

**UK Type Examination
Certificate****CML 21UKEX2278X****Issue 0****United Kingdom Conformity Assessment**

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1
- 2 Equipment **BA212 and BA2x3 Power Isolators**
- 3 Manufacturer **BEKA Associates Ltd.**
- 4 Address **Old Charlton Road,
Hitchin,
Herts. SG5 2DA
UK**

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential reports listed in Section 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.


8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

BS EN IEC 60079-0:2018

BS EN 60079-11:2012

10 The equipment shall be marked with the following:

 II (1) G

For marked code refer to attached certificate CML 20ATEX2122X Iss. 0.

-40°C ≤ Ta ≤ +70°C



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11 Description

For product description refer to attached certificate CML 20ATEX2122X Iss. 0.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	06 Apr 2021	R13964A/00	Issue of Prime UKCA Certificate

Note: Drawings that describe the equipment are listed or referred to in the Annex.

13 Conditions of Manufacture

For conditions of manufacture, refer to attached certificate CML 20ATEX2122X Iss. 0.

14 Specific Conditions of Use

For Specific conditions of use, refer to attached certificate CML 20ATEX2122X Iss. 0.

Certificate Annex

Certificate Number CML 21UKEX2278X
Equipment BA212 and BA2x3 Power Isolators
Manufacturer BEKA Associates Ltd.



The following documents describe the equipment defined in this certificate:

Issue 0

For drawings describing the equipment, refer to attached certificate CML 20ATEX2122X Iss. 0. In addition to the drawings listed on CML 20ATEX2122X Iss. 0, the following drawings include the additional marking required for this UK Type Examination certification:

Drawing No	Sheets	Rev	Approved date	Title
CI202-02	1 to 3	1	06 Apr 2021	UKCA Certification Information for BA212 & BA2x3 Power Isolator



EU Type Examination Certificate CML 20ATEX2122X Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **BA212 and BA2x3 Power Isolators**
- 3 Manufacturer **BEKA Associates Ltd.**
- 4 Address **Old Charlton Road, Hitchin,
Herts. SG5 2DA
UK**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 6738671, Hoogoorddreef 15, Amsterdam, 1101 BA, The Netherlands, Notified Body Number 2776, in accordance with Article 17 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 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:
EN IEC 60079-0:2018 EN 60079-11:2012

- 10 The equipment shall be marked with the following:



II (1) G

[Ex ia Ga] IIC

-40°C ≤ Ta ≤ +70°C

A Snowden

A Snowden MIET
Assistant Certification Manager



11 Description

The BA212 and BA2x3 Power Isolators are associated apparatus for installation in the safe area. The BA212 provides a single isolated intrinsically safe output. The BA2x3 provides between 1 and 4 isolated intrinsically safe outputs (x = number of outputs). The outputs are suitable for routing into hazardous areas requiring EPL Ga.

Intrinsic safety is achieved by limiting the energy available to the hazardous area.

The equipment has the following safety description:

BA212	BA2x3 (parameters for each output)
Um = 30V	Um = 30V
Uo = 12.4V	Uo = 12.4V
Io = 2.66A	Io = 0.67A
Po = 5.2W	Po = 1.36W

The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the load connected to the output terminals shall not exceed the following values:

BA212				
Group	Capacitance (µF)	Inductance (µH)	or	L/R Ratio (µH/Ohm)
IIC	1.24	5		4.3
IIB	7.9	20		17
IIA	30.0	40		34

BA2x3 (for each output)				
Group	Capacitance (µF)	Inductance (µH)	or	L/R Ratio (µH/Ohm)
IIC	1.24	79		17
IIB	7.9	317		68
IIA	30.0	634		137

The above load parameters apply where either

- The external circuit contains no combined lumped inductance Li and capacitance Ci greater than 1% of the above values, or
- The inductance and capacitance are distributed as in a cable, or
- The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. if the external circuit contains combined lumped inductance and lumped capacitance, up to 50% of each of the L and C values is allowed. The reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups IIA and IIB, or greater than 600nF for Group IIC.



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12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	12 Jun 2020	R12362A/00	Issue of prime certificate

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components, the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- ii. The BA2x3 shall be subjected to a routine isolation test between each intrinsically safe output using a test voltage of 600Vrms for a duration of at least 1 second.

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

- i. The equipment shall only be powered from a supply with a maximum output voltage of 30V and which complies with one of the following:
 - Is a SELV or PELV system
 - A safety isolating transformer complying with the requirements of IEC 61558-2-6 or technically equivalent standard
 - Apparatus complying with the IEC 60950 series, IEC 61010-1, or a technically equivalent standard
 - Fed directly from cells or batteries

Certificate Annex

Certificate Number CML 20ATEX2122X
Equipment BA212 and BA2x3 Power Isolators
Manufacturer BEKA Associates Ltd.



The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing no.	Sheets	Rev	Approved date	Title
CI202-01	1 to 15	1	11 Jun 2020	IECEX and ATEX Certification Information for BA212 and BA2x3 power isolator