



Certificate No. 03-002206/031915

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:

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

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 Seal _____

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.

Software version 2.0.x.x, in accordance with the manufacturer's Software Quality Plan, is approved under this certificate.

APPLICATION / LIMITATIONS:

CRS Rules for the classification of ships.

The scope of this certificate is limited to software. Hardware and cyber security certification are covered by separate approvals.

Product certification is required. Inspection and testing shall be witnessed by a CRS surveyor. Documentation of the actual application shall be submitted in accordance with the CRS Rules for the Classification of Ships, Part 12, Chapter 2.10, Annex A – Summary of documentation submittal.

TYPE APPROVAL DOCUMENTATION:

Documentation:

- Handbook for Software development, Ref.: 4910000011AL
- Software life-cycle overview, Ref.: SM, 291122
- PICUS PC Utility Software User's manual, Ref.: 4189341362C
- Secure Development Lifecycle V1.0.1
- iE 250 Marine data sheet, Ref.: 4921240655G
- iE 250 PLC data sheet, Ref.: 4921240658F
- iE 350 Marine data sheet, Ref.: 4921240657F
- iE 350 PLC data sheet, Ref.: 4921240659E
- iE 650 PLC data sheet, Ref.: 4921240662B

Software Quality Plan:

- ELEMENT DEP APP LF V2.0.16.2
- ELEMENT DEP APP MS V2.0.16.2
- PRODUCT CODESYS Interface Libraries LC V2.0.9.0
- iE7 v1.0.0.1
- PRODUCT iE350 MarinePM V2.0.4.1

Test Reports:

- FAT iE250 Marine witnessed DNV, dated 2024-05-27
- FAT iE250 Marine Power Management witnessed DNV, dated 2024-05-28
- FAT iE350 Marine witnessed DNV, dated 2024-05-27
- FAT iE350 Marine Power Management witnessed DNV, dated 2024-05-28

MARKING OF PRODUCT:

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

CONDITIONS FOR CERTIFICATION:

Any modification of the software, including functional modules or software versions, affecting product performance, functionality or compliance shall be validated and approved by CRS prior to release.