CHROMALOX

LUH
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 LUH 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 almond 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 element to assure long life and superior heat transfer.

Fan Motor — Totally enclosed fan motor is rated for continuous duty with built-in thermal cutout and operates on 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 120V Control Transformer —** Standard on 480V models, eliminates the need for an external control source (24V optional).
- **Heavy Duty Magnetic Contactors** are standard on all 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 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 - 100°F.
- **Power Disconnect Kit —** Field installable switch enables power to be disconnected while servicing heater. 63, 80 and 100 Amp models available. Mounts in the back of the heater.
- **Ceiling Bracket** (shown above)
- **Wall Mounting Bracket**

Advantages

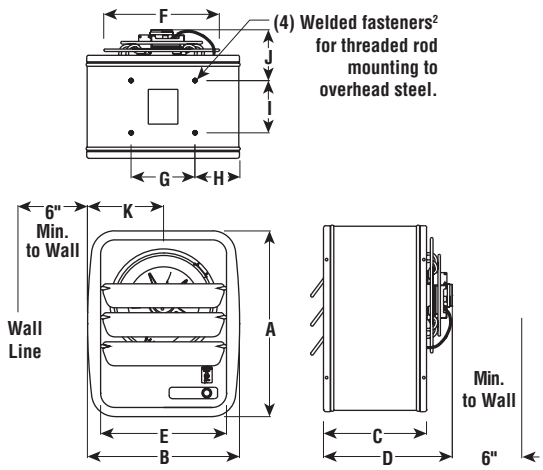
- Self Contained
- Versatile, Flexible and High Performance
- Easy Installation
- Minimum Maintenance
- Long Life
- Attractive Appearance

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

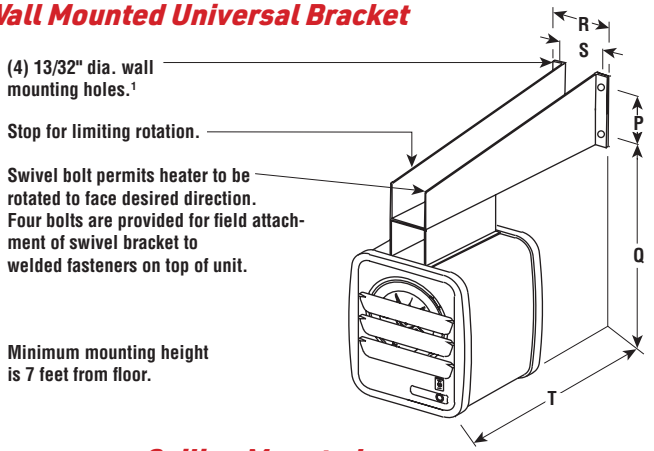
- Primary Heating
- Supplementary Heating
- Dual System Heating
- Spot Heating
- Entryway Air-Curtain Heating

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

Dimensions (Inches)



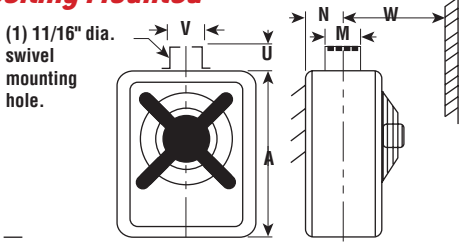
Wall Mounted Universal Bracket



Wall Mounted Heaters

Heater	Dimensions (In.)					Wall Bracket	PCN	Stock	Wt. (Lbs.)
	P	Q	R	S	T				
LUH-02 to -05	1-3/4	21-1/2	6-3/4	5-1/2	14-15/16	WUH-01A	303474	S	3
LUH-07, 10, 12, 15	2	28-7/16	9-1/2	8-3/8	22-1/4	WUH-02	300484	S	5
LUH-20, 25	2	32	9-1/2	8-3/8	22-1/4	WUH-02	300484	S	7
LUH-30, 35, 40, 45	5-1/2	28-11/16	5	3-1/2	33-1/4	WUH-03	300492	S	10

