

CERTIFICATE NUMBER EFFECTIVE DATE **EXPIRY DATE** ABS TECHNICAL OFFICE

29-Apr-2030 Hamburg Engineering Department

25-0260421-PDA

30-Apr-2025

CERTIFICATE OF

Product Design Assessment

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

PULS GMBH

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**

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

Endorsements:

Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 29/Apr/2030 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.

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)

Reference WO0260421, dated 14-May-2025

ELEKTRASTR. 6

D-81925 MUENCHEN

Germany

Telephone: +49-89-92780 Fax: +49-89-9278-299 Email: info@pulspower.com Web: www.pulspower.com

Tier: 2 - PDA Issued

Product: Power Supply Unit

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

Endorsements:

Intended Service:

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

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.

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. Ex certification is not covered by this certificate. Installation in hazardous areas is to be in accordance with any special conditions for safe use detailed in the applicable Ex certificate issued by a notified body.

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

Drawing No. AP-426 251 00-ZG UI3, DWG- Main Board

Drawing No. AP-426_280_99-ZG_UI9, DWG- Terminal Board

Drawing No. AP-426 350 00-ZG UI3, DWG- Terminal Board

Drawing No. AP-426_361_00-ZG_UI2, DWG- Main Board

Drawing No. AP-426_363_00-ZG_UI2, DWG- Main Board Drawing No. AP-426_471_00-ZG_UI3, DWG- Power Board and CAP Module

Drawing No. AP-426_473_00-ZG_UI3, DWG- Power Board and CAP Module Drawing No. CP20_241-R2-72 Rev1_12, Data Sheet- CP20.241-R2-72_24V, 20A, SINGLE PHASE INPUT_ Rev1 12

Drawing No. CP20 241-R2-73 Rev1 9, Data Sheet- CP20.241-R2-73 24V, 20A, SINGLE PHASE INPUT Rev1 9 Drawing No. CP20 245-R2 Rev1 0, Data Sheet- CP20.245-R2 24V, 20A, SINGLE PHASE INPUT Rev1 0

Drawing No. IM-CP20 241-R2-72-2019-11-06, Installation Manual- CP20.241-R2-72 Drawing No. IM-CP20 241-R2-73-2019-11-06, Installation Manual- CP20.241-R2-73

Drawing No. IM-CP20 245-R2--2019-12-02, Installation Manual- CP20.245-R2 Drawing No. LP009 Accreditation Certificate, LP009 Accreditation Certificate

Drawing No. LP009 Annex 2018-04-19, LP009 Annex to the Accreditation Certificate

Drawing No. Marine Manufacturers Documents 2020-01-28, Marine Manufacturers Documents

Drawing No. PU-426_015_77-xxB, Installation Manual- CP20.241-R1-77

Drawing No. Report 17TH0214, PULS- Power Supply 60079 1

Drawing No. Report 19MR1-0048-VI1, Visual Inspection Report, Puls Gmbh, Issued on 2019-08-28

Reference WO0260421, dated 14-May-2025

ELEKTRASTR. 6

D-81925 MUENCHEN

Germany

Telephone: +49-89-92780 Fax: +49-89-9278-299 Email: info@pulspower.com Web: www.pulspower.com

Tier: 2 - PDA Issued

Drawing No. Report_19MR1-0048_DNV-GL, Report-_DNV-GL- 2019-03-13
Drawing No. Report_19MR1-0086-a, Project Description and Test Plan- Marine Approval (CP20 Power Supplies)-2019-11-19
Drawing No. Report_19MR1-0086-b, Project Test Report, SIQ Ljubljana, 2019-12-17
Drawing No. SYS-Test-Description_2019-10-29, PULS SYS-Test Description
Drawing No. Software_Quality_Plan_2019-08-09, Software Quality Plan
Drawing No. xf-1x2c-48, Data Sheet- OMNIMATE Power - Serie BV/SV 7.62IT_XF-1X2C-48
Drawing No. xm-1x2a-48, Data Sheet- OMNIMATE Power - Serie BL/SL 7.62IT_XM-1X2A-48
Drawing No. xm-1x3a-47, Data Sheet- OMNIMATE Power - Serie BL/SL 7.62IT_xf-1x3c-47

Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 29/Apr/2030 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.

