

AHT

Electrical heating tape for process temperature maintenance of pipework and vessels in safe or hazardous locations

POWERHEAT

Constant Wattage Heating Tape

- Withstand temperatures up to 425°C
- Outputs available to 150W/m
- Can be cut to length with no wastage
- Approved for use in non-hazardous, hazardous and corrosive environments
- Full range of controls and accessories
- Available for 110-120VAC and 220-277VAC

FEATURES

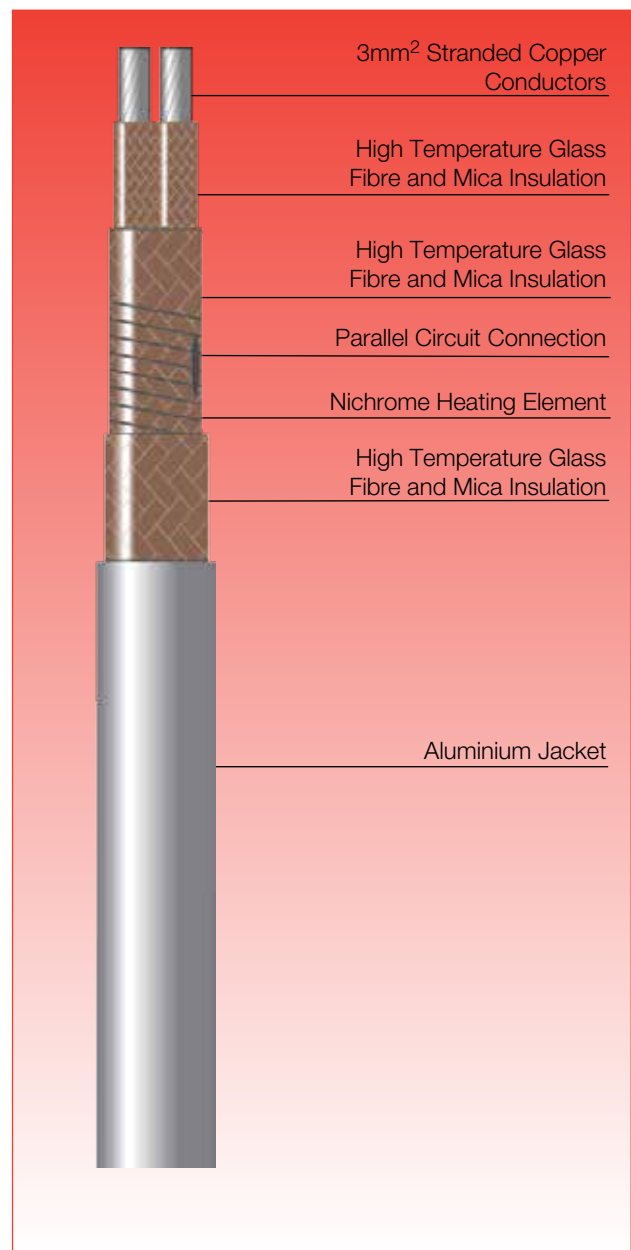
POWERHEAT Type AHT is a constant wattage heating tape that can be used for freeze protection or maintenance of process temperatures in pipework and vessels.

It can be cut-to-length at site and can replace mineral insulated (MI) cables for applications where the cut-to-length feature, or field fabricated heating cable is preferred.

AHT is approved for use in non-hazardous, and hazardous areas to world wide standards.

The installation of AHT heating tape is quick and simple and requires few special skills or tools. Termination and power connection components are all provided in convenient kits.

AHT is jacketed in a continuous aluminum extrusion for maximum mechanical strength, even after severe process upsets.



SPECIFICATION

| | | |
|-------------------------------------|--------------|---------------|
| MAXIMUM EXPOSURE TEMPERATURE | Continuous | 350°C (644°F) |
| | Intermittent | 425°C (797°F) |

| | |
|--------------------------------------|-----------------|
| MINIMUM OPERATING TEMPERATURE | -65°C * (-85°F) |
|--------------------------------------|-----------------|

| | |
|---|---------------|
| MINIMUM INSTALLATION TEMPERATURE | -40°C (-40°F) |
|---|---------------|

| | | |
|-----------------------------------|--------------|---|
| TEMPERATURE CLASSIFICATION | 350°C (T1) | } Devices are classified according to rated output and the conditions of use. ie. limited pipe temp |
| | T2 (300°C) | |
| | T3 (200°C) | |
| | T4 (135°C) | |
| | T5 (100°C) | |
| | or T6 (85°C) | |







| | |
|---------------------|--------------|
| POWER SUPPLY | 12 - 277 VAC |
|---------------------|--------------|

| | |
|---------------------------|------|
| INGRESS PROTECTION | IP67 |
|---------------------------|------|

WEIGHTS & DIMENSIONS

| Type Ref | Nom. Dims. (mm) | Weight kg/100m | Min. Bending radius (mm) | Gland Size |
|----------|-----------------|----------------|--------------------------|------------|
| AHT | 10 x 7 | 16.5 | 25 | M20 |

APPROVAL DETAILS

| | |
|--|--------------------------|
| Testing Authority | Certificate No. |
| ATEX  | Sira 02ATEX3079 |
| IECEX  | Sira 11.0124 |
| FM  | 3009080 |
| CSA  | 1350782 1352981 |
| DNV-GL  | TAE000021KD |
| EAC*  | TC RU C-GB.MIO62.B.06042 |

Further approvals are available on request.

CONSTRUCTION

| | |
|----------------------|---------------------------------------|
| Heating Element | Nickel Chromium |
| Power Conductors | Nickel Plated Copper 3mm ² |
| Conductor Insulation | Glass/Mica |
| Primary Insulation | Glass/Mica |
| Jacket | Aluminium |

ORDERING INFORMATION

| | |
|-----------------------------|--------|
| Example | 50AHT2 |
| Nominal Output 50W/m | _____ |
| Powerheat type AHT | _____ |
| Supply Voltage 220 - 277VAC | _____ |

MAXIMUM PIPE / WORKPIECE TEMPERATURES

The surface of the heater must not exceed the maximum withstand temperature of its constructional materials or the Temperature Classification (if installed in a hazardous area). This is ensured by limiting the pipe or workpiece temperature to a safe level either by design calculation (a Stabilised Design) or by means of temperature controls.

For worst case conditions, the temperature of steel pipes should be limited to the following levels:-

MAXIMUM PIPE / WORKPIECE TEMPERATURES (°C)

| Area Classification | Hazardous ¹ | | | | | | Safe ² |
|---------------------|------------------------|----|----|-----|-----|-----|-------------------|
| | T6 | T5 | T4 | T3 | T2 | T1 | |
| Catalogue Ref. | | | | | | | |
| 15AHT | - | 36 | 71 | 160 | 289 | 350 | 350 |
| 30AHT | - | 11 | 28 | 100 | 246 | 323 | 323 |
| 50AHT | - | - | - | 39 | 178 | 276 | 276 |
| 70AHT | - | - | - | - | 48 | 140 | 140 |
| 100AHT | - | - | - | - | 48 | 140 | 140 |
| 150AHT | - | - | - | - | - | 36 | 36 |

Pipe temperatures higher than those given above may be accommodated by using Heat Trace Ltd voltage compensating devices eg. POWERMATCH™ - call for further details. Tolerances: 115/230V +10%; Resistance +10%; -0%

The above data is for 230V heaters. For 277V heaters, contact your local Heat Trace Representative.

Notes

- 1 Surface temperature limits in accordance with EN60079.
- 2 Surface temperature limited by materials of construction (withstand temperature)

MAXIMUM CIRCUIT LENGTH*

| Catalogue Ref. | 115V | 230V/277V |
|----------------|------|-----------|
| 15AHT | 59m | 118m |
| 30AHT | 42m | 83m |
| 50AHT | 32m | 64m |
| 70AHT | 26m | 54m |
| 100AHT | 23m | 46m |
| 150AHT | 19m | 37m |

*For 10% volt drop variation

POWER CONVERSION FACTORS

| 115V HEATING TAPE | 230V HEATING TAPE |
|------------------------------|------------------------------|
| 125V Multiply output by 1.18 | 277V Multiply output by 1.45 |
| 120V Multiply output by 1.09 | 240V Multiply output by 1.09 |
| 110V Multiply output by 0.91 | 220V Multiply output by 0.91 |
| 100V Multiply output by 0.76 | 208V Multiply output by 0.82 |

ACCESSORIES

Heat Trace supply a complete range of accessories including termination/splice kits, end seals, junction boxes and controls. Such items carry separate approvals from the heating tapes. When used in hazardous areas, only use approved components.



Mere's Edge, Chester Road, Helsby, Frodsham, Cheshire, WA6 0DJ, England, UK
Tel: +44(0)1928 726 451 Fax: +44(0)1928 727 846 <http://www.heat-trace.com>

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