG NO. | UPC 6-85360 | ELECTRICAL DATA | | | | | AMPS (3) | CONTROL VOLT (1) | 2 STAGE ELEMENT CONTROL | AIR DELIVERY DATA FAN MOTOR DATA | | | | MOUNTING HEIGHT | | | HORIZ. THROW | WIRE SIZE | SHIP W.T. (LBS.) W/ BRCKT |
|-------------|-------------|-----------------|-------|-----------|-------------|-------------|----------|------------------|-------------------------|----------------------------------|---------|-----------|---------|-----------------|--------|-------|--------------|-----------|---------------------------|
| | | VOLTS | PHASE | KW | BTU/HR. | | | | | CFM (2) | FPM (2) | ΔT(*F) | RPM (2) | HP | HORIZ. | VERT. | | | |
| HUHAA320 | 03688 5 | 208 | 1 | 3 | 10.2 | 14.5 | 208 | N/A | 350 | 800 | 27° | 1600 | 1/100 | 8 | 9 | 12 | AWG 12 | 24 | |
| HUHAA520* | 03697 7 | 208 | 1-3 | 5 | 17 | 24 | 208 | 5A | 350 | 800 | 45° | 1600 | 1/100 | 8 | 9 | 12 | AWG 10 | 27 | |
| HUHAA720 | 03701 1 | 208 | 1-3 | 7.5 | 25.6 | 36 | 24 | 5B | 650 | 970 | 37° | 1600 | 1/30 | 9 | 14 | 18 | AWG 6 | 38 | |
| HUHAA1020 | 03673 1 | 208 | 1-3 | 10 | 34.1 | 48 | 24 | 5B | 650 | 970 | 49° | 1600 | 1/30 | 9 | 14 | 18 | AWG 4 | 38 | |
| HUHAA1520 | 03677 9 | 208 | 1-3 | 15 | 51.2 | 72 | 24 | 5A | 910 | 1640 | 52° | 1530 | 1/20 | 11 | 20 | 35 | AWG 2 | 53 | |
| HUHAA2020 | 03680 9 | 208 | 3 | 20 | 68.2 | 56 | 24 | 5A | 1320 | 2060 | 48° | 1500 | 1/10 | 12 | 23 | 41 | AWG 4 | 60 | |
| HUHAA3020 | 03685 4 | 208 | 3 | 30 | 102.3 | 84 | 24 | 5A | 2100/1800 | 2100/2030 | 45°/53° | 1600/1375 | 1/4 | 12 | 20 | 50 | AWG 1 | 93 | |
| HUHAA5020 | 03694 6 | 208 | 3 | 50 | 170.5 | 139 | 24 | 5A | 3000/2600 | 3260/2900 | 53°/61° | 1525/1420 | 1/2 | 15 | 25 | 60 | AWG 4/0 | 114 | |
| HUHAA324 | 03689 2 | 208/240 | 1 | 2.2/3.0 | 7.5/10.2 | 11.0/12.5 | 208/240 | N/A | 350 | 800 | 27° | 1600 | 1/100 | 8 | 9 | 12 | AWG 12 | 27 | |
| HUHAA524* | 03698 4 | 208/240 | 1-3 | 3.7/5.0 | 12.6/17.0 | 18.0/21.0 | 208/240 | 5A | 350 | 800 | 45° | 1600 | 1/100 | 8 | 9 | 12 | AWG 10 | 27 | |
| HUHAA724 | 03702 8 | 208/240 | 1-3 | 5.6/7.5 | 19.1/25.6 | 27.0/31.3 | 24 | 5B | 650 | 970 | 37° | 1600 | 1/30 | 9 | 14 | 18 | AWG 8 | 38 | |
| HUHAA1024 | 03674 8 | 208/240 | 1-3 | 7.5/10.0 | 25.6/34.1 | 36.0/42.0 | 24 | 5B | 650 | 970 | 49° | 1600 | 1/30 | 9 | 14 | 18 | AWG 6 | 38 | |
| HUHAA1524 | 03678 6 | 208/240 | 3 | 11.2/15.0 | 38.2/51.2 | 31.3/36.1 | 24 | 5C | 910 | 1640 | 52° | 1530 | 1/20 | 11 | 20 | 35 | AWG 6 | 53 | |
| HUHAA2024 | 03681 6 | 208/240 | 3 | 15.0/20.0 | 51.2/68.2 | 41.2/48 | 24 | 5C | 1320 | 2060 | 48° | 1500 | 1/10 | 12 | 23 | 41 | AWG 4 | 60 | |
