

REZ[®] SPEC

ELECTRIC HEATING CATALOG

COMMERCIAL/INDUSTRIAL

TYPE

**Unit Heaters
Explosion Resistant Unit Heaters
Cabinet Heaters
Wall Heaters
Ceiling Heaters
Portable Heaters**







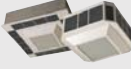





CAPACITIES


**1 - 60 kW
200 - 3,000 CFM**

**Visit www.RezSpec.com
for more information.**

**805E-0817
(Replaces Form C-EH (0616))**

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IMPORTANT: Specifications are subject to change without notice. This guide is intended to provide specifications and technical information only. This guide is not intended to be an instruction manual. When installing heating and ventilating equipment, you must check and conform to all local and national building codes. Improper installation of heating and ventilating equipment could be dangerous. Consult manufacturer's installation manual for instructions and important warnings.

EGEB

Cyclone Commercial Unit Heater



1



2



3



4



5

Features

Color

- Standard: almond.

Finish

- Standard: epoxy/polyester powder paint.

Voltage

- 208V, 240V, 277V, 347V, 480V, 600V, 1 or 3-phase.

Construction

- Draw-through design for more evenly heated air. **1**
- Specially designed outlet diffuser provides maximum air velocity. **2**
- Individually adjustable louvers to direct discharge air flow. **3**
- High-limit temperature control with automatic reset.
- 18 and 20 gauge steel.

Fan

- Motor - totally enclosed - thermally protected. **4**
- Motor mounted in ambient air stream, shielded from heating elements. **5**
- Fan delay purges heater of residual heat for longer life.

Heating element

- Stainless steel sheath with aluminum fins.
- Draw-through design permits greater heat transfer.

Control

- All models have factory installed contactor.
- 240/208V control circuit standard on all models (with transformer if needed).
- Full line of unit mounted control accessories available (factory or field installed).

Installation

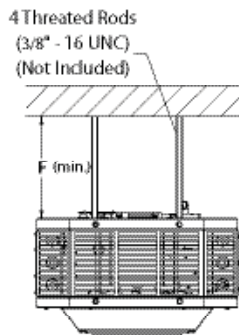
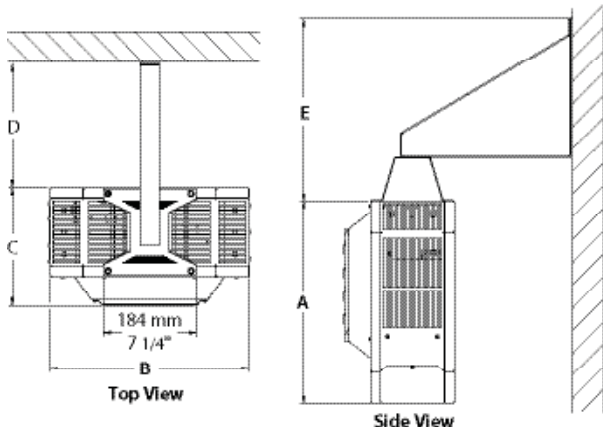
- Minimum mounting height:
U.S. - 6 ft. (1.8 m)
Canada - 8 ft. (2.4m)
- Horizontal or vertical discharge air flow.
- Includes wall and ceiling mounting brackets (for horizontal discharge air flow).
- For vertical air flow 4 welded nuts (for threaded rod 3/8 in. X 16 UNC) provided in heater back.
- Large and easily accessible control compartment.

Warranty

- 5-year warranty against defects.

Application

- Factory, warehouse, garage, store, shipping room.



	2 -5kW		7.5-10kW		15-20kW	
	mm	po	mm	po	mm	po
A	416	16 3/8	622	24 1/2	622	24 1/2
B	395	15 9/16	559	22	559	22
C	231	9 1/8	276	10 7/8	412	16 1/4
D	244	9 5/8	357	14 1/16	289	11 3/8
E	373	14 11/16	507	19 15/16	556	21 7/8
F	152	6	254	10	152	6
Weight	kg	lb	kg	lb	kg	lb
	18	40	30	67	41	90

EGBE

Models

		Size	3	5	7	9	10	15	19	20	
Heating Capacity		kW	3	5	7.5	9.9	10	15	19.8	20	
		MBH	10	17	26	34	34	51	68	68	
Air Flow		cfm	310	310	600	600	625	915	1300	1300	
Temperature Rise		°F	31	51	40	52	51	52	49	49	
		°C	17	28	22	29	28	29	27	27	
Motor		HP	1/50	1/50	1/33	1/33	1/33	1/8	1/8	1/8	
		@ 208V	RPM	1490	1490	1490	1490	■	1490	■	■
		@ 240V and Higher	RPM	1550	1550	1550	■	1550	1550	1550	1550
Ship Weight		Lbs	40	40	67	67	67	90	90	90	
		Kg	18	18	30	30	30	41	41	41	
Factory Installed Options											
Country Code	Canadian Destination/Approvals		BY15	✓	✓	✓	✓	✓	✓	✓	✓
	US Destination/Approvals		BY16	✓	✓	✓	✓	✓	✓	✓	✓
Supply Voltage/ Phase	208/1-3 ¹		AK15	✓	✓	✓	✓	■	■	■	■
	208/3		AK5	■	■	■	■	■	✓	■	■
	240/1-3 ¹		AK16	✓	✓	✓	■	✓	■	■	■
	240/3		AK6E	■	■	■	■	■	✓	✓	■
	277/1		AK4	✓	✓	✓	■	✓	■	■	■
	347/1		AK34	✓	✓	✓	■	✓	■	■	■
	480/1		AK9E	✓	✓	✓	■	■	■	■	■
	480/3		AK7E	✓	✓	✓	■	✓	✓	■	✓
	600/3		AK8E	✓	✓	✓	■	✓	✓	■	✓
	Disconnect Switch ²	40A		BA14	✓	✓	✓	■	■	■	■
80A		BA15	■	■	■	✓	✓	✓	✓	✓	
Control Voltage	Supply Voltage	Control Voltage	STD	✓	✓	✓	✓	✓	✓	✓	
	208 to 600	208, 240	BT1	✓	✓	✓	✓	✓	✓	✓	
Internal Thermostat	1-Stage		IC11	✓	✓	✓	✓	✓	✓	✓	
	2 Stage		IC14	■	■	■	■	■	✓	✓	✓
Fan Controls	Unit Mounted Fan Switch		BF4A	✓	✓	✓	✓	✓	✓	✓	
	Relay for 24V remote fan switch (by others). Required 24V control voltage		BF5	✓	✓	✓	✓	✓	✓	✓	✓
Field Installed Options (shipped separately)											
			Size	3	5	7	9	10	15	19	20
Mounting Accessories	Wall bracket for horizontal discharge		STD	✓	✓	✓	✓	✓	✓	✓	✓
	Ceiling bracket for horizontal discharge		STD	✓	✓	✓	✓	✓	✓	✓	✓
	Threaded rod inserts in back for vertical/downflow (rod by others)		STD	✓	✓	✓	✓	✓	✓	✓	✓
Thermostats	Kit to field install (retrofit) built-in thermostat (specify the wattage of the unit)		IT13	✓	✓	✓	✓	✓	✓	✓	✓
	24V 40°F-80°F single stage wall thermostat		CL1A	✓	✓	✓	✓	✓	✓	✓	✓
	SPST single stage line voltage wall thermostat		CL5	✓	✓	✓	✓	✓	✓	✓	✓
	Kit to field install BF4A fan switch for 277 units or less		CH2A	✓	✓	■	■	■	■	■	■
	Kit to field install BF4B fan switch for units over 277V		CH2B	✓	✓	■	■	■	■	■	■
	Kit to field install BF4C fan switch 277V units or less		CH2C	■	■	✓	✓	✓	✓	✓	✓
	Kit to field install BF4D fan switch for units over 277V		CH2D	■	■	✓	✓	✓	✓	✓	✓
	Relay kti for 24V remote fan switch (by others). Requires 24V control voltage		IR3	✓	✓	✓	✓	✓	✓	✓	✓

¹ Models with the indications "1/3" can be field converted from 1 to 3-phase.

² For the U.S. only: The nominal current of the unit must not exceed 80% of the capacity of the disconnect. Standard color is almond.



Horizontal mounting

Vertical mounting
with diffuser cone



Features

Color

- Standard: almond.

Finish

- Standard: epoxy/polyester powder paint.

Voltage

- 208V, 240V, 277V, 347V, 480V, 600V, 1 or 3-phase.
- Some units may be field converted from 3 to 1-phase.

Construction

- 18 and 20-gauge steel.
- Adjustable louvres to direct air flow.
- High-limit temperature control with automatic reset.

Fan

- Motor mounted in cold compartment.
- Thermally-protected motor.
- Totally enclosed and factory-lubricated ball bearing motor (except for 15 to 25kW at 208/240V).
- 58 dBA fan (2 to 10kW), 67 dBA fan (15 to 30kW) and 77 dBA fan (40 to 60kW).
- Fan delay purges heater of residual heat.

Heating element

- Durable tubular heating elements; stainless steel (2 to 10kW); finned (15 to 60kW).
- Concentric disposition of heating elements.
- Factory sealed element upon request.

Control

- All models have a factory-installed contactor.
- 240/208V control circuit standard (with transformer if necessary).
- 24V relay, with or without transformer available.
- Built-in thermostat available.
- 120V control circuit available.

Manufacturer highly recommends to use a wall thermostat for greater comfort.

Any remote thermostat or relay must be connected to the heater control terminal block.

Installation

- Horizontal wall or ceiling mounting using one of two supplied brackets which allow 360° rotation. (Horizontal mounting only for 40kW, 50kW and 60kW secured by 4 hooks [ceiling only].)
- Vertical mounting using 4 threaded rods 1/2 in. X 13 UNC (not included) (except option -MD).
- Diffuser cones available (except option -MD).
- Large and easily accessible control compartment.
- Maximum recommended height (horizontal): 2 to 10kW: 8 ft. (2.4 m); 15 to 30kW: 10 ft. (3 m); 40 to 60kW: 15 ft. (4.5 m).
- Protective screen allows lower mounting height (except 40 to 60kW).
- Minimum height of 8 ft. (2.4 m) for 40 to 60kW heaters.
- 30 °C (85 °F) maximum operating ambient temperature.

Warranty

- 1-year warranty against defects.

Application

- Commercial hall, warehouse, stairwell, factory.

