



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **A-13770**

This is to certify that the
Peripheral Equipment

with type designation(s)
PowerConnect N3024

Issued to

Dell Inc.
ROUND ROCK, TX, United States

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

Application
Location classes:

Temperature	A
Humidity	A*
Vibration	A
EMC	B
Enclosure	A / IP20

* Special precautions required. See Application/Limitation on page 2.

This Certificate is valid until **2018-12-31**.

Issued at **Høvik** on **2014-07-01**

DNV local station: **Houston**

Approval Engineer: **Ståle Sneen**

for **Det Norske Veritas AS**

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Odd Magne Nesvåg
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.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

Product description

Dell PowerConnect N3024 19-inch 1U rack mounted Ethernet Switch, comprising the following units:

Ethernet switch:

N3024, L3, 24x 1GbE + 2x 10GbE SFP+ fixed ports, Stacking, IO to PSU airflow, 1x AC PSU included

Additional power supplies:

Power Supply, 200w, Hot Swap, with V-Lock, adds redundancy to non-POE N3000 series switches

EMI AC Filter:

OnFILTER model AFEUSKFG-D

Tested for nominal voltage: 110 Vac / 60 Hz and 230 Vac / 50 Hz

Place of manufacture

Delta Electronics (Dongguan) Co. Ltd
Guangdong, China

Application/Limitation

To comply with the maritime conducted emission requirements on AC Mains, the power ports shall be equipped with an EMI AC filter like OnFILTER model no. AFEUSKFG-D or equivalent.

Humidity class A does not fulfill the minimum requirements given by IACS Unified Requirements E10 and implies that this equipment may only be mounted in locations where special precautions are taken to avoid condensation.

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 Ships Pt.4 Ch.9 Control and Monitoring Systems.

Type Approval documentation

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.

For the bridge mounted components the 'Acoustic noise and signals' and the 'Compass safe distance' were measured according to sections 11.1 and 11.2 of IEC 60945, 4th edition (2002).

Standard Compass Safe Distance: 120 cm, Steering Compass Safe Distance: 70 cm.

Marking of product

Manufacturer: Dell
Brand name: N3024
Reg Model: E07W
Reg Type: E07W001
Serial No. (Service Tag): Unique
Power supply rating: 100-240V AC 50/60Hz

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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE