# 120V & 240V ENCLOSURE HEATERS

# FOR ELECTRONIC EQUIPMENT PROTECTION



Silicone rubber enclosure heaters offer protection against frost and condensation in enclosures containing electronic equipment, such as ATMs, temperature control panels and control valve housings.

As standard stock items, enclosure heaters can be supplied at 25, 50, 100 and 200 watt for 120V or 240V supply.

Heater assemblies can be supplied with either integral or remote 15°C (60°F) air temperature sensing thermostats.

### **INSTALLATION**

Factory fitted to an aluminium mounting plate that allows for easy installation.

Mounting surface is perpendicular to the heater and has two mounting holes. Heaters with an integral thermostat should be vertically mounted with the sensor towards the base of the enclosure.

### **CHARACTERISTICS**

Good resistance to: photodegradation, weathering, fungus & bacteria, acetone, alcohol, formic acid, brake fluid, acetic acid, greases, hydrochloric acid 10%, sulphuric acid 10%, waxes and plasticisers.

In addition to this, the heaters have adequate gas permeability and good steam resistance up to 130°C and 2.5 bar respectively.

### **FEATURES & OPTIONS**

- 25, 50, 100 and 200 watt heaters @120V
- 50, 100 and 200 watt heaters @240V
- 20" (500mm) PTFE leads as standard
- Manufactured using etched foil technology for precise, even heating
- Heaters supplied pre-attached to mounting plate for easy installation
- Heaters available with UL/CSA component recognition
- Bespoke designs available on request

### THERMOSTAT SPECIFICATION

Integral or remote air temperature sensing thermostats ensure heater operation in condensation forming and other air heating application conditions

- Close 5C +/-3, open 15C +/-3
- Close 40F +/-5, open 60F +/-5
- Rated for 100,000 cycles
   @10amps 250V/15amps 120V



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## **MODELS AND DIMENSIONS**

## **WITH MOUNTED THERMOSTAT** (60°F/15°C)

| MODEL       | VOLTS | WATTS |
|-------------|-------|-------|
| ENC001-2045 | 120   | 25    |
| ENC001-2046 | 120   | 50    |
| ENC001-2047 | 120   | 100   |
| ENC001-2048 | 120   | 200   |
| ENC001-2050 | 240   | 50    |
| ENC001-2051 | 240   | 100   |
| ENC001-2052 | 240   | 200   |

### WITHOUT MOUNTED THERMOSTAT

| MODEL       | VOLTS | WATTS |
|-------------|-------|-------|
| ENC001-2057 | 120   | 25    |
| ENC001-2058 | 120   | 50    |
| ENC001-2059 | 120   | 100   |
| ENC001-2060 | 120   | 200   |
| ENC001-2061 | 240   | 50    |
| ENC001-2062 | 240   | 100   |
| ENC001-2063 | 240   | 200   |

## **REMOTE AIR TEMPERATURE THERMOSTAT** (60°F/15°C)

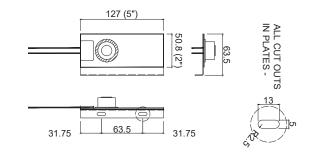
| MODEL       | VOLTS | WATTS |
|-------------|-------|-------|
| ENC001-2064 | -     | -     |

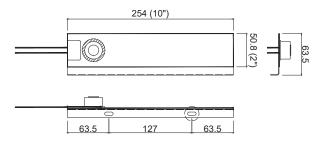
## **DIMENSIONS**

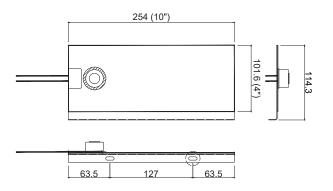
| WATTS | HEATED<br>SURFACE     | PLATE SIZE              | MOUNTING<br>SURFACE    |  |  |  |
|-------|-----------------------|-------------------------|------------------------|--|--|--|
| 25    | 2 X 5" (50 X 125MM)   | 2.5 X 5" (63 X 127MM)   | 0.5 X 5" (12 X 127MM)  |  |  |  |
| 50    | 2 X 5" (50 X 125MM)   | 2.5 X 5" (63 X 127MM)   | 0.5 X 5" (12 X 127MM)  |  |  |  |
| 100   | 2 X 10" (50 X 250MM)  | 2.5 X 10" (63 X 254MM)  | 0.5 X 10" (12 X 254MM) |  |  |  |
| 200   | 4 X 10" (100 X 250MM) | 4.5 X 10" (114 X 254MM) | 0.5 X 10" (12 X 254MM) |  |  |  |
|       |                       |                         |                        |  |  |  |

Standard lead length 40" (1000mm) with pressure sensitive adhesive









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## **DETERMINING MINIMUM RECOMMENDED WATTAGE**

| Temperature<br>Above Ambient<br>0.1 | TOTAL ENCLOSURE SURFACE AREA (M² / FT²) |          |          |          |          |           |          |           |           |           |           |           |           |           |
|-------------------------------------|---|----------|----------|----------|----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                                     | 0.19 / 2                                | 0.28 / 3 | 0.37 / 4 | 0.46 / 5 | 0.56 / 6 | 0.7 / 7.5 | 0.84 / 9 | 0.93 / 10 | 1.39 / 15 | 1.86 / 20 | 2.32 / 25 | 2.79 / 30 | 3.72 / 40 | 4.65 / 50 |
| Uninsulated Enclos                  | Uninsulated Enclosures                  |          |          |          |          |           |          |           |           |           |           |           |           |           |
| 11°C (20°F)                         | 30W                                     | 40W      | 55W      | 70W      | 80W      | 100W      | 120W     | 135W      | 205W      | 270W      | 335W      | 405W      | 540W      | 670W      |
| 22°C (40°F)                         | 55W                                     | 80W      | 110W     | 135W     | 160W     | 200W      | 245W     | 270W      | 405W      | 540W      | 670W      | 805W      | 1075W     | 1340W     |
| 33°C (60°F)                         | 90W                                     | 120W     | 160W     | 205W     | 245W     | 300W      | 365W     | 405W      | 605W      | 805W      | 1005W     | 1210W     | 1610W     | 2010W     |
| 44°C (80°F)                         | 110W                                    | 160W     | 215W     | 270W     | 325W     | 400W      | 485W     | 540W      | 805W      | 1075W     | 1340W     | 1610W     | 2145W     | 2680W     |
| 55°C (100°F)                        | 135W                                    | 200W     | 270W     | 335W     | 405W     | 500W      | 605W     | 670W      | 1005W     | 1340W     | 1675W     | 2010W     | 2680W     | 3350W     |
| Insulated Enclosure                 | es                                      |          |          |          |          |           |          |           |           |           |           |           |           |           |
| 11°C (20°F)                         | 10W                                     | 10W      | 15W      | 20W      | 20W      | 25W       | 30W      | 35W       | 50W       | 65W       | 80W       | 100W      | 130W      | 160W      |
| 22°C (40°F)                         | 15W                                     | 20W      | 30W      | 35W      | 40W      | 50W       | 60W      | 65W       | 100W      | 130W      | 160W      | 195W      | 260W      | 320W      |
| 33°C (60°F)                         | 20W                                     | 30W      | 55W      | 57W      | 60W      | 75W       | 90W      | 100W      | 145W      | 195W      | 240W      | 290W      | 385W      | 480W      |
| 44°C (80°F)                         | 30W                                     | 40W      | 55W      | 65W      | 80W      | 100W      | 115W     | 130W      | 195W      | 260W      | 320W      | 320W      | 515W      | 640W      |
| 55°C (100°F)                        | 35W                                     | 50W      | 65W      | 80W      | 100W     | 125W      | 145W     | 160W      | 240W      | 320W      | 400W      | 400W      | 640W      | 800W      |

Enclosures with surface areas larger than 50ft<sup>2</sup>/4.65m<sup>2</sup> available on request.

In most cases, multiple heaters should be used in applications requiring wattages greater than 500 watts