EGHB

Models

	Size	2	3	4	5	7	10	15	20	25	30	40	50	60					
Heating Capacity	kW	2	3	4	5	7.5	10	15	20	20	25	25	30	40	50	60			
	MBH	7	10	14	17	26	34	51	51	68	68	85	85	102	136	171	205		
Air Flow	cfm	510	510	510	700	700	700	1300	1400	1300	1400	1300	1400	2000	2000	2000			
Temperature Rise	°F	13	18	25	23	34	45	36	34	49	45	61	56	68	63	79	95		
	°C	7	10	14	13	19	25	20	19	27	25	34	31	38	35	44	53		
Motor	HP	1/30	1/30	1/30	1/30	1/30	1/30	1/8	1/3	1/8	1/3	1/8	1/3	1/3	3/4	3/4	3/4		
	RPM	1550	1550	1550	1550	1550	1550	1550	1550	■	1550	■	1550	■	■	■	■		
	@ 277V and lower	RPM	1550	1550	1550	1550	1550	1550	1550	■	1725	■	1725	■	1725	1725	1140	1140	1140
	@ 480V and Higher	RPM	1550	1550	1550	1550	1550	1550	1550	■	1725	■	1725	■	1725	1725	1140	1140	1140
Ship Weight	Lbs	45	45	45	45	45	45	85	85	85	85	85	85	85	150	150	150		
	Kg	20	20	20	20	20	20	39	39	39	39	39	39	39	68	68	68		

Factory Installed Options

Supply Voltage/ Phase	208/1	AK2	✓	✓	✓	✓	■	✓	■	■	■	■	■	■	■	■	■
	208/3	AK5	■	■	■	■	■	✓	✓	■	✓	■	■	■	■	■	■
	208/3-1 ¹	AK15	■	■	■	✓	✓	■	■	■	■	■	■	■	■	■	■
	240/1	AK3E	✓	✓	✓	✓	✓	✓	■	■	■	■	■	■	■	■	■
	240/3	AK6E	■	■	■	■	■	■	✓	■	✓	■	✓	■	■	■	■
	240/3-1 ¹	AK16	■	■	■	✓	✓	✓	■	■	■	■	■	■	■	■	■
	277/1	AK4	✓	✓	✓	✓	✓	■	■	■	■	■	■	■	■	■	■
	347/1	AK34	✓	✓	✓	✓	✓	■	■	■	■	■	■	■	■	■	■
	480/1	AK9E	✓	✓	✓	✓	✓	✓	■	✓	■	✓	■	✓	■	■	■
	480/3	AK7E	✓	✓	✓	✓	✓	✓	■	✓	■	✓	■	✓	✓	✓	✓
600/3	AK8E	✓	✓	✓	✓	✓	✓	■	✓	■	✓	■	✓	✓	✓	✓	
Triple Pole Contactor (3ph) ²		AN6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Disconnect Switch ³	40A	BA14	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	■	■
	80A	BA15	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	100A	BA16	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Branch Circuit Fusing		BA12	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Unit Mounted Summer Fan Switch		BF4A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Control Voltage	208V, 240V, 277V	STD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	24V relay with transformer ⁴	BT1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	120V contactor with transformer	BT2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Manual High Limit		BD6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Summer Fan Relay	24V, remote control (Fan Switch must be ordered separately)	CV24	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Internal Thermostat		IC11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Field Installed Options (shipped separately)

	Size	2	3	4	5	7	10	15	20	25	30	40	50	60
24V Relay Kit ⁵	Without transformer	IR24	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	240V transformer ⁶	IR2B	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Unit Mounted Thermostat Kit ⁷		IT13	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wall Mounted Thermostats	Single-pole, low-voltage thermostat ⁸	CL1A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Single-pole, single stage thermostat	CL5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Vertical Cone Diffuser		CD70	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

¹ Models with the indications "3/1" can be field converted from 3 to 1-phase.

² 2-pole contactor is standard with single and 3-phase units. 3-pole contactor may be required by some codes for 3-phase.

³ For the U.S. only: The nominal current of the unit must not exceed 80% of the capacity of the disconnect.

⁴ For single or multiple unit control.

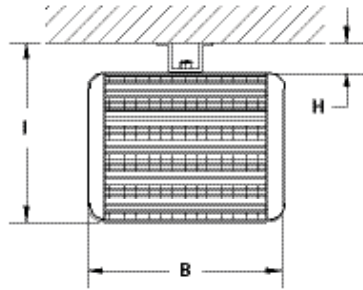
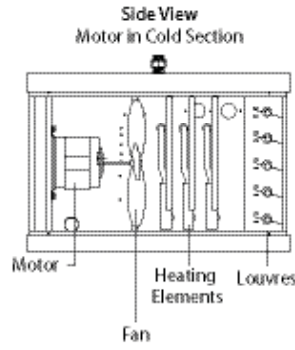
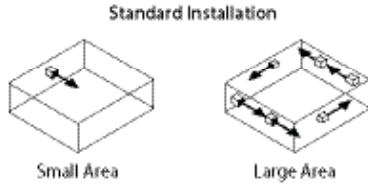
⁵ IR24: 24V signal by others (multiple units per thermostat). IR2B: for 24V thermostat on each unit.

⁶ All heaters have a 240V control circuit unless otherwise specified.

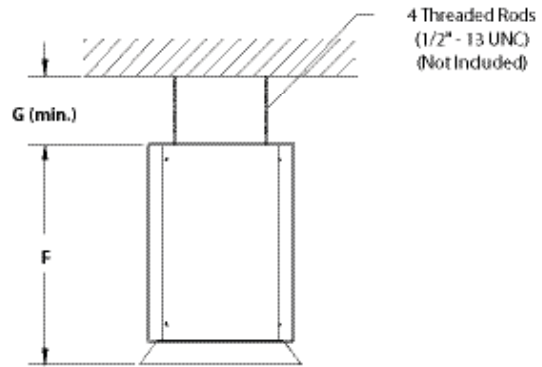
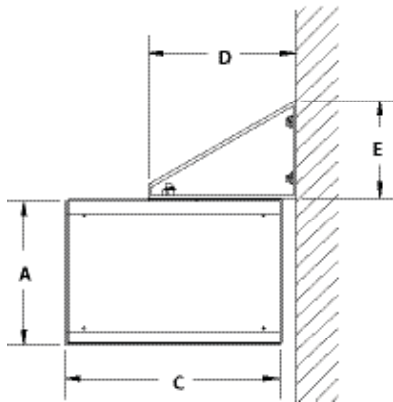
⁷ Field installed. Same thermostat as Option IC11.

⁸ CL1A thermostat requires option BT1.

Standard color is almond.



	2 to 10kW		15 to 30kW		40 to 60kW	
	mm	in.	mm	in.	mm	in.
A	305	12	444	17 1/2	585	23
B	419	16 1/2	556	21 7/8	641	25 1/4
C	432	17	572	22 1/2	870	34 1/4
D	357	14 1/16	470	18 1/2	-	-
E	290	11 7/16	407	16	-	-
F	490	19 5/16	630	24 13/16	924	36 3/8
G	305	12	305	12	305	12
H	123	4 7/8	148	5 13/16	305	12
I	428	16 7/8	592	23 5/16	890	35
Weight	kg	lb	kg	lb	kg	lb
	20	45	39	85	68	150



EGW

Economical Unit Heater



Features

Color

- Standard: almond.

Finish

- Standard: epoxy/polyester powder paint.

Voltage

- 240/208V, 1-phase.

Construction

- 20-gauge steel.
- Adjustable louvers to control warm air flow. **1**
- High-limit temperature control with automatic reset (first level) and single operation thermal fuse (second level). **2**

Fan

- 300 cfm fan (51 dBA).
- Totally enclosed factory-lubricated motor. **3**

Heating element

- Helical coil nickel-chromium alloy wire provides instant heat. **4**

Control

- Built-in thermostat included.

Installation

- Wall or ceiling mounting using the supplied brackets which allow 360° rotation of the heater and prevent it from tipping over.

Warranty

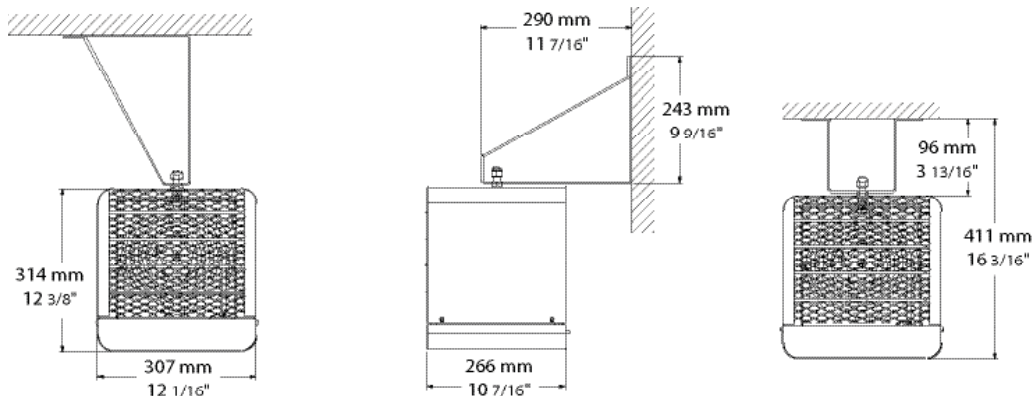
- 3-year warranty against defects.

Application

- Garage, workshop.

		Size	2	3	5
Heating Capacity	@208/1	Watts	1500	2250	3750
		BTUH	5118	7677	12795
	@240/1	Watts	2000	3000	5000
		BTUH	6824	10236	17060
Ship Weight		Lbs	20	20	20
		Kg	9.1	9.1	9.1

Built-in thermostat and mounting brackets included.
Standard color is almond.



EGP

Portable Heater



Grounded 3-Pronged Outlet



NEMA 6-20R
20A, 250VAC



NEMA 6-30R
30A, 250VAC

Features

Color

- Standard: almond.

Finish

- Standard: epoxy/polyester powder paint.

Voltage

- 240/208V, 1-phase.

Construction

- Handle may be used as a reel for the electric cable.
- 6 ft. (2 m) molded electric cable.
- High-limit temperature control with automatic reset and operation pilot light.
- Electrical insulating mica plates.

Fan

- 300 cfm fan.

Heating element

- Stainless steel tubular heating element.

Temperature rise

- 28°C (51°F).

Control

- Built-in thermostat included.

Installation

- 4000W may be plugged into 3-pronged, 20A, 250 VAC, 240V outlet.
- Note: *Always unplug heater when not in use.*

Warranty

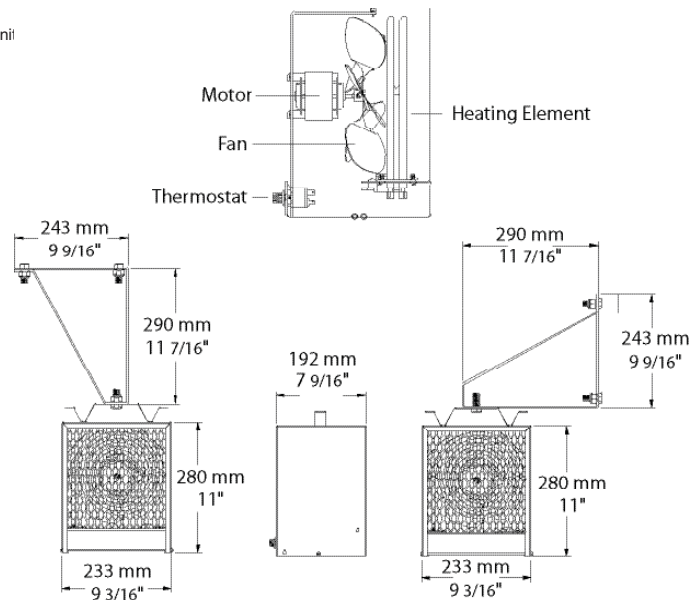
- 1-year warranty against defects.

Application

- Workshop, garage, construction site.

		Size	4
Heating Capacity	@208/1	Watts	3000
		BTUH	10245
	@240/1	Watts	4000
		BTUH	13660
Ship Weight		Lbs	11
		Kg	5

Mounting bracket for wall or ceiling included.
Mounting bracket allows for 360° rotation of unit



EXUB

Explosion-Resistant Unit Heater



Front view with built-in thermostat



Rear view with built-in thermostat and disconnect switch



1



2



3



4



5

Features

Color

- Standard: red.

Finish

- Standard: epoxy/polyester powder paint.

Voltage

- 208V, 240V, 480V, 600V, 1 or 3-phase.

Construction

- 14-gauge steel cabinet.
- Adjustable anodized aluminum louvers.
- Cast aluminum control and element enclosure lids NEMA Type 7 and 9 with O-ring. **1**
- Fan Guard: multiple horizontal stiffening wires. **2**

Protection

- High temperature pressure relief device. **3**
- Two high-limit temperature controls: one with automatic reset and one with manual reset.

Fan

- Explosion-resistant, thermally protected, permanently lubricated ball bearing motor. **4**
- 3 to 20kW: 1/4 HP, 1725 rpm.
- 25 to 35kW: 1/2 HP, 1725 rpm.

Temperature code

- Division System: 5 - 30kW: T3B 165 °C (329 °F).
3/35kW: T3A 180 °C (356 °F).
- Zone System: T3 200 °C (392 °F).

Heat exchanger

- High grade metal-sheathed elements fins with ethylene glycol/water solution.
- Long-life, low watt density.
- Evacuated and sealed, carbon steel tube core with 10 aluminum fins per inch.

Control

- 120V control (standard). **5**
- Optional 24V control.
- Optional built-in or wall thermostat.
- Optional disconnect switch.

