TYPE APPROVAL CERTIFICATE

Certificate no.:
TAE000019A
Revision No:
6

This is to certify:

that the UPS

with type designation(s)
SMART UPS VL-SC420I/230VAC, VL-SC 620I/230VAC, VL-SUA 1000I and VL-SUA 1500I, VL-SMT1000I/IC and VL-SMT1500I/IC, VL-BR650MI

issued to
Veinland GmbH
Seddiner See, Brandenburg, Germany

is found to comply with

DNV 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.

Issued at **Høvik** on **2025-01-09**
This Certificate is valid until **2026-07-15**.
DNV local unit: **Magdeburg**

for **DNV**

Approval Engineer: **Andreas Andrecht**

Product description

Type: 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

Type: SMART UPS VL-SC620I/230VAC

- Output
  - Output Power Capacity: 390 Watts / 620 VA
  - Max Configurable Power: 390 Watts / 620 VA
  - Nominal Output Voltage: 230 VAC
- Input
  - Nominal Input Voltage: 230V (adjustable range 151 to 302 V)
  - Input Frequency: 50/60 Hz +/- 3 Hz (auto sensing)
- Storage Battery: Battery VL-SC620I/230VAC

Type: SMART UPS VL-SUA 1000I - 1000 VA

- Nominal Input Voltage 230 V AC 50/60 Hz
- Output Power Capacity : 670 W
- Typical backup Time at half load : 20.6 min
- Typical backup Time at full load : 6.1 min

Type: SMART UPS VL-SUA 1500I - 1500 VA

- Nominal Input Voltage 230 V AC 50/60 Hz
- Output Power Capacity : 980 W
- Typical backup Time at half load : 23.9 min
- Typical backup Time at full load : 6.7 min

Type: SMART UPS VL-SMT1000I/IC

- Nominal Input Voltage 230 V AC
- Input Frequency 50/60 Hz +/- 3 Hz (auto sensing)
- Output Power Capacity : 670 W
- Typical backup Time at half load : 20.6 min
- Typical backup Time at full load : 6.1 min

Type: SMART UPS VL-SMT1500I/IC

- Nominal Input Voltage 230 V AC
- Input Frequency 50/60 Hz +/- 3 Hz (auto sensing)
- Output Power Capacity : 1000 W
- Typical backup Time at half load : 23.1 min
- Typical backup Time at full load : 6.5 min

Type: SMART UPS VL-BR650MI

- Nominal Input Voltage 230 V AC
- Input Frequency 50/60 Hz +/- 3 Hz (auto sensing)
- Output Power Capacity : 370 W
- Typical backup Time at half load : 15.0 min
- Typical backup Time at full load : 4.0 min

Location classes

Temperature	A
Humidity	B
Vibration	A
EMC	B
Enclosure	Required protection according to the Rules shall be provided upon installation on board.

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case.

Type Approval documentation

Test reports:	GOM20907-2470-E-16	dated 27-07-2009
	GOM21102-4180-L	dated 19-04-2011
	BAM - V.3/522-1 and BAM - V.3/522-2	dated 28-09-2007
	D/13/4122/01	dated 31-07-2013
	D/13/4122/01	dated 05-03-2014
	D/13/4112/05	dated 12-05-2015
	D/16/4419/01	dated 21-07-2016
	11247.02/15	dated 05-05-2015
	12072.02	dated 17-08-2016
	D19/4718/01 a	dated 09-08-2019
	D19/4737/01	dated 16-11-2019
	19-15266.02	dated 04-02-2020
	19-15266.04	dated 27-01-2020
	204763b01	dated 2020-05-25
	204763b02	dated 2020-05-25
	Technical Statement to Radiated Emission Test	dated 27-03-2020
	Test Report #424.098.1 Rev.0	dated 2024-08-07
	Test report – No. 24-18887	dated 2024-10-14
BSH Certificate	689 / 1	dated 25-05-2011
	952	dated 01-08-2016
	1047	dated 24-02-2020
	1156	dated 2024-10-25
User and Installation Manual	SMART UPS VL-SC420I 230 V	dated 11/04
	SMART UPS VL-SC620I 230 V	dated 09/16
	SMART UPS VL-SUA 1000I, VL-SUA 1500I	dated 2007
	VL-SMT1000I 230V and VL-SMT 1500I 230V V1.1	dated 09-12-2014
	VL-SMT1000IC 230V and VL-SMT1500IC 230V V1.0	dated 07-02-2020
	VL-BR650MI 230V	dated 2024-10-11
Data Sheet	VL-SC420I	dated 04-11-2011
	VL-SC620I 230V Version 1.0	dated 06-09-2016
	VL-SUA 1000I	dated 2007
	VL-SUA 1500I	dated 2015
	VL-SMT 1500I V1.0	dated 03/2015
	VL-SMT1000ICdated 2020	
	VL-SMT1500ICdated 2020	
	VL-BR650MI	dated 08/2024

Tests carried out

Applicable tests according to Class Guideline DNV-CG-0339, August 2021.

Marking of product

The products to be marked with:

- Model name
- Manufacturer name
- Serial number
- Compass safe distance (at least, if intended for installation on the bridge)

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

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