DNV·GL

Certificate No:
TAE000019A

TYPE APPROVAL CERTIFICATE

This is to certify:

That the UPS

with type designation(s)
SMART UPS VL-SC420I/230VAC

Issued to
Veinland GmbH
Seddiner See, Germany

is found to comply with
DNV GL rules for classification – Ships

Application :

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

This Certificate is valid until **2021-07-15**.

Issued at **Hamburg** on **2016-07-16**

for **DNV GL**

DNV GL local station: **Magdeburg**

Approval Engineer: **Andrea Grün**

Duy Nam Le
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.

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Job Id: **262.1-021473-1**
Certificate No: **TAE000019A**

Product description

Uninterruptible Power Supply SMART UPS

VL-SC420I/230VAC

Output
- Output Power Capacity: 260 Watts / 420 VA
- Max Configurable Power: 260 Watts / 420 VA
- Nominal Output Voltage: 230V AC
- Output Voltage Distortion: Less than 5% at full load
- Output Frequency (sync to mains): 47 - 53 Hz for 50 Hz nominal, 57 - 63 Hz for 60 Hz nominal

Input
- Nominal Input Voltage: 230V (adjustable range 151 to 302 V)
- Input Frequency: 50/60 Hz +/- 3 Hz (auto sensing)

Storage Battery: Battery VL-SC420I/230VAC
Operating Mode: charging + load 260W

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Type Approval documentation

Test report :	GOM20907-2470-E-16 dated 27-07-2009
	GOM21102-4180-L dated 19-04-2011;
BSH Certificate	689 / 1 dated 25-05-2011
User and Installation Manual	SMART UPS VL-SC420I 230 V dated 11/04
Data Sheet dated 04-11-2011	

Tests carried out

Applicable tests according to Class Guideline DNVGL-CG-0339, November 2015.

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.

Assessment to be performed at least every 2.5 year.

END OF CERTIFICATE