

# Anti-Condensation Heater



Models: AHC-15W, AHC-30W, AHC-35W, AHC-50W



The "AHC" touch safe series anti-condensation space heater is designed to keep the temperature inside of an enclosure several degrees above the external ambient temperature and above the dew point. Keep your electrical equipment on line by preventing corrosion due to condensation. Contact our engineering department for specifications for the proper AHC model used in other types of enclosures (Aluminum, Fiberglass, etc.).

## Features

- There are no moving parts
- No thermostat to set or malfunction
- No adjustments are needed for ambient temperature changes
- Easy to install (connect two wires and insert two mounting screws)
- Compact size
- UL Recognized (E121431)
- Due to heat sink design, the max external surface temperature are "Touch Safe"

## Technical Specifications

- Operating temperatures:  $-30^{\circ}\text{C}$  to  $60^{\circ}\text{C}$
- Watts: 15, 30, 35 or 50 per unit, depending on model
- Extruded black anodized aluminum
- Life expectancy-20 years
- Rated 120 VAC, output will vary with
- AC or DC voltage
- When possible, two smaller units are more efficient than one larger unit

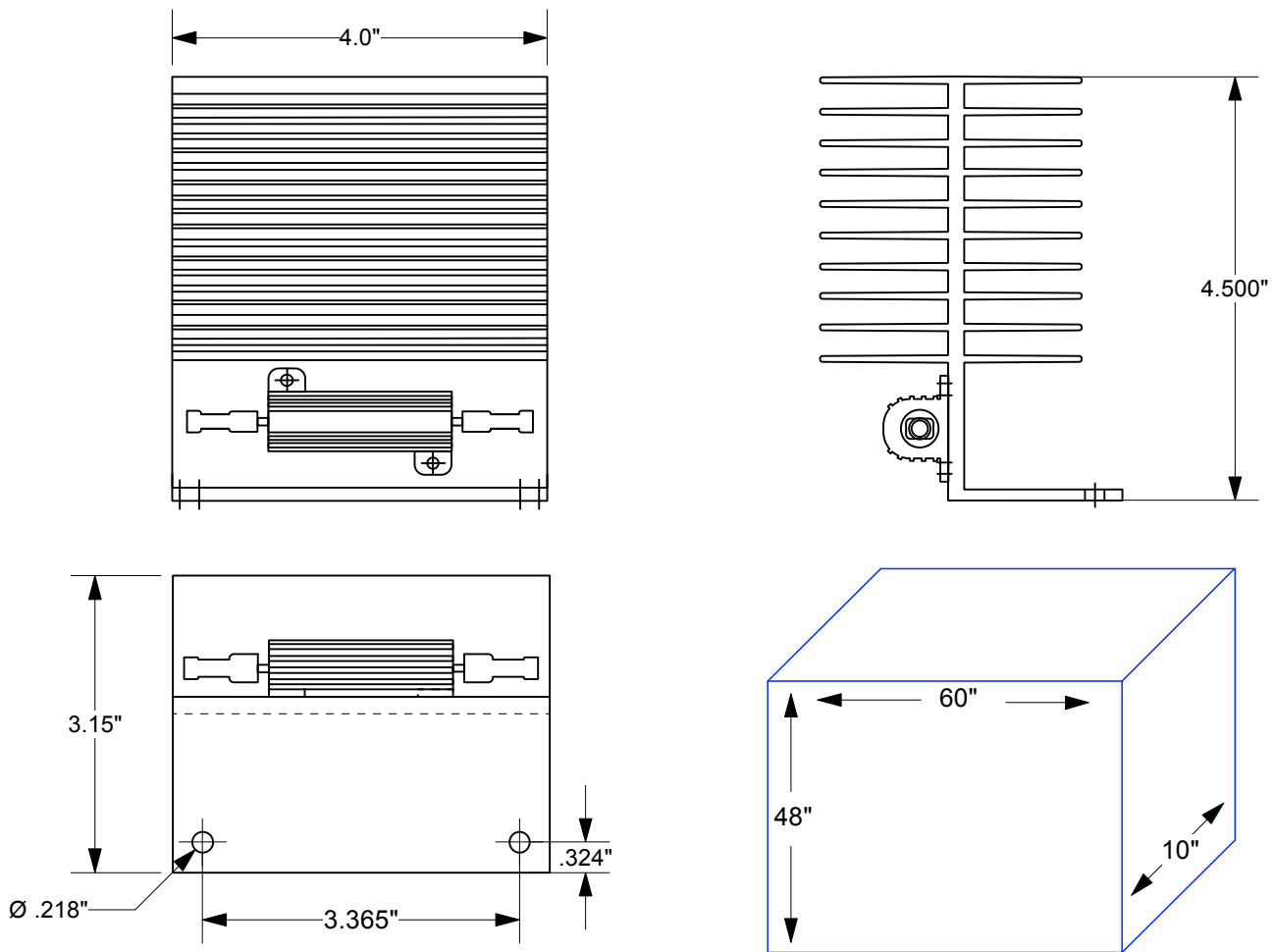


Fig. 1

## MODEL SELECTION

0.7 watt of power per square foot is necessary to generate enough energy to raise the temperature of an enclosure 1°F in a metallic enclosure. To prevent condensation, the enclosure should be 2° to 3°F above the ambient air temperature. To determine total watts needed, it is first necessary to determine the total surface area of the enclosure, multiply by the amount of power needed to raise the temperature 1°F (0.7W/ft<sup>2</sup>) and then multiply by a factor equal to the number of degrees you wish to be above ambient. You can then use this total wattage to determine which model(s) you will need to obtain sufficient heating power. See example below.

### Example: 60" x 48" x 10" metal enclosure (see Fig. 1)

To Determine Square Feet

Step 1:	$60 \times 48 = 2880 \text{ in.}^2$	Front and back of box	$= 2880 \times 2 = 5760$
	$60 \times 10 = 600 \text{ in.}^2$	Top and bottom of box	$= 600 \times 2 = 1200$
	$48 \times 10 = 480 \text{ in.}^2$	Left & right sides of box	$= 480 \times 2 = \underline{960}$
			$7920 \text{ in.} = \text{Total area}$

Step 2: Convert square inches to square feet:  $7920 / 144 = \mathbf{55 \text{ Square Feet}}$

Step 3: Multiply total square feet by 0.7  $55 \times 0.7 = 38.5\text{W}$  to raise temperature 1°F.

Step 4: Multiply by degree increase desired.  $38.5\text{W} \times 2 \text{ degrees} = 77\text{W}$ ;  $\times 3 \text{ degrees} = 115.5\text{W}$   
 So, 77 to 116 watts would be needed. (80 to 120W is a good ball park estimate.)

**Recommendation:** The median power of this temperature range is 96 watts, so use two AHC 50W units.

**Note:** For non-metallic enclosures derate by around 50%. For above example, 40 - 60 watts is fine.