



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 14ATEX5061X** Issue: **6**

4 Equipment: **Gecma PSU Module**

5 Applicant: **Eaton Electric Limited**

6 Address: **Great Marlings
Butterfield
Luton LU2 8DL
UK**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment 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 to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-7 :2015 + Amd 1 :2018
EN 60079-11:2012 EN 60079-18:2015 + A1:2017

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 2G
Ex eb mb IIC T4 Gb
Tamb = -30°C to +60°C or
Tamb = -40°C to +60°C Low temperature version

Signed: M Halliwell

Title: Director of Operations



Project Number 80153015

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SCHEDULE

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13 DESCRIPTION OF EQUIPMENT

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.

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.

Variation 1 - This variation introduced the following changes:

- i. The introduction of the Gecma PSU Module DC, with resulting additions to the marking, condition of Certification and product description;
- ii. The use of DIN-rail mounting for the supply connections, replacing the existing PCB-mount board in the PSU AC.
- iii. 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.
- iv. The Equipment title is changed to Gecma PSU Module.

Variation 2 - This variation introduced the following changes:

- i. Change of manufacturer's name from Measurement Technology Limited to Eaton Electric Limited;
- ii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-7:2007 and EN 60079-18:2009 were replaced by EN 60079-7:2015 and EN 60079-18:2015; the 'e' marking is updated to 'eb' and the Conditions of Manufacture are revised accordingly.
- iii. Addition of C on CHB 150W 24S24 as an alternative to the MTM dc/dc converter (for d.c. module only)

Variation 3 - This variation introduced the following change:

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

Variation 4 - This variation introduced the following change:

- i. The following manufacturing location was recognised: S.C. Cooper Industries Romania S.R.L, Zona Industriala Vest, Str. III Nr. 12, 310510 Arad, Romania.
- ii. Administrative changes to certification label drawings.

Variation 5 - This variation introduced the following change:

- i. To permit alternative component sources.

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- ii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2012 was replaced by EN IEC 60079-0:2018.
- iii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-7:2015 was replaced by EN 60079-7:2015 + Amd 1:2018.
- iv. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-18:2015 was replaced by EN 60079-18:2015 + Amd1:2017.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	05 December 2014	R70005200A	The release of the prime certificate.
1	18 May 2015	R70015091A	The introduction of Variation 1.
2	16 December 2016	R70096537A	This Issue covers the following changes: <ul style="list-style-type: none">• EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. (In accordance with Article 41 of Directive 2014/34/EU, EC Type-Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)• The introduction of Variation 2.
3	18 April 2019	R70203365A	The introduction of Variation 3.
4	31 October 2019	1081	Transfer of certificate Sira 14ATEX5061X from Sira Certification Service to CSA Group Netherlands B.V.
5	07 February 2022	R80110233A	This Issue covers the following changes: <ul style="list-style-type: none">• The introduction of Variation 4.• The Date for Issue 3 was amended to correct a typographical error.
6	14 February 2023	R80153016A	The introduction of Variation 5.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

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

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

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17 CONDITIONS OF MANUFACTURE

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.
- 17.3 In accordance with EN 60079-18:2015 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.
- 17.4 In accordance with EN 60079-18:2015 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.

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Certificate Annexe



Certificate Number: Sira 14ATEX5061X
 Equipment: Gecma PSU Module
 Applicant: Eaton Electric Limited

Issue 0

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Description
10-500480	1 to 3	1	27 Aug 14	PSM crowbar board, schematic
11-500480	1 to 13	B	27 Aug 14	PSM crowbar board, artwork
20-500480	1 of 1	2	27 Aug 14	PSM crowbar board, critical component list
CI6810-620	1 to 2	A.2	07 Oct 14	PSM main board, schematic & sector diagram
CI6810-621	1 of 1	A.5	07 Oct 14	PSM main board, critical component list
CI6810-622	1 of 1	A.4	07 Oct 14	PSM main board, artwork, a.c. version
CI6810-623	1 of 1	A.4	07 Oct 14	PSM main board, component layout, a.c. version
CI6810-624	1 to 4	A.3	27 Aug 14	PSM general assembly
CI6810-625	1 of 1	A.0	27 Aug 14	PSM marking
CI6810-626	1 of 1	A.0	13 Oct 14	PSM thermal fuse assembly #1
CI6810-627	1 of 1	A.0	13 Oct 14	PSM thermal fuse assembly #2

Issue 1

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Description
CI6810-625	1 of 1	1	17 Apr 15	PSM marking
CI6818-620	1 of 1	1	17 Apr 15	PSM AC main board, schematic, DIN rail terminals
CI6818-621	1 of 1	1	17 Apr 15	PSM AC main board, critical component list, DIN rail terminals
CI6818-622	1 of 1	1	17 Apr 15	PSM AC main board, artwork, DIN rail terminals
CI6818-623	1 of 1	1	17 Apr 15	PSM AC main board, component layout, DIN rail terminals
CI6818-624	1 to 5	1	17 Apr 15	PSM AC general assembly, DIN rail terminals
CI6811-620	1 to 2	1	17 Apr 15	PSM DC main board, schematic & sector diagram
CI6811-621	1 of 1	1	17 Apr 15	PSM DC main board, critical component list
CI6811-622	1 of 1	1	17 Apr 15	PSM DC main board, artwork
CI6811-623	1 of 1	1	17 Apr 15	PSM DC main board, component layout
CI6811-624	1 to 4	1	17 Apr 15	PSM DC general assembly
CI6811-625	1 of 1	1	20 Apr 15	PSM DC marking

Issue 2

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
CI6810-625	1 of 1	2	5 Dec 16	PSM marking
CI6811-621	1 of 1	2	5 Dec 16	PSM DC main board, critical component list
CI6811-625	1 of 1	2	5 Dec 16	PSM DC marking

Issue 3

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
CI6811-624	1 to 4	2.0	15 Apr 19	General Arrangement DC-DC PSU
CI6818-624	1 to 4	2.0	15 Apr 19	General Arrangement Mains PSU
CI6810-625	1 of 1	3	15 Apr 19	Gecma PSU Module AC Certification Label Details - SIRA
CI6811-625	1 of 1	3	15 Apr 19	Gecma PSU Module DC Certification Label Details - SIRA

Issue 4 – No new drawings were introduced.

Issue 5

Drawing	Sheets	Rev.	Date (Stamp)	Title
CI6810-625	1 of 1	4	27 Jan 22	GECMA PSU Module AC Certification Label Details - SIRA
CI6811-625	1 of 1	4	27 Jan 22	GECMA PSU Module DC Certification Label Details - SIRA

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Certificate Annexe



Certificate Number: Sira 14ATEX5061X
Equipment: Gecma PSU Module
Applicant: Eaton Electric Limited

Issue 6

Drawing	Sheets	Rev.	Date (Stamp)	Title
20-500480	1 of 1	3	19 Jan 23	PSM Crowbar board, critical component list

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