



TYPE APPROVAL CERTIFICATE
No. **ELE218418XG**

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	Control, safety and monitoring system for Diesel engines
<i>Type</i>	Viking35
<i>Applicant</i>	Regulateurs Europa Limited Port Lane, Colchester, Essex, CO1 2NX UNITED KINGDOM
<i>Manufacturer</i>	Regulateurs Europa Limited
<i>Place of manufacture</i>	Port Lane, Colchester, Essex, CO1 2NX UNITED KINGDOM
<i>Reference standards</i>	Rules for the classification of ships.- Part C - Machinery, systems and fire protection. - Ch.3, Sect. 6, Table 1.

Issued in **HAMBURG** on **September 7, 2018**. This Certificate is valid until **September 6, 2023**

RINA Services S.p.A.

This certificate consists of this page and 1 enclosure



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Viking35

The REGULATEURS EUROPA Viking35 is an electronic governor system with a wide range of I/Os for the engine management functions of diesel and dual fuel engines as well as turbines in the propulsion and power generating applications.

Specification:

- power supply: 24VDC nominal (18 to 36 VDC);
- IP rating: enclosure dependent.

Documents:

- Viking35 Data Sheet

Test Reports:

- KRIWAN Testzentrum, Test Report No.: 008411_001_H
- KRIWAN Testzentrum, Test Report No.: 009317_01_H
- KRIWAN Testzentrum, Test Report No.: 140103-01-01-A-01
- MS TESTING, Test Report No.: TL15032-ENV

General remarks:

When the system is used for a single engine propulsion or for an emergency generator engine, the back up engine control module is to be provided in order to maintain the engine operation even in case a "single failure" occurs. The system arrangement is to follow Pt C, Ch 1, Sec 2, [4.7.7] of RINA Rules.

A failure occurring in the Viking35 shall cause an alarm in the manned control stations.

Safety functions are to be independent from the engine control and monitoring functions.

The lines / switches (I/Os) regarding the engine emergency stop is to be monitored in order to produce an alarm in case of cable interruption (wire break monitoring). In this case the engine has not to stop.

System arrangement covering block diagram with details of power supplies arrangement, I/Os and communication network in association with FAT procedure are to be submitted for approval for each particular application.

Certificate Retention:

The changes in software and hardware are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to RINA for evaluation and approval. Major changes in the software / firmware / hardware are to be approved before being installed on the programmed systems.

HAMBURG September 7, 2018



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