



CERTIFICATE NUMBER	20-1980458-PDA
EFFECTIVE DATE	30-Apr-2020
EXPIRY DATE	29-Apr-2025
ABS TECHNICAL OFFICE	Hamburg Engineering Department

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

PULS GMBH

located at

ELEKTRASTR. 6, D-81925 MUENCHEN, Germany

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product Power Supply Unit

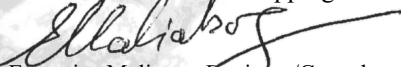
Model CP20.241-R1-77, CP20.241-R2-72 CP20.241-R2-73, CP20.245-R2

This Product Design Assessment (PDA) Certificate remains valid until 29/Apr/2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping


Eustratios Maliatsos, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

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Tier: 2 - PDA Issued

Product: Power Supply Unit

Model: CP20.241-R1-77, CP20.241-R2-72 CP20.241-R2-73, CP20.245-R2

Intended Service:

Control power supply, UPS/ battery, redundancy/ decoupling modules for installation in consoles and cabinets.

Description:

DIN-rail mountable single-phase-input power supply incorporated in a IP20 housing. Floating, stabilized and galvanically separated SELV/PELV output voltage. Output 24V with 20A nominal output current.

Rating:

AC Input voltage : AC 100-240V;
Output voltage: DC 24V;
Operating Temperature: -40°C to +70°C;
Degree of protection: IP 20;
Certified Safe Equipment (only CP20.241-R2-72, CP20.241-R2-73);
II 3G Ex ec nC IIC T4 Gc (EPS 17 ATEX 1 089X, IECEx 17TH0214-60079_1).

Service Restriction:

1. Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
2. A suitable enclosure must be provided for the end product. Specially for certified safe types the enclosure should have a minimum protection of IP54 and fulfil the requirements of the EN 60079-0.
3. Model CP20.241-R1-77 is approved for use in the general power distribution zone (not to be installed in the bridge and deck zone).

Comments:

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:

Drawing No. 2Report_19MR1-0086-VI1, Visual Inspection Report, Puls Gmbh, Issued on 2019-12-10, Revision: __, Pages: __
Drawing No. AP-426_251_00-ZG_UI3, DWG- Main Board, Revision: __, Pages: __
Drawing No. AP-426_280_99-ZG_UI9, DWG- Terminal Board, Revision: __, Pages: __
Drawing No. AP-426_350_00-ZG_UI3, DWG- Terminal Board, Revision: __, Pages: __
Drawing No. AP-426_361_00-ZG_UI2, DWG- Main Board, Revision: __, Pages: __
Drawing No. AP-426_363_00-ZG_UI2, DWG- Main Board, Revision: __, Pages: __
Drawing No. AP-426_471_00-ZG_UI3, DWG- Power Board and CAP Module, Revision: __, Pages: __
Drawing No. AP-426_473_00-ZG_UI3, DWG- Power Board and CAP Module, Revision: __, Pages: __
Drawing No. CP20_241-R2-72 Rev1_12, Data Sheet- CP20.241-R2-72_24V, 20A, SINGLE PHASE INPUT_ Rev1_12, Revision: __, Pages: __
Drawing No. CP20_241-R2-73 Rev1_9, Data Sheet- CP20.241-R2-73_24V, 20A, SINGLE PHASE INPUT_ Rev1_9, Revision: __, Pages: __
Drawing No. CP20_245-R2 Rev1_0, Data Sheet- CP20.245-R2_24V, 20A, SINGLE PHASE INPUT_ Rev1_0, Revision: __, Pages: __
Drawing No. Certificate- 17TH0214_PULS GmbH, Certificate of Conformity- Bureau Veritas_EPS 17 ATEX 1 089 X_ Rev1, Revision: __, Pages: __
Drawing No. DoC_426_22_CP20_241_R1_77, EU Declaration of Conformity, Revision: __, Pages: __
Drawing No. DoC_426_32_CP20_24X_RX_2019_12_10, EU Declaration of Conformity, Revision: __, Pages: __
Drawing No. Fillable_PDA-Application-Form_filled, PDA Request Form- Signed, Revision: __, Pages: __
Drawing No. IM-CP20_241-R2-72--2019-11-06, Installation Manual- CP20.241-R2-72, Revision: __, Pages: __
Drawing No. IM-CP20_241-R2-73--2019-11-06, Installation Manual- CP20.241-R2-73, Revision: __, Pages: __
Drawing No. IM-CP20_245-R2--2019-12-02, Installation Manual- CP20.245-R2, Revision: __, Pages: __

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Drawing No. LP009 Accreditation Certificate, LP009 Accreditation Certificate, Revision: __, Pages: __
Drawing No. LP009 Annex _2018-04-19, LP009 Annex to the Accreditation Certificate, Revision: __, Pages: __
Drawing No. Marine Manufacturers Documents _2020-01-28, Marine Manufacturers Documents, Revision: __, Pages: __
Drawing No. PU-426_015_77-xxB, Installation Manual- CP20.241-R1-77, Revision: __, Pages: __
Drawing No. Report _17TH0214, PULS- Power Supply_60079_1, Revision: __, Pages: __
Drawing No. Report _19MR1-0048-VI1, Visual Inspection Report, Puls Gmbh, Issued on 2019-08-28, Revision: __, Pages: __
Drawing No. Report _19MR1-0048_DNV-GL, Report-_DNV-GL- 2019-03-13, Revision: __, Pages: __
Drawing No. Report _19MR1-0086-a, Project Description and Test Plan- Marine Approval (CP20 Power Supplies)- 2019-11-19, Revision: __, Pages: __
Drawing No. Report _19MR1-0086-b, Project Test Report, SIQ Ljubljana, 2019-12-17, Revision: __, Pages: __
Drawing No. SYS-Test-Description _2019-10-29, PULS SYS-Test Description, Revision: __, Pages: __
Drawing No. Software Quality Plan _2019-08-09, Software Quality Plan, Revision: __, Pages: __
Drawing No. xf-1x2c-48, Data Sheet- OMNIMATE Power - Serie BV/SV 7.62IT_ XF-1X2C-48, Revision: __, Pages: __
Drawing No. xf-1x3c-47, Data Sheet- OMNIMATE Power - Serie BL/SL 7.62IT_ xf-1x3c-47, Revision: __, Pages: __
Drawing No. xm-1x2a-48, Data Sheet- OMNIMATE Power - Serie BV/SV 7.62IT_ XM-1X2A-48, Revision: __, Pages: __
Drawing No. xm-1x3a-47, Data Sheet- OMNIMATE Power - Serie BL/SL 7.62IT_ xf-1x3c-47, Revision: __, Pages: __

Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 29/Apr/2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

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STANDARDS

ABS Rules:

2020 Marine Vessels Rules: 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-8-3/1.7, 4-8-3/1.11.1, 4-8-3/1.17, 4-9-9/13.1, 4-9-9/Table 1

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA