

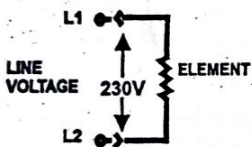
ENGINEERING DATA

The following load calculations and recommended operating ranges are based on standard 75 ° F entering air (comforting heating) Consult factory for other applications.

- | | | |
|--------------------------------|----------------|---|
| 1. Conversion: | 1 Kw = | 3413 B.T.U. |
| 2. Load Requirement | Kw = | (cubic feet per min x Temperature Rise) / 3160 |
| 3. Ohm's Law : | Watts= | (Volts) ² / Resistance = Volts x Amps |
| 4. Line Current, 1 Phase: | Amps= | Watts / Volts |
| 5. Line Current, 3 Phase: | Amps= | Watts / (Volts x 1.73) |
| 6. Pressure Drop : | Inches= | H ₂ O = [(KW / Ft ²)/760] x [velocity in f.p.m / 500] ² |
| 7. C.F.M / F.P.M-Velocity | VEL. / F.P.M= | C.F.M. / (Duct Area / Ft. ²) |
| 8. Relationship Kw per sq. ft. | Kw / sq. ft. = | Kw / [(Duct width {Inches} x Duct Height {inches}) / 144]. |

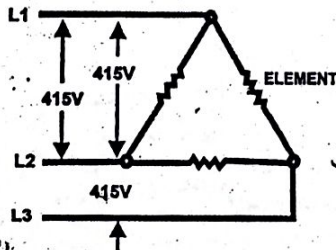
HEATING ELEMENT WIRING CONFIGURATIONS

SINGLE PHASE

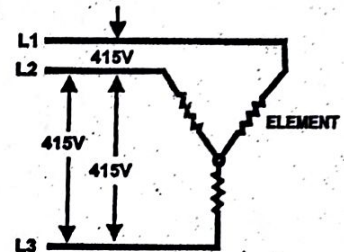


Element Voltage = Line Voltage

THREE PHASE



THREE WIRE "DELTA" CONNECTION
 1. Element Voltage = Line Voltage
 2. Phase Currents In = L1 = L2 = L3



THREE WIRE STAR CONNECTION
 1. Element Voltage = $\frac{\text{Line Voltage}}{1.73}$
 2. Phase Currents In = L1 = L2 = L3

INSTALLATION :

The Following installation procedures must be carried for safe operation and best performance.

1. Heaters may be installed either horizontal or vertical in Ducts and also in the top or bottom of horizontal ducts.
2. To install heaters at 48 inches from fans / Blowers / Filers.
3. To provide heats at least 48 inches either side of an elbow or turn.
4. To keep 48 inches transaction section for change it duct size.
5. To install a slip - in heater in opening duct and electric control box remain outside.
6. To install a flange in type heater, Insert heater between two flanges of duct and bolt in place.
 Electric control box remain outside. Larger heaters may required hanger.

ELECTRIC INSTALLATION :

DANGER : Disconnect all supplies before working on any circuit.

- CAUTION :**
1. Use only copper wires suitable for 125 degree C
 2. Fuses should be installed on supply.

3. The electric connection wires should be 115% more load from original load requirement.
4. Connect as per diagram affixed inside the control panel door.

WARNING :

Installation & Servicing of heaters can be hazardous due to live electrical connections. Air flow going through the electric heater should be free of combustible particles, flammable vapor or gases.