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 15.0049X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 3	Issue 2 (2020-09-21) Issue 1 (2017-09-26) Issue 0 (2015-10-19)
Date of Issue:	2021-04-29		
Applicant:	**PULS GmbH** Elektrastr. 6 81925 München **Germany**		
Equipment:	**DC-UPS**		
Optional accessory:	Sensor board		
Type of Protection:	**"ec" or "ec nC"**		
Marking:	Ex ec nC IIC T3 Gc Ex ec nC IIC T4 Gc Ex ec IIC T4 Gc ——————— (depends on model, see Attachment)		

Approved for issue on behalf of the IECEx Certification Body:

Holger Schaffer

Position:

Certification Manager

Signature:
(for printed version)

Date:

2021-04-29

ZERTIFIZIERUNGSSTELLE BUREAU VERITAS 1828 Bureau Veritas CPS Germany GmbH

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Certificate issued by:

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

BUREAU VERITAS

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Date of issue: 2021-04-29

Issue No: 3

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

Additional manufacturing locations: **PULS Investicni s.r.o.**
Prazska 5639
43001 Chomutov
Czech Republic

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 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 Edition:7.0 — Explosive atmospheres - Part 0: Equipment - General requirements

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

IEC 60079-7:2017 Edition:5.1 — Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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/ExTR15.0045/03

Quality Assessment Report:

DE/EPS/QAR12.0010/14

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

DC-UPS (for use with external battery module):
UB10.241, UB10.242, UB10.245, UB20.241

DC-UPS (with integrated battery module):
UBC10.241, UBC10.241-N1

DC-UPS (with integrated capacitor module):
UC10.241, UC10.242

Battery modules:
UZK12.071, UZO12.07, UZK12.261, UZO12.26,
UZK24.071, UZO24.071, UZK24.121, UZO24.121,
UZK12.072, UZO12.072

Sensor board (accessory):
UZS24.100

SPECIFIC CONDITIONS OF USE: YES as shown below:
DC-UPS (for use with external battery module); UB10.241, UB10.242, UB10.245, UB20.241:
The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with IEC 60079-0.

DC-UPS (with integrated capacitor module); UC10.241, UC10.242:
The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with IEC 60079-0.

DC-UPS (with integrated battery module); UBC10.241, UBC10.241-N1:
The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with IEC 60079-0. Sufficient ventilation must be ensured in the final installation.

Battery modules; UZK12.071, UZO12.07, UZK12.261, UZO12.26, UZK24.071, UZO24.071, UZK24.121, UZO24.121, UZK12.072, UZO12.072: The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 23 in accordance with IEC 60079-0. Sufficient ventilation must be ensured in the final installation.

All models:
Battery modules may be operated in any position, except upside down.
DIN-Rail modules shall be operated in standard orientation (terminals on top/bottom) only.

The battery modules UZKxx.yyy /UZOxx.yyy shall be connected and charged / discharged with the appropriate DC-UPS UBxx.yyy only.

The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Addition of two alternative manufacturing locations. Minor editorial changes, not safety relevant.

Annex:

Attachment to DE_EPS_ExTR15.0045_03_1.pdf

Annex to Certificate
IECEx EPS 15.0049X (Rev.3)

Electrical Data:

Model	Ratings
UB10.241	**Input:** DC 24V (-20%/+25%), max. 17A **Output in power supply mode:** Input voltage - 0.3V, 15.0A (below +60°C) Input voltage - 0.3V, 11.3A (at +70°C) **Output in battery mode:** 22.3Vdc, 10A (below +60°C) 22.3Vdc, 7.5A (at +70°C) Short-term, up to 5s: 22.3Vdc, 15A (below +70°C) Derate linearly between +60°C and +70°C **Battery:** Use a 12V VRLA battery between 3.9 and 40Ah **Ambient temperature range:** -25°C to +70°C **Ex-Code:** Ex ec nC IIC T3 Gc
UB10.242	**Input:** DC 24V (-20%/+25%), max. 18A **Output in power supply mode:** Input voltage - 0.3V, 15.0A (max. +50°C) **Output in battery mode:** 22.3Vdc, 10A (max. +50°C) Short-term, up to 5s: 22.3Vdc, 15A **Battery:** Use a 12V VRLA battery between 17 and 40Ah **Ambient temperature range:** -25°C to +50°C **Ex-Code:** Ex ec nC IIC T3 Gc

Model	Ratings
UB10.245	**Input:** DC 24V (-20%/+25%), max. 17A **Outputs in power supply mode:** Max. 360W at +50°C or 180W at +70°C for both outputs Output 1: Input - 0.3V, 15A (below +50°C) Input - 0.3V, 10A (at +70°C) Output 2: 12V, 5A (below +50°C) 12V, 4A (at +70°C) **Outputs in battery mode:** Max. 240W at 50°C or 120W at 70°C for both outputs Output 1: 22.3V, 10A (below +50°C) 22.3V, 7.5A (at +70°C) Short-term, up to 5s: 22.3V, 15A (at +70°C) Output 2: 12V, 5A (below +50°C) 12V, 4A (at +70°C) Short-term, up to 5s: 12V, 5A (at +70°C) Derate linearly between +50°C and +70°C **Battery:** Use a 12V VRLA battery between 3.9 and 40Ah **Ambient temperature range:** -25°C to +70°C **Ex-Code:** Ex ec nC IIC T3 Gc
UBC10.241, UBC10.241-N1	**Input:** DC 24V (-20%/+25%), max. 17A **Outputs in power supply mode:** Input - 0.3V, 15A (max. +40°C) **Outputs in battery mode:** 22.3V, 10A (max. +40°C) Short-term, up to 5s: 22.3V, 15A **Ambient temperature range:** 0°C to +40°C **Ex-Code:** Ex ec nC IIC T3 Gc

Model	Ratings
UB20.241	**Input:** DC 24V (±25%), max. 28A **Output in power supply mode:** Input voltage - 0.15V, 25.0A (below +60°C) Input voltage - 0.15V, 18.8A (at +70°C) Short-term, up to 5s: 30.0A (at +70°C) Output in battery mode: Selectable: 22.5V, 24.0V, 25.0V or 26.0V Max. 20A or 468W (below +60°C) Max. 15A or 351W (at +70°C) Short-term, up to 4s: 50% current reserves Derate linearly between +60°C and +70°C **Battery:** Use a 24V VRLA battery module between 3.9 and 150Ah. **Ambient temperature range:** -40°C to +70°C **Ex-Code:** Ex ec nC IIC T4 Gc
UC10.241	**Input:** DC 24V (-20%/+25%), max. 17A **Output in power supply mode:** Input voltage - 0.3V, 15.0A (max. +60°C) **Output in capacitor mode:** 22.3Vdc, 15A (max. +60°C) **Back-up time:** Typ. 16.5s at 10A or 9.0s at 15A **Ambient temperature range:** -40°C to +60°C **Ex-Code:** Ex ec nC IIC T4 Gc
UC10.242	**Input:** DC 24V (-20%/+25%), max. 17A **Output in power supply mode:** Input voltage - 0.3V, 15.0A (max. +60°C) **Output in capacitor mode:** 22.3Vdc, 15A (max. +60°C) **Back-up time:** Typ. 33s at 10A or 18s at 15A **Ambient temperature range:** -40°C to +60°C **Ex-Code:** Ex ec nC IIC T4 Gc

Model	Ratings
UZK12.071, UZO12.07	**Nominal battery voltage and capacity:** 12Vdc, 7Ah **Temperature ranges:** For charging: -10°C to +40°C For discharging: -15°C to +50°C **Ex-Code:** Ex ec IIC T4 Gc
UZK12.261, UZO12.26	**Nominal battery voltage and capacity:** 12Vdc, 26Ah **Temperature ranges:** For charging: -15°C to +50°C For discharging: -20°C to +60°C **Ex-Code:** Ex ec IIC T4 Gc
UZK24.071, UZO24.071	**Nominal battery voltage and capacity:** 24Vdc, 7Ah **Temperature ranges:** For charging: -10°C to +40°C For discharging: -15°C to +50°C **Ex-Code:** Ex ec IIC T4 Gc
UZK24.121, UZO24.121	**Nominal battery voltage and capacity:** 24Vdc, 12Ah **Temperature ranges:** For charging: -10°C to +40°C For discharging: -15°C to +50°C **Ex-Code:** Ex ec IIC T4 Gc
UZK12.072, UZO12.072	**Nominal battery voltage and capacity:** 12Vdc, 7Ah **Temperature ranges:** For charging: -10°C to +40°C For discharging: -15°C to +50°C **Ex-Code:** Ex ec IIC T4 Gc
UZS24.100	N/A *(accessory)*