Installation

- Accessories available.

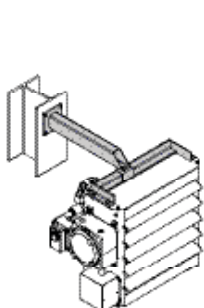
Warranty

- 3-year warranty against defects.

Application

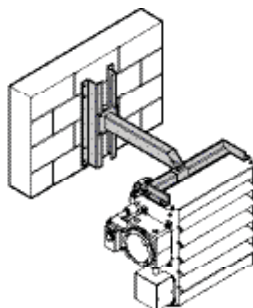
- Paint room, petrochemical plant, refinery, chemical plant, mining industry, sawmill.

Consult the Electrical Code in your area before installing this unit.



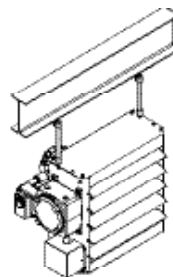
CK26

Basic Mounting Bracket
Suitable for applications where the support arm can be bolted or welded directly to structural steel



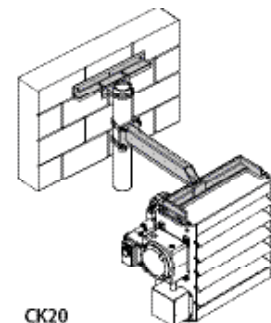
CK27

Wall Mounting Bracket
For use in buildings that have substantial walls. The Z sections provide additional support



CK25

Hanging Mounting Bracket
Ideal and economical if adequate overhead structure exists. Requires 1/2 in. (12.5 mm) pipe, cut and



CK20

Pipe Mounting Bracket
For buildings with insufficient strength to use other types of mounting brackets. Requires

EXUB

	Size	3	5	7	10	15	20	25	30
Heating Capacity	kW	3	5	7.5	10	15	20	25	30
	MBH	10	17	26	34	51	68	85	102
Air Flow	cfm	350	400	600	800	1200	1700	2100	3000
Temperature Rise	°F	32	38.1	40.4	38.8	39.1	37.3	37.5	31.5
	°C	18	21.2	22.4	21.6	21.7	20.7	20.8	17.5
T° Code		T3B = 329°F / 165°C							
Ship Weight	Lbs	188	188	188	192	224	224	261	261
	Kg	85.3	85.3	85.3	87.1	101.6	101.6	118.4	118.4

Factory Installed Options

		AK2	AK5	AK3E	AK6E	AK7E	AK8E	IX34	STD	BT1	BAX1
Supply Voltage/Phase	208/1	✓	✓	✓	■	■	■	■	■	■	■
	208/3	✓	✓	✓	✓	✓	■	■	■	■	■
	240/1	✓	✓	✓	✓	■	■	■	■	■	■
	240/3	✓	✓	✓	✓	✓	■	■	■	■	■
	480/3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	600/3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Internal Thermostat		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Control Voltage	120V Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	24V Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Disconnect Switch		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Field Installed Options (shipped separately)

		CK25	CK26	CK27	CK20	CK25	CK26	CK27	CK20	CX1	XDC-01	
Mounting Accessories	Pipe hanger brackets (1/2" pipe not included)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Wall mounting arm with flange (bolt or weld to steel or concrete)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Wall mounting arm with "Z" supports (block wall)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Pole mounting arm (requires 3.5" OD pipe - not included)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Ship Weight (lbs)	CK25	5	5	5	5	5	5	5	5	5	5
		CK26	17	17	17	17	19	19	20	20	20	20
CK27		24	24	24	24	26	26	27	27	27	27	
CK20		24	24	24	24	26	26	27	27	27	27	
Explosion-Resistant Wall Thermostat (40°-80°F)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Explosion-Resistant Wall Disconnect Switch		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

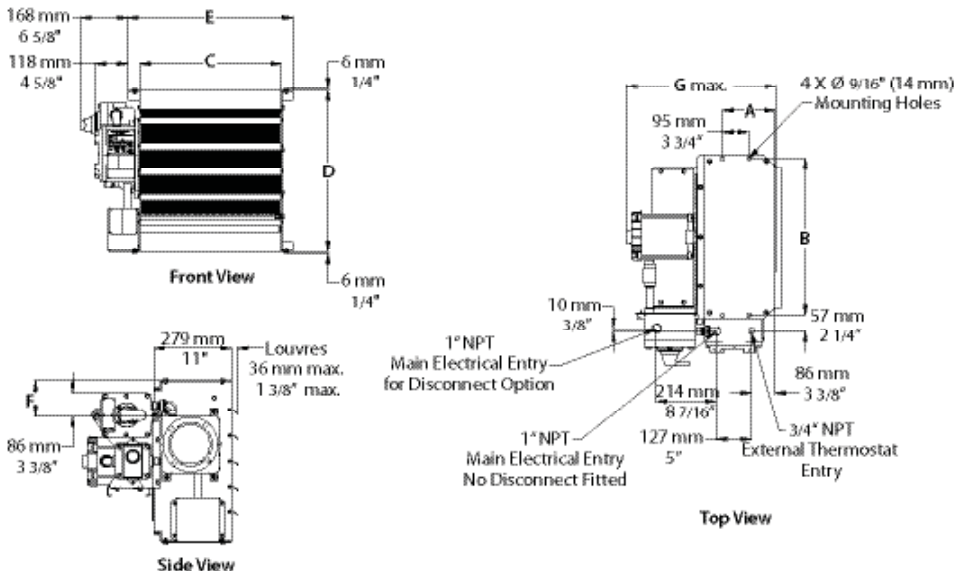
Standard color is red.

Approved locations

Class I, Divisions 1 and 2, Groups C and D.
 Class II, Divisions 1 and 2, Groups F and G.
 Temperature code: T3B (5 to 30kW), T3A (35kW).
 Class I, Zones 1 & 2, Groups IIA & IIB, T3.

Temperature limitations

Ambient temperature: -45 °C to 40 °C (-49 °F to 104 °F).
 Maximum altitude: 3048 m (10 000 ft.) above sea level.



Models	5 to 10kW	15 to 20kW	25 to 35kW
Fan	12" 305 mm	16" 406.4 mm	20" 508 mm
Dim.	in. (mm)	in. (mm)	in. (mm)
A	7.5 (190.5)	7.5 (190.5)	7.5 (190.5)
B	18.19 (462)	22.28 (566)	26.26 (667)
C	16.3 (414)	20.28 (515)	24.29 (617)
D	19 (483)	23 (584)	27 (686)
E	19.45 (494)	23.46 (596)	27.44 (697)
F	3.1 (79)	5.1 (130)	7.1 (180)
G	22.25 (565)	22.25 (565)	23.25 (591)

EWHB Wash Down Unit Heater



Features

Voltage

- 208V, 240V, 480V, 600V, 1 or 3-phase.

Construction

- 16-gauge, stainless steel, moisture and corrosion resistant housing.
- Adjustable, stainless steel outlet louvers. **1**
- Stainless steel rear grille to protect against accidental contact with the fan blade. **2**
- High-limit temperature control with automatic reset (manual reset available upon request).
- NEMA 4X non-metallic electrical enclosure. **3**
- Disconnect switch (40A max.) available.

Fan

- Anodized aluminum, delayed-action fan.
- Enclosed motor with permanently lubricated ball bearing for longer life. **4**
- Epoxy-painted fan.

Heating element

- Sealed tubular heating element with stainless steel fins. **5**

Control

- 24V control circuit with transformer and contactor.
- Built-in capillary thermostat included.
- Pilot light "power-on indicator" included.
- Fan switch control available.

Installation

- Electrical enclosure located at bottom of unit for ease of installation and servicing.
- Stainless steel swivel mounting bracket included, for wall or ceiling mounting.

Warranty

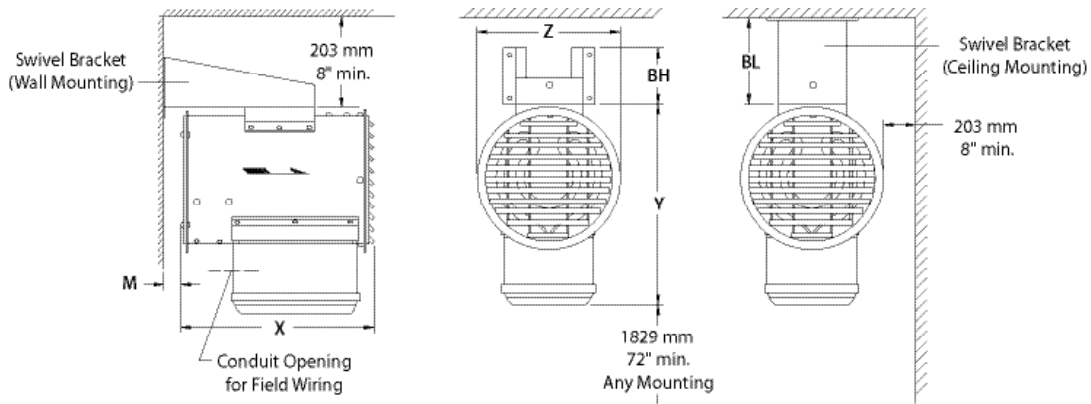
- 1-year warranty against defects.

Application

- Food industry, water treatment plant, marine and offshore, car wash, dairy.

EWHB

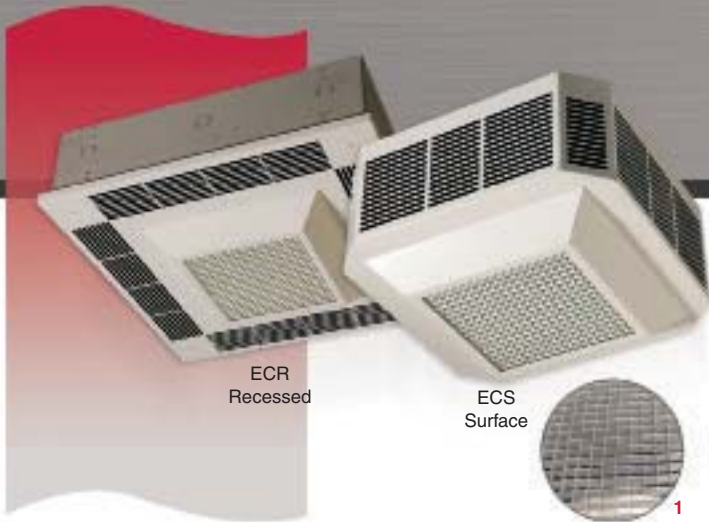
		Size	3	5	7	10	15	20	25	30	38
Heating Capacity	kW		3	5	7.5	10	15	20	25	30	38.4
	MBH		10	17	26	34	51	68	85	102	131
Air Flow	cfm		700	700	700	1450	2400	2400	2400	2400	2400
Temperature Rise	°F		14	24	35	22	21	28	35	42	54
	°C		8	13	19	12	12	16	19	23	30
Air Throw	Ft		26	26	26	43	50	50	50	50	50
	M		8	8	8	13	15	15	15	15	15
Ship Weight	Lbs		70	70	70	70	130	130	130	130	130
	Kg		32	32	32	32	59	59	59	59	59
Factory Installed Options											
Supply Voltage/ Phase	208/1	AK2	✓	✓	✓	■	■	■	■	■	■
	208/3	AK5	✓	✓	✓	✓	✓	■	■	■	■
	240/1	AK3E	✓	✓	✓	✓	■	■	■	■	■
	240/3	AK6E	✓	✓	✓	✓	✓	■	■	■	■
	480/3	AK7E	✓	✓	✓	✓	✓	✓	✓	✓	✓
	600/3	AK8E	✓	✓	✓	✓	✓	✓	✓	✓	✓
Control Voltage	24V Controls with Contactor	STD	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fan Switch	Unit Mounted, Water Tight	BF4B	✓	✓	✓	✓	✓	✓	✓	✓	✓
Disconnect Switch	Water Tight, 600V, 3-Pole, 40A	BA5A	✓	✓	✓	✓	✓	✓	✓	✓	■
Pilot Light	(included)	BE13									
Thermostat	Internal, Water Tight (included)	ICI8	✓	✓	✓	✓	✓	✓	✓	✓	✓
Field Installed Options (shipped separately)											
Thermostat	NEMA 4X, range 4 °C to 43 °C (40 °F to 110 °F): 25A at 120V, 208V, 240V - 22A at 277V	Size	3	5	7	10	15	20	25	30	38
		CL5A	✓	✓	✓	✓	✓	✓	✓	✓	✓



Models	X		Y		Z		BH		BL		M		Weight ¹	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	lb	kg
3 to 7.5kW	390	15 1/2	550	21 1/2	330	13	110	4 1/4	490	19 1/8	220	8 1/2	70	32
7.6 to 12kW	390	15 1/2	550	21 1/2	330	13	110	4 1/4	490	19 1/8	220	8 1/2	70	32
12.1 to 47kW	660	26	710	28	510	20	180	7 1/8	570	22 1/4	80	3 1/4	130	60

¹ Shipping weight.