| HUHAA2524 | 03683 0 | 208/240 | 3 | 18.7/25.0 | 63.8/85.2 | 52.0/60.0 | 24 | 5A | 2100/1800 | 2100/2030 | 38°/44° | 1600/1375 | 1/4 | 13 | 23 | 50 | AWG 3 | 93 | |
| HUHAA3024 | 03686 1 | 208/240 | 3 | 22.5/30.0 | 76.7/102.3 | 63.0/72.3 | 24 | 5A | 2100/1800 | 2100/2030 | 45°/53° | 1600/1375 | 1/4 | 12 | 20 | 50 | AWG 2 | 93 | |
| HUHAA4024 | 03692 2 | 208/240 | 3 | 30.0/40.0 | 102.3/136.4 | 83.4/96.4 | 24 | 5A | 3000/2600 | 3260/2900 | 42°/49° | 1525/1420 | 1/2 | 15 | 28 | 60 | AWG 1/0 | 114 | |
| HUHAA5024 | 03695 3 | 208/240 | 3 | 37.5/50.0 | 127.3/170.5 | 104.2/120.0 | 24 | 5A | 3000/2600 | 3260/2900 | 53°/61° | 1525/1420 | 1/2 | 15 | 25 | 60 | AWG 3/0 | 114 | |
| HUHAA327 | 03690 8 | 277 | 1 | 3 | 10.2 | 11 | 277 | N/A | 350 | 800 | 27° | 1600 | 1/100 | 8 | 9 | 12 | AWG 14 | 27 | |
| HUHAA527 | 03699 1 | 277 | 1 | 5 | 17 | 18 | 277 | N/A | 350 | 800 | 45° | 1600 | 1/100 | 8 | 9 | 12 | AWG 10 | 27 | |
| HUHAA727 | 03703 5 | 277 | 1 | 7.5 | 25.6 | 27 | 24 | 5B | 650 | 970 | 37° | 1600 | 1/30 | 9 | 14 | 18 | AWG 8 | 38 | |
| HUHAA1027 | 03675 5 | 277 | 1 | 10 | 34.1 | 36 | 24 | 5B | 650 | 970 | 49° | 1600 | 1/30 | 9 | 14 | 18 | AWG 6 | 38 | |
| HUHAA348 | 03691 5 | 480 | 3 | 3 | 10.2 | 3.6 | 24 | N/A | 350 | 800 | 27° | 1600 | 1/100 | 8 | 9 | 12 | AWG 14 | 27 | |
| HUHAA548 | 03700 4 | 480 | 3 | 5 | 17 | 6 | 24 | N/A | 350 | 800 | 45° | 1600 | 1/100 | 8 | 9 | 12 | AWG 14 | 27 | |
| HUHAA748 | 03704 2 | 480 | 3 | 7.5 | 25.6 | 9 | 24 | 5B | 650 | 970 | 37° | 1600 | 1/30 | 9 | 14 | 18 | AWG 14 | 38 | |
| HUHAA1048 | 03676 2 | 480 | 3 | 10 | 34.1 | 12 | 24 | 5B | 650 | 970 | 49° | 1600 | 1/30 | 9 | 14 | 18 | AWG 14 | 38 | |
| HUHAA1548 | 03679 3 | 480 | 3 | 15 | 51.2 | 18 | 24 | 5C | 910 | 1640 | 52° | 1530 | 1/20 | 11 | 20 | 35 | AWG 10 | 53 | |
| HUHAA2048 | 03682 3 | 480 | 3 | 20 | 68.2 | 24 | 24 | 5C | 1320 | 2060 | 48° | 1500 | 1/10 | 12 | 23 | 41 | AWG 10 | 60 | |
| HUHAA2548 | 03684 7 | 480 | 3 | 25 | 85.2 | 30 | 24 | 5C | 2100/1800 | 2100/2030 | 38°/44° | 1600/1375 | 1/4 | 13 | 23 | 50 | AWG 8 | 93 | |
| HUHAA3048 | 03687 8 | 480 | 3 | 30 | 102.3 | 36 | 24 | 5C | 2100/1800 | 2100/2030 | 45°/53° | 1600/1375 | 1/4 | 12 | 20 | 50 | AWG 6 | 93 | |
| HUHAA4048 | 03693 9 | 480 | 3 | 40 | 136.4 | 48 | 24 | 5A | 3000/2600 | 3260/2900 | 42°/49° | 1525/1420 | 1/2 | 15 | 28 | 60 | AWG 4 | 114 | |
| HUHAA5048 | 03696 0 | 480 | 3 | 50 | 170.5 | 60.2 | 24 | 5A | 3000/2600 | 3260/2900 | 53°/61° | 1525/1420 | 1/2 | 15 | 25 | 60 | AWG 4 | 114 | |

