

Certificate of Conformity

- (2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Directive 2014/34/EU
- (3) Certificate Number:

(1)

EPS 13 ATEX 1 555 X

Revision 4

- (4) Equipment: Power Supply (built-in): CPS20.241, CPS20.121, CPS20.361, CPS20.481, CPS20.241-D1, CPS20.481-D1, SLA3.100 (all models optional with suffix "-C1")
- (5) Manufacturer: PULS GmbH
- (6) Address: Elektrastr. 6 81925 München Germany
- (7) This equipment and any acceptable variation thereto are specified in the schedule to this Certificate of Conformity and the documents therein referred to.
- (8) Bureau Veritas Consumer Products Services Germany GmbH certifies based on a voluntary assessment that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive 2014/34/EU. The examination and test results are recorded in the confidential documentation under the reference number 13TH0193.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018

EN 60079-15:2010

- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.
- (11) This Certificate of Conformity relates only to the design and the construction of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture and supply of this equipment. Those requirements are not covered by this certificate.
- (12) The marking of the equipment shall include the following:



Hamburg, 2021-04-29

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Annexe

(14) Certificate of Conformity EPS 13 ATEX 1 555 X

(15) Description of equipment:

(13)

The equipment under test is the CPS20.xxx power supply series and the model SLA3.100. The CPS20.xxx power supplies are intended for universal use, the SLA3.100 is specially made to supply the AS-Interface field bus system. The output of the SLA3.100 power supply is inductive and is not suitable for other applications.

(Optional suffix "-C1" stands for coating of the printed circuit board; no safety relevance.)

Revision 1:

Method of marking changed from adhesive label to laser marking. New type labels added. Additional standard EN 60079-0/A11:2013.

Revision 2:

Extension of ambient temperature range from +60 °C to +70 °C.

No additional testing required, test results for 70 °C were already included in the previous report (informative). Change of input rating from "100-240 V" to "120-240 V or 100 V". Reduced output power at 100-120 V input due to other certification requirements. No technical reason, no product modification. No re-testing required.

Revision 3: (ATEX Revision 4)

Update to current version of standards. Update to current version of ExTR. Change of type of protection from "nA" to "ec". Change of Manufacturers address to "Elektrastr. 6, 81925 München, Germany ". Minor editorial changes.

Electrical data:

CPS20.121	CPS20.241
Input:	Input:
AC 120-240 V 4.1-2.2 A 50-60 Hz	AC 120-240 V 5.3-2.7 A 50-60 Hz
Output:	Output:
DC 12-15 V 30 A (at +60 °C)	DC 24-28 V 24-20.6 A (below +45 °C)
DC 12-15 V 22.5 A (at +70 °C)	DC 24-28 V 20-17.1 A (at +60 °C)
Input:	DC 24-28 V 15-12.8 A (at +70 °C)
AC 100 V 4.9 A 50-60 Hz	Input:
Output:	AC 100 V 6.4 A 50-60 Hz
DC 12-15 V 25.5 A (at +60 °C)	Output:
DC 12-15 V 19.1 A (at +70 °C)	DC 24-28 V 20.4-17.5 A (below +45 °C)
Derate linearly between +60 °C and +70 °C	DC 24-28 V 17.0-14.5 A (at +60 °C)
	DC 24-28 V 12.8-10.9 A (at +70 °C)
	Derate linearly between +45 °C and +70 °C
CPS20.261	
CPS20.361	<u>CPS20.481</u>
Input:	CPS20.481 Input:
Input: AC 120-240 V 5.3-2.7 A 50-60 Hz	<u>CPS20.481</u> Input: AC 120-240 V 5.3-2.7 A 50-60 Hz
Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output:	CPS20.481 Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output:
Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 36-42 V 16-13.7 A (below +45 °C)	CPS20.481 Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 48-56 V 12-10.3 A (below +45 °C)
Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 36-42 V 16-13.7 A (below +45 °C) DC 36-42 V 13.3-11.4 A (at +60 °C)	CPS20.481 Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 48-56 V 12-10.3 A (below +45 °C) DC 48-56 V 10-8.6 A (+60 °C)
Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 36-42 V 16-13.7 A (below +45 °C) DC 36-42 V 13.3-11.4 A (at +60 °C) DC 36-42 V 10-8.6 A (at +70 °C)	CPS20.481 Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 48-56 V 12-10.3 A (below +45 °C) DC 48-56 V 10-8.6 A (+60 °C) DC 48-56 V 7.5-6.5 A (+70 °C)
Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 36-42 V 16-13.7 A (below +45 °C) DC 36-42 V 13.3-11.4 A (at +60 °C) DC 36-42 V 10-8.6 A (at +70 °C) Input:	CPS20.481 Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 48-56 V 12-10.3 A (below +45 °C) DC 48-56 V 10-8.6 A (+60 °C) DC 48-56 V 7.5-6.5 A (+70 °C) Input:
Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 36-42 V 16-13.7 A (below +45 °C) DC 36-42 V 13.3-11.4 A (at +60 °C) DC 36-42 V 10-8.6 A (at +70 °C) Input: AC 100 V 6.4 A 50-60 Hz	CPS20.481 Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 48-56 V 12-10.3 A (below +45 °C) DC 48-56 V 10-8.6 A (+60 °C) DC 48-56 V 7.5-6.5 A (+70 °C) Input: AC 100 V 6.4 A 50-60 Hz
Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 36-42 V 16-13.7 A (below +45 °C) DC 36-42 V 13.3-11.4 A (at +60 °C) DC 36-42 V 10-8.6 A (at +70 °C) Input: AC 100 V 6.4 A 50-60 Hz Output:	CPS20.481 Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 48-56 V 12-10.3 A (below +45 °C) DC 48-56 V 10-8.6 A (+60 °C) DC 48-56 V 7.5-6.5 A (+70 °C) Input: AC 100 V 6.4 A 50-60 Hz Output:
Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 36-42 V 16-13.7 A (below +45 °C) DC 36-42 V 13.3-11.4 A (at +60 °C) DC 36-42 V 10-8.6 A (at +70 °C) Input: AC 100 V 6.4 A 50-60 Hz Output: DC 36-42 V 13.6-11.7 A (below +45 °C)	CPS20.481 Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 48-56 V 12-10.3 A (below +45 °C) DC 48-56 V 10-8.6 A (+60 °C) DC 48-56 V 7.5-6.5 A (+70 °C) Input: AC 100 V 6.4 A 50-60 Hz Output: DC 48-56V 10.2-8.8 A (below +45 °C)
Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 36-42 V 16-13.7 A (below +45 °C) DC 36-42 V 13.3-11.4 A (at +60 °C) DC 36-42 V 10-8.6 A (at +70 °C) Input: AC 100 V 6.4 A 50-60 Hz Output: DC 36-42 V 13.6-11.7 A (below +45 °C) DC 36-42 V 13.6-11.7 A (below +45 °C)	CPS20.481 Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 48-56 V 12-10.3 A (below +45 °C) DC 48-56 V 10-8.6 A (+60 °C) DC 48-56 V 7.5-6.5 A (+70 °C) Input: AC 100 V 6.4 A 50-60 Hz Output: DC 48-56V 10.2-8.8 A (below +45 °C) DC 48-56V 8.5-7.3 A (at +60 °C)
Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 36-42 V 16-13.7 A (below +45 °C) DC 36-42 V 13.3-11.4 A (at +60 °C) DC 36-42 V 10-8.6 A (at +70 °C) Input: AC 100 V 6.4 A 50-60 Hz Output: DC 36-42 V 13.6-11.7 A (below +45 °C) DC 36-42 V 13.6-11.7 A (below +45 °C) DC 36-42 V 13.6-11.7 A (at +60 °C) DC 36-42 V 8.5-7.3 A (at +70 °C)	CPS20.481 Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 48-56 V 12-10.3 A (below +45 °C) DC 48-56 V 10-8.6 A (+60 °C) DC 48-56 V 7.5-6.5 A (+70 °C) Input: AC 100 V 6.4 A 50-60 Hz Output: DC 48-56V 10.2-8.8 A (below +45 °C) DC 48-56V 8.5-7.3 A (at +60 °C) DC 48-56V 6.4-5.4 A (at +70 °C)
Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 36-42 V 16-13.7 A (below +45 °C) DC 36-42 V 13.3-11.4 A (at +60 °C) DC 36-42 V 10-8.6 A (at +70 °C) Input: AC 100 V 6.4 A 50-60 Hz Output: DC 36-42 V 13.6-11.7 A (below +45 °C) DC 36-42 V 13.6-11.7 A (below +45 °C)	CPS20.481 Input: AC 120-240 V 5.3-2.7 A 50-60 Hz Output: DC 48-56 V 12-10.3 A (below +45 °C) DC 48-56 V 10-8.6 A (+60 °C) DC 48-56 V 7.5-6.5 A (+70 °C) Input: AC 100 V 6.4 A 50-60 Hz Output: DC 48-56V 10.2-8.8 A (below +45 °C) DC 48-56V 8.5-7.3 A (at +60 °C)

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Oehleckerring 40, D-22419 Hamburg Phone: +49 40 74041-0 **Revision 4**





Certificate of Conformity EPS 13 ATEX 1 555 X

Revision 4

Electrical data: (continued)

$\label{eq:constraint} \begin{array}{ c c c c c } \hline CPS20.481 \\ \hline Input: \\ AC 120-240 \ V \ \ 5.3-2.7 \ A \ \ 50-60 \ Hz \\ \hline Output: \\ DC 48-56 \ V \ \ 12-10.3 \ A \ (below \ +45 \ ^{\circ}C) \\ DC 48-56 \ V \ \ 10-8.6 \ A \ (+60 \ ^{\circ}C) \\ DC 48-56 \ V \ \ 7.5-6.5 \ A \ (+70 \ ^{\circ}C) \\ \hline Input: \\ AC \ 100 \ V \ \ 6.4 \ A \ \ 50-60 \ Hz \\ \hline Output: \\ DC \ 48-56V \ \ 10.2-8.8 \ A \ (below \ +45 \ ^{\circ}C) \\ DC \ 48-56V \ \ 10.2-8.8 \ A \ (below \ +45 \ ^{\circ}C) \\ DC \ 48-56V \ \ 8.5-7.3 \ A \ (at \ +60 \ ^{\circ}C) \\ DC \ 48-56V \ \ 6.4-5.4 \ A \ (at \ +70 \ ^{\circ}C) \\ \hline Derate \ linearly \ between \ +45 \ ^{\circ}C \ and \ +70 \ ^{\circ}C \end{array}$	CPS20.241-D1 Input: DC 110-300 V(±20%) 6.2-2.3 A Output: DC 24-28 V 24-20.6 A (below +45 °C) DC 24-28 V 20-17.1 A (at +60 °C) DC 24-28 V 15-12.8 A (at +70 °C) Derate linearly between +45 °C and +70 °C
CPS20.481-D1 Input: DC 110-300 V(±20%) 6.2-2.3 A Output: DC 48-56 V 12-10.3 A (below +45 °C) DC 48-56 V 10-8.6 A (+60 °C) DC 48-56 V 7.5-6.5 A (+70 °C) Derate linearly between +45 °C and +70 °C	SLA3.100 Input: AC 100-120 V 2.0 A 50-60 Hz AC 220-240 V 0.9 A 50-60 Hz Output: DC-AS-i 30.6 V 2.8 A (up to +60 °C)

(16) Reference number: 13TH0193

(17) Schedule of Limitations:

- The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with EN 60079-0.

- The equipment shall only be used in an area of not more than pollution degree 2, as defined in EN 60664-1. - Output power de-rating conditions according to manufacturer's instructions must be considered for operation at high ambient temperatures (CPS20.241, CPS20.361, CPS20.481, CPS20.241-D1, CPS20.481-D1: de-rating above +45 °C and CPS20.121: de-rating above +60 °C).

(18) Essential health and safety requirements:



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