ECR/ECS Ceiling Forced-Air Diffuser



ECR
Recessed

ECS
Surface



Features

Color

- Standard: white, almond.
- Optional: metallic silver, bronze, metallic charcoal, aluminum, semi-gloss black.
- Custom colors available upon request.

Finish

- Standard: epoxy/polyester powder paint.

Voltage

- 208V, 240V, 277V, 347V, 480V, 600V, 1 or 3-phase.

Construction

- Outlet grille made of flat ribbon wire. **1**
- High-limit temperature control with automatic reset. **2**

Fan

- Totally enclosed and lifetime-lubricated ball bearing motor.
- Fan delay purges heater of residual heat. **3**

Heating element

- Three stainless steel tubular heating elements with aluminum fins. **5**

Control

- Line voltage control standard.
- Built-in 240V contactor for: all units from 5 to 10kW, all units at 347V, 480V, 600V, all units at 3-phase.
- 24V and 120V control circuit available.
- Built-in tamper-proof thermostat available.
- 24V relay (with or without transformer) available.
- Continuous circulation controlled by a built-in switch with power-on indicator light available (-CV).

Any remote thermostat or relay must be connected to the heater control terminal block. **4**

Installation

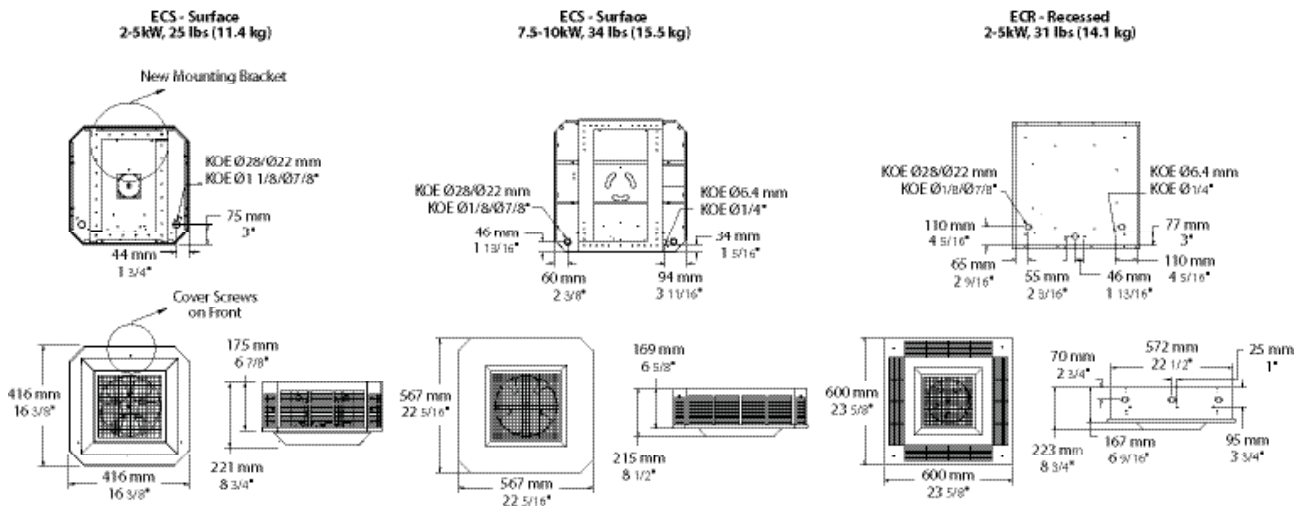
- Recommended height: between 8 ft. (2.4 m) and 12 ft. (3.6 m).
- Recessed into insulated or T-bar ceiling (ECR).
- Surface mounting (ECS).

Warranty

- 1-year warranty against defects.
- 10-year warranty on the heating elements.

Application

- Apartment building, commercial building, drop ceiling, stairwell, garage.



ECR/ECS

ECS	Ceiling Fan Heater - Forced Air Diffuser, Ceiling Surface Mounted	Heating Capacity	Size	2	3	4	5	7	10
			W	2000	3000	4000	5000	7500	10000
			BTUH	6800	10250	13650	17075	25600	34150
ECR <td rowspan="3">Ceiling Fan Heater - Forced Air Diffuser, Ceiling Recessed Mounted <td rowspan="3">Heating Capacity <td>Size</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td></td> <td></td> </td></td>	Ceiling Fan Heater - Forced Air Diffuser, Ceiling Recessed Mounted <td rowspan="3">Heating Capacity <td>Size</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td></td> <td></td> </td>	Heating Capacity <td>Size</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td></td> <td></td>	Size	2	3	4	5		
			W	2000	3000	4000	5000		
			BTUH	6800	10250	13650	17075		
ECS <td rowspan="3">Ceiling Fan Heater - Forced Air Diffuser, Ceiling Surface Mounted <td rowspan="3">Ship Weight <td>cfm</td> <td>310</td> <td>310</td> <td>310</td> <td>310</td> <td>600</td> <td>600</td> </td></td>	Ceiling Fan Heater - Forced Air Diffuser, Ceiling Surface Mounted <td rowspan="3">Ship Weight <td>cfm</td> <td>310</td> <td>310</td> <td>310</td> <td>310</td> <td>600</td> <td>600</td> </td>	Ship Weight <td>cfm</td> <td>310</td> <td>310</td> <td>310</td> <td>310</td> <td>600</td> <td>600</td>	cfm	310	310	310	310	600	600
			Lbs	25/31	25/31	25/31	25/31	34	34
			Kg	11/14	11/14	11/14	11/14	15	15

ECR	Ceiling Fan Heater - Forced Air Diffuser, Ceiling Recessed Mounted	Heating Capacity	Size	2	3	4	5		
			W	2000	3000	4000	5000		
			BTUH	6800	10250	13650	17075		
ECS <td rowspan="3">Ceiling Fan Heater - Forced Air Diffuser, Ceiling Recessed Mounted <td rowspan="3">Ship Weight <td>Lbs</td> <td>31</td> <td>31</td> <td>31</td> <td>31</td> <td></td> <td></td> </td></td>	Ceiling Fan Heater - Forced Air Diffuser, Ceiling Recessed Mounted <td rowspan="3">Ship Weight <td>Lbs</td> <td>31</td> <td>31</td> <td>31</td> <td>31</td> <td></td> <td></td> </td>	Ship Weight <td>Lbs</td> <td>31</td> <td>31</td> <td>31</td> <td>31</td> <td></td> <td></td>	Lbs	31	31	31	31		
			Kg	14	14	14	14		

Factory Installed Options

Supply Voltage/Phase	208/1 ⁶	AK2	✓	✓	✓	✓	✓	✓	✓	
	208/3 ⁶	AK5	✓	✓	✓	✓	✓	✓	✓	
	240/1	AK3E	✓	✓	✓	✓	✓	✓	✓	
	240/3	AK6E	✓	✓	✓	✓	✓	✓	✓	
	277/1	AK4	✓	✓	✓	✓	✓	✓	✓	
	347/1	AK34	✓	✓	✓	✓	✓	✓	✓	
	480/1	AK9E	✓	✓	✓	✓	✓	✓	✓	
	480/3	AK7E	✓	✓	✓	✓	✓	✓	✓	
	600/1	AK10	✓	✓	✓	✓	✓	✓	✓	
	600/3	AK8E	✓	✓	✓	✓	✓	✓	✓	
Cabinet Color (Lead times may be increased for colors other than white)	White (STD)	HK1	✓	✓	✓	✓	✓	✓	✓	
	Almond	HK2	✓	✓	✓	✓	✓	✓	✓	
	Metallic Silver	HK3	✓	✓	✓	✓	✓	✓	✓	
	Bronze	HK4	✓	✓	✓	✓	✓	✓	✓	
	Metallic Charcoal	HK5	✓	✓	✓	✓	✓	✓	✓	
	Aluminum	HK8	✓	✓	✓	✓	✓	✓	✓	
	Semi-Gloss Black	HK9	✓	✓	✓	✓	✓	✓	✓	
	Special Color	SPEC			Call for quote (volume orders only)					
	208V, 240V, 277V ¹	STD	✓	✓	✓	✓	✓	✓	✓	
Control Voltage	24V Relay with Transformer	BT1	✓	✓	✓	✓	✓	✓	✓	
	120V Control Circuit	BT2	✓	✓	✓	✓	✓	✓	✓	
Internal Tamper-proof Thermostat		ICI5	✓	✓	✓	✓	✓	✓	✓	
Disconnect Switch ²	Up to 277V, 2-Pole, 20A	BA21	✓	✓	✓	✓	■	■		
	600V, 3-Pole, 40A	BA14	✓	✓	✓	✓	✓	✓		
	600V, 3-Pole, 80A	BA15	✓	✓	✓	✓	✓	✓		
Terminals for Remote Fan	Includes Pilot Light	BB12	✓	✓	✓	✓	✓	✓		

Field Installed Options (shipped separately)

		Size	2	3	4	5	7	10
Wall Mounted Thermostat	Single-pole, low-voltage ³	CL1A	✓	✓	✓	✓	✓	✓
	Single-pole, single-stage	CL5	✓	✓	✓	✓	✓	✓
24V Control Relay Kit ⁴	Without transformer	IR24	✓	✓	✓	✓	✓	✓
Mounting Accessory ⁵	Adapter for T-Bar ceiling (Model ECS only)	CK20	✓	✓	✓	✓	■	■

¹ 208V/240V is standard on all units except 277V/1. Contactors are standard on 3-phase units and single phase units 5 kW and larger or over 300V.

² For the U.S. only: The nominal current of the unit must not exceed 80% of the capacity of the disconnect.

³ CL1A thermostat requires option BT1

⁴ IR24: 24V signal by others (multiple units per thermostat).

⁵ For surface mount Model ECS only. Model ECR lays into T-Bar grid. No adapter is required.

⁶ ECS10 is rated at 9.9kW at 208V.

Optional colors shown in the color chart section are available upon request.

EMC

Forced-Air Cabinet Unit Heater



Features

Color

- Standard: white, almond.
- Optional: metallic silver, bronze, metallic charcoal, aluminum, semi-gloss black.
- Custom colors available upon request.

Finish

- Standard: epoxy/polyester powder paint.

Voltage

- 208V, 240V, 277V, 347V, 480V, 600V, 1 or 3-phase.

Construction

- 18-gauge steel.
- Extruded aluminum bar grilles prevent insertion of foreign objects. **1**
- Field changeable air inlet and outlet. **1**
- High-limit temperature control with automatic reset.
- 240V control circuit included. **2**
- Optional fresh air inlet damper.
- Optional air filters.

Fan

- Direct drive, variable speed squirrel-cage fan operating. **3**
- Fan delay.
- 240/208V factory-lubricated motor (1/15 HP). **4**
- 2 speed-motor available (1600/1500 rpm).

Heating element

- Durable tubular heating element with fins. **5**

Length

- Four cabinet lengths are available: 28 in. (711 mm), 48 in. (1219 mm), 66 in. (1676 mm), 80 in. (2032 mm).

Control

- Wide range of control available.

Manufacturer highly recommends the use of a wall thermostat for greater comfort.