NOTE: All standard units are supplied with a low voltage control transformer and contactor (24V) except HUHAA-3 and 5 KW, 208V, 240V and 277V models. Low voltage control on these units is available on made to order. All units are also available on special order for 120V control; internal with transformer or external without transformer. On dual-voltage units CFM, FPM, & RPM ratings are listed at higher voltage operation. On dual-phase units maximum amp draw

is listed for respective voltage. 25 thru 50 KW models having two-speed motors and dual CFM ratings are listed in Full Line Catalog. 5A. Standard; 5B. Optional - made to order - amp load unbalanced on three-phase; 5C. Optional - made to order - amp load balanced on three-phase.

*Must use two-stage Thermostat on 3Ø operation.

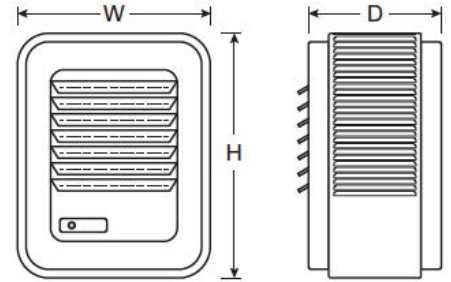
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DIMENSIONS

| CATALOG NO. | HEIGHT (IN) | WIDTH (IN) | DEPTH (IN) |
|--------------|-------------|------------|------------|
| HUHAA03 & 05 | 16 | 14 | 8-1/2 |
| HUHAA07 & 10 | 21-3/4 | 19 | 8-1/2 |
| HUHAA15 & 20 | 21-3/4 | 19 | 13-3/4 |
| HUHAA25 & 30 | 30 | 26-5/8 | 13-3/4 |
| HUHAA40 & 50 | 30 | 26-5/8 | 18-1/8 |



OPTIONAL FIELD-INSTALLED CONTROLS

| CATALOG NO. | UPC | DESCRIPTION | ELECTRICAL RATING | COMPATIBLE WITH |
|-------------|-----------------|---|--|---|
| UHMT1 | 6 85360 15241 7 | Single Pole Internal Thermostat-Temp Range: 40°- 85°F | 25A @ 120, 240VAC Res. 22A @ 277VAC Res. | All HUHAA Series Heaters (except 5 KW, 208V - 3PH, 208/240V - 3PH, 277V) |
| UHMT2 | 6 85360 15242 4 | Two Stage Internal Thermostat-Temp Range: 40°- 85°F | 25A @ 120, 240VAC Res. 22A @ 277VAC Res. 125VA | 5 KW, 208V, 3-PH and 208/240V 3-PH, 208V: 15, 20, 30 and 50 KW, 208/240V: 25, 30, 40 and 50 KW, 480V: 40 and 50 KW heaters |
| HUHAAFS | 6 85360 03661 8 | Internal Summer Fan Switch 480, 600V.A.C. 1,2 OR 3 PH | Pilot Duty 6A, 600VAC Res. 2 HP | All HUHAA Series Heaters |
| HUHAARFS1 | 6 85360 03671 7 | Remote Summer Fan Switch (Line Voltage) | 2 HP, 250-480VAC | All HUHAA Series Heaters |
| HUHAARFS2 | 6 85360 03672 4 | Remote Summer Fan Switch with Relay (24V Coil-Single Pole Normally Open) | 6 AFL, 35 ALR, 250VAC, 60Hz 3 AFL, 18 ALR, 480VAC, 60Hz | All HUHAA Series Heaters (except 3 and 5 KW, 208V, 208/240V, 277V) Units unless optional control transformer is supplied |
| HUHAAHRT | 6 85360 03662 5 | Heat Recovery Thermostat with Relay (24V Coil-Single Pole Normally Open) Hi - 120°F, Low - 60°F | 6 AFL, 35 ALR, 250VAC, 60Hz 3 AFL, 18 ALR, 480VAC, 60Hz | All HUHAA Series Heaters (except 3 and 5 KW, 208V, 208/240V, 277V) Units unless optional control transformer is supplied |
| HUHAADS25 | 6 85360 03659 5 | Power Disconnect Switch (3-Pole) | 30A @ 600VAC, Res. | HUHAA348, HUHAA548, HUHAA748, HUHAA327, HUHAA1048, HUHAA324, HUHAA320, HUHAA527, HUHAA1548, HUHAA524 |
| HUHAADS60 | 6 85360 03660 1 | Power Disconnect Switch (3-Pole) | 80A @ 600VAC, Res. | HUHAA520, HUHAA2048, HUHAA727, HUHAA2548, HUHAA724, HUHAA720, HUHAA1027, HUHAA1524, HUHAA3048, HUHAA1024, HUHAA1020, HUHAA2024, HUHAA4048, HUHAA2020, HUHAA2524, HUHAA5048 |

NOTE: Any field installed options assembled in the factory require added surcharge. See price book for charges. HUHAAADS60 disconnect switch is not suitable for field installation on 7.5kw and 10kw unit heaters.

