



KUH

Horizontal Blower Heater

- 2.6 - 45 kW
- 8,900 - 153,000 Btuh
- 208, 240, 277, 480 and 600 Volt
- 1 or 3 Phase
- Wall or Ceiling Mounted Configurations



Description

Type KUH self-contained heater provides quiet, reliable fan-forced heating in all types of commercial and industrial applications.

Applications

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

Construction

Die Formed Cabinet — Heavy 18 gauge steel, phosphate undercoated for corrosion resistance and finished in gray polyester powder coat.

Louvers — Individually adjustable louvers direct air flow up or down as needed.

Fintube Heating Elements have corrosion resistant steel fins that are furnace brazed to the tubular heating element to assure long life and superior heat transfer.

Refer to
WR-80, RTC, WR-90,
WT-121, WT-122 and WTL-121
in the Controls section.

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

Dynamically Balanced Fan is attached with rubber vibration insulators for smooth, quiet operation. Blade pitch is carefully selected so that the volume of air moved results in the optimum discharge air temperature.

Features

- **Sub-divided Circuits with Individual Fuse Protection** — Standard on all heaters with a total current draw of 48 Amps or greater. The fuse compartment is conveniently located for easy access.
- **Integral 24V Control Transformer** — Standard on 480V models, eliminates the need for an external control source.
- **Heavy Duty Magnetic Contactors** are standard on all models except 2.6 thru 5 kW single phase models.
- **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.
- **Mounting Configurations** — Recessed welded fasteners on top of the heater cabinet are internally threaded for suspension of unit with threaded rods. Ceiling and Universal Wall Swivel brackets are optional. The ceiling bracket lets you mount heater directly to 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 degrees.

Optional Features (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°F - 90°F.

Disconnect Switch — Field installable switch enables power to be disconnected while servicing heater. 40, 80 and 100 Amp models available. Mounts on back of heater.

- **Ceiling Bracket** (shown above)
- **Wall Mounting Bracket**

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 KUH heater may be used in a variety of heating applications:

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

KUH

Horizontal Blower Heater (cont'd.)

Dimensions (Inches)

Wall Mounted Universal Bracket

(4) 13/32" dia. wall mounting holes.¹

Stop for limiting rotation.

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

Minimum mounting height is 7 feet from floor.

Ceiling Mounted

(1) 11/16" dia. swivel mounting hole.

Notes —

1. Wall mounting fasteners to be supplied by customer.
2. Threaded rod to be supplied by customer.

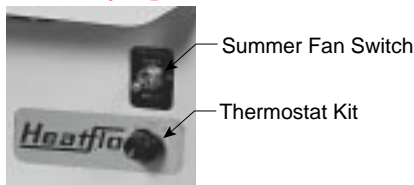
Wall Mounted Heaters

Heater	Dimensions (In.)					Wall Bracket	PCN	Stock	Wt. (Lbs.)
	P	Q	R	S	T				
KUH-02 to -05	1-3/4	21-1/2	6-3/4	5-1/2	14-15/16	BUH-01A	304493	S	3
KUH-07, 10, 12, 15	2	28-7/16	9-1/2	8-3/8	22-1/4	BUH-02A	304506	S	5
KUH-20, 25	2	32	9-1/2	8-3/8	22-1/4	BUH-02A	304506	S	7
KUH-30, 35, 40, 45	5-1/2	28-11/16	5	3-1/2	33-1/4	BUH-03A	304514	S	10

Ceiling Mounted Heaters

Heater	Dimensions (In.)															Ceiling Bracket	PCN	Stock	Wt. (Lbs.)	
	A	B	C	D	E	F	G	H	I	J	K	M	N	U	V					W
KUH-02 to -05	16	13-1/8	8-7/8	11-5/8	10-3/4	9-3/4	5-1/2	3-13/16	4-1/2	4-15/16	6-5/8	6	4-7/16	4	4-1/2	10-1/2	BUH-04A	304469	S	1
KUH-07, 10, 12, 15	20-1/2	17-1/4	11-1/2	16-3/8	14-3/8	12-3/8	8-1/4	4-1/2	6-1/4	7-7/16	8-5/8	8	4-3/4	6	7-1/4	16	BUH-05	304477	S	2
KUH-20, 25	24	20-1/8	11-1/2	20-1/2	16-3/4	16	8-1/4	6	6-1/4	12	10-1/16	8	6-1/4	6	7-1/4	17-1/2	BUH-05	304477	S	3
KUH-30, 35, 40, 45	24	20-1/8	17	26	16-3/4	16	8-1/4	6	11-3/4	12	10-1/16	13-3/4	9-5/16	6	7-1/4	21	BUH-06	304485	S	3

Optional Control Accessories & Remote Thermostats Fan Only Operation Kits



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

Summer Fan Switch	(2 - 15 kW)		(20 - 45 kW)		Stock	Wt. (Lbs.)
	Model	PCN	Model	PCN		
Internal 208- 277V	ISFS-02 ²	305007	ISFS-02	305007	S	0.25
External ¹ with Relay (24V control)	ESFS-40	305015	ESFS-40A	305058	S	0.5
External ¹ with Relay (120V control)	ESFS-41	305023	ESFS-41A	305066	S	0.5
External ¹ with Relay (240V control)	ESFS-42	305031	ESFS-42A	305074	S	0.5
External ¹ with Relay (277V control)	ESFS-47	305040	—	—	S	0.5

1. Kit includes wall plate (discard plate if switch is to be installed on heater).
 2. Do not use for 480V rated heaters. 480V heaters require fan relay option with proper control voltage relay coil.

