



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX CML 22.0058** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2023-01-26

Applicant: **BARTEC GmbH**
Max Eyth Straße 16
97980 Bad Mergentheim
Germany

Equipment: **BPL-AL Parallel Resistance Heating Cables Type 27-5875-***

Optional accessory:

Type of Protection: **Trace Heating "60079-30-1"**

Marking: Ex 60079-30-1 IIC T6...T1 Gb
Ex 60079-30-1 IIIC T85°C...T450°C Db
IP67
Withstand temp range: -40°C to +500°C

Approved for issue on behalf of the IECEx
Certification Body:

L A Brisk

Position:

Certification Officer

Signature:
(for printed version)

Date:
(for printed version)

2023-01-26

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





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Manufacturer: **BARTEC GmbH**
Max Eyth Straße 16
97980 Bad Mergentheim
Germany

Manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC/IEEE 60079-30-1:2015](#) Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements
Edition:1.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[GB/CML/ExTR23.0023/00](#)

Quality Assessment Report:

[DE/TUN/QAR06.0017/14](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The BPL-AL Parallel Resistance Heating Cables Type 27-5875-* are constant power trace heating cables that are used to protect against freezing or maintain temperatures.

See Annex for full description and Conditions of Manufacture.

SPECIFIC CONDITIONS OF USE: NO

Annex:

[IECEX CML 22.0058 Iss. 0 Certificate Annex.pdf](#)

Annexe to: IECEx CML 22.0058 Iss. 0, Issue 0
Applicant: Bartec GmbH
Apparatus: BPL-AL Parallel Resistance Heating Cables Type 27-5875-*

Description

The BPL-AL Parallel Resistance Heating Cables Type 27-5875-* are constant power trace heating cables that are used to protect against freezing or maintain temperatures. The cables are rated at up to 200 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 the glass insulation tape. A resistance wire is spiralled over the core, which is notched at intervals so that the resistance wire connects to the bus wire 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, and can have a further, optional, chemical resistant 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 minimum installation temperature of the heating cables is -40°C. The maximum surface temperature is dependent on the maximum permissible workpiece temperature as shown in the following tables.

Table A (*)		Maximum permissible workpiece temperature					
Maximum surface temperature:		T6	T5	T4	T3	T2	T1
Product type	Nominal output (W/m)	85°C	100°C	135°C	200°C	300°C	450°C
BPL-AL	10	34	50	100	188	290	340
	15	-	36	71	160	289	350
	30	-	11	28	100	246	323
	50	-	-	-	39	178	276
	100	-	-	-	-	48	140
	150	-	-	-	-	-	36
	200	-	-	-	-	-	7

Table A: Stabilised design system or Protective System

The heating cable meet the requirements for degree of protection IP67.



Certificate Annex IECEx
 Version: 9.0 Approval: Approved

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Type Code:

Type no.	27	-	5	8	7	*	-	*	*	*	*	/	*	*	*	*
Key no.	A		B	C	D	E		F	G	H	I		J	K	L	M

<u>Key no.</u>	<u>Code Number for:</u>	<u>Variations:</u>	<u>Descriptions</u>
A	General code number Heating	27	
B	Installation material	5	
C	Heating Cable	8	
D	Parallel Resistance Heating Cable HTL	7	
E	Bus Wire	5	3mm ²
F	Nominal voltage	1 2	120 V 230 V / 277 V
G, H, I	Power Output	e.g. 015 030 150	15 W/m 30 W/m 150 W/m
J	Construction	7	Material insulation and installation wire
K, L, M	Customer Number		Without influence of the explosion safety

Conditions of Manufacture

The following are conditions of manufacture:

- i. An electric strength test of $2 U + 1000 \text{ V rms}$ shall be applied between the conductors and the outer, metallic braid/jacket as appropriate for 60 seconds as required by clause 5.1.2 of IEC/IEEE 60079-30-1.
- ii. An electric strength test of the polymeric sheath (over jacket) used for corrosion resistance shall be carried out in accordance with the requirements of IEC/IEEE 60079-30-1 clause 5.2.1.
- iii. The manufacturer shall verify the output rating for each cable manufactured in accordance with IEC/IEEE 60079-30-1 clause 5.2.2

Specific Conditions of Use

None.