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 EUT 17.0010U**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2017-09-21		
Applicant:	**MASTERWATT S.r.l.** Via Collegno, 31 – 10044 Pianezza (TO) **Italy**		
Equipment:	**Single armoured heater, Series 55, 63, 64, 65, 67, 68**		
Optional accessory:			
Type of Protection:	**Increased safety "Ex e"**		
Marking:	Ex eb IIC Gb		

Approved for issue on behalf of the IECEx Certification Body: **Dionisio Bucchieri**

Position: **Head of IECEx CB**

Signature: (for printed version)

Date: 2017-09-21

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 Product Testing Italy S.r.l.
Via Cuorgnè
n.21 - 10156 Torino
Italy

eurofins | Product Testing

IECEx Certificate of Conformity

Certificate No.: **IECEx EUT 17.0010U**

Date of issue: 2017-09-21 Issue No: 0

Manufacturer: **MASTERWATT S.r.l.**
Via Collegno, 31 – 10044 Pianezza (TO)
Italy

Additional 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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-7:2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

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:

IT/EUT/ExTR17.0015/00

Quality Assessment Report:

IT/EUT/QAR14.0002/03

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

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

Routine tests:

The manufacturer has to perform the routine test in compliance to clause 7.1 of IEC 60079-7;

Schedule of Limitations

- The user has to protect the zone where the electrical connections of the component are installed through an IECEx Certified enclosure which has at least a degree of protection IP 54. In addition, the interface between the component and the enclosure has to be tested and assessed with respect to the type of protection concerned and must ensure at least a degree of protection IP 54.
- The user has to protect the component with a safety device according to clause 5.8.6 of IEC 60079-7.
- The supply cable has to be suitable for the expected operating temperature and the external armouring 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.

SPECIFIC CONDITIONS OF USE: NO