Thermostat Kits

Model	PCN	Stock	Wt. (Lbs.)
KUH-TK3 (SPST)	302519	S	0.25
KUH TK4 (DPST)	302527	S	0.25

Power Disconnect Kits

Model	Rating	PCN	Stock	Wt. (Lbs.)
KDS-1	40 Amp*	304434	S	0.5
KDS-2	80 Amp	304442	S	0.5
KDS-3	100 Amp	304450	S	1

3 Pole, 600V Rating

* KDS-1 Rating for 480V or less is 50 Amp.

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.

KUH Horizontal Blower Heater *(cont'd.)*

Specifications and Ordering Information

Electrical (60 Hz)				Motor				Air Delivery					Ordering			
kW	Volts	Ckt & Phase	Amps ⁴	Volts	Phase	HP	RPM	CFM	FPM	Temp. Rise (°F)	Horiz. Throw (Ft.)	Mtg. ⁵ Height (Ft.)	Model	Stock	PCN	Wt. (Lbs.)
2.6	208	1 - 1	13.1	208	1	1/50	1,000	310	700	27	12	8	KUH-02-81-00	S	304004	32
2/2.6	208/240	1 - 1	11.4 ²	240	1	1/50	1,000	310	700	27	12	8	KUH-02-21-00	S	304012	32
2.6	277	1 - 1	9.6	277	1	1/50	1,000	310	700	27	12	8	KUH-02-71-00	S	304020	32
4	208	1 - 1	19.8	208	1	1/50	1,000	310	700	42	12	8	KUH-04-81-00	S	304039	32
4	208	1 - 3 ³	11.7	208	1	1/50	1,000	310	700	42	12	8	KUH-04-83-34	S	304047	32
3/4	208/240	1 - 1	17.2 ²	240	1	1/50	1,000	310	700	42	12	8	KUH-04-21-00	S	304055	32
3/4	208/240	1 - 3 ³	10.2 ²	240	1	1/50	1,000	310	700	42	12	8	KUH-04-23-34	S	304063	32
4	277	1 - 1	14.6	277	1	1/50	1,000	310	700	42	12	8	KUH-04-71-00	S	304071	32
4	480	1 - 3	5.1	480	1	1/50	1,000	310	700	42	12	8	KUH-04-43-30	S	304080	32
5	208	1 - 1	24.6	208	1	1/50	1,050	420	950	42	18	8	KUH-05-81-00	S	304098	32
5	208	1 - 3 ³	14.5	208	1	1/50	1,050	420	950	42	18	8	KUH-05-83-34	S	304100	32
3.75/5	208/240	1 - 1	21.4	240	1	1/50	1,050	420	950	42	18	8	KUH-05-21-00	S	304119	32
3.75/5	208/240	1 - 3 ³	12.6	240	1	1/50	1,050	420	950	42	18	8	KUH-05-23-34	S	304127	32
5	277	1 - 1	18.3	277	1	1/50	1,050	420	950	42	18	8	KUH-05-71-00	S	304135	32
5	480	1 - 3	6.3	480	1	1/50	1,050	420	950	42	18	8	KUH-05-43-30	S	304143	32
5	600	1 - 3	5.3	600	1	1/50	1,050	420	950	42	18	8	KUH-05-63-32	NS	—	32
7.5	208	1 - 1 ³	36.5	208	1	1/10	1,550	670	850	40	20	8	KUH-07-81-34	S	304151	50
7.5	208	1 - 3	21.3	208	1	1/10	1,550	670	850	40	20	8	KUH-07-83-34	S	304160	50
5.6/7.5	208/240	1 - 1 ³	31.7 ²	240	1	1/10	1,550	670	850	40	20	8	KUH-07-21-34	S	304178	50
5.6/7.5	208/240	1 - 3	18.5 ²	240	1	1/10	1,550	670	850	40	20	8	KUH-07-23-34	S	304186	50
7.5	277	1 - 1	27.7	277	1	1/10	1,550	670	850	40	20	8	KUH-07-71-30	S	304194	50
7.5	480	1 - 3	9.9	480	3	1/10	1,550	670	850	40	20	8	KUH-07-43-30	S	304207	50
7.5	600	1 - 3	7.6	600	1	1/10	1,550	670	850	40	20	8	KUH-07-63-32	NS	—	50
9.7	208	1 - 1 ³	47.1	208	1	1/10	1,550	750	950	47	27	9	KUH-10-81-34	S	304215	50
9.7	208	1 - 3	27.4	208	1	1/10	1,550	750	950	47	27	9	KUH-10-83-34	S	304223	50
7.5/10	208/240	1 - 1 ³	42.1 ²	240	1	1/10	1,550	750	950	47	27	9	KUH-10-21-34	S	304231	50
7.5/10	208/240	1 - 3	24.5 ²	240	1	1/10	1,550	750	950	47	27	9	KUH-10-23-34	S	304240	50
10	480	1 - 3	12.9	480	3	1/10	1,550	750	950	47	27	9	KUH-10-43-30	S	304258	50
10	600	1 - 3	10.6	600	1	1/10	1,550	750	950	47	27	9	KUH-10-63-32	NS	—	50
