

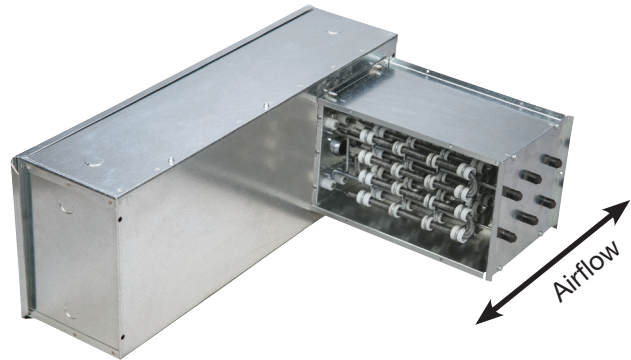
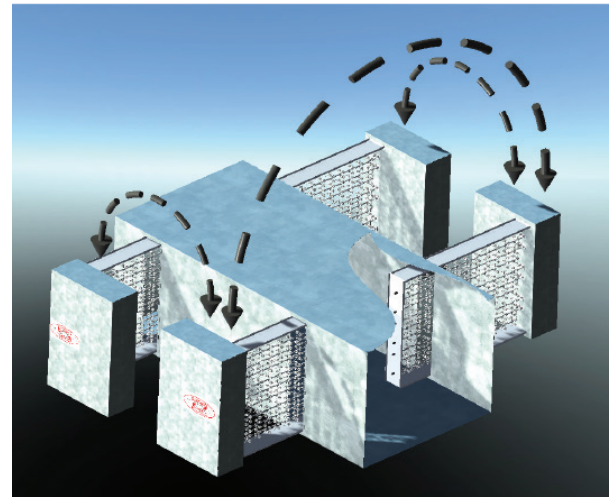
The IDHE series is the industry's first and only electric duct heater approved by UL for multiple mounting positions. This allows the control cabinet to be installed on either side of a horizontal duct or in any orientation on a vertical duct. The control cabinet is offset from the heating elements similar to traditional heaters. However, the IDHE affords the installer the flexibility to position the offset on the left or right as preferred.

### Standard Features

- UL 1996 certified
- 50/60 Hz compatibility
- Zero clearance rating
- Hinged control cabinet cover
- Power and Control terminal boards
- Automatic reset thermal safety switch for primary over temperature protection
- Heavy gauge G60 construction

Individual maximum capacities are dependent on voltage/phase, control type, and heater dimensions.

Absolute maximum capacity : 478.8 kW



\* The Greenheck model IDHE duct heater is universally configured to allow airflow in either direction in all mounting orientations.

Construction	Standard	Optional
Airflow Direction	Universal	-
Control Box Offset	Universal	-
Control Voltage	24 Vac	
Element Wire	Standard	80/20
Heater Control	Stage	SCR, Vernier SCR
Heater Type	Slip in	Flange
Heater Voltage/Phase	120/1, 208/1, 208/3, 240/3, 277/1, 480/1, 480/3	-
Material	Galvanized Steel	-
Recess (in.)	None	1,2,3
Control Transformer	Unfused	Fused

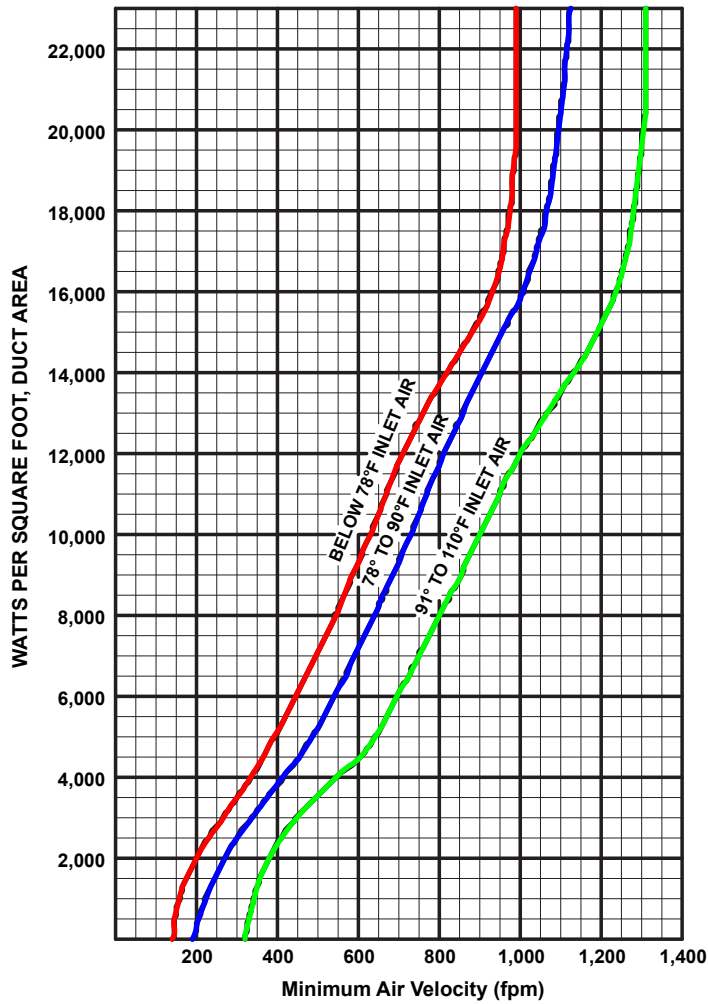
### Size Limitations

W x H	Minimum Size	Maximum Size
Inches	8 x 8	120 x 144
mm	203 x 203	3048 x 3658

### Options available:

- Airflow switch (adjustable or fixed set point)
- Disconnect switch with door interlock
- Dust tight box with gasketed door
- Room thermostat
- Duct thermostat (available with SCR or Vernier SCR control)
- Pilot light
- Vapor barrier
- 80/20 element wire
- De-rated coils
- Recess for internally insulated ducts
- Stainless steel hardware

# Minimum Air Velocities



## General

- A. The minimum airflow through 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. (square foot) of duct area, divide the total watts required by the duct size (Watt density = watts/duct area (ft<sup>2</sup>)).
- Example: Duct size equal 2 ft. x 3 ft., total watts equal 20,000 watts per sq. ft.

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

- C. If airflow in the duct is expressed in FPM, 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 per 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 the velocity must be increased, the kW required must be reduced, or both must be done.
- D. In cases where the airflow is expressed in CFM, convert to FPM by dividing the CFM by the duct area.

$$\frac{\text{CFM}}{\text{Duct Area(ft}^2\text{)}} = \text{FPM}$$