Ceiling Mounted



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

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				
LUH-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	WUH-04A	303466	NS	1
LUH-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	6-1/4	6	7-1/4	16	WUH-05	300513	NS	2
LUH-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	16	WUH-05	300513	NS	3
LUH-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	WUH-06	300521	NS	3

Optional Control Accessories & Remote Thermostats Fan Only Operation Kits



Summer Fan Switch

Thermostat Kit

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	NS	0.25
External[1] with Relay (24V control)	ESFS-40	305015	ESFS-40A	305058	NS	0.5
External[1] with Relay (120V control)	ESFS-41	305023	ESFS-41A	305066	NS	0.5
External[1] with Relay (240V control)	ESFS-42	305031	ESFS-42A	305074	NS	0.5
External[1] with Relay (277V control)	ESFS-47	305040	—	—	NS	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.)
LUH-TK1 (SPST)	301129	S	0.25

Power Disconnect Kits



Model	Rating	PCN	Stock	Wt. (Lbs.)
EDS-1	63 Amp	303431	S	0.5
EDS-2	80 Amp	303440	S	0.5
EDS-3	100 Amp	303458	NS	1

3 Pole, 600V Rating

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.

LUH 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	1/40	1,650	410	880	21	12	8	**LUH-02-81-34**	**S**	**303001**	32
2.0/2.6	208/240	1 - 1	11.4[2]	240	1	1/40	1,650	410	880	21	12	8	**LUH-02-21-34**	**S**	**303010**	32
2.6	277	1 - 1	9.6	277	1	1/30	1,550	360	770	24	12	8	**LUH-02-71-35**	**S**	**303028**	32
4	208	1 - 1	19.8	208	1	1/40	1,650	410	880	31	12	8	**LUH-04-81-34**	**S**	**303036**	32
4	208	1 - 3[3]	11.7	208	1	1/40	1,650	410	880	31	12	8	**LUH-04-83-34**	**S**	**303044**	32
3/4	208/240	1 - 1	17.2[2]	240	1	1/40	1,650	410	880	31	12	8	**LUH-04-21-34**	**S**	**303052**	32
3/4	208/240	1 - 3[3]	10.2[2]	240	1	1/40	1,650	410	880	31	12	8	**LUH-04-23-34**	**S**	**303060**	32
4	277	1 - 1	14.6	277	1	1/30	1,550	360	770	35	12	8	**LUH-04-71-35**	**S**	**303079**	32
4	480	1 - 3	5.1	480	1	1/35	1,550	380	815	33	12	8	**LUH-04-43-32**	**S**	**303087**	32
5	208	1 - 1	24.6	208	1	1/40	1,650	410	880	39	12	8	**LUH-05-81-34**	**S**	**303095**	32
5	208	1 - 3[3]	14.5	208	1	1/40	1,650	410	880	39	12	8	**LUH-05-83-34**	**S**	**303108**	32
3.75/5	208/240	1 - 1	21.4	240	1	1/40	1,650	410	880	39	12	8	**LUH-05-21-34**	**S**	**303116**	32
3.75/5	208/240	1 - 3[3]	12.6	240	1	1/40	1,650	410	880	39	12	8	LUH-05-23-34	NS	303124	32
5	277	1 - 1	18.3	277	1	1/30	1,550	360	770	44	12	8	LUH-05-71-35	NS	303132	32
5	480	1 - 3	6.3	480	1	1/35	1,550	380	815	42	12	8	**LUH-05-43-32**	**S**	**303140**	32
7.5	208	1 - 1[3]	36.5	208	1	1/15	1,725	850	1,040	28	27	8	LUH-07-81-34	NS	303159	50
7.5	208	1 - 3	21.3	208	1	1/15	1,275	850	1,040	28	27	8	**LUH-07-83-34**	**S**	**303167**	50
5.6/7.5	208/240	1 - 1[3]	31.7[2]	240	1	1/15	1,725	850	1,040	28	27	8	**LUH-07-21-34**	**S**	**303175**	50
5.6/7.5	208/240	1 - 3	18.5[2]	240	1	1/15	1,725	850	1,040	28	27	8	LUH-07-23-34	NS	303183	50
7.5	277	1 - 1	27.7	277	1	1/15	1,550	750	920	32	27	8	LUH-07-71-35	NS	303191	50
7.5	480	1 - 3	9.9	480	3	1/15	1,725	850	1,040	28	27	8	**LUH-07-43-32**	**S**	**303204**	50
7.5	600	1 - 3	7.6	575	3	1/3	1,725	850	1,040	28	27	8	LUH-07-63-32	NS	—	50
9.7	208	1 - 1[3]	47.1	208	1	1/15	1,725	850	1,040	37	27	9	LUH-10-81-34	NS	303212	50
9.7	208	1 - 3	27.4	208	1	1/15	1,725	850	1,040	37	27	9	**LUH-10-83-34**	**S**	**303220**	50
7.5/10	208/240	1 - 1[3]	42.1[2]	240	1	1/15	1,725	850	1,040	37	27	9	**LUH-10-21-34**	**S**	**303239**	50
7.5/10	208/240	1 - 3	24.5[2]	240	1	1/15	1,725	850	1,040	37	27	9	LUH-10-23-34	NS	303247	50
10	480	1 - 3	12.9	480	3	1/15	1,725	850	1,040	37	27	9	**LUH-10-43-32**	**S**	**303255**	50
10	600	1 - 3	10.6	575	3	1/3	1,725	850	1,040	37	27	9	LUH-10-63-32	NS	—	50
12.5	208	1 - 3	35.2	208	1	1/15	1,725	850	1,040	47	27	9	**LUH-12-83-34**	**S**	**303263**	50
9.3/12.5	208/240	1 - 3	30.6	240	1	1/15	1,725	850	1,040	47	27	9	LUH-12-23-34	NS	303271	50
12.5	480	1 - 3	15.9	480	3	1/15	1,725	850	1,040	47	27	9	**LUH-12-43-32**	**S**	**303280**	50
12.5	600	1 - 3	12.6	575	3	1/3	1,725	850	1,040	47	27	9	LUH-12-63-32	NS	—	50
15	208	1 - 3	42.1	208	1	1/15	1,725	850	1,040	56	27	10	LUH-15-83-34	NS	303298	50
11.25/15	208/240	1 - 3	36.6[2]	240	1	1/15	1,725	850	1,040	56	27	10	LUH-15-23-34	NS	303300	50
15	480	1 - 3	19.0	480	3	1/15	1,725	850	1,040	56	27	10	**LUH-15-43-32**	**S**	**303319**	50
15	600	1 - 3	15.6	575	3	1/3	1,725	850	1,040	56	27	10	LUH-15-63-32	NS	—	50
14.5/19.4	208/240	1 - 3	48.0[2]	240	3	1/3	1,725	1,240	1,160	53	31	11	LUH-20-23-34	NS	303327	73
20	480	1 - 3	25.0	480	3	1/3	1,725	1,240	1,160	53	31	11	**LUH-20-43-32**	**S**	**303335**	73
20	600	1 - 3	19.6	575	3	1/3	1,725	1,240	1,160	53	31	11	LUH-20-63-32	NS	—	73
25	480	1 - 3	31.0	480	3	1/3	1,725	1,350	1,260	60	31	12	**LUH-25-43-32**	**S**	**303343**	73
25	600	1 - 3	24.6	575	3	1/3	1,725	1,350	1,260	60	31	12	LUH-25-63-32	NS	—	73
30	208	2 - 3	85.2	240	3	1/3	1,725	1,555	1,450	64	46	13	LUH-30-83-34	NS	303351	106
22.5/30	208/240	2 - 3	74.0[2]	240	3	1/3	1,725	1,555	1,450	64	46	13	LUH-30-23-34	NS	303360	106
30	480	2 - 3	37.1	480	3	1/3	1,725	1,555	1,450	64	46	13	**LUH-30-43-32**	**S**	**303378**	106
30	600	2 - 3	29.6	575	3	1/3	1,725	1,555	1,450	64	46	13	LUH-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	LUH-35-23-34	NS	303386	106
35	480	2 - 3	43.1	480	3	1/3	1,725	1,555	1,450	71	45	14	**LUH-35-43-32**	**S**	**303394**	106
35	600	2 - 3	34.7	575	3	1/3	1,725	1,555	1,450	71	45	14	LUH-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	LUH-40-23-34	NS	303407	106
39	480	2 - 3	47.9	480	3	1/3	1,725	1,555	1,450	84	44	15	**LUH-40-43-32**	**S**	**303415**	106
40	600	2 - 3	39.7	575	3	1/3	1,725	1,555	1,450	84	44	15	LUH-40-63-32	NS	—	106
45	480	2 - 3	55.1	480	3	1/3	1,725	1,555	1,450	94	42	17	**LUH-45-43-32**	**S**	**303423**	106
45	600	2 - 3	43.7	575	3	1/3	1,725	1,555	1,450	94	42	17	LUH-45-63-32	NS	—	106

Stock Status: **S** = 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 and stock 480V models have built-in control transformers and contactor with 120V 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 120 or 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.

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

Recommended Control Options

PCN	Description	Kits			
		Thermostat	Fan Only	Remote Fan	Dis-connect
303001	LUH-02-81-34-00 208V 1P 2.6kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303010	LUH-02-21-34-00 240V 1P 2.6kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303028	LUH-02-71-35-00 277V 1P 2.6kW	LUH-TK1	ISFS-02	ESFS-47	EDS-1
303036	LUH-04-81-34-00 208V 1P 4kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303044	LUH-04-83-34-00 208V 3P 4kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303052	LUH-04-21-34-00 240V 1P 4kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303060	LUH-04-23-34-00 240V 3P 4kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303079	LUH-04-71-35-00 277V 1P 4kW	LUH-TK1	ISFS-02	ESFS-47	EDS-1
303087	LUH-04-43-32-00 480V 3P 4kW	LUH-TK1	ESFS-41	ESFS-41	EDS-1
303095	LUH-05-81-34-00 208V 1P 5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303108	LUH-05-83-34-00 208V 3P 5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303116	LUH-05-21-34-00 240V 1P 5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303124	LUH-05-23-34-00 240V 3P 5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303132	LUH-05-71-35-00 277V 1P 5kW	LUH-TK1	ISFS-02	ESFS-47	EDS-1
303140	LUH-05-43-32-00 480V 3P 5kW	LUH-TK1	ESFS-41	ESFS-41	EDS-1
303159	LUH-07-81-34-00 208V 1P 7.5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303167	LUH-07-83-34-00 208V 3P 7.5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303175	LUH-07-21-34-00 240V 1P 7.5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303183	LUH-07-23-34-00 240V 3P 7.5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303191	LUH-07-71-35-00 277V 1P 7.5kW	LUH-TK1	ISFS-02	ESFS-47	EDS-1
303204	LUH-07-43-32-00 480V 3P 7.5kW	LUH-TK1	ESFS-41	ESFS-41	EDS-1
303212	LUH-10-81-34-00 208V 1P 10kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1

