IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:	IECEx INE 15.0021X	Issue No: 0	Certificate history: Issue No. 0 (2015-10-22)
Status:	**Current**	Page 1 of 3	
Date of Issue:	**2015-10-22**		
Applicant:	**AMARC** Via Artigiani, 37 I - 23874 Montevecchia (Lecco) **Italy**		
Electrical Apparatus:	**Equipment for Indirect Resistance Heating type RC375...**		
Optional accessory:			
Type of Protection:	**d and tb**		
Marking:	Ex d IIC T6...T1 Gb Ex d I Mb Ex tb IIIC T85°C...T450°C Db IP66		

Approved for issue on behalf of the IECEx Certification Body: Thierry HOUEIX

Position: Ex Certification Officer

Signature: (for printed version)

Date: 2015-10-22

ATMOSPHERES EXPLOSIVES Certifié IECEx INERIS IECEx Certified EXPLOSIVE ATMOSPHERES

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 the Official IECEx Website.

Certificate issued by:

INERIS
Institut National de l'Environnement Industriel et des Risques
BP n2
Parc Technologique ALATA
F-60550 Verneuil-En-Halatte
France

INERIS

INERIS is accredited by COFRAC under number 5-0045 for certification of products and services (scope of accreditation is available on COFRAC website www.cofrac.fr)

The certification rules are available on the INERIS website www.ineris.fr.

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Manufacturer:	**AMARC** Via Artigiani, 37 I - 23874 Montevecchia (Lecco) **Italy**	
Additional Manufacturing location(s):		

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 electrical apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*This Certificate **does not** indicate compliance with electrical 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:

FR/INE/ExTR15.0031/00

Quality Assessment Report:

IT/CES/QAR13.0002/02

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

This equipment is constituted by one or two terminal box, with various sizes protected by flameproof enclosure and dust protection and with heating resistance insulated with magnesium oxide and sintered to the terminal box.
The resistance are fitted with two thermal probes.
The terminal box contains the connexion terminals of the resistances and the connexions of the thermal probes.

The equipment gets the degrees of protection IP66 in accordance with IEC 60529 standard.

CONDITIONS OF CERTIFICATION: YES as shown below:

The width of the flameproof joints is superior to the value specified in the tables of IEC 60079-1.

Annex:

IECEx INE 15.0021X-00_Annex.pdf

IECEx Certificate of Conformity

Certificate No.: IECEx INE 15.0021X

Issue No.: 0

Annexe: IECEx INE 15.0021X-00_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

Maximum supply voltage	:	1000 V AC or 1500 V DC.
Frequency	:	50/60 Hz.
Maximum dissipated power:	:	1755 kW.
Maximum current density	:	0.8 A/mm^2

Characteristics of the thermal probes:

Threshold of release	:	75°C ±5°C for class T6/T85°C.
Threshold of release	:	90°C ±5°C for class T5/T100°C.
Threshold of release	:	125°C ±5°C for class T4/T135°C and for group I.
Threshold of release	:	190°C ±5°C for class T3/T200°C.
Threshold of release	:	285°C ±5°C for class T2/T300°C.
Threshold of release	:	435°C ±5°C for class T1/T450°C.

Characteristics of the anticondensation resistance:

Maximum dissipated power: from 60 W to 120 W in accordance of the size of the equipment.

This equipment is intended to be use in range of ambient temperatures from -20°C or -60°C to 40°C or 60°C.

MARKING

Marking has to be readable and indelible; it has to include the following indications:

A - Radiator for group IIC and IIIC:

- AMARC
- I - 23874 Montevecchia (Lecco)
- RC 375... (*)
- IECEx INE 15.0021X
- (Serial number)
- Ex d IIC T6...T1 Gb
- Ex tb IIIC T85°C...T450°C Db
- IP66
- T. cable : (**)
- Tamb: (***)
- Cable gland: (see instructions)
- **WARNING:** DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

(*) The type is completed by a letters and numbers in accordance with the manufacturing variations.

(**) The cable temperature and the temperature class T6...T1, T85°C...T450°C are stipulated in the descriptive documents in accordance with the ambient temperature and the manufacturing variations.

(***) Range of ambient temperatures if different from -20°C to 40°C.

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Annexe: IECEx INE 15.0021X-00_Annex.pdf

A - Radiator for group I:

- AMARC
- I - 23874 Montevecchia (Lecco)
- RC 375... (*)
- IECEx INE 15.0021X
- (Serial number)
- Ex d I Mb
- IP66
- T. cable : (**)
- Tamb: (***)
- Cable gland: (see instructions)
- **WARNING:** DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

(*) The type is completed by a letters and numbers in accordance with the manufacturing variations.

(**) The cable temperature and the temperature class T6...T1, T85°C...T450°C are stipulated in the descriptive documents in accordance with the ambient temperature and the manufacturing variations.

(***) Range of ambient temperatures if different from -20°C to 40°C.

ROUTINE EXAMINATIONS AND TESTS

In accordance with clause 16.1 of the IEC 60079-1 standard, each equipment defined above has to have successfully passed, before delivery, an overpressure test of a period comprised between 10 and 60 seconds under 21.5 bar.