

Electric Duct Heater R Series



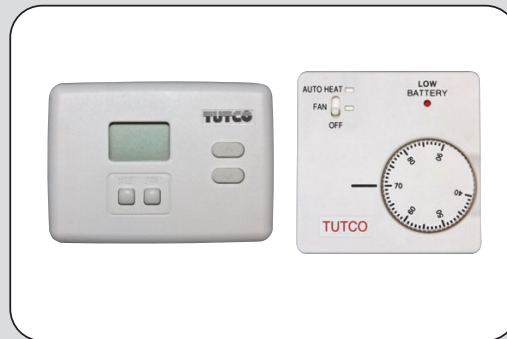
- Commercial grade heating coil and rack
- Direct install to HVAC boot
- UL approved for zero-clearance installation (without insulation)
- Can also be used in fan mode to boost air conditioning
- Eliminates space heaters / wall-mounted units
- Improved heating efficiency (point of use)
- Maintains consistent comfort level
- Minimal heat loss
- Easy to install

The Heat Pack In-Line Duct Heating System

The R Series is used anywhere extra heating capacity is needed. Designed for residential and commercial applications on 6" diameter ducts. The R series heat pack improves heating system balance problems. Comes with an integral axial fan which produces approximately 160 CFM during operation and is intended for use with either a remote wireless or wired thermostat, to be wall mounted inside the heated room.



Easy to install



Wired or wireless thermostat options

Engineering Specifications

Composition and Materials: All sheet metal housing. 0.034+/.008/-0.00 minimum spangle galvanized sheet steel grade G-90.

Accessory Options: Standard supply voltages from 120-1440 & Standard control voltages from 120-277 single or three phase heaters, Slip In or Flange mounted, Recessed control box, right handed offset control box, 80/20 (Ni/Cr) resistance wire, Stainless steel terminals, Derated coils, vapor barrier and gasketed cover.

Standard Features: Direct install to HVAC boot or existing ductwork, commercial grade heating coil and rack, UL approved for zero-clearance installation without additional insulation, wired or wireless thermostat, custom Hanger system, Insulated unit and triple safety protection.

Applications: Bathrooms, bedrooms, nurseries, garages/attics, sunrooms, offices, lobbies, under floor systems and workshops.

Approvals: cULus, ETL, UL International

Electric Duct Heaters DHC/DC/E/R Series

TECHNICAL DATA

DETERMINING MAXIMUM HEATER KW

Duct Width (inches) x Duct Height (inches)

Total Square Inches x 156

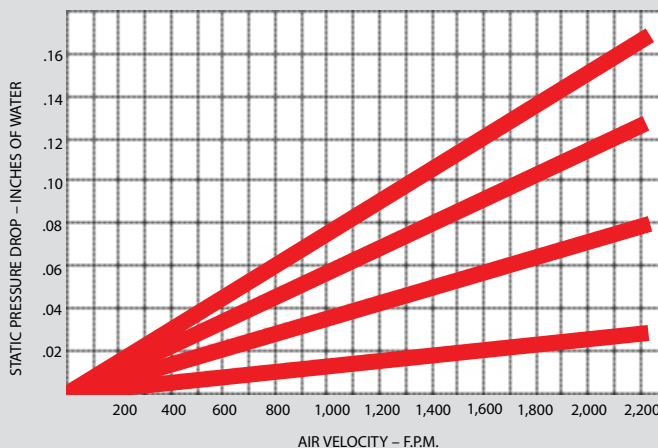
Maximum Watts per Square Inch of Duct Face Area

Duct Width (feet) x Duct Height (feet)

Total Square Feet x 22.464

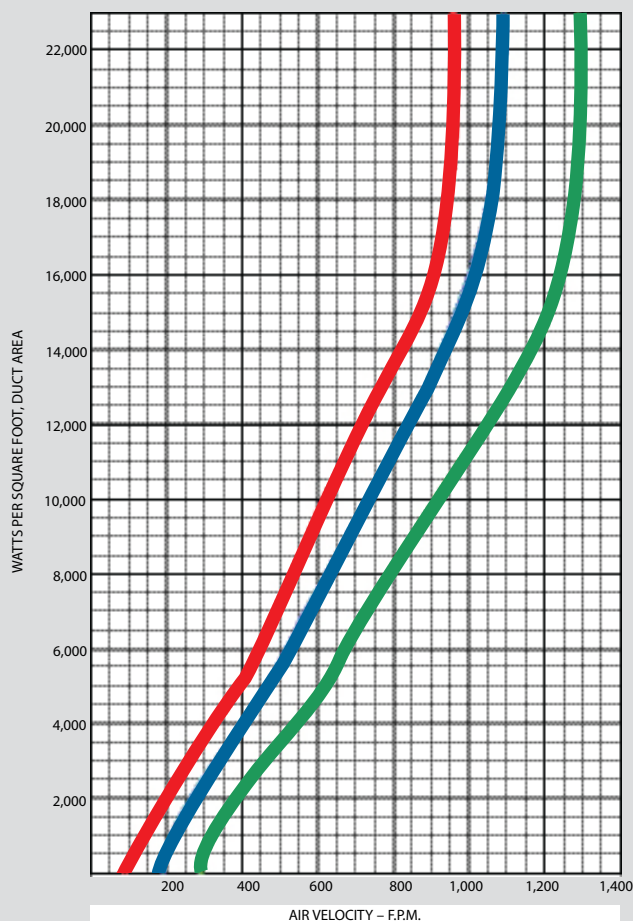
Maximum KW per Square Foot of Duct Face Area

PRESSURE DROP THROUGH HEATER



1, 2, 3 and 4 – the number of rows of heater coils
When the number of rows of heater coils is unknown, assume 4

MINIMUM AIR VELOCITIES



— BELOW 78°F INLET AIR
— 78°F INLET AIR TO 90°F INLET AIR
— 91°F INLET AIR TO 110°F INLET AIR

General

- A. The minimum airflow in a duct heater is directly related to the inlet air temperature. Consideration must be given to both airflow across the heater and the inlet temperature.
- B. To calculate the watts per sq. ft. of duct area, divide the total watts required by the duct area.

Example

- C. Duct size equals 2 ft. x 3 ft., total watts equal 20,000 watts per square foot equals

$$\frac{20,000}{6} = 3333$$

- D. If the air handling equipment is expressed in F.P.M., then a direct cross reference can be made by comparing the temperature of the air (as it enters the duct heater) to the KW rating on the table at the rated air velocity.

1. Draw a line horizontally from the watts/sq. ft. required to the inlet air temperature being used.
2. From this point of intersection on the inlet temperature line, draw a line down vertically to establish the air velocity.
3. In cases where the velocity is less than that determined from the chart, then either the velocity must be increased, the KW required must be reduced or both must be done.

- E. In cases where the airflow is expressed in C.F.M., convert to F.P.M. by dividing the C.F.M. by the duct area.

$$\frac{\text{C.F.M.}}{\text{Duct Area}} = \text{F.P.M.}$$