



Certificate no.:
TAA00003TY

TYPE APPROVAL CERTIFICATE

This is to certify:

that the **General Control System**

with type designation(s)

NACOS Platinum MOS/MCS/PMS/EMS/EPS/PTS

issued to

NACOS Lyngsø Marine A/S
Hørsholm, Denmark

is found to comply with

DNV rules for classification – Ships Pt.6 Ch.5 Sec.21 Cyber security

Application:

This type approval covers security capabilities in accordance with DNV security profile 1 and IACS UR E27 Rev.1 (Sep 2023), subject to conditions stated in this certificate.

Issued at **Høvik** on **2026-02-18**

This Certificate is valid until **2028-02-17**.

DNV local unit: **Denmark CMC**

for **DNV**

Approval Engineer: **Pål Børre Kristoffersen**

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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

NACOS Platinum is an Integrated Alarm, Monitoring and Control System (IAMCS), based on technology and concepts developed for the marine industry. The system utilises microprocessor technology within a uniform hardware concept. The main components of the Platinum system are:

- Platinum MFD runtime (SCADA software) executed on Marine class PC's.
- Two groups of process controllers (PC-based PAC and ARM-based DPU)
- IO module hardware
- Embedded platform software including
 - embedded runtime network communication logic
 - Control Code (application logic) running on the process controllers.
 - backend of the Platinum MFD runtime
- IM: a configuration tool allowing for efficient engineering and parametrization of ship system control logic and compilation of embedded application code

Application/Limitation

This type approval covers cyber security capabilities at security profile 1 for the systems listed in Product description.

The type approved products shall be installed in restricted areas. Access to the components shall be restricted and controlled.

If the type approved product is used in applications subject to cyber security requirements by DNV rules for classification, correct configuration shall be verified by DNV.

Major changes affecting the type approved security capabilities shall be informed to DNV. Such modifications may require witnessing of type testing and update of this type approval certificate to reflect new products or versions listed in Product description.

Type Approval documentation

I020 – Control system functional description:

ANC-D-0000-0266 Network overview and topology Network description - Veracity 2025-12-04

ANC-D-0000-0265 Platinum System Architecture and Description 2025-12-03

810.010.400-02 Security Design Principles-AUT, Nacos Platinum TechMan.pdf - veracity vers 2025-08-27

AMCS-CFAT-FullScope, in veracity 2026-01-21

Z252 – Test procedure at manufacturer:

Cyber_Test_cases, Rev 1

F141 - Guidelines for hardening and configuration of security capabilities

810.010.210 Cyber Security Configuration Guidelines, Veracity vers 2025-08-27

F071 - Inventory list:

AN-000099 System_components, veracity ver H, 2025-12-23.

F030 - System topology:

ANC-D-0000-0266 Network overview and topology Network description - Veracity 2025-12-04

F259 - Description of secure development lifecycle processes:

Secure Development Lifecycle. IACS E27 – Process compliance Ver 2 2025-09-29

I320 – Software change handling procedure:

ANC-P-0000-0332 Change Management Process, rev 5, 2024-04-22, in veracity 2024-05-03

ANC-P-0000-0335 Configuration Management Process, rev 9, 2025-08-20, in veracity 2026-01-04.

Tests carried out

Applicable tests according to DNV-RU-SHIP Pt.6 Ch.5 Sec.21 edition July 2024, security profile 1.

Relevant manuals and instructions of NACOS's management system have been verified for compliance with IACS UR E27 chapter 5.

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number

- power supply ratings.

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
- Review documented evidence of adherence to Secure Development Lifecycle processes.

A renewal assessment will be performed at renewal of the certificate.

Manufactured by:

NACOS Marine, Lyngsø, Denmark