

1 **PRODUCT CONFORMITY CERTIFICATE - Apparatus**

2 Certificate No. Sira Ex 02Y3069

3 This Certificate is issued for the electrical apparatus:

Powerheat AHT Constant Power Heating Cable

4 Manufactured by:

Heat Trace Limited  
Tracer House  
Cromwell Road  
Bredbury  
Stockport  
SK6 2RF  
UK

5 This electrical apparatus and any acceptable variation thereto is specified in the schedule to this Certificate and the documents therein referred to.

6 Sira Certification Service being accredited by the United Kingdom Accreditation Service (UKAS) through the NACB scheme certifies that the apparatus has been found to comply with the following Standards:

IEC 60079-0:2000  
IEC 60079-7:2001  
IEC 62086-1:2001

The assessment and test results are recorded in Sira Test Report R53A8908A.

7 The apparatus marking shall include the code:

Ex e II T (see schedule)

8 The manufacturer of the electrical apparatus referred to in this Certificate has the responsibility to ensure that the apparatus conforms to the specification laid down in the Schedule to this Certificate and has satisfied the routine verifications and tests referred to therein.

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The use of this apparatus will normally be the subject of National Legislation and/or Installation Codes.

**Dated** 7 March 2003  
**File No.** 53A8908  
**C. Index:** 06



**M D Shearman**  
**Certification Manager**

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**SCHEDULE**

**PRODUCT CONFORMITY CERTIFICATE** Sira Ex 02Y3069

Dated

7 March 2003

**APPARATUS**

The Powerheat AHT Heating Cables are constant power trace heating cables that are used to protect against freezing or maintain temperatures. The cables are rated at up to 150 W/m on a supply voltage up to 277 V. They comprise two insulated parallel bus wires, around which is wrapped a layer of mica and glass insulation. A resistance wire is spiralled over the core, which is notched at intervals so that the resistance wire connects to the bus wires underneath. A further layer of mica and glass tape insulation is extruded over the top of the resistance wire. The insulation is covered with an aluminium outer jacket.

The heating cables are cut to length to form a unit that is terminated at each end with a seal kit. The equipment is designed to be connected to a supply by means of suitable certified cable entries and junction boxes in accordance with the manufacturer's installation instructions. Additional earthing of the outer jacket may also be achieved by the use of a P clip arrangement. The maximum surface temperature is dependent on the maximum permissible workpiece temperature as shown in the following tables:

<b>Table A</b>			<b>Maximum Permissible Workpiece Temperature</b>					
Maximum surface temperature:			<b>T6</b>	<b>T5</b>	<b>T4</b>	<b>T3</b>	<b>T2</b>	<b>T1</b>
<b>Product type</b>	<b>Nominal output (W/m)</b>	<b>output</b>						
AHT	10		34	50	100	188	290	340
	50		-	-	-	39	178	276
	100		-	-	-	-	48	140
	150		-	-	-	-	-	36

<b>Table B</b>			<b>Maximum Permissible Workpiece Temperature</b>					
Maximum surface temperature:			<b>T6</b>	<b>T5</b>	<b>T4</b>	<b>T3</b>	<b>T2</b>	<b>T1</b>
<b>Product type</b>	<b>Nominal output (W/m)</b>	<b>output</b>						
AHT	10		40	60	110	190	290	340
	50		-	-	-	-	206	295
	100		-	-	-	-	82	176
	150		-	-	-	-	-	38

Table A: Stabilised design system or Protective System

Table B: Protective system with Heat Trace 'Powermatch' power controller

**DESCRIPTIVE DOCUMENTS**

<b>Number</b>	<b>Sheet</b>	<b>Rev</b>	<b>Date</b>	<b>Description</b>
HC2901/s	1 of 1	0	14 Oct 02	AHT specification
BES2-PL	1 of 1	A	06 Mar 00	BES1 – End seal reference list
BPS3-PL	1 of 1	B	06 Feb 01	BPS3 – Silicone boot power seal reference list
HES2-PL	1 of 1	A	06 Mar 00	HES2 – Shrink sleeve end seal reference list
HPS2-PL	1 of 1	A	06 Mar 00	HPS2 – Shrink sleeve power seal reference list

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### CONDITIONS OF CERTIFICATION

- 1 The use of the Sira Certification Service Mark is subject to the Regulations applicable to the holders of Sira certificates.
- 2 This certificate relates only to the apparatus specified herein as executed in the samples supplied for evaluation.
- 3 In affixing the Sira certificate number to the apparatus the manufacturer attests on its own responsibility that the apparatus conforms to the documents listed herein.  
If the marked apparatus is found not to comply Sira Certification Service should be notified immediately at its office at Rake Lane, Eccleston, Chester, CH4 9JN, England.
- 4 The apparatus and that part of the manufacturer's quality management system controlling the production of the apparatus covered by this certificate shall be subject to periodic surveillance by Sira in accordance with the Regulations applicable to the holders of SCS certificates.
- 5 An electric strength test of  $\sqrt{2} \times E + 1000$  V rms shall be applied between the conductors and the outer braid or jacket as appropriate for 60 seconds as required by clause 5.1.2 of IEC 62086-1:2001.
- 6 The manufacturer shall verify the output rating for each cable manufactured in accordance with IEC 62086-1-2001 clause 5.2.2.

### SPECIAL CONDITIONS FOR SAFE USE

None

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