

Application

Designed to meet the demands of electronic, pneumatic, hydraulic and mechanical equipment requiring protection from low temperatures, condensation and corrosion. The Positive Temperature Coefficient heater unit will maintain a stable temperature environment within enclosures, allowing critical components to perform with consistent reliability for longer periods.

Construction

- PTC (Positive Temperature Coefficient) heating element
- Mounting clip for 35mm DIN rails EN 50022

Finish

Black anodized extruded aluminum.

Industry Standards

UL Component Recognized
CSA Component Recognized
IEC, IP54



Installation

Mount unit at or near the bottom of the cabinet. Improved heat dissipation will be achieved by using two or more smaller heaters wired in parallel. If a technical requirement exists for a specific temperature, regardless of the external ambient temperature, a temperature regulator can be installed.

Caution: Do not mount on wooden structures. Avoid placement near heat-sensitive components.

Sizing and Selection

The graph represents a painted, non-insulated steel enclosure mounted in a calm air, building interior. The lowest temperature differential between room temperature and enclosure interior must be 5 K + to prevent humidity and condensation. For outdoor applications, double the heating power requirement.

P_H = Power required installed (W)

P_V = Existing power from components

ΔT = Temperature differential (Kelvin) ambient to enclosure interior

A = Free-standing switch enclosure area (Sq. Ft.)

k = Heat transmission coefficient (W/Sq. Ft. K)
Convection in quiet air:

Painted steel approx. 0.51W/Sq. Ft. K

Aluminum approx. 1.85W/Sq. Ft. K

Plastic approx. 0.28W/Sq. Ft. K

Example:

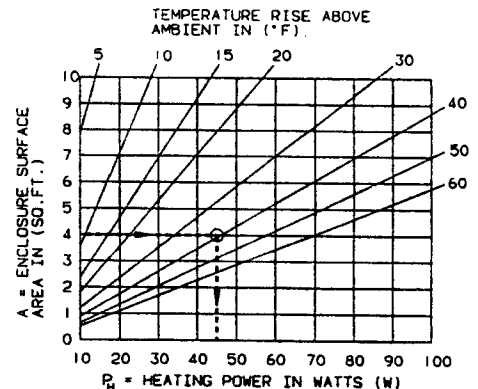
$$P_H = \Delta T \times k \times A$$

$$P_H = 5K \times 0.51W/Sq. Ft. K \times 50 Sq. Ft. = 127.5W$$

Formula with solution:

$$P_V = \text{Existing power from components (W)}$$

$$P_H = \Delta T \times k \times A - P_V$$



C2616-2

Standard Sizes Semiconductor Heaters

Catalog Number	Watts	Voltage	Starting Current Amps	L	Weight Kg. (Lbs.)
D-AH101	10	AC/DC 110/120	.8	1.97 (50)	.30 (66)
D-AH301	30	AC/DC 110/120	1.2	3.93 (100)	.30 (66)
D-AH501	50	AC/DC 110/120	1.5		.50 (1.10)

Millimeter dimensions () are for reference only; do not convert metric dimensions to inch.