## king

## Large Hydronic Heater HL/HLE Series



- Tangential Blowers
- Fast Coil Heating
- Quiet Operation
- 1/2" Trade size copper tubes

4 or 8 Aluminum fins per inch

- Flow-through design
- Permanently lubricated motor
- Powder-coated white grill
- Easy motor removal for maintenance Hi / Off / Lo fan switch
  - Use HW series thermostats
    - 2-year limited warranty

A: Series

D: BTU Heat Output E: Aqua Stat / Fan Switch F: Grill White or Black color

Model Code: 12 8/11 AS-FS

B: Number of Copper Tubes in Coil C: 12 - 120V

HYDRONIC

## HL / HLE Series Large Hydronic Heater - 6,700 to 27,250 BTU

King's HL HLE Series large hydronic heater uses the energy from a building's existing hot water source to offer efficient, whisper quiet operation and the ability to reduce utility bills with individual room control. By installing hydronic heaters in every room, you can easily heat only the areas in use and conserve energy. Designed to fit neatly between standard wall studs, this in-wall heater provides out of the way positioning ideal for use in public areas, corridors, entry ways and large rooms or hallways. For use in both residential and commercial applications. Provides 6700 to 27,250 BTU heat output. Recommended 17 BTU per square foot for new construction.

				Model Number		Volt	s Can Size	Grill Size	
				HL & HLE 1012 & 1412 - all versions		ersions 120	24¾"h <b>x</b> 14 ¼"w <b>x</b> 4¾"d 26¼"h <b>x</b> 1		¼"h <b>x</b> 15½"w <b>x</b> ¾"d
	MODEL	FT. OF WATER Pressure Drop @ 2 gpm	120ºF 48ºC	140°F* 60°C	160°F* 71°C	180°F 82°C 200°F MAX	Motor Hi/Lo CFM	Decibels at 3-ft distance	Hi/Lo: Amps Hi/Lo: Watts
HL	HL1012 8/11	.90	6000 BTU 4700 BTU	8550 BTU 6200 BTU	11100 BTU 8000 BTU	14800 BTU 11000 BTU	3 watt output 250 / 150CFM	Hi 57/55 dbA Lo 54/52 dbA	.30 / .29 Amps 36 / 34.8 Watts
	HL1012 10/13	.90	7500 BTU 5500 BTU	10000 BTU 8000 BTU	13500 BTU 9750 BTU	16600 BTU 12000 BTU	3 watt output 250 / 150CFM	Hi 57/55 dbA Lo 54/52 dbA	.30 / .29 Amps 36 / 34.8 Watts
	HL1012-11/15	.90	8812 BTU 6600 BTU	11700 BTU 8800 BTU	15500 BTU 11600 BTU	18700 BTU 14000 BTU	5 watt output 375 / 220 CFM	Hi 64/62 dbA Lo 60/58 dbA	.42 / .38 Amps 50.4 / 45.6 Watts
	HL1412-15/20	1.2	10600 BTU 7400 BTU	15500 BTU 11600 BTU	20000 BTU 15000 BTU	26000 BTU 19500 BTU	5 watt output 375 / 220 CFM	Hi 64/62 dbA Lo 60/58 dbA	.42 / .38 Amps 50.4 / 45.6 Watts
	HL1412-20/25	1.2	17000 BTU 13000 BTU	20000 BTU 16800 BTU	24050 BTU 19100 BTU	27250 BTU 22500 BTU	9 watt output 375 / 220 CFM	Hi 64/62 dbA Lo 60/58 dbA	.42 / .38 Amps 50.4 / 45.6 Watts
HLE	Energy saver ECM Motor	FT. OF WATER Pressure Drop @ 2 gpm	120ºF 48ºC	140°F* 60°C	160°F* 71°C	180°F 82°C	Progressive CFM	Decibels at 3-ft distance	Energy saver Hi/Lo: Amps Hi/Lo: Watts
	HLE 1012-11/15	.90	8812 BTU 6600 BTU	11700 BTU 8800 BTU	15500 BTU 11600 BTU	18700 BTU 14000 BTU	150 to 375 High 150 to 250 Low	Hi 57/55 dbA Lo 54/52 dbA	.06 / .04 Amps 7.2 / 4.8 Watts
	HLE 1412-15/20	1.2	10600 BTU 8812 BTU	15500 BTU 11700 BTU	20000 BTU 15500 BTU	26000 BTU 18700 BTU	150 to 375 High 150 to 250 Low	Hi 63/61 dbA Lo 54/52 dbA	.09 / .06 Amps 10.8 / 7.2 Watts

\*most common water temperature range. Coils are made of copper alloy 122 manufactured to ATSM B-75 specifications. Brazing alloy is AWS-BCUP2 for use with potable water systems. Electrical circuit size: 15 amp maximum.

BTU ratings based on 68° entering air. To calculate 1 GPM, multiply by 0.95. To calculate 4 GPM, multiply by 1.05.

## **Engineering Specifications**

Contractor shall supply and install HL/HLE Series hydronic fan heaters manufactured by King Electrical Mfg. Co., Seattle, Washington.

Motor: 2 speed shaded pole impedance protected. Permanently lubricated. Bronze bearings.

Blower: Tangential blower to provide 150 to 375 CFM of air. Quiet operation of less than 53 dBA weighted scale at high speed. Easily removed for service. Bronze, not plastic, bearings.

Coils: 1/2" ID Copper tubes with Aluminum fins of no more than 4 fins per inch for free flow of air and maximum circulation of air and water. Tested at 300 PSI for leaks. Bleed valve to purge air. Copper tube used in coils is Alloy 122 made to ASTM B-75 specifications.

Grill: 20 gauge mild Steel, louvered with Nickel-plated grille screws. Powder-coated in white.

Wall Can: 20 gauge mild Steel, electrogalvanized to resist corrosion. 1/2" knockout in bottom of can and QuickSet<sup>™</sup> bend out mounting tabs for fast installation.

Fan Switch: 3 position fan switch High / Off / Low. Rated at 10 Amps with wire leads and insulated 1/4" quick connects.

Terminal Board: All electrical connections will terminate at a phenolic terminal board with 1/4" male brass blades for easy wiring.

Water Connections: 1/2" bare Copper tubes de-burred. Tested at 300 PSI for leaks. Clean out tubes for water connection.

**ECM Motor:** We program the motor to start at slowly and quietly at 50% of its maximum speed. Over a 3 to 5 minute period, if the room is not reaching the set point it will slowly ramp up to 100% airflow to heat the room. It not only saves energy but also makes a large output heater have a soft quiet start, yet can increase to its maximum output and sound level over time while not disturbing residents.

Approvals: ETL (3131491PRT-001). All King heaters are tested to UL 1995 Standards. Approved for USA and Canada. CSA/C22.2.