



Certificate No. 03-002207/031915

## TYPE APPROVAL CERTIFICATE

This is to certify that this product complies with the Rules for the classification of ships, Part 1 - General requirements, Chapter 3 - Type approval of products.

TYPE AND DESCRIPTION OF PRODUCT:

### Cyber Security for Programmable Control and Automation Systems iE 250, iE 350, iE 650 and iE 7

MANUFACTURER:

**DEIF A/S**  
Frisenborgvej 33, DK-7800 Skive  
DENMARK

THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:

CRS RULES FOR THE CLASSIFICATION OF SHIPS  
IACS UR E27 Rev.1

FURTHER DETAILS OF THE PRODUCT AND CONDITIONS FOR CERTIFICATION ARE GIVEN OVERLEAF.

APPROVAL IS VALID UNTIL: **2030-03-29**

Place and date: Split, 2026-03-30



Marinko Popović, dipl.ing.

NOTE: This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Croatian Register of Shipping of any modification or changes to the product in order to obtain a valid certificate.

**DETAILED PRODUCT DESCRIPTION:**

The DEIF iE 250, iE 350 and iE 650 are a series of products.

The iE 250 and iE 350 are a versatile and modular-designed controllers for marine applications, offering an extensive range of control, protection and supervision features. Applications range from generator control and protection to integrated power management systems. The iE 250 and iE 350 may be configured as "Marine" controllers with Core sw package or Power Management sw package or as PLCs.

The iE 650 PLC is a PLC-based programmable automation controller (PAC) with EtherCAT based I/O modules.

The products offer a range of external I/O units or expansion racks with additional modules.

The iE 7 display is a local human-machine interface (HMI) used for monitoring, control and alarm handling of the system.

**APPLICATION / LIMITATIONS:**

CRS Rules for the classification of ships.

The scope of this certificate is limited to cyber resilience of product as per UR E27 Rev.1.

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

**TYPE APPROVAL DOCUMENTATION:**

**Documentation:**

- Handbook for Software development, Ref.: 4910000011AK, pages: 54
- CODESYS Security-Whitepaper, Revision: 9, pages: 22
- Software life-cycle overview, Ref.: SM, 291122, pages: 1
- iE x50 Asset Inventory, pages: 3
- iE x50 Cyber Security E27 Recovery Plan, Revision: A, pages: 4
- iE x50 Cyber Security E27 Security Requirements, Revision: B, pages: 10
- iE x50 Security Capabilities, pages: 6
- PICUS PC Utility Software User's manual, Ref.: 4189341362C, pages: 130
- HW – Guide to construction changes, pages: 3
- Secure Development Lifecycle, pages: 2
- DEP SW Test Strategy, Revision: NOV 2023, pages: 14
- iE 250 E27 test specification, pages: 16
- iE 350 E27 test specification, pages: 15
- iE 650 E27 test specification, pages: 15
- CODESYS E27 test specification, pages: 17

**Test Reports:**

- iE 250 E27 test specification, tests witnessed DNV, dated 2024-06-11
- iE 350 E27 test specification, tests witnessed DNV, dated 2024-06-11
- iE 650 E27 test specification, tests witnessed DNV, dated 2024-06-11
- CODESYS E27 test specification, tests witnessed DNV, dated 2024-09-12

**MARKING OF PRODUCT:**

The Manufacturer, type designation, main data and serial number.

**CONDITIONS FOR CERTIFICATION:**

Any modification to the software or firmware of the product, including functional modules or security-related features, that affects cyber security functionality, integrity, or compliance shall be evaluated and approved by CRS.