DIFFUSER SELECTOR TABLES FOR VERTICAL MOUNTING

| CATALOG NO. | DESCRIPTION | CATALOG NO. | MAX. MOUNTING HEIGHT | (A) DIMENSION | DIFFUSER PATTERN AND AREA |
|----------------------|---|-------------------------|----------------------------|----------------------------|---------------------------|
| NONE NONE | WITHOUT DIFFUSER No diffuser needed where a straight downflow air pattern is required. For maximum air throw, remove louvers. Any of three diffusers can be added to basic heater. | 3 AND 5 7-1/2 AND 19 | 9 14 | 18 26 | |
| NONE NONE | | 15 20 | 20 23 | 35 40 | |
| NONE NONE | | 25 30 | 23 20 | 63 55 | |
| NONE NONE | | 40 50 | 28 25 | 70 63 | |
| HUHAALDS HUHAALDM | | 3 AND 5 7-1/2 AND 19 | 9 14 | 25(A) 12(B) 39(A) 19(B) | |
| HUHAALDM | 15 20 | 18 20 | 50(A) 25(B) 56(A) 28(B) | | |
| HUHAALDL | 25 30 | 23 20 | 72(A) 36(B) | | |
| HUHAALDL | 40 50 | 24 22 | 88(A) 44(B) 80(A) 40(B) | | |

HUHAA SERIES UNIT HEATER

OPTIONAL MOUNTING BRACKETS

| CATALOG NO. | UPC | COMPATIBLE WITH | SHIP WT. (LBS) |
|-------------|-----------------|-----------------|----------------|
| B10 | 6 85360 15229 5 | 3-10 KW units | 8 |
| B20 | 6 85360 15230 1 | 15-20 KW units | 10 |
| B30 | 6 85360 15231 8 | 25-30 KW units | 13 |
| B50 | 6 85360 15232 5 | 40-50 KW units | 15 |

OPTIONAL CEILING MOUNTING BRACKETS

| CATALOG NO. | UPC | COMPATIBLE WITH | SHIP WT. (LBS) |
|-------------|-----------------|-----------------|----------------|
| CMB10 | 6 85360 15236 3 | 3-10 KW units | 3 |
| CMB20 | 6 85360 15237 0 | 15-20 KW units | 4 |
| CMB30 | 6 85360 15238 7 | 25-30 KW units | 5 |
| CMB50 | 6 85360 15239 4 | 40-50 KW units | 6 |

OPTIONAL VERTICAL CEILING MOUNTING BRACKETS

| CATALOG NO. | UPC | COMPATIBLE WITH | SHIP WT. (LBS) |
|-------------|-----------------|-----------------|----------------|
| VDMB5 | 6 85360 15245 5 | 3-5 KW units | 5 |
| VDMB20 | 6 85360 15246 2 | 7.5-20 KW units | 7 |
| VDMB50 | 6 85360 15247 9 | 25-50 KW units | 9 |

MOUNTING LIMITATIONS: Unit heaters should not be used in potentially explosive atmospheres. The finish is not intended for direct salt spray exposure in marine applications or the highly corrosive atmospheres of swimming pools, chemical storage bins, etc. Do not install unit heaters above recommended maximum mounting height. Obstructions must not block unit heater air inlet or discharge. Heaters must be mounted at least 7ft. above the floor to prevent accidental contact with the heating element or fan blade which could cause injury.

FACTORY-INSTALLED OPTIONS FOR CONTROLS & ACCESSORIES

| DESCRIPTION |
|---|
| 3 and 5 KW (208, 208/240, 277V Supply) 24 or 120V Control Transformer and Power Contactor 24 or 120V H.C. Power Contactor |
| 3 and 5 KW (480V Supply) and 7.5-50 KW Optional 120V Control |
| 2-Stage Control of Elements (See Note 5) |
| Manual Reset |
| Outlet Mesh (Bird Screen) for all HUHAA Heaters |

NOTE: Any factory-installed options require added surcharge. See price book for charges or contact factory.

BRACKET SIZE

| DIMENSION | 3-20 kW (IN.) | 25-50 kW (IN.) |
|-----------|---------------|----------------|
| A | 7-1/4 | 9-7/16 |
| B | 9-1/2 | 14-3/8 |
| C | 7-1/4 | 12-1/8 |
| D | 11-5/16 | 2-1/16 |
| E | 2-1/4 | 3 |
| L | 20-1/2 | 28-15/16 |
| M | 9-15/16 | 14-15/16 |
| N | 3-1/4 | 4-1/2 |

