

[1]

EU-TYPE EXAMINATION CERTIFICATE

[2]

**Component intended for use in potentially explosive atmospheres
Directive 2014/34/EU – Annex III**[3] Certificate Number: **EPT 17 ATEX 2629 U** Issue 0[4] Component: **Single armoured heater**Series: **55, 63, 64, 65, 67, 68**[5] Manufacturer: **MASTERWATT S.r.l.**[6] Address: **Via Collegno n. 31 – 10044 Pianezza - Italia**

[7] This component and its accepted variations are specified in the annex to this Certificate.

[8] Eurofins Product Testing Italy S.r.l., Notified Body n. 0477 in accordance with Article 21 of the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II of the Directive.

The examination and test results are recorded in the confidential Report N° EPT.17.REL.01/54958.

[9] Compliance with the essential health and safety requirements is assured through the verification of them and by compliance with the standards:


EN 60079-0:2012+A11:2013, EN 60079-7:2015;

[10] The symbol "U" placed after the certificate's number indicates that this certificate must not be understood as a certificate for equipment or protective systems.

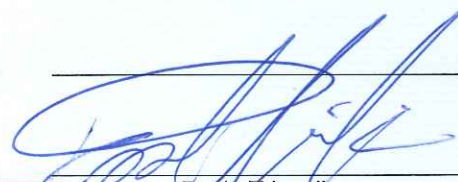
This certificate may be used as a basis for a certificate for the equipment or protective system.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design, the exam and the tests of the specified component.

Further requirements of the Directive 2014/34/EU apply to the manufacture and supply of this component. These requirements are not object of this Certificate.

[12] The component shall include the sign  and the following string:**II 2G Ex eb IIC Gb****-60°C ≤ Top ≤ +130°C**

Place and date of issue:

Torino, 2017-05-26Dionisio Bucchieri
Directive ResponsiblePaolo Trisoglio
Managing DirectorSGQ N° 133A
PRD N° 119BMembro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

This Certificate has 3 pages and it is reproducible only in its entirety. Conditions of validity are reported below.

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ANNEX

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EU-TYPE EXAMINATION CERTIFICATE N. EPT 17 ATEX 2629 U

Issue 0


[15] Component description

The single armoured heaters (series 55, 63, 64, 65, 67 and 68) are designed for the direct heating of solids, liquids or gases.

They consist of an internal electric resistor, isolated in compressed magnesium oxide, with an external metallic sheath (external armour, which can have different external diameters, from 8 mm to 16 mm). An epoxy resin seals the extremity of the resistive element and cements the steatite insulators at the ends of the metallic tube.

An assembly mounted on the terminal stud composed by two nuts, cable lugs and two other nuts, assures the pressure contact and prevents the rotation of the cable lug.

The heating elements can be supplied without cable or with cable permanently connected with the connections protected by a shrinkable tubing. In this case the set of the nuts and cable lug is not present.

The components have the type of protection Ex eb and they are suitable for group IIC.

Electrical characteristics

Rated voltage: 12 ÷ 750 Vac/Vdc

Rated power: 0.01 ÷ 25 kW

Rated frequency: 0 / 50 / 60 Hz

Cable entries

Not present

Screws

Not present

Warning label

Not present

Routine tests

In compliance with clause 7.1 of EN 60079-7, the manufacturer has to perform the dielectric strength test between galvanically isolated parts with a minimum voltage of $(2*U+1000)$ V r.m.s. for 60 s, where "U" is the working voltage. As an alternative, the test can also be conducted at $(2*U+1000)*1.2$ V r.m.s. for $t>0.1$ s

[16] Assessment Report n° EPT.17.REL.01/54958

This EU-Type Examination Certificate is released after the positive result of the conformity assessment of the Council Directive 2014/34/EU and to harmonized technical standards listed in this Certificate; performed by the Notified Body Eurofins Product Testing Italy S.r.l., and reported in the Assessment Report cited above.

[17] Schedule of limitations

- The user has to protect the electrical connections of the component through an ATEX Certified enclosure according to IEC 60079-7. In addition, the interface between the component and the enclosure has to be tested and assessed with respect to the type of protection concerned.
- The user has to protect the component with a safety device according to clause 5.8.6 of EN 60079-7.
- The supply cable has to be suitable for the expected operating temperature and the external armoring of the heater has to be earthed correctly.
- The admitted service temperature of the terminal part is between -60°C and +130°C.
- In order to avoid excessive temperatures of the heated fluids or solids, the user has to provide adequate non-resettable safety devices, as detailed in the safety instruction.

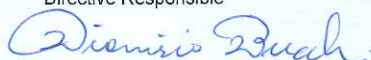


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 Dionisio Bucchieri
 Directive Responsible



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[18] Essential Health and Safety Requirements

Assured by compliance with harmonized standards.

[19] Descriptive documents

The component object of this Certificate is described by the following documents.
Scheduled documents are indicated with the symbol "✓". They cannot be modified without the explicit authorization of the Notified Body.

Document	Name	Rev.	Date	Scheduled
Riscaldatori corazzati, lisci o alettati, dritti o piegati - - Serie 55, 63, 64, 65, 67, 68 – Istruzioni per il montaggio, l'allacciamento elettrico, l'avviamento e la manutenzione	2.02.99.15055	0	2017-02-20	✓
Riscaldatore corazzato tubolare (esecuzione costruttiva)	7014052	01	2017-02-20	✓
Capitolato di progettazione dei riscaldatori corazzati singoli standard	2.04.09.63000	4	2017-02-20	✓
Technical note	7606011	0	2017-02-20	-
Attestato di conformità UE	Attestato di conformità UE	0	2017-02-20	-

[20] Terms and conditions

The product liability rests with the Manufacturer, his representative or, in the absence of a representative, with the importer, in accordance with the General Product Safety Directive 2001/95/EC.

The following conditions may render this certificate invalid:

- changes in the design or construction of the product;
- changes or amendments to the 2014/34/EU Directive;
- changes or amendments in the standards which form the basis for documenting compliance with the essential requirements of the 2014/34/EU Directive.

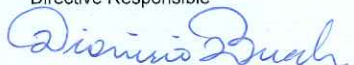
[21] Certificate History

This Certificate is at its first issue.


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End of Certificate

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