Installation

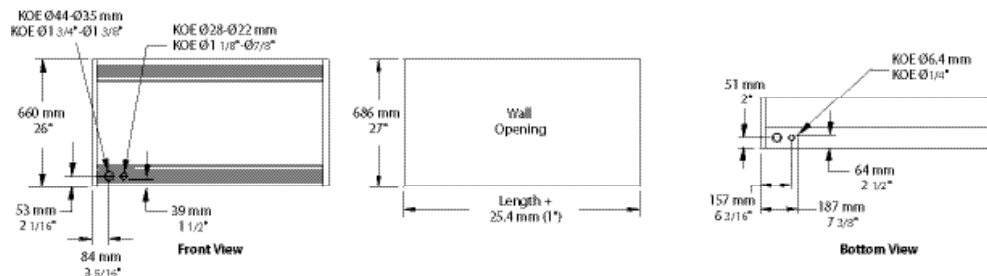
- Multi-position mounting (surface, semi-recessed, recessed).
- Maximum recommended installation height: 10 ft. (3 m).
- Recess trim kit available for recessed or semi-recessed units.
- Sub-base and special back plate available.

Warranty

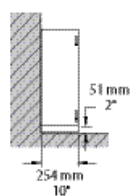
- 1-year warranty against defects.

Application

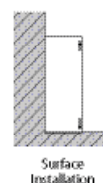
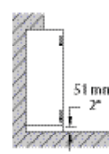
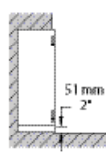
- Hallway, entry way, exhibition center.



Installation with Sub-Base



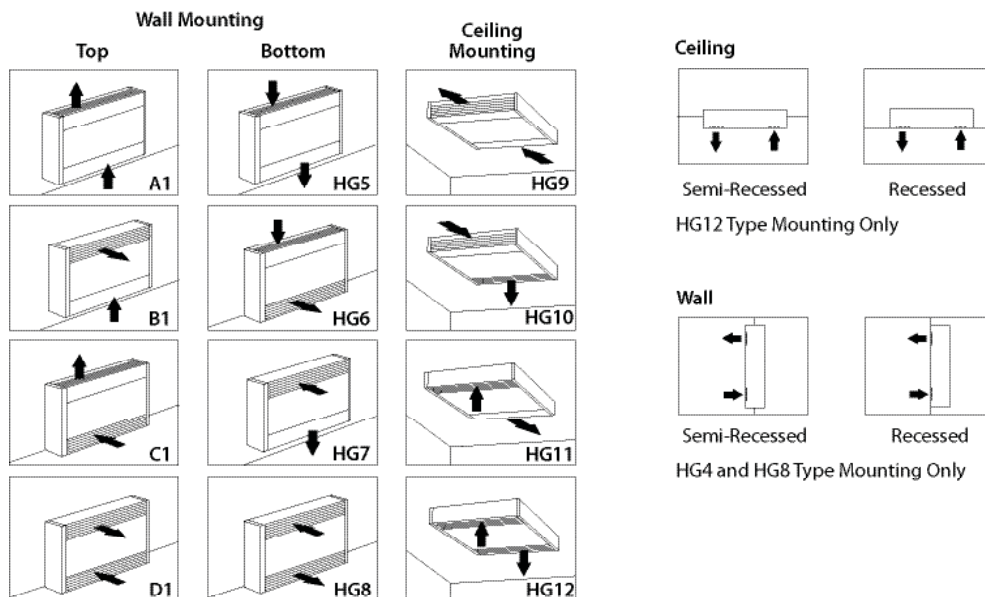
Installation with Recess Trim Kit



EMC

		Size	2	3	4	5	6	8	10	12	15	18	20	24	
Heating Capacity	High	W	2000	3000	4000	5000	6000	8000	10000	12000	15000	18000	20000	24000	
		MBH	6825	10250	13650	17075	20500	27325	34150	40975	51225	61475	68300	81950	
	Low	W	1333	1000	2667	3333	4000	4000	5000	6000	10000	12000	10000	12000	
		MBH	4550	3400	9100	11375	13650	13650	17075	20500	34150	40975	34150	40975	
Air Flow	High	cfm	250	250	250	250	250	500	500	500	750	750	1000	1000	
	Low	cfm	200	200	200	200	200	400	400	400	600	600	800	800	
Ship Weight	Lbs		115	115	115	115	115	146	146	146	210	210	240	240	
	Kg		52.3	52.3	52.3	52.3	52.3	66.4	66.4	66.4	95.5	95.5	109.1	109.1	
Factory Installed Options															
Supply Voltage/ Phase	208/1	AK2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	208/3	AK5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	240/1	AK3E	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	240/3	AK6E	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	277/1	AK4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	347/1	AK34	✓	✓	✓	✓	✓	✓	✓	✓	■	■	■	■	
	480/1	AK9E	✓	✓	✓	✓	✓	✓	✓	✓	■	■	■	■	
	480/3	AK7E	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	600/1	AK10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	600/3	AK8E	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Cabinet Color (Lead times may be increased for colors other than white)	White (STD)	HK1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Almond	HK2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Metallic Silver		HK3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Bronze		HK4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Metallic Charcoal		HK5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Aluminum		HK8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Semi-Gloss Black		HK9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Special Color		SPEC	Call for quote (volume orders only)												
208V, 240V ¹		STD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Control Voltage	24V with transformer	BT1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Unit Mounted Switches	On / Standby / Heating Switch	BF10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
		On / Auto Fan Switch	BF23	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Hi / Low Fan / Heat Switch		BF24	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Fresh Air Inlet ²	with Manual Damper	ARB2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	with Motorized Damper	ARB4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Disconnect Switch ³	600V, 3-Pole, 40A	BA14	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	600V, 3-Pole, 80A	BA15	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Branch Circuit Fusing		BA12	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Manual High Limit		BD6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Internal Tamper-proof Thermostat	1-Stage	IC15	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

Field Installed Options (shipped separately)



EMC

		Size	2	3	4	5	6	8	10	12	15	18	20	24
Wall Mounted Thermostats	Single-pole, low-voltage thermostat ⁴	CL1A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Single-pole, single stage thermostat	CL5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
24V Relay Kit ⁵	Without transformer	IR24	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	24V relay with transformer ⁶	IR2B	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Filters (Wall Mounted Units Only)	Standard	HZ3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Washable	HX4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sub-Base	2" sub-base for wall mount	HY7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Color Matched Trim Options	Recessed trim kit													
	Smooth finish back plate ⁷													

¹ Standard voltage is 208V/240V unless otherwise noted.

² Do not install a built-in thermostat with these options.

³ For the U.S. only: The nominal current of the unit must not exceed 80% of the capacity of the disconnect.

⁴ CL1A thermostat requires BT1 option.

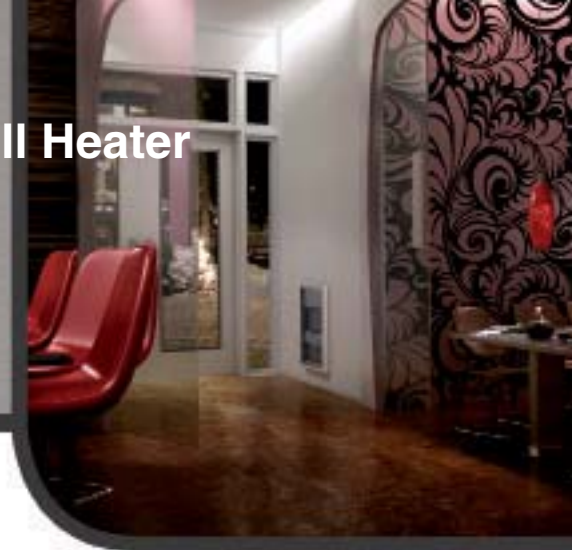
⁵ IR24: 24V signal by others (multiple units per thermostat). IR2B: for 24V thermostat on each unit.

⁶ All heaters have 240V control circuit.

⁷ For mounting heater on glass wall. Configuration HG3, HG4, HG6, & HG8 only. Optional colors shown in the color chart section are available upon request.

EHA

Forced-Air Architectural Wall Heater



With surface mounting box
Recessed



Features

Color

- Standard: white, almond, metallic silver, bronze, metallic charcoal, aluminum, semi-gloss black.
- Custom colors available upon request.

Finish

- Standard: epoxy/polyester powder paint.
- Optional: anodized aluminum.

Voltage

- 120V, 208V, 240/208V, 277V, 347V, 480V, 600V, 1-phase.

Construction

- Extruded aluminum front grille, 1/8 in. (3.2 mm) thick. **1**
- Bottom air outlet.
- High-limit temperature control with automatic reset.

Fan

- Closed, factory-lubricated motor.
- 160 cfm fan (single unit: 55 dBA); 2 X 160 cfm fan (double unit: 58 dBA), 3 X 160 cfm fan (triple unit: 61 dBA). **2**
- Fan delay purges heater of residual heat.

Heating element

- Durable tubular heating element with fins. **3**

Control

- Built-in tamper proof thermostat included. **4**
- 24V relay, with or without transformer available.

Note: Thermostat is not included in heater with factory installed relay. Any remote thermostat or relay must be connected to the heater control terminal block.

Installation

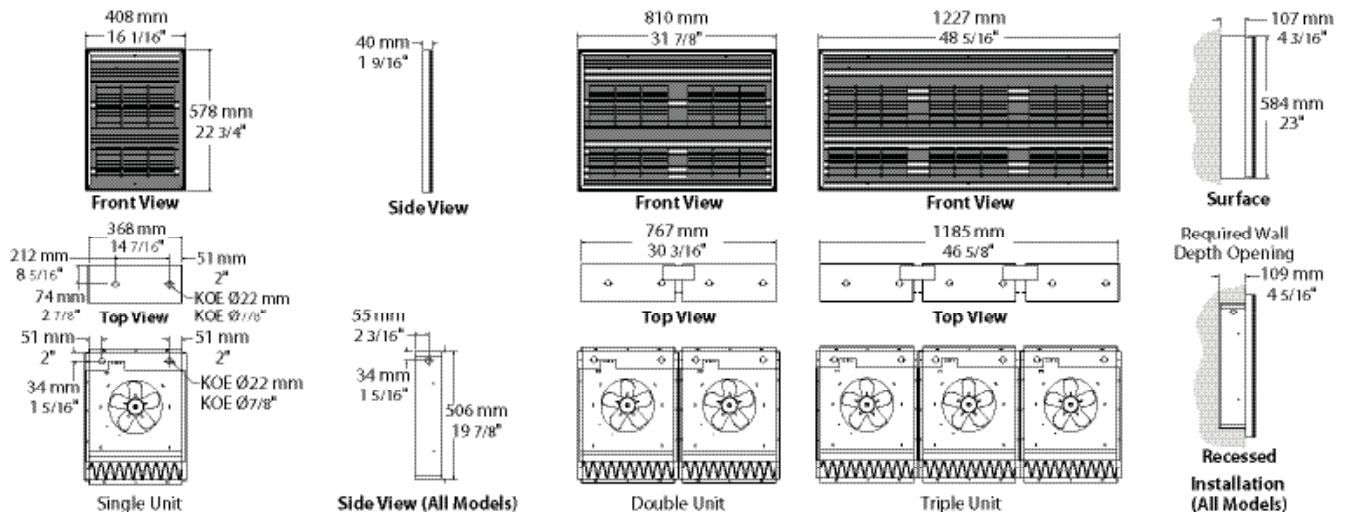
- Minimum clearance from the floor and adjacent walls: 10 in. (25.4 cm).
- Adaptor for surface mounting available.
- Up to 3 units can be mounted side-by-side

Warranty

- 3-year warranty against defects.

Application

- Apartment building, commercial building, entrance way, stairwell, garage.



