

# TYPE APPROVAL CERTIFICATE

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**This is to certify:**

**that the Network and Communication Components**

with type designation(s)

**SandCat-3000 Series Industrial Unmanaged Switches and Media Converters**

issued to

**Westermo Network Technologies AB**  
**Stora Sundby, Sweden**

is found to comply with

**DNV rules for classification – Ships, offshore units, and high speed and light craft**

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**Application:**

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

**Location classes:**

<b>Temperature</b>	<b>D</b>
<b>Humidity</b>	<b>B</b>
<b>Vibration</b>	<b>A</b>
<b>EMC</b>	<b>B</b>
<b>Enclosure</b>	<b>A / IP21</b>

Issued at **Høvik** on **2025-09-26**

This Certificate is valid until **2030-09-25**.

DNV local unit: **Sweden CMC**

Approval Engineer: **Nikolai Arntzen**



for **DNV**

This document has been digitally signed and will  
therefore not have handwritten signature

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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 USD 300 000.

## Product description

Westermo SandCat 3000 series - Industrial Unmanaged Switches and Media Converters, comprising the following units:

Art. No.	Type Designation	Rated voltage	Description
3630-2010	SandCat-3505-T5G-LV	24-48 VDC	5 Copper RJ45
3630-2020	SandCat-3505-F1G-T4G-LV	24-48 VDC	1 SFP Fiber, 4 Copper RJ45
3630-3001	SandCat-MC-3502-F1G-T1G-LV	24-48 VDC	1 SFP Fiber, 1 Copper RJ45
3630-4001	SandCat-DD-3502-F1G-T1G-LV	24-48 VDC	1 SFP Fiber, 1 Copper RJ45

Dielectric strength – Ethernet to other isolated ports: 1.5 kVAC

Dielectric strength – Power to other isolated ports: 1.5 kVAC

Installation: DIN-Rail Mounting

Degree of protection: IP21

## Manufactured by:

**Westermo Network Technologies AB**

Wij 4,  
635 35 Stora Sundby,  
Sweden

## Approval conditions

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. Reference is made to DNV rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

## Application/Limitation

Compass safe distance for all units: Standard: 10 cm, Steering: 10 cm.

Shielded CAT6 Ethernet cable is required to fulfil class requirements for EMC.

## Type Approval documentation

User guide: SandCat-3000 Series, No. 6635-3200 Rev. A, dated 2024-11

Data sheet: SandCat 3000 series, No. 6635-2503 Rev. A dated 2025-03

Test reports: Delta - EMC, No. 625-20054-10 R0, dated 2025-04-25  
Delta - Vibration, No. 625-20054-30 R0, dated 2025-04-24  
Delta - Climate, No. 625-20054-31 R0, dated 2025-04-29

TA assessment report for Westermo Network Technologies AB, DNV Sweden CMC 2025-05-27.

## Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021.

15 g, 11 ms shock test according to IEC 60068-2-27:2008.

'Compass safe distance' was measured according to section 11.2 of IEC 60945:2002.

## Marking of product

Westermo

Art. No. and Type as listed under Product description

Unique serial number

Power supply voltage and current rating

### **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