12.5	208	1 - 3	35.2	208	1	1/10	1,550	750	950	55	27	9	KUH-12-83-34	S	394266	50
9.3/12.5	208/240	1 - 3	30.6	240	1	1/10	1,550	750	950	55	27	9	KUH-12-23-34	S	304274	50
12.5	480	1 - 3	15.9	480	3	1/10	1,550	750	950	55	27	9	KUH-12-43-30	S	304282	50
12.5	600	1 - 3	12.6	600	1	1/10	1,550	750	950	55	27	9	KUH-12-63-32	NS	—	50
15	208	1 - 3	42.1	208	1	1/10	1,550	750	950	61	27	10	KUH-15-83-34	S	304290	50
11.25/15	208/240	1 - 3	36.6 ²	240	1	1/10	1,550	750	950	61	27	10	KUH-15-23-34	S	304303	50
15	480	1 - 3	19.0	480	3	1/10	1,550	750	950	61	27	10	KUH-15-43-30	S	304311	50
15	600	1 - 3	15.6	600	1	1/10	1,550	750	950	61	27	10	KUH-15-63-32	NS	—	50
14.5/19.4	208/240	1 - 3	48.0 ²	240	3	1/10	1,550	1,240	1,160	53	31	11	KUH-20-23-34	S	304320	73
20	480	1 - 3	25.0	480	3	1/10	1,550	1,240	1,160	53	31	11	KUH-20-43-30	S	304338	73
20	600	1 - 3	19.6	600	1	1/10	1,550	1,240	1,160	53	31	11	KUH-20-63-32	NS	—	73
25	480	1 - 3	31.0	480	3	1/10	1,550	1,350	1,260	60	31	12	KUH-25-43-30	S	304346	73
25	600	1 - 3	24.6	600	1	1/10	1,550	1,350	1,260	60	31	12	KUH-25-63-32	NS	—	73
30	208	2 - 3	85.2	240	3	1/3	1,725	1,555	1,450	64	46	13	KUH-30-83-34	S	304354	106
22.5/30	208/240	2 - 3	74.0 ²	240	3	1/3	1,725	1,555	1,450	64	46	13	KUH-30-23-34	S	304362	106
30	480	2 - 3	37.1	480	3	1/3	1,725	1,555	1,450	64	46	13	KUH-30-43-30	S	304370	106
30	600	2 - 3	29.6	600	1	1/3	1,725	1,555	1,450	64	46	13	KUH-30-63-32	NS	—	106
26.25/35	208/240	2 - 3	86.0 ²	240	3	1/3	1,725	1,555	1,450	71	45	14	KUH-35-23-34	S	304389	106
35	480	2 - 3	43.1	480	3	1/3	1,725	1,555	1,450	71	45	14	KUH-35-43-30	S	304397	106
35	600	2 - 3	34.7	600	1	1/3	1,725	1,555	1,450	71	45	14	KUH-35-63-32	NS	—	106
28.5/38	208/240	2 - 3	93.3	240	3	1/3	1,725	1,555	1,450	84	44	15	KUH-40-23-34	S	304400	106
39	480	2 - 3	47.9	480	3	1/3	1,725	1,555	1,450	84	44	15	KUH-40-43-30	S	304418	106
40	600	2 - 3	39.7	600	1	1/3	1,725	1,555	1,450	84	44	15	KUH-40-63-32	NS	—	106
45	480	2 - 3	55.1	480	3	1/3	1,725	1,555	1,450	94	42	17	KUH-45-43-30	S	304426	106
45	600	2 - 3	43.7	600	1	1/3	1,725	1,555	1,450	94	42	17	KUH-45-63-32	NS	—	106

Forced Air

Stock Status: S = stock AS = assembly stock NS = non-stock
To Order—Specify model, PCN, kW, volts, phase and quantity.

1. For motor data, see table.
2. 208V amperage is 86% of 240V value.
3. Models can be field wired for 1 or 3 phase.
4. Includes motor Amps.
5. Maximum mounting height for effective heat distribution. Minimum height is 7 feet.

Other Notes —

- A. All heaters have built-in contactors except 2.6 thru 5 kW single phase models, and stock 480V models have built-in control transformers and contactor with 24V holding coils. All stock 208 and 240V models have 208/240V holding coils. All stock 277V models have 277V holding coils.
- B. Optional contactors available with 24V holding coils on made-to-order models, contact your Local Chromalox Sales office.
- C. When total heater capacity exceeds 48 Amps, built-in fusing is provided behind a hinged and latched door in the side which allows easy access.