



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 SIR 14.0030X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 5	Issue 4 (2022-02-07)
Date of Issue:	2023-02-14		Issue 3 (2019-04-18)
Applicant:	Eaton Electric Limited Great Marlings Butterfield Luton LU2 8DL United Kingdom		Issue 2 (2016-12-16)
Equipment:	Gecma PSU Module		Issue 1 (2015-05-19)
Optional accessory:			Issue 0 (2014-12-05)
Type of Protection:	Increased Safety "eb" and Encapsulation "mb" (refer to Equipment description for Intrinsic Safety requirements)		
Marking:	Ex eb mb IIC T4 Gb Tamb = -30°C to + 60°C or Tamb = -40°C to + 60°C Low temperature version		

Approved for issue on behalf of the IECEx
Certification Body:

Michelle Halliwell

Position:

Director Operations, UK & Industrial Europe

Signature:
(for printed version)

Date:
(for printed version)

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:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom





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Date of issue: 2023-02-14

Issue No: 5

Manufacturer: **Eaton Electric Limited**
Great Marlings
Butterfield
Luton LU2 8DL.
United Kingdom

Manufacturing locations: **Eaton Electric Limited**
Great Marlings
Butterfield
Luton LU2 8DL.
United Kingdom

S.C. Cooper Industries Romania
S.R.L
Zona Industriala Vest, Str. III, Nr. 12
310510 Arad
Romania

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 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

[IEC 60079-18:2017](#) Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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 Reports:

[GB/SIR/ExTR14.0130/00](#)
[GB/SIR/ExTR19.0101/00](#)

[GB/SIR/ExTR15.0127/00](#)
[GB/SIR/ExTR22.0001/00](#)

[GB/SIR/ExTR16.0244/00](#)
[GB/SIR/ExTR23.0040/00](#)

Quality Assessment Reports:

[DE/BVS/QAR11.0006/11](#)

[GB/BAS/QAR07.0017/10](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Power Supply Module is either a mains-powered or DC-powered device that produces a nominally 22 Vdc output that is limited to 28 Vdc to intrinsic safety "ib" level of protection, but without current limitation; the output cannot, therefore, be regarded as intrinsically safe.

Refer to the Annexe for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. If used in an ambient temperature above 50°C, the cable shall be rated to 90°C minimum.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

This issue, Issue 5, recognises the following change; refer to the certificate Annexe to view a comprehensive history:

1. To permit alternative component sources.
2. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0:2011 Edition 6 was replaced by IEC 60079-0:2017 Edition 7.
3. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-7:2015 Edition 5 was replaced by IEC 60079-7:2017 Edition 5.1.
4. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-18:2014 Edition 4 was replaced by IEC 60079-18:2014 Edition 4 + Amd1:2017.

Annex:

[IECEX SIR 14.0030X Issue 5 Annexe.pdf](#)

Annexe to: IECEx SIR 14.0030X Issue 5
Applicant: Eaton Electric limited
Apparatus: MTL Gecma PSU Module AC
MTL Gecma PSU Module DC



The equipment is housed in an aluminium alloy enclosure and comprises two compartments:

- a terminal compartment for the mains input supply and nominally 22 Vdc outputs;
- electronics compartment containing a main board and a crowbar board, fully encapsulated.

Input rating:

- AC version: 100-230 Vac, 50/60 Hz, 1.2 A maximum, Um = 250 V
- DC version: 18-36 Vdc, 5.5 A, Um = 250 V

Output rating: 22 Vdc, 4 A maximum, not exceeding 28 Vdc for intrinsic safety assessment.

Note: the two low-voltage outputs are nominally 22 Vdc but are voltage-limited to 28 V maximum to intrinsic safety 'ib' standard. However, the outputs are not current-limited to intrinsic safety requirements, so should not be connected to intrinsically safe equipment.

Conditions of Manufacture

1. In accordance with IEC 60079-18:2014 clause 9.1, each manufactured unit shall be subjected to a visual inspection. No damage shall be evident, such as cracks in the compound, exposure of the encapsulated parts, flaking, inadmissible shrinkage, swelling, decomposition, failure of adhesion or softening.
2. In accordance with IEC 60079-18:2014 clauses 9.2 and 8.2.4, each manufactured unit shall be subjected to an electric strength test as follows:
 - PSU AC: 1500 Vac or 2100 Vdc, applied for 1 s (or 1800 Vac for 100 ms) between the mains supply terminals and the metal enclosure.
 - PSU DC: 500 Vac, applied for 1 s (or 600 Vac for 100 ms) between the supply terminals and the metal enclosure.

There shall be no evidence of breakdown or arcing.

Full certificate change history

Issue 1 – this Issue introduced the following changes:

1. The introduction of the Gecma PSU Module DC, with resulting additions to the marking, manufacturing condition and product description.
2. The use of DIN-rail mounting for the supply connections, replacing the existing PCB-mount board in the PSU AC.
3. A re-design to the terminal enclosure to achieve IP54, enabling the module to be used as a stand-alone device; this allows a user condition relating to the enclosure to be removed.
4. The Equipment title is changed to Gecma PSU Module.

Issue 2 – this Issue introduced the following changes:

1. Change of manufacturer's name from Measurement Technology Limited to Eaton Electric Limited.
2. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-7:2006 and IEC 60079-18:2009 were replaced by IEC 60079-7:2015 and IEC 60079-18:2014; the 'e' marking is updated to 'eb' and the Conditions of Manufacture are revised accordingly.
3. Addition of Cincon CHB 150W 24S24 as an alternative to the MTM dc/dc converter (for d.c. module only)

Date: 14 February 2023

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Annexe to: IECEx SIR 14.0030X Issue 5
Applicant: Eaton Electric limited
Apparatus: MTL Gecma PSU Module AC
MTL Gecma PSU Module DC



Issue 3 – this Issue introduced the following change:

1. The introduction of a new low temperature version of the module that has a temperature range of -40°C to +60°C

Issue 4 – this Issue introduced the following changes:

1. The following manufacturing location was recognised: S.C. Cooper Industries Romania S.R.L, Zona Industrială Vest, Str. III Nr. 12, 310510 Arad, Romania.
2. Administrative changes to certification label drawings.
3. The following Additional manufacturing location was removed from the certificate: Gecma Components GmbH, Heinrich-Hertz-Strasse 12, 50170, Kerpen, Germany.

Issue 5 – this Issue introduced the following changes:

1. To permit alternative component sources.
2. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0:2011 Edition 6 was replaced by IEC 60079-0:2017 Edition 7.
3. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-7:2015 Edition 5 was replaced by IEC 60079-7:2017 Edition 5.1.
4. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-18:2014 Edition 4 was replaced by IEC 60079-18:2014 Edition 4 + Amd1:2017.