PCN	Description	Kits			
		Thermostat	Fan Only	Remote Fan	Dis-connect
303220	LUH-10-83-34-00 208V 3P 10kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303239	LUH-10-21-34-00 240V 1P 10kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303247	LUH-10-23-34-00 240V 3P 10kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303255	LUH-10-43-32-00 480V 3P 10kW	LUH-TK1	ESFS-41	ESFS-41	EDS-1
303263	LUH-12-83-34-00 208V 3P 12.5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303271	LUH-12-23-34-00 240V 3P 12.5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303280	LUH-12-43-32-00 480V 3P 12.5kW	LUH-TK1	ESFS-41	ESFS-41	EDS-1
303298	LUH-15-83-34-00 208V 3P 15kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303300	LUH-15-23-34-00 240V 3P 15kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303319	LUH-15-43-32-00 480V 3P 15kW	LUH-TK1	ESFS-41	ESFS-41	EDS-1
303327	LUH-20-23-34-00 240V 3P 20kW	LUH-TK1	ISFS-02	ESFS-42A	EDS-1
303335	LUH-20-43-32-00 480V 3P 20kW	LUH-TK1	ESFS-41A	ESFS-41A	EDS-1
303343	LUH-25-43-32-00 480V 3P 25kW	LUH-TK1	ESFS-41A	ESFS-41A	EDS-1
303351	LUH-30-83-34-00 208V 3P 30kW	LUH-TK1	ISFS-02	ESFS-42A	N/A
303360	LUH-30-23-34-00 240V 3P 30kW	LUH-TK1	ISFS-02	ESFS-42A	EDS-3
303378	LUH-30-43-32-00 480V 3P 30kW	LUH-TK1	ESFS-41A	ESFS-41A	EDS-1
303386	LUH-35-23-34-00 240V 3P 35kW	LUH-TK1	ISFS-02	ESFS-42A	N/A
303394	LUH-35-43-32-00 480V 3P 35kW	LUH-TK1	ESFS-41A	ESFS-41A	EDS-1
303407	LUH-40-23-34-00 240V 3P 40kW	LUH-TK1	ISFS-02	ESFS-42A	N/A
303415	LUH-40-43-32-00 480V 3P 40kW	LUH-TK1	ESFS-41A	ESFS-41A	EDS-2
303423	LUH-45-43-32-00 480V 3P 45kW	LUH-TK1	ESFS-41A	ESFS-41A	EDS-2

When ordering LUH heaters, specify the model number and corresponding PCN (Product Code Number). If controls or thermostat/fan options are required, designate these options in the model number when ordering, as shown below. Always specify voltage, phase and kW by listing them on the purchase order product specifications.

Model Numbers

Chromalox Horizontal Unit Heater

Heating Elements

02 = 2.6 kW	**10** = 10.0 kW	**25** = 25.0 kW	**45** = 45.0 kW
04 = 4.0 k W	**12** = 12.5 kW	**30** = 30.0 kW	
05 = 5.0 kW	**15** = 15.0 kW	**35** = 35.0 kW	
07 = 7.5 kW	**20** = 20.0 kW	**40** = 40.0 kW	

Heater Voltage and Phase

81 = 208V, 1 Phase	**71** = 277V, 1 Phase
83 = 208V, 3 Phase	**43** = 480V, 3 Phase
21 = 240V, 1 Phase	**63** = 600V, 3 Phase
23 = 240V, 3 Phase	

Control

0 0	No Contactor(s)
3 0	24V Control Internal Transformer
3 1	24V Control Externally Supplied
3 2	120V Control Internal Transformer
3 3	120V Control Externally Supplied
3 4	208/240V Control Internally Supplied, No Transformer
3 5	277V Control Internally Supplied

Control

0 0	No Thermostat, No Summer Fan Switch
4 0	Internal Thermostat Only
4 1	Internal Therm. and Internal Sum. Fan Sw.
4 2	External Sum. Fan Sw. Only (Not 480V)
4 3	External Sum. Fan Sw. and Fan Relay
4 4	Rem. Fan Sw. and Internal Therm. (Not 480V)
4 5	Rem. Fan Sw., Fan Relay and Int. Therm.
4 6	Internal Sum. Fan Sw. (Not 480 V)

Disconnect Switch

1	63 Amp
2	80 Amp
3	100 Amp

LUH	05	21	34	41	1	Typical Model Number