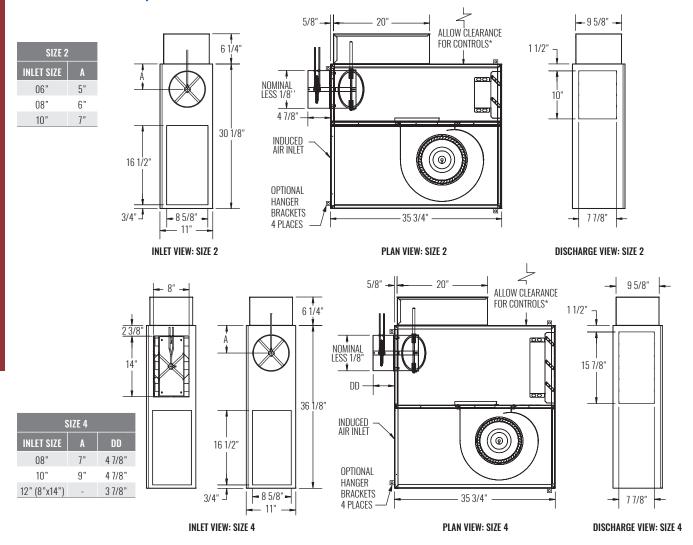


DIMENSIONAL DATA | BASE UNIT



* Check NEC for unit clearance requirements.

NOTE: Left-hand base unit with electronic control enclosure shown; right-hand is available.

STANDARD FEATURES

- · 20 gage galvanized steel casing construction
- · Height is 11"
- Control enclosure for electronic components
- 1/2" thick, dual density fiberglass insulation that meets NFPA 90A and UL 181 safety requirements
- [120, 208/240, or 277 volt, single-voltage, 1-phase, single speed] permanently lubricated PSC motors
- Field adjustable fan speed controller
- Removable bottom panel allows easy access to all internal components for maintenance
- Four quadrant, center averaging airflow sensor
- Includes 24 volt control transformer
- ETL listed; adherence to UL 60335-2-40 and CSA C22.2 No. 60335-2-40
- · AHRI certified sound ratings

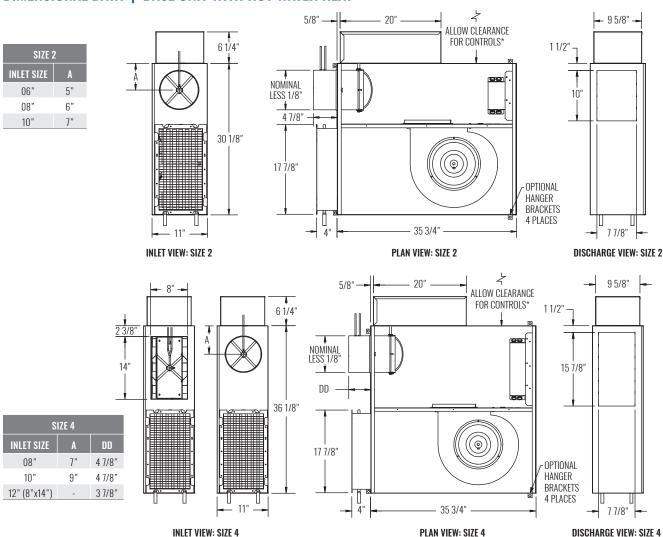
OPTIONAL FEATURES

- Liners: 1/2" Cellular insulation, 1/2" Foil encapsulated fiberglass insulation, Sterilwall, or Perforated doublewall
- · Linear averaging airflow sensor
- [120, 208/240, or 277 volt, single-voltage] ECM motor with manual or remote adjustable speed controller
- Left-hand or right-hand control enclosure
- Motor toggle disconnect switch
- Motor fusing
- Induced air filter, construction type; 18"x11"x1"
- · Hanger brackets



KLPP

DIMENSIONAL DATA | BASE UNIT WITH HOT WATER HEAT



^{*} Check NEC for unit clearance requirements.

NOTE: Left-hand base unit with electronic control enclosure shown; right-hand is available.

STANDARD FEATURES

- 20 gage galvanized steel casing construction
- · Height is 11"
- Control enclosure for electronic components
- 1/2" thick, dual density fiberglass insulation that meets NFPA 90A and UL 181 safety requirements
- [120, 208/240, or 277 volt, single-voltage, 1-phase, single speed] permanently lubricated PSC motors
- · Field adjustable fan speed controller
- Removable bottom panel allows easy access to all internal components for maintenance
- Four quadrant, center averaging airflow sensor
- Includes 24 volt control transformer
- ETL listed; adherence to UL 60335-2-40 and CSA C22.2 No. 60335-2-40
- · AHRI certified sound ratings

OPTIONAL FEATURES

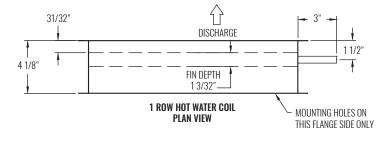
- Liners: 1/2" Cellular insulation, 1/2" Foil encapsulated fiberglass insulation, Sterilwall, or Perforated doublewall
- · Linear averaging airflow sensor
- [120, 208/240, or 277 volt, single-voltage] ECM motor with manual or remote adjustable speed controller
- Left-hand or right-hand control enclosure
- Left-hand or right-hand hot water coil connection; hot water coil connection is opposite of control enclosure
- Motor toggle disconnect switch
- Motor fusing
- Induced air filter, construction type; 18"x11"x1"
- · Dust tight control enclosure
- Hanger brackets

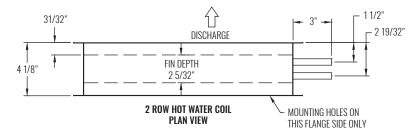
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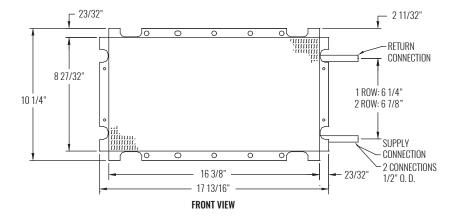


Fan Powered Terminal Units | Low Profile, Parallel Flow

DIMENSIONAL DATA | HEATING COIL







STANDARD FEATURES

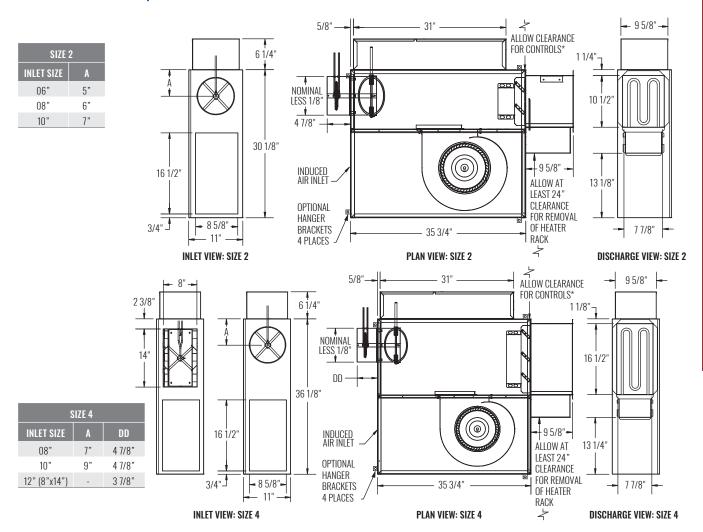
- KLPP Coils are shipped from the factory attached to the induced air inlet
- Hot water coils are configured for a flanged ductwork connection; coil section is uninsulated
- Coils are not for steam applications
- Contact your Krueger Representative for high capacity or steam coil information
- Connection Tubing 1/2" O. D. male solder
- Coil Casing 20 gage galvanized steel
- Coil Tubing 1/2" O. D. x 0.016" thick copper
 Coil Fins 0.0045" thick aluminum, 10 per inch; mechanically bonded to tubing

NOTE: For hot water performance data tables, visit the Krueger website at www.krueger-hvac.com or download the Krueger selection software to run customized selections. The selection program can provide performance data with different entering air and water conditions as well as show effects of altitude and glycol on the heating performance of the water coil. The selection software also allows selections to be saved in a schedule format that can be imported onto a set of project drawings.



KLPP

DIMENSIONAL DATA | BASE UNIT WITH ELECTRIC HEAT



^{*} Check NEC for unit clearance requirements.

NOTES: Left-hand base unit with electronic control enclosure shown; right-hand is available. See next page for electric heat standard features.

STANDARD FEATURES

- 20 gage galvanized steel casing construction
- Height is 11"
- Control enclosure for electronic components
- 1/2" thick, dual density fiberglass insulation that meets NFPA 90A and UL 181 safety requirements
- [120, 208/240, or 277 volt, single-voltage, 1-phase, single speed] permanently lubricated PSC motors
- Field adjustable fan speed controller
- Removable bottom panel allows easy access to all internal components for maintenance
- Four quadrant, center averaging airflow sensor
- Flanged discharge connection on electric heat coil
- Single point electrical connection
- Includes 24 volt control transformer
- ETL listed; adherence to UL 60335-2-40 and CSA C22.2 No. 60335-2-40
- · AHRI certified sound ratings

OPTIONAL FEATURES

- LineaHeat solid state electronic controlled heater with or without leaving air temperature control
- Liners: 1/2" Cellular insulation, 1/2" Foil encapsulated fiberglass insulation, Sterilwall, or Perforated doublewall
- · Linear averaging airflow sensor
- [120, 208/240, or 277 volt, single-voltage] ECM motor with manual or remote adjustable speed controller
- · Left-hand or right-hand control enclosure
- Induced air filter, construction type; 18"x10"x1"
- Fused or non-fused door interlocking disconnect
- Dust tight control enclosure
- · Motor fusing
- Manual reset cutout
- Hanger brackets
- AC Solid State Relays
- Fuse-block

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Fan Powered Terminal Units | Low Profile, Parallel Flow

ELECTRIC HEAT FEATURES & CAPACITIES

The kW charts below indicates the maximum and minimum safe limit capacities for each of the KLPP units and has been specifically designed for Krueger fan powered terminals. For safe operation, the electric heater controls are interlocked with the airflow proving switch to allow the heater to energize only after the fan is running. Each terminal unit has been tested by ETL in accordance with UL standards.

ELECTRIC HEAT STANDARD FEATURES

- 20 Gage galvanized steel casing construction.
- Line voltage combinations:
 [120, 208/240, or 277 volt, 1-phase]
 [208 volt, 3-phase, 3-wire]
 3-phase, 4-wire]

[480 volt,

- NEMA 2 electric heat control enclosure.
- Flanged discharge for field duct connection.
- Single point connection between the heater and the fan motor (see combinations below).
- 80/20 Ni-Cr heating elements.
- Automatic reset thermal cutout.
- · Magnetic contactors.
- Positive pressure airflow switch.

NOTE: A minimum of 0.1" w.g. downstream static pressure is required in the duct to ensure proper heater operation.

OPTIONAL HEATER CONTROL

 LineaHeat solid state electronic proportional control of electric heat is available with or without leaving air temperature control. See Krueger's Terminal Unit Engineering section for additional information.

MAXIMUM kW

	PSC MOTOR		EC MOTOR	
VOLTAGE / PHASE	UNIT SIZE 2	UNIT SIZE 4	UNIT SIZE 2	UNIT SIZE 4
	MAX	MAX	MAX	MAX
120v / 1Ph	5.0	5.0	5.0	5.0
208v / 1Ph	5.5	8.0	9.0	9.0
240v / 1Ph	5.5	8.0	10.5	10.5
277v / 1Ph	5.5	8.0	10.5	11.5
208v / 3Ph	5.5	8.0	9.5	11.5
480v / 3Ph	5.5	8.0	10.5	11.5

NOTES: Maximum values apply to staged heaters only. Contact your local Krueger representative for LineaHeat limits.

SINGLE POINT CONNECTION COMBINATIONS ELECTRIC HEATER/FAN MOTOR

- [120, 208/240 or 277 volt, 1-phase] electric heat includes fan motor wired with same line voltage.
- [208 volt, 3-phase, 3-wire] electric heat utilizes a 208/240 volt, 1-phase fan motor.
- [480 volt, 3-phase, 4-wire] electric heat is equipped with 277 volt, 1-phase fan motor.

 $kW = \frac{CFM \times \Delta T (°F)}{3160}$

CALCULATING ELECTRIC HEATER AMPERES

Single Phase Amperes = $\frac{\text{Watts}}{\text{Line Voltage}}$

Three Phase Amperes = $\frac{\text{Watts}}{\text{Line Voltage x 1.73}}$

NOTES: When selecting electric heaters, do not exceed 120°F discharge air temperature, per NEC. The ASHRAE Handbook of Fundamentals states that discharge temperatures in excess of 90°F are likely to result in objectionable air temperature stratification in the space. Also, ventilation short circuiting may occur. ASHRAE Standard 62 now limits discharge temperatures to 90°F or increasing the ventilation rate when heating from the ceiling.