		Size	1	2	3	4	5
Heating Capacity	W		1500	2000	3000	4000	4800
	BTUH		5125	6825	10250	13660	16400
Ship Weight	Lbs		24	24	24	24	24
	Kg		10.9	10.9	10.9	10.9	10.9
Factory Installed Options							
Supply Voltage/Phase	120/1	AK1E	✓	■	■	■	■
	208/1	AK2	■	✓	■	✓	✓
	240/1 ¹	AK3E	✓	✓	✓	✓	■
	277/1	AK4	✓	✓	✓	✓	✓
	480/1	AK9E	✓	✓	✓	✓	✓
Cabinet Color (Lead times may be increased for colors other than white)	White (STD)	HK1	✓	✓	✓	✓	✓
	Almond	HK2	✓	✓	✓	✓	✓
	Metallic Silver	HK3	✓	✓	✓	✓	✓
	Bronze	HK4	✓	✓	✓	✓	✓
	Metallic Charcoal	HK5	✓	✓	✓	✓	✓
	Aluminum	HK8	✓	✓	✓	✓	✓
	Semi-Gloss Black	HK9	✓	✓	✓	✓	✓
	Special Color	SPEC	Call for quote (volume orders only)				
Thermostat	Hidden, tamper-proof, built-in thermostat	STD	✓	✓	✓	✓	✓
	120V, 208V, 240V, 277V & 480V	STD	✓	✓	✓	✓	✓
Control Voltage	24V Relay with transformer ²	BT1	✓	✓	✓	✓	✓
	Up to 277V, 2-pole, 20A	BA21	✓	✓	✓	✓	✓
Disconnect Switch ³	600V max., 3-pole, 40A	BA14	✓	✓	✓	✓	✓
	Field Installed Options (shipped separately)						
Color Matched Trim Packages	Surface mounting box required for non-recessed units	Size	1	2	3	4	5
		HY6	✓	✓	✓	✓	✓

¹ Units with Option AK3E (240V supply voltage) can be connected to 208V power supply, but heating output will be reduced by 25%.

² Built-in transformer is not included with 24V control voltage (Option BT1).

³ For the U.S. only: The nominal current of the unit must not exceed 80% of the capacity of the disconnect.

EHC

Commercial Wall Heater



Features

Color

- Standard: white, almond.
- Optional: metallic silver, bronze, metallic charcoal, aluminum, semi-gloss black (10% up-charge).
- Custom colors available upon request.

Finish

- Standard: epoxy/polyester powder paint.

Voltage

- 120V, 208V, 240/208V, 277V, 347V, 480V, 600V, 1 or 3-phase.

Construction

- 18-gauge steel front cover. **1**
- Bottom air outlet.
- High-limit temperature control with automatic reset.

Fan

- Closed, factory-lubricated motor. **2**
- 160 cfm fan (single unit: 55 dBA); 2 X 160 cfm fan (double unit: 58 dBA); 3 X 160 cfm fan (triple unit: 61 dBA).
- Fan delay purges heater of residual heat.

Heating element

- Durable tubular heating element with fins. **3**

Control

- Built-in thermostat included with control knob or tamper proof. **4**
- 24V relay, with or without transformer available.

Note: Thermostat is not included in heater with factory installed relay. Any remote thermostat or relay must be connected to the heater control terminal block.

Installation

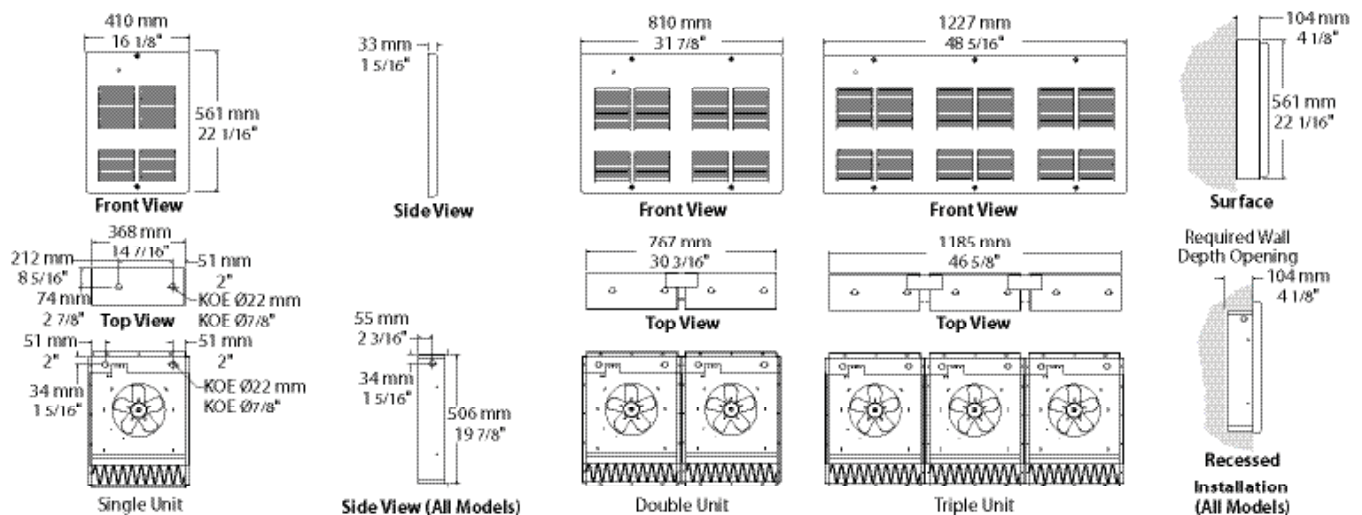
- Minimum clearance from the floor and adjacent walls: 10 in. (25.4 cm).
- Adaptor for surface mounting available. **5**
- Up to three units can be installed side-by-side

Warranty

- 1-year warranty against defects.

Application

- Apartment building, commercial building, entrance way, stairwell, garage.



		Size	1	2	3	4	5	6	8	12
Heating Capacity	W		1500	2000	3000	4000	4800	6000	8000	12000
	BTUH		5125	6825	10250	13660	16400	20500	27620	40975
Ship Weight	Lbs		24	24	24	24	24	90.0	50	90.0
	Kg		10.9	10.9	10.9	10.9	10.9	40.9	22.7	40.9
Factory Installed Options										
Supply Voltage/ Phase	120/1	AK1E	✓	■	■	■	■	■	■	■
	208/1	AK2	■	✓	■	✓	✓	■	✓	■
	208/3	AK5	■	■	■	■	■	■	■	✓
	240/1 ¹	AK3E	✓	✓	✓	✓	✓	✓	✓	✓
	240/3	AK6E	■	■	■	■	■	■	■	✓
	347/1	AK34	✓	✓	✓	✓	✓	✓	✓	✓
	480/1	AK9E	✓	✓	✓	✓	✓	✓	✓	✓
	480/3	AK7E	■	■	■	■	■	■	■	✓
	600/1	AK10	✓	✓	✓	✓	✓	✓	✓	✓
	600/3	AK8E	■	■	■	■	■	■	■	✓
Cabinet Color	White	HK1	■	■	■	■	■	■	■	✓
	Almond	HK2	✓	✓	✓	✓	✓	✓	✓	✓
Control Voltage	208V, 240V ²	STD	✓	✓	✓	✓	✓	✓	✓	✓
Unit Mounted Fan Switch		BF23	✓	✓	✓	✓	✓	✓	✓	✓
Disconnect Switch³	Up to 277V, 2-pole, 20A	BA21	✓	✓	✓	✓	✓	✓	✓	✓
	600V, 3-pole, 40A	BA14	✓	✓	✓	✓	✓	✓	✓	✓
	600V, 3-pole, 80A	BA15	✓	✓	✓	✓	✓	✓	✓	✓
Field Installed Options (shipped separately)										
		Size	1	2	3	4	5	6	8	12
Color Matched Trim Packages	Surface mounting box required for non-recessed units	HY6	✓	✓	✓	✓	✓	✓	✓	✓
	1" recessed trim kit	HY4A	✓	✓	✓	✓	✓	✓	✓	✓
	2" recessed trim kit	HY4B	✓	✓	✓	✓	✓	✓	✓	✓

¹ Units with Option AK3E (240V supply voltage) can be connected to 208V power supply, but heating output will be reduced by 25%.

² 208V/240V control (& fan motor) is standard on all units.

³ For the U.S. only: The nominal current of the unit must not exceed 80% of the capacity of the disconnect.

EHL

Residential Wall Heater



Features

Color

- Standard: white, almond.
- Optional: metallic silver, bronze, metallic charcoal, aluminum, semi-gloss black.
- Custom colors available upon request.

Finish

- Standard: epoxy/polyester powder paint.

Voltage

- 120V, 208V, 240/208V, 1-phase.

Construction

- 20-gauge steel cabinet.
- 22-gauge steel front cover.
- High-limit temperature control with automatic reset.

Fan

- Quiet fan operating.
- 500W to 1000W; 40 cfm fan and 1250W to 2000W; 80 cfm fan.
- Factory-lubricated motor.

Heating element

- Durable tubular heating element with fins.
- Factory sealed element upon request.

Control

- Built-in thermostat available with a control knob or tamper-proof.

Note: If an electronic thermostat is used, it must be compatible with forced-air heaters.

Installation

- The air outlet should be installed at least 10 in. (25.4 cm) above floor.
- Quick installation with recess box mounting holes.
- Large wiring compartment.
- May be recessed in 2 in. X 3 in. stud partitions.
- Surface mounting box available.
- Tight fit with V-shaped recess box.

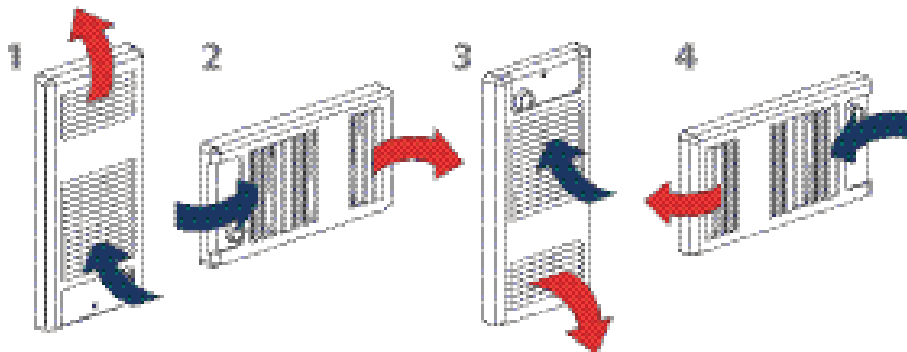
Warranty

- 1-year warranty against defects.

Application

- Entrance way, kitchen, bathroom, family room, basement.

Four mounting positions available. Pictures showing front panel. Directional view air flow.

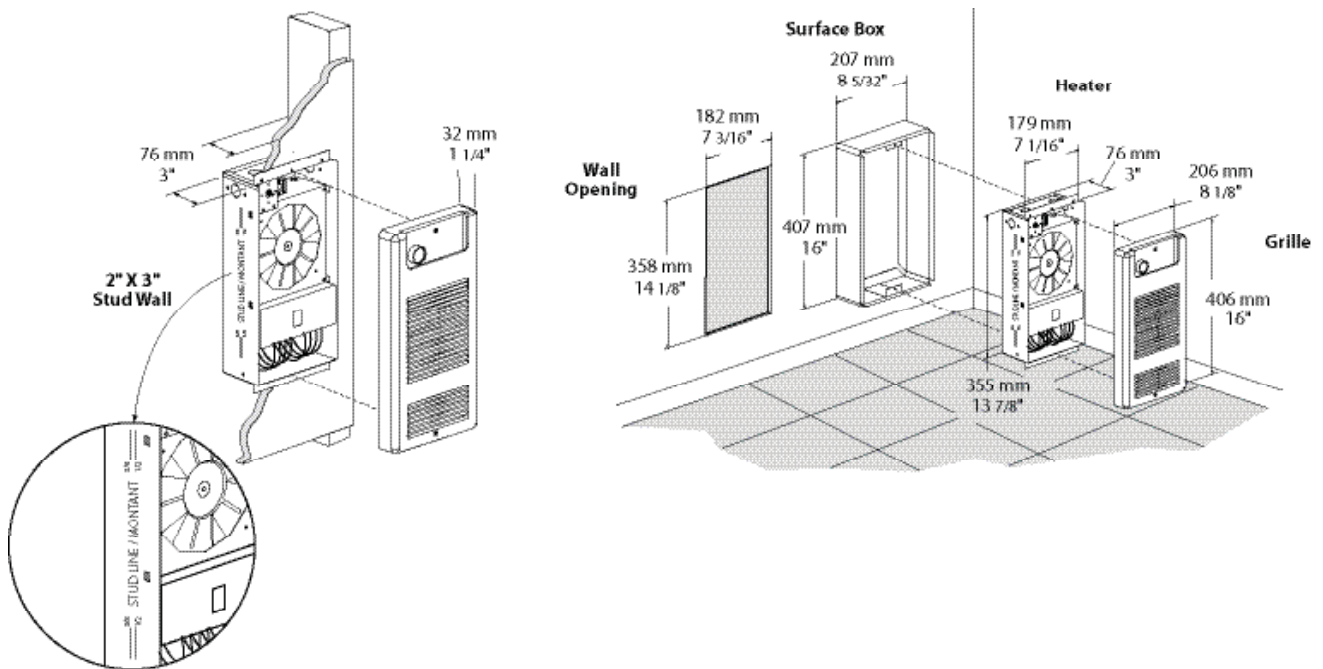


EHL

		Size	1000	1500	2000
Heating Capacity	W		1000	1500	2000
	BTUH		3415	5125	6825
Ship Weight	Lbs		9	9	9
	Kg		4	4	4
Factory Installed Options					
Country Code	Canadian Destination/Approvals	BY15	✓	✓	✓
	US Destination/Approvals	BY16	✓	✓	✓
Supply Voltage/Phase	120/1	AK1	✓	✓	■
	240/1 ¹	AK3E	✓	✓	✓
Cabinet Color	White	HK1	✓	✓	✓
	Almond	HK2	✓	✓	✓
Thermostat	Thermostat with control knob	ICI5	✓	✓	✓
Disconnect Switch ²	277 max., 20A	BA21	✓	✓	✓
Field Installed Options (shipped separately)					
Color Matched Trim Packages	Surface mounting box required for non-recessed units	Size	1	2	3
		HY6	✓	✓	✓

¹ Units with Option AK3E (240V supply voltage) can be connected to 208V power supply, heating capacity will be reduced by 25%.

² For the U.S. only: The nominal current of the unit must not exceed 80% of the capacity of the disconnect.



EBHB Electric Baseboard Heater



Features

Color

- Standard: Semi-gloss powdered paint finish in white, almond optional.
- Optional Special Stock Finishes: See special color chart for available finishes.

Finish

- Standard: 4H pencil hardness epoxy/polyester powder coat paint.
- May be repainted with any interior paint.

Voltage

- 120V, 208V, 240/208V, 277V, 347V, 480V, 600V, 1-phase.

Construction

- Robust 22-gauge tight fit body.
- Sturdy 20-gauge front panel with design embossed lines.
- Welded 20-gauge junction box to back wrap, easy rear access wiring panel.
- Rounded upper corners and junction box sides.
- Linear high-limit temperature control with automatic reset.
- High altitude version available (-HA) up to 8200 ft.

Heating element

- Stainless steel tubular heating element with aluminum fins.
- Floating stainless steel heating element on high-temperature nylon bushings eliminating expansion noises.
- Aluminum diamond shape element fins position for maximized heat transfer.
- Element locked in place by screw on a stainless steel support.

Dimension

- See Table.
- Small height and slim depth for economy of space.
- Standard watt density and low watt density models.

Control

- A wide selection of built-in controls available.
- Built-in thermostat kit can be installed at either end.
- Built-in relay kit fits in the right end box only.
- A compartment for low voltage connections (located directly under the junction box) facilitates the installation of low voltage relay in electric baseboard.

Manufacturer highly recommends using an electronic wall thermostat for greater comfort and efficiency.

Installation

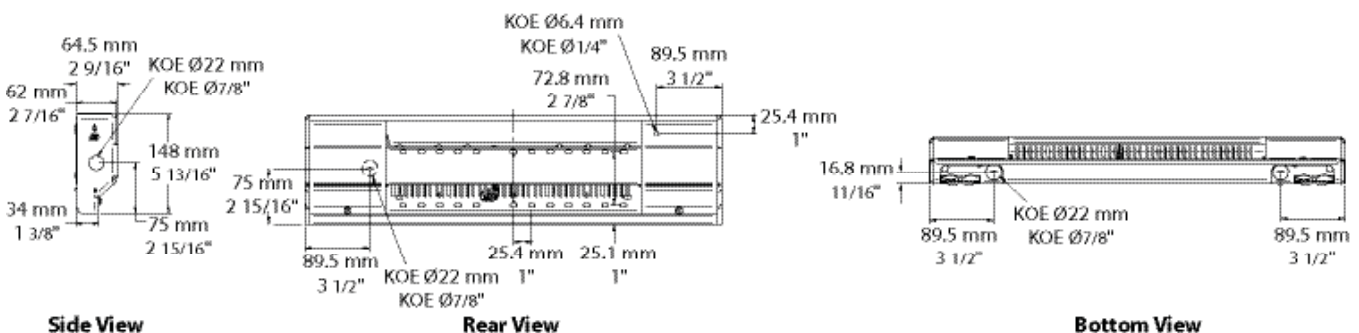
- No disassembly installation with single-screw built-in rear entry wire holder.
- Installation directly on the floor with connection box at both ends of the heater.
- Two rows of oblong mounting holes with center mark for ease of installation.
- Raceway and side knock-outs for baseboard interconnections.

Warranty

- 1-year warranty against defects.
 - Heating element has a lifetime warranty for the initial end user.
- Note: Stainless steel tubular heating element on all sizes eliminates potential for 60 Hz hum. Locked-in-place element, mounting slot holes and overall construction maximizes performance, quality and more.*

Application

- Residential and light commercial applications. Living areas, bedrooms, etc.






		Size	3	5	8	10	13	15	18	20	23 ¹	25 ¹
Heating Capacity	Watts		300	500	750	1000	1250	1500	1750	2000	2250	2500
	BTUH		10	17	26	34		51		68		85
Length	in.		22-3/4	27-3/4	37-3/4	48	60	72	75-1/2	96	93	102-1/4
	mm		577	702	956	1217	1524	1829	1916	2439	2364	2596
Ship Weight	Lbs		4.5	5.4	7.0	8.7	10.7	12.7	13.2	16.6	16.2	17.8
	Kg		2.0	2.4	3.2	3.9	4.9	5.7	6.0	7.5	7.3	8.0
Factory Installed Options												
Supply Voltage/ Phase	120/1	AK1E	✓	✓	✓	✓	✓	✓	■	■	■	■
	208/1	AK15	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	240/1 ²	AK3E	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cabinet Color	White	HK1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Almond	HK2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Special Color	SPEC	Call for availability									
High-limit Temperature Control ³	Up to 6,000 ft	AB15	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	3,000 to 8200 ft	AB16	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Control Voltage	120V, 208V, 240V	STD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	24V Relay	BT1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Field Installed Options (shipped separately)												
		Size	3	5	7	10	13	15	18	20	23 ¹	25 ¹
Wall Mounted Thermostat	Light duty line voltage thermostat; single-pole, single-throw	CL5L	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Light duty line voltage thermostat; double-pole, single-throw	CL5D	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Unit Mounted Thermostat	Single-pole, bimetal thermostat	IT14	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Double-pole, bimetal thermostat ⁴	IT15	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Single-pole, bimetal, tamper-proof thermostat	IT16	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Double-pole, bimetal, temper-proof thermostat ⁴	IT17	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

¹ Sizes 23 and 25 MUST be ordered in pairs to minimize shipping damage.
² Units with Option AK3E (240V supply voltage) can be connected to 208V power supply, heating capacity will be reduced by 25%.
³ High-limit temperature control is based on elevation.
⁴ "Off" position.
Other voltages available upon request.

Mechanical Thermostats

Models

	Product #	Description
	CL5 ⁴	Mechanical, wall mounted, line voltage thermostat, single-pole, single-throw
	CL1A ⁴	Wall mounted, single-pole, low-voltage thermostat
	CX1	Explosion resistant, wall mounted thermostat, 40°80°F

⁴ Not for use with model EXB.

Electrical Fundamentals

Ohm's Law

The relationship between Wattage (heat) output and the applied Voltage of electric resistance heating elements is determined by a precise physical rule defined as Ohm's Law which states that the current in a resistance heating element is directly proportional to the applied Voltage. Ohm's Law is traditionally expressed as:

$$I = \frac{E}{R} \quad \text{Where: } I = \text{Amperes (Current)}$$

$$E = \text{Voltage}$$

$$R = \text{Ohms (Resistance)}$$

The same equation using the conventional abbreviation for voltage is:

$$I = \frac{V}{R} \quad \text{Where: } I = \text{Amperes (Current)}$$

$$V = \text{Voltage}$$

$$R = \text{Ohms (Resistance)}$$

An unknown electrical value can be derived by using any two known values in one of the variations of Ohm's Law shown at the right.

$$\text{VOLTS} = \sqrt{\text{WATTS} \times \text{OHMS}}$$

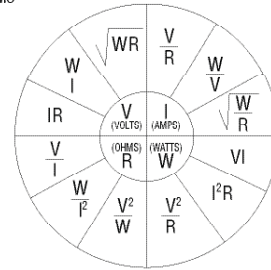
$$\text{VOLTS} = \frac{\text{WATTS}}{\text{AMPERES}}$$

$$\text{VOLTS} = \text{AMPERES} \times \text{OHMS}$$

$$\text{AMPERES} = \frac{\text{VOLTS}}{\text{OHMS}}$$

$$\text{AMPERES} = \frac{\text{WATTS}}{\text{VOLTS}}$$

$$\text{AMPERES} = \sqrt{\frac{\text{WATTS}}{\text{OHMS}}}$$



$$\text{OHMS} = \frac{\text{VOLTS}}{\text{AMPERES}}$$

$$\text{OHMS} = \frac{\text{WATTS}}{\text{AMPERES}^2}$$

$$\text{OHMS} = \frac{\text{VOLTS}^2}{\text{WATTS}}$$

$$\text{WATTS} = \text{VOLTS} \times \text{AMPERES}$$

$$\text{WATTS} = \text{AMPERES}^2 \times \text{OHMS}$$

$$\text{WATTS} = \frac{\text{VOLTS}^2}{\text{OHMS}}$$

Electric Current Table

Power kW	Voltage (ph)						
	120V (1)	208V (1)	208V (3)	240V (1)	240V (3)	277V (1)	277V (3)
0.3	2.50	1.45	0.83	1.25	0.72	1.09	0.83
0.4	3.34	1.92	1.11	1.67	0.97	1.45	1.11
0.5	4.17	2.41	1.39	2.09	1.21	1.81	1.39
0.6	5.00	2.89	1.66	2.50	1.45	2.17	1.66
0.75	6.25	3.61	2.09	3.13	1.81	2.71	2.09
0.8	6.67	3.85	2.23	3.34	1.93	2.89	2.23
1.0	8.34	4.81	2.78	4.17	2.41	3.61	2.78
1.2	10.00	5.77	3.34	5.00	2.89	4.34	3.34
1.25	10.42	6.01	3.47	5.21	3.01	4.52	3.47
1.4	11.67	6.73	3.89	5.84	3.38	5.06	3.89
1.5	12.50	7.22	4.17	6.25	3.61	5.42	4.17
1.6	13.34	7.70	4.45	6.67	3.86	5.78	4.45
1.75	14.59	8.42	4.87	7.30	4.22	6.32	4.87
2.0	16.67	9.62	5.56	8.34	4.82	7.22	5.56
2.25	18.75	10.82	6.25	9.38	5.42	8.13	6.25
2.5	20.84	12.02	6.95	10.42	6.02	9.03	6.95
3.0	25.00	14.43	8.34	12.50	7.23	10.83	8.34
4.0	33.34	19.23	11.12	16.67	9.64	14.44	11.12
4.5	37.50	21.64	12.50	18.75	10.84	16.25	12.50
5.0	41.67	24.04	13.90	20.84	12.05	18.05	13.90
6.0	50.00	28.85	16.68	25.00	14.45	21.66	16.68
7.5	62.50	36.06	20.84	31.25	18.06	27.08	20.84
8.0	66.67	38.47	22.23	33.34	19.27	28.88	22.23
9.0	75.00	43.27	25.01	37.50	21.68	32.49	25.01
10.0	83.34	48.08	27.79	41.67	24.09	36.11	27.79
12.0	100.00	57.70	33.25	50.00	28.90	43.33	33.25
14.0	116.67	67.31	38.91	58.33	33.72	50.54	38.91
15.0	125.00	72.12	41.69	62.50	36.13	54.16	41.69
18.0	150.00	86.54	50.02	75.00	43.35	64.99	50.02
20.0	166.67	96.16	55.58	83.34	48.17	72.21	55.58
24.0	200.00	115.39	66.69	100.00	57.80	86.65	66.69
25.0	208.34	120.20	69.48	104.17	60.21	90.26	69.48
30.0	250.00	144.23	83.37	125.00	72.25	108.31	83.37
35.0	291.67	168.27	97.27	145.84	84.30	126.36	97.27
40.0	333.34	192.31	111.16	166.67	96.34	144.41	111.16
45.0	375.00	216.35	125.06	187.50	108.38	162.46	125.06
50.0	416.67	240.39	138.95	208.34	120.43	180.51	138.95
55.0	458.34	264.43	152.85	229.17	132.47	198.56	152.85
60.0	500.00	288.47	166.75	250.00	144.51	216.61	166.75

FAQ

What is required for properly sizing a heater in my room?

- If you have a room with 8 feet ceiling height; you can calculate the square footage times 10 watts per square foot.
- If your ceiling is higher than 8 feet; calculate the cubic footage L x W x H and multiply by 1 watt per square foot.
- If you plan on heating a garage calculate the cubic footage L x W x H and multiply by 1 watt per square foot and multiply the square footage for each garage door by 48 (watts per square foot) and add this amount to the cubic footage. This will be the amount required to heat the garage.

Are 120 volts and 240 volts heaters interchangeable?

- A 240 volts heater run at 120 volts will produce 1/4 of the rated wattage. A 120 volts heater run at 240 volts will be destroyed and could cause fire damage to the building.

If I know the BTU's required; how do I calculate the watts required?

- Watts = BTU/3.412 (1 Watt = 3.41 BTU)

Calculating Temperature Rise?

- Sometimes your heater does not feel like it is putting out enough heat. Why not, you ask?
- Temperature rise is calculated by taking the kW times the constant 3167 divided by the CFM. For instance:
5kW x 3167/300CFM = 15835/300CFM = 52.8 °F. If your ambient temperature is 60 °F the outlet air is 112 °F.

Cross Reference Chart




Electric Baseboard Heater 240/208V

Model	Watts	Berko	Chromalox	Markel	Qmark
EBHB0300	300/225	2542W	BN/BL-2203W31	H 2903	QMK-2542W
EBHB0500	500/375	2542-6W	BN/BL-2805W31	H 2905	QMK-25426W
EBHB0750	750/563	2543W	BN/BL-3907W31	H 2907	QMK-2543W
EBHB1000	1000/750	2544W	BN/BL-4810W31	H 2910	QMK-2544W
EBHB1250	1250/938	2545W	BN/BL-5712W31	H 2912	QMK-2545W
EBHB1500	1500/1125	2546W	BN/BL-6615W31	H 2915	QMK-2546W
EBHB1750	1750/1313	-	BN/BL-7517W31	H 2917	-
EBHB2000	2000/1500	2548W	BN/BL-8420W31	H 2920	QMK-2548W
EBHB2250	2250/1688	-	BN/BL-9322W31	-	-
EBHB2500	2500/1875	2540-8W	BN/BL-10225W31	-	QMK-25408W

Other Products

Model		Page	Berko	Cadet	Electromode Chromalox	King	Markel	Qmark	Raywall
EHC	Commercial Wall Heater	19	VFK, FRA/ FRC	COACC	RFI/V/F	EFW	3310/3320 3420/3450	CWH/LFK	FPQ AFA/AFC/AFH
EGW	Economical Unit Heater	6	HUH524TA	-	-	KBP	HF	MWUH5004	IH
EGHB	Industrial Suspended Unit Heater	3	HUH/SA	CEH/CAOS	EU	KB	UH	IUH	UH/5100
EHA	Forced-Air Architectural Wall Heater	17	FRC	LLW	EWA	LPWA	3450	AWH	AFC/AFH
EMC	Forced-Air Cabinet Unit Heater	14	CUH	COCA	CCH	-	6300/ACUH T SERIES	CU900	ACUH T SERIES
EGP	Portable Heater	7	CAH	RCP	DGWH	-	ICH	-	1ICH
ECR/ECS	Ceiling Forced-Air Diffuser	12	FFCH	-	-	-	3480/3470	CDF	SCH/RCH
EGEB	Cyclone Commercial Unit Heater	1	HUHAA	-	-	-	5100	MUH	-
EXUB	Explosion-Resistant Unit Heater	8	RUX	-	CXH-ED	XL	HLA	GUX	HLA
EWHB	Wash Down Unit Heater	10	TUW	-	HDH	KBS	5500	JUW	WD

Color Chart

Standard colors ¹	HK1 - White		
	HK2 - Almond		
Optional colors (Factory stock color paint) ²	HK8 - Aluminum		HK3 - Metallic Silver
	HK4 - Bronze		
	HK5 - Metallic Charcoal		HK9 - Semi-Gloss Black

¹ Refer to product Series for listings of standard colors available.

² Minimum order of 25 pieces. If less than 25 pieces up-charge of \$50.00 net: Special note add 10% premium to price on all Model EBHB heaters and accessories if painted other than white or almond.

Note: Due to the printing process, the colors may vary from the actual colors.

LIMITED PRODUCT WARRANTY

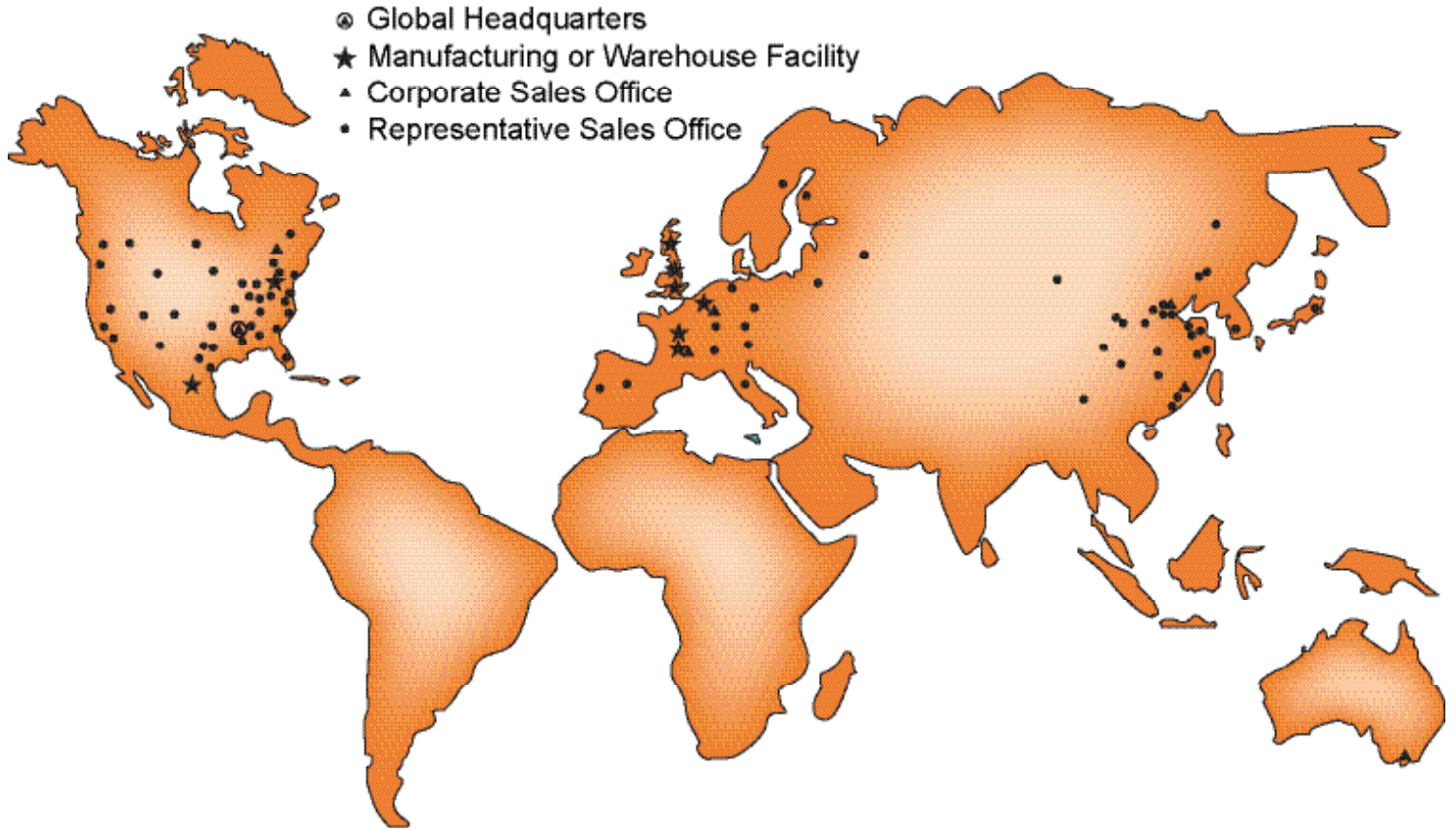
Nortek Global HVAC, LLC warrants to the original owner-user that this product will be free from defects in material or workmanship. This warranty is limited to twelve (12) months from the date of original installation, whether or not actual use begins on that date, or eighteen (18) months from date of shipment, whichever occurs first.

LIMITATIONS AND EXCLUSIONS

Nortek Global HVAC, LLC obligations under this warranty and the sole remedy for its breach are limited to repair, at its manufacturing facility, of any part or parts of its products which prove to be defective; or, in its sole discretion, replacement of such products. All returns of defective parts or products must include the product model number and serial number, and must be made through an authorized distributor or arranged through Customer Service. Authorized returns must be shipped prepaid. Repaired or replacement parts will be shipped F.O.B. shipping point.

1. The warranty provided herein does not cover charges for labor or other costs incurred in the troubleshooting, repair, removal, installation, service or handling of parts or complete products.
2. All claims under the warranty provided herein must be made within ninety (90) days from the date of discovery of the defect. Failure to notify of a warranted defect within ninety (90) days of its discovery voids Nortek Global HVAC, LLC obligations hereunder.
3. The warranty provided herein shall be void and of no effect in the event that (a) the product has been operated outside its designed output capacity (heating, cooling, airflow); (b) the product has been subjected to misuse, neglect, accident, improper or inadequate maintenance, corrosive environments, environments containing airborne contaminants (silicone, aluminum oxide, etc.), or excessive thermal shock; (c) unauthorized modifications are made to the product; (d) the product is not installed or operated in compliance with the manufacturer's printed instructions; (e) the product is not installed and operated in compliance with applicable building, mechanical, plumbing and electrical codes; or (f) the serial number of the product has been altered, defaced or removed.
4. The warranty provided herein is for repair or replacement only. Nortek Global HVAC, LLC shall not be liable for any loss, cost, damage, or expense of any kind arising out of a breach of the warranty. Further, Nortek Global HVAC, LLC shall not be liable for any incidental, consequential, exemplary, special, or punitive damages, nor for any loss of revenue, profit or use, arising out of a breach of this warranty or in connection with the sale, maintenance, use, operation or repair of any product. In no event will Nortek Global HVAC, LLC be liable for any amount greater than the purchase price of a defective product. The disclaimers of liability included in this paragraph 4 shall remain in effect and shall continue to be enforceable in the event that any remedy herein shall fail of its essential purpose.
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