

TYPE APPROVAL CERTIFICATE

This is to certify:

That the UPS

with type designation(s)
Uninterruptible Power Supply SURT XLIM

Issued to
Schneider Electric IT Corporation
West Kingston, RI, USA

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application :

Online UPS's for computer and navigation equipment.
Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Hamburg** on **2020-04-06**

This Certificate is valid until **2025-04-05**.

DNV GL local station: **New York**

Approval Engineer: **Andreas Andrecht**



for **DNV GL**

Digitally Signed By: Schaarmann, Arne
Location: DNV GL SE Hamburg, Germany
Signing Date: 2020-04-06

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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.



Job Id: **262.1-008748-4**
Certificate No: **TAE000000K**
Revision No: **2**

Product description

Online UPS's for computer and navigation equipment. Protection degree: IP20.

Part no.	Type	Input Voltage	Output	Output voltage	Output current
SURT1000 XLIM	APC SMART-UPS RT 1000VA 230V - MARINE	180 - 280 V AC, 45 - 65 Hz	1000VA	220/230/240 VAC	6A
SURTD2200 XLIM	APC SMART-UPS RT 2200VA 230V - MARINE	180 - 280 V AC, 45 - 65 Hz	2200VA	220/230/240 VAC	12A
SURTD3000 XLIM	APC SMART-UPS RT 3000VA 230V - MARINE	180 - 280 V AC, 45 - 65 Hz	3000VA	220/230/240 VAC	16A
SURT6000 XLIM	APC SMART-UPS RT 6000VA 230V - MARINE	180 - 280 V AC, 45 - 65 Hz	6000VA	220/230/240 VAC	32A

Additional parts

Part no.	Type	Description
SURT192RMXLBP	APC SMART-UPS RT 192V RM BATTERY PACK	Battery pack 192V
SURT48RMXLBP	APC SMART-UPS RT 48V RM BATTERY PACK	Battery pack 48V
SURT023M	SURT023M - APC 3000VA FILTER - MARINE	EMC filter
SURT024M	SURT024M - APC 6000VA FILTER - MARINE	EMC filter

Place of Manufacturer

APC Cavite 2
Lot 10, Block 16, Phase IV PEZA
Rosario, Cavite, Philippines 4106

EMC filter:

Schaffner EMC Co. Ltd.
Nothern Region Industrial Estate, Amphur Muang P.O. Box 14, 67 Moo 4 Tambon Ban Klang
TH-Lamphun 51000, Thailand

Application/Limitation

EMC filter must be used for complying with EMC requirement class B (Bridge zone).

The output current will derate if operating is above 40°C. 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.

End user responsible for correct IP protection according to location and use.

Type Approval documentation

Documentation:

SURT6000XLIM-SLD rev 1, dated 23. May 2011.
SURTD3000XLIM-SLD rev 1, dated 20-Sept.-2010.
SURT1000XLIM-SLD rev 1, dated 01-Oct.-2010.
SURT6000XLIM, SURTD3000XLIM and SURT1000XLIM datasheet
Dwg: SURT6000XLIM rev. 0, SURTD3000XLIM rev.1, SURTD2200XLIM rev.1, SURT 1000XLIM rev.1,
SURT024M rev.1, SURT023M rev.1 SURT48XLBP rev.1, SURT192XLBP rev1.

Test Reports:

DELTA Test report - Vibration Test for Marine Type Approval of SURT2000XLI and SURT6000XLI, dated 15 July 2010.
BV Test Report Curtis-Straus LLC – SURT192RMXLBP Battery Pack, Vibration, dated 28. July 2010.
BV Test Report Curtis-Straus LLC – SURT48RMXLBP Battery Pack, Vibration, dated 20. July 2010.

Job Id: **262.1-008748-4**
Certificate No: **TAE000000K**
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BV Test Report Curtis-Straus LLC – SURT023M Filter, Vibration, dated 28. July 2010.
BV Test Report Curtis-Straus LLC – SURTD3000XLIM with SURT192XLBP and AC filter SURT023M, EMC, dated 28. July 2010.
BV Test Report Curtis-Straus LLC – SURT1000XLIM with SURT48XLBP and AC filter SURT023M, EMC, dated 28. July 2010.
BV Test Report Curtis-Straus LLC – SURT6000XLIM with SURT192XLBP and AC filter SURT024M, EMC, dated 21. Mars 2011
BV Test Report Curtis-Straus LLC – AC filter SURT023M, Vibration, dated 11. April 2011
APC report – SMART UPS, dated 31. May 2011.

Tests carried out

Tested according to type approval program No.6-800 Appendix A 822.20 SEMICONDUCTOR CONVERTERS. Comply with the relevant clauses of the IEC 62040-3 standard. In addition "Safe compass distance test" and "acoustic noise test".

Marking of product

APC Part number –UPS input voltage and frequency – UPS max input current – UPS output in VA and Watts.

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.

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