



TYPE APPROVAL CERTIFICATE

Certificate No:
TAE0000194
Revision No:
2

This is to certify:

That the Power supply unit

with type designation(s)
JOVYTEC

Issued to
JOVYATLAS GmbH
Jemgum, Niedersachsen, Germany

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Voltage output	230 V AC
Power	up to 2000 VA
Temperature class	A
Vibration class	A
Humidity class	B
Degree of protection	A

Issued at **Hamburg** on **2021-07-02**

for **DNV**

This Certificate is valid until **2026-07-01**.

DNV local station: **Hamburg**

Approval Engineer: **Harald Amberger**

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Arne Schaarmann
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

UPS for computer and navigation equipment.
 Including batteries sealed lead acid type:
 36 V (1000 VA / 1500 VA), 72 V (2000 VA) P NT Types
 36 V (1000 VA), 48 V (1500 VA), 72 V (2000 VA) PE NT Types
 Equipped with manual by-pass. Enclosure: IP 21

Type	Input Voltage	Input Current	Output
P NT 1000	1ph. 168-276 V AC 50/60 Hz, ± 10 %	3,6 A [230 V AC]	1000 VA, cosf 0,7
PE NT 1000	1ph. 184-260 V AC 50/60 Hz, ± 10 %	4,4 A [230 v AC]	1000 VA, cosf 0,9
P NT 1500	1ph. 168-276 V AC 50/60 Hz, ± 10 %	5,7 A [230 V AC]	1500 VA, cosf 0,7
PE NT 1500	1ph. 184-260 V AC 50/60 Hz, ± 10 %	7,0 A [230 V AC]	1500 VA, cosf 0,9
P NT 2000	1ph. 168-276 V AC 50/60 Hz, ± 10 %	7,7 A [230 V AC]	2000 VA, cosf 0,7
PE NT 2000	1ph. 184-260 V AC 50/60 Hz, ± 10 %	9,4 A [230 V AC]	2000 VA, cosf 0,9

Application/Limitation

The output current will be decreased if operating at 45 °C for longer period or with restricted ventilation.
 Derating with 2.5 % / °C > 40 °C.

Applicable for bridge installation in accordance with Class requirements. Use together with equipment that requires MED certificate /wheelmark is not reviewed and may require additional tests.

Mounting on shock-absorber at the bottom.

Battery: 4 x VRLA 7.5 Ah (36V), 6 x VRLA 7.5 Ah (72V) in an intergrated battery box. Backup times according to manufacturer's datasheet.

End user responsible for correct enclosure protection (IP) wrt. to location.

Type Approval documentation

Technical info: Operating Manuals for the UPS units JOVYTEC P doc. no. BAX 3313 rev /index 5 dated 2008-01-24. Datenblatt USV-Anlagen JOVYTEC P/PE NT 1000/1500/2000VA, 09/19 Quick Guide 100000011724_BA

Drawings: UPS DEVICE JOVYTEC P-NT, drawing numbers U71 420 00, U71 42 00 & U71 422 00 dated 2008-04-28.

Test reports: Paconsult test report nos. 1121-06 dated 2006-09-05, 1317-06 dated 2006-04-05 & 07-1679 dated 2007-10-18. Jovytec test reports "Acceptance tests for 1000-NT, 1500-NT & 2000-NT issued 2008 and 2008-05-04/06/07. MeßTechnic test reports nos. 05329.167.06 dated 2006-09-25, 05384.003.07 dated 2007-01-18, 05384.004.07 dated 2007-01-22, 05458.041.07 dated 2007-03-15, 05475.063.07 & 05475.065.07 dated 2007-05-07; 05744.090.08, 05744.091.07 & 05744.092.08 dated 2008-05-21
 CCS Inc. Nr. T130110D05-E dd. 2013-01-25, T130110D02-E dd. 2013-01-16

Tests carried out

Type tests in accordance with IEC /EN 62040-3, Low temperature, Dry heat & Vibration tests in according to CN No. 2.4 Class A, Humidity/ Damp heat and EMC tests in accordance with CN No. 2.4 Class B, Compass Safe Distance.

Marking of product

JOVYTEC P / PE – UPS model no. – UPS input – UPS output.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.



Job Id: **262.1-023076-3**
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Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE