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 ULD 17.0031X

Issue No: 1

Certificate history:
Issue No. 1 (2017-09-27)
Issue No. 0 (2017-08-18)

Status: **Current**

Date of Issue: **2017-09-27**

Applicant: **ABB STOTZ-KONTAKT GmbH**
Eppelheimer Strasse 82
69123 Heidelberg
Germany

Equipment: **Switch Mode Power Supply - Model CP-C.1 24/5.0-C, CP-C.1 24/10.0-C and CP-C.1 24/20.0-C, Redundancy Module CP-C.1-A-RU**

Optional accessory:

Type of Protection: **Increased Safety "ec" and Sealed Device "nC"**

Marking:

Ex ec nC IIC T4 Gc (for Models CP-C.1 24… Power Supplies only)

Ex ec IIC T4 Gc (for Redundancy Module CP-C.1-A-RU only)

-40...+70°C (>60°C derating)

Approved for issue on behalf of the IECEx Certification Body: Lucy Frieders

Position: Staff Engineer

Signature:
(for printed version)

Date:

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 the Official IECEx Website.

Certificate issued by:

UL International Demko A/S
Borupvang 5A,
DK-2750 Ballerup
Denmark

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Manufacturer: **ABB STOTZ-KONTAKT GmbH**
Eppelheimer Strasse 82
69123 Heidelberg
Germany

Additional Manufacturing location(s):

Dongguan Teamwise Electronic Co.,Ltd
No.1, Ao Bei Road, Cross Xiang Xin West Road
Yantian, Fenggang, Dongguan Guangdong, China
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 electrical 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*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:

DK/ULD/ExTR16.0027/02

Quality Assessment Report:

DE/BVS/QAR14.0004/04 DE/BVS/QAR17.0008/00

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The products are Switch Mode Power Supplies for DIN-Rail mounting and intended as a built-in component. The power supplies employ two sealed device relays in type of protection “nC”, while all other electronics are designed to comply with type of protection Increased Safety “ec”.

The CP-C.1-A-RU-C is a redundancy unit for CP-C.1 range power supplies. This unit, with 2 inputs / channels rated each 30 A and an output of max. 60 A, provides redundancy by decoupling of two parallel connected power supplies, designed to comply with type of protection Increased Safety “ec”.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The enclosure must ensure sufficient light / UV protection for the internal components.
- The equipment shall be mounted with output terminals on top and input terminals on bottom.

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

Issue 1: Redundancy module CP-C.1-A-RU-C was added.

Annex:

Annex to IECEx ULD 17.0031X Issue 1.pdf

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Issue No.: 1

TYPE DESIGNATION

CP-C.1 24/5.0-C, CP-C.1 24/10-C and CP-C.1 24/20-C conformal coated PWBs

Output voltage is rated 24Vdc, adjustable between 22.5 to 28.5Vdc. Output power ratings are as shown:

CP-C.1 24/5.0-C
Maximum Output Power: 180VA at 40°C, 120VA at 60°C, 90VA at 70°C.

CP-C.1 24/10.0-C
Maximum Output Power: 360W at 40°C and 22.5-24 VDC, 240W at 60°C, 180W at 70°C.

CP-C.1 24/20.0-C
Maximum Output Power: 624W at 40°C, 480W at 60°C, 360W at 70°C.

PARAMETERS RELATING TO THE SAFETY

Input	Output	Ambient Temperature	Temperature Classification
CP-C.1 24/5.0-C			
100-240 VAC (50-60 Hz), max. 2A; 90-300 VDC / max. 2 A	22.5-24 VDC: 7.5A / > 24-28.5 VDC: 180 W +40°C	-40 ≤ Tamb ≤ +40°C	T4
	22.5-24 VDC: 5 A; >24-28.5 VDC: 120 W +60°C	-40 ≤ Tamb ≤ +60°C	T4
	> +60°C up to +70°C Derating 2.5%/K	-40 ≤ Tamb ≤ +70°C	T4
CP-C.1 24/10.0-C			
100-240 VAC (50-60 Hz), max. 4.4 A; 90-300 VDC / max. 4.4 A	22.5-24 VDC: 15 A / > 24-28.5 VDC: 300 W +40°C	-40 ≤ Tamb ≤ +40°C	T4
	22.5-24 VDC: 10 A / > 24-28.5 VDC: 240 W +60°C	-40 ≤ Tamb ≤ +60°C	T4
	> +60°C up to +70°C Derating 2.5%/K	-40 ≤ Tamb ≤ +70°C	T4

Input	Output	Ambient Temperature	Temperature Classification
CP-C.1 24/20.0-C			
100-240 VAC / 50-60 Hz / max. 7.5A 90-250 VDC / max. 8.3A	22.5 - 24 VDC: 26 A / > 24 - 28.5 VDC: 624W	-40 ≤ Tamb ≤ +40°C	T4
	22.5 - 24 VDC: 20A / > 24 - 28.5 VDC: 480W	-40 ≤ Tamb ≤ +60°C	T4
	> +60°C up to +70°C Derating 2.5%/K	-40 ≤ Tamb ≤ +70°C	T4

Signal Relay (K301); 24 V dc, 1 A

Input	Output	Ambient Temperature	Temperature Classification
CP-C.1-A-RU-C			
10 - 28.5 VDC: 30A (per channel)	Input voltage minus 0.6V 60A	-40 ≤ Tamb ≤ +40°C	T4
10 - 28.5 VDC: 20A (per channel)	Input voltage minus 0.6V 40A	-40 ≤ Tamb ≤ +60°C	T4
	> +60°C up to +70°C Output power derating 2.5%/K	-40 ≤ Tamb ≤ +70°C	T4

MARKING

Marking has to be readable and indelible; it has to include the following indications:

- Manufacturer name
  PostCode City
- Model number as under type designation
- IECEx ULD 17.0031X
- (Serial number)
- Ex ec nC IIC T4 Gc (for Models CP-C.1 24… Power Supplies only)
- Ex ec IIC T4 Gc (for Redundancy Module CP-C.1-A-RU only)
- Cable entries : See instructions

WARNINGS : DO NOT CONNECT OR DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN REMOVED OR AREA IS KNOWN TO BE FREE OF IGNITABLE CONCENTRATIONS

Marking may be carried out in the language of the country of use.

The protective system or equipment has also to carry the marking normally stipulated by its construction standards.

ROUTINE EXAMINATIONS AND TESTS

- A dielectric strength routine test is required, as per the relevant industrial standards.