

## IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:

IECEx EPS 14.0001X

Issue No: 2

Certificate history:

Status:

Current

Issue No. 2 (2018-04-20) Issue No. 1 (2015-12-08)

Date of Issue:

2018-04-20

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Issue No. 0 (2014-01-22)

Applicant:

PULS GmbH

Elektrastr. 6

81925 München

Germany

Equipment:

CD5 power supply series

Optional accessory:

Type of Protection:

ec nC

Marking:

Ex ec nC IIC T4 Gc

-25°C - +70°C

(see attachment)

Approved for issue on behalf of the IECEx

Certification Body:

Position:

Signature:

(for printed version)

Date:

Holger Schaffer

Manager Certification

2018-04-20



- 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 the Official IECEx Website.

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

Additional Manufacturing location(s):

PULS Electronics (Suzhou C) Co., Ltd

No. 1 Rui-en Lane Xingpu Road

Suzhou Industrial Park, 21512 Suzhou City Jiang Su Province

China

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 apparatus 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: 2015

Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

Edition:5.0

This Certificate does not indicate compliance with electrical 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/ExTR14.0001/02

Quality Assessment Report:

DE/EPS/QAR12.0010/07



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Schedule

#### **EQUIPMENT:**

Equipment and systems covered by this certificate are as follows:

CD5 power supply series

CD5.241, CD5.241-S1, CD5.241-L1, CD5.121, CD5.242, CD5.243

(see attachment)

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with IEC 60079-0
- Reduced output current conditions must be considered for high ambient temperatures and non-standard mounting orientations



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### DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

- Type of protection changed from "nA" to "ec";
  Update to current edition of standards;
  Manufacturer's address changed from "Arabellastr. 15" to "Elektrastr. 6"

IECEx EPS 14.0001X - Annex.pdf



### Annex to Certificate IECEx EPS 14.0001X



CD5.121:

Input: DC 24V (-25%/ +35%), 5.6A

Output:

DC 12-15V, 9.6-7.7A (below +45°C)
DC 12-15V, 8.0-6.4A (at +60°C)
DC 12-15V, 6.0-4.8A (at +70°C)

Derate linearly between +45°C and +70°C

CD5.241:

Input: DC 24V (-25%/ +35%), 7.0A

Output: DC 24-28V, 6.0-5.1A (below +45°C)

DC 24-28V, 5.0-4.3A (at +60°C) DC 24-28V, 3.8-3.2A (at +70°C)

Derate linearly between +45°C and +70°C

CD5.241-L1:

Input: DC 24V (-40%/ +35%), 5.5A Output: DC 24V, 3.8A (max. +70°C)

CD5.241-S1:

Input: DC 24V (-25%/ +35%), 7.0A

Output:

DC 24-28V, 6.0-5.1A (below +45°C) DC 24-28V, 5.0-4.3A (at +60°C) DC 24-28V, 3.8-3.2A (at +70°C)

Derate linearly between +  $45^{\circ}$ C and + $70^{\circ}$ C

CD5.242:

Input: DC 48V (±25%), 3.5A

Output:

DC 24-28V, 6.0-5.1A (below +45°C) DC 24-28V, 5.0-4.3A (at +60°C) DC 24-28V, 3.8-3.2A (at +70°C)

Derate linearly between +45°C and +70°C



### Annex to Certificate IECEx EPS 14.0001X



CD5.243:

Input: DC 12V (-10% / +35%), 12A

Output:

DC 24-28V, 4.8-4.1A (below +45°C) DC 24-28V, 4.0-3.4A (at +60°C) DC 24-28V, 3.0-2.6A (at +70°C)

Input: DC 12V (-30%), 12A

Output:

DC 24-28V, 4.0-3.4A (below +45°C) DC 24-28V, 3.2-2.7A (at +60°C) DC 24-28V, 2.4-2.1A (at +70°C)

Derate linearly between +45°C and +70°C

### Mounting orientations:

	Standard	90° clockwise (cw) rotated	90° counter clockwise (ccw) rotated	Upside down	Table top
	DOTOC Converter	DC/DC Converter	DODC Onverter INDIT	CONVERTER	ninin
CD5.121	96W at +60°C	86.4W at +60°C	86.4W at +60°C	86.4W at +60°C	86.4W at +60°C
CD5.241 CD5.241-S1	120W at +60°C	108W at +60°C	108W at +60°C	108W at +60°C	108W at +60°C
CD5.241-L1	91.2W at +60°C	91.2W at +60°C	91.2W at +60°C	91.2W at +60°C	91.2W at +60°C
CD5.242	120W at +60°C	108W at +60°C	108W at +60°C	108W at +60°C	108W at +60°C
CD5.243	96W at +60°C	76.8W at +60°C	76.8W at +60°C	76.8W at +60°C	76.8W at +60°C