



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 EPS 22.0054X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2022-09-09
Applicant: **PULS GmbH**
Elektrastr. 6
81925 München
Germany
Equipment: **Electronic circuit breakers: PISA11.401; PISA11.402; PISA11.403; PISA11.404; PISA11.406; PISA11.410;
PISA11.203206; PISA11.206212; PISA11.CLASS2**
Optional accessory:
Type of Protection: **ec nC**
Marking: **Ex ec nC IIC T4 Gc**

Approved for issue on behalf of the IECEX
Certification Body:

Position:

Signature:
(for printed version)

Date:
(for printed version)

Ulrich Feike

Certification Manager

2022-09-09



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:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
Germany





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Manufacturer: **PULS GmbH**
Elektrastr. 6
81925 München
Germany

Manufacturing locations: **PULS Electronics (Suzhou C) Co., Ltd**
No. 1 Rui-en Lane Xingpu Road
Suzhou Industrial Park, 21512 Suzhou
City Jiang Su Province
China

PULS Investicni s.r.o.
Prazska 5639
43001 Chomutov
Czech Republic

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 60079-15:2017 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

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 Report:

[DE/EPS/ExTR22.0052/00](#)

Quality Assessment Report:

[DE/EPS/QAR12.0010/17](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The PISA multi-channel electronic circuit breakers with DIN rail mounting are designed for current distribution and protection of DC 24V load circuits. The PISA electronic circuit breakers distribute the current of large power sources to multiple lower current output channels and therefore allow for smaller wires to be used. In the event of a fault, the electronic circuit breaker reliably switches off the channels and protects the loads. Optional suffix "-C1" stands for coating of the printed circuit board; no safety relevance. Optional suffix "-C2" stands for partial coating of the printed circuit board; no safety relevance.

Electrical data:

<u>PISA11.401:</u> Input: 24 Vdc; 4.0 A Output Channel 1-4: 24 Vdc; 1.0 A max. 96 W total	<u>PISA11.402:</u> Input: 24 Vdc; 8.0 A Output Channel 1-4: 24 Vdc; 2.0 A max. 192 W total	<u>PISA11.403:</u> Input: 24 Vdc; 12.0 A Output Channel 1-4: 24 Vdc; 3.0 A max. 288 W total
<u>PISA11.404:</u> Input: 24 Vdc; 16.0 A Output Channel 1-4: 24 Vdc; 4.0 A max. 384 W total	<u>PISA11.406:</u> Input: 24 Vdc; 20.0 A Output Channel 1-4: 24 Vdc; 6.0 A max. 480 W total	<u>PISA11.410:</u> Input: 24 Vdc; 20.0 A Output Channel 1-4: 24 Vdc; 10.0 A max. 480 W total
<u>PISA11.203206:</u> Input: 24 Vdc; 18.0 A Output Channel 1-2: 24 Vdc; 3.0 A Output Channel 3-4: 24 Vdc; 6.0 A max. 432 W total	<u>PISA11.206212:</u> Input: 24 Vdc; 20.0 A Output Channel 1-4: 24 Vdc; 6.0 A Output Channel 3-4: 24 Vdc; 12.0 A max. 480 W total	<u>PISA11.CLASS2:</u> Input: 24 Vdc; 15.0 A Output Channel 1-4: 24 Vdc; 3.7 A max. 355.2 W total

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The equipment shall be installed in an enclosure that provides a degree of protection not less than IP 54 in accordance with IEC 60079-7.
- The equipment shall only be used in an area of not more than pollution degree 2, as defined in IEC 60664-1.
- The signal connector on the front side (Sync / OK / ON / OFF) shall not be used in areas with explosive gas atmospheres. The connector does not fulfil the requirements for pluggable connections of IEC 60079-7 – Ed. 5.1, clause 4.2.3.5 (for use in non-hazardous areas only).
- The equipment was tested for the following ambient temperature conditions:

PISA11.401, PISA11.402, PISA11.403, PISA11.CLASS2:

-25 °C to +70 °C with 100 % output power

PISA11.404, PISA11.406, PISA11.410, PISA11.203206, PISA11.206212:

-25 °C to +60 °C with 100 % output power

+60 ° to +70 °C with de-rating, linearly from 20 A to 15 A (sum of all output currents)