Certificate No: LR21467678TA
Issue Date: 23/08/2021
Expiry Date: 22/08/2026

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	**Kum Oh Mach Elec Co Ltd**
Address	1554, Bansong-ro, Gijang-eup, Gijang-gun, Busan, 46059, Republic of Korea
Type	Alarm And Monitoring Systems
Description	G/E Automatic Control System for Hyundai Heavy Industries (HHI) Himsen Engine: - Terminal box (Safety Control & Cable Supervision Unit SCCS-4-8, Analog/Digital Unit ADU-36-TCP, Speed Measuring Unit SMU-08-SC, Main Control Unit MCU-56-DIO, Relay Output Unit, Terminal Board); Monitoring Box (Operation Unit OPU-10, Temp. & Press. Monitor MTP-12CA, Exh. Gas Temp. Monitor ETM-12CA)
Trade Name	GECS
Application	Marine, offshore and industrial applications for use in environmental categories ENV4 in the “General Power Distribution Zones” as defined in LR Type Approval System Test Specification No. 1-2020 and it’s Notice no.1 where the Test Specification is satisfactory for the intended operation.
Specified Standard	Manufacturer’s Technical Specification B94-044775-5
Ratings	Power Supply: 2 x DC24V

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Seong-Rae Noh

Specialist to Lloyd's Register Asia
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

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Additional Tests Dry Heat Test: +55°C, 16 Hours,
Enclosure Test (IEC 60529): IP44

Other Conditions Type approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.
If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.
In case of applications other than marine, the application of the type approval certificate will be limited to the relevant scope of the specified standard and acceptance thereof by the local authorities.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register Asia of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: 16/40053(E1)

The Design Appraisal Document BTS/ETS/E212550 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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