



Certificate no.:
TAA00003N5

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Engine Safety System

with type designation(s)

Diesel Engine Safety Systems for 4 strokes Everllence engine types 16/24, 21/31, 27/38 and 32/40CD

issued to

Everllence SE

København SV, Denmark

is found to comply with

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

Application:

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

Issued at **Høvik** on **2025-10-15**

This Certificate is valid until **2027-10-14**.

for **DNV**

DNV local unit: **Denmark CMC**

Approval Engineer: **Sergey Gilmiyarov**

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

Type approval covers Diesel Engine Safety Systems for 4 strokes Everllence engine types 16/24, 21/31, 27/38 and 32/40CD.

This system is an independent system for monitoring and controlling the Geset's Shutdown functions. The safety system is based on a program logic controller (PLC) which automatically controls the automatically stop (shutdown) in case of:

1. Overspeed
2. Low lube oil pressure
3. High HT water temp.
4. Emergency stop
5. High bearing temp. (option)
6. Oil mist stop (option)
7. Differential protection / earth connection (option)
8. H.T. water pressure

System is based on Siemens SIMATIC S7-1200, Type Approval Certificate TAA000000K, rev. 5.

PLC software revision is 1.2.x.

Current revision is 1.2.1.

Minor changes in software and consequent changes of software version numbers are allowed and covered by this Type Approval when such changes are not changing functionality of safety system as it is described in type approval documentation. Software number last digit changes at such minor software changes implementation.

Application/Limitation

This Type Approval covers hardware and firmware listed under Product description.

System is suitable to be used as engine safety system for engines driving emergency or auxiliary generators.

This type approval covers retrofit of existing safety systems with PLC SIMATIC S7-1200 performed by technical personal of Everllence, according to drawing nr. 2240242-4 rev. 00 ENGINE AUTOMATIC dated 2025-07-07.

Correct configuration and set up for each delivery to be tested during commissioning after installation, using test procedure SAT 4S PLC Safety SAT Test doc. nr. 20250822.

Clause for application software control

All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to DNV for evaluation and approval.

Major changes in the software are to be approved before being installed in the computer.

Type Approval documentation

Tests carried out

Functional testing according to SAT Test Protocol 25.08.2025.

Marking of product

Manufacturer, type, serial number, place of manufacturing

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

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