STANDARDS

ABS Rules:

2025 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:

NΛ

EUMED:

NA

OTHERS:

NA



CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

25-0260421-PDA-DUP 30-Apr-2025 29-Apr-2030 Hamburg Engineering Department

CERTIFICATE OF

Product Design Assessment

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

PULS INVESTICNI S.R.O.

located at

PRAZSKA 5639, , CHOMUTOV, Czechia, 43001

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-R2-72 CP20.241-R2-73, CP20.245-R2

Endorsements:

Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 29/Apr/2030 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 Bureag Of Shipping

Efstratios Maliatsos, Engine r/Consultan

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)

Reference WO0260421 dated 14-May-2025 PULS INVESTION S.R.O.

PRAZSKA 5639 **CHOMUTOV** Czechia 43001

Telephone: +420 474 356 111 Fax: +420 474 356 307 Email: info@pulspower.com Web: www.pulspower.com

Tier: 2 - PDA Issued

Product: Power Supply Unit

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

Endorsements:

Intended Service:

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

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.

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. Ex certification is not covered by this certificate. Installation in hazardous areas is to be in accordance with any special conditions for safe use detailed in the applicable Ex certificate issued by a notified body.

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

Drawing No. AP-426 251 00-ZG UI3, DWG- Main Board

Drawing No. AP-426_280_99-ZG_UI9, DWG- Terminal Board

Drawing No. AP-426_350_00-ZG_UI3, DWG- Terminal Board

Drawing No. AP-426_361_00-ZG_UI2, DWG- Main Board

Drawing No. AP-426_363_00-ZG_UI2, DWG- Main Board

Drawing No. AP-426_471_00-ZG_UI3, DWG- Power Board and CAP Module

Drawing No. AP-426_473_00-ZG_UI3, DWG- Power Board and CAP Module Drawing No. CP20_241-R2-72 Rev1_12, Data Sheet- CP20.241-R2-72_24V, 20A, SINGLE PHASE INPUT_

Rev1 12

Drawing No. CP20 241-R2-73 Rev1 9, Data Sheet- CP20.241-R2-73 24V, 20A, SINGLE PHASE INPUT Rev1 9 Drawing No. CP20 245-R2 Rev1 0, Data Sheet- CP20.245-R2 24V, 20A, SINGLE PHASE INPUT Rev1 0

Drawing No. IM-CP20 241-R2-72-2019-11-06, Installation Manual- CP20.241-R2-72 Drawing No. IM-CP20 241-R2-73-2019-11-06, Installation Manual- CP20.241-R2-73

Drawing No. IM-CP20 245-R2--2019-12-02, Installation Manual- CP20.245-R2 Drawing No. LP009 Accreditation Certificate, LP009 Accreditation Certificate

Drawing No. LP009 Annex _2018-04-19, LP009 Annex to the Accreditation Certificate

Drawing No. Marine Manufacturers Documents 2020-01-28, Marine Manufacturers Documents

Drawing No. PU-426_015_77-xxB, Installation Manual- CP20.241-R1-77

Drawing No. Report 17TH0214, PULS- Power Supply 60079 1

Drawing No. Report 19MR1-0048-VI1, Visual Inspection Report, Puls Gmbh, Issued on 2019-08-28

Reference WO0260421 dated 14-May-2025 PULS INVESTICAL S.R.O.

PRAZSKA 5639 CHOMUTOV Czechia 43001

Telephone: +420 474 356 111

Fax: +420 474 356 307 Email: info@pulspower.com Web: www.pulspower.com

Tier: 2 - PDA Issued

Drawing No. Report 19MR1-0048 DNV-GL, Report- DNV-GL-2019-03-13

Drawing No. Report_19MR1-0086-a, Project Description and Test Plan- Marine Approval (CP20 Power Supplies)-

2019-11-19

Drawing No. Report 19MR1-0086-b, Project Test Report, SIQ Ljubljana, 2019-12-17

Drawing No. SYS-Test-Description_2019-10-29, PULS SYS-Test Description

Drawing No. Software Quality Plan 2019-08-09, Software Quality Plan

Drawing No. xf-1x2c-48, Data Sheet-OMNIMATE Power - Serie BV/SV 7.62IT XF-1X2C-48

Drawing No. xf-1x3c-47, Data Sheet- OMNIMATE Power - Serie BL/SL 7.62IT_xf-1x3c-47

Drawing No. xm-1x2a-48, Data Sheet- OMNIMATE Power - Serie BV/SV 7.62IT XM-1X2A-48

Drawing No. xm-1x3a-47, Data Sheet- OMNIMATE Power - Serie BL/SL 7.62IT_xf-1x3c-47

Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 29/Apr/2030 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.

STANDARDS

ABS Rules:

2025 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