



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	DEIF A/S
Address	Frisenborgvej 33, Skive, 7800, Denmark
Type	Power Distribution Systems & Power Supplies
Description	Generator and mains control, monitoring and protection units Uni-Line Comprising: Voltage relays: RMV-112D, -122D, -132D, -142D Overcurrent and short circuit relays: RMC-111D, -121D, -122D, -132D Differential current relay: RMC-131D Overload/reverse power relays: RMP-111D, -112D, -121D Excitation relays: RMQ-111D, -121D Frequency relay: RMF-112D Synchronisers: FAS-113DG, -115DG Paralleling relay: HAS-111DG Load sharing units: LSU-112DG, -113DG, -114DG, -122DG Electronic potentiometer: EPN-110DN Phase sequence relay RMT-111Q96
Trade Name	Uni-Line
Application	Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2 and ENV3 as defined in Lloyd's Register's Type Approval

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System, Test Specification Number 1 – 2002.

Specified Standard	Manufacturer's specification IACS unified requirements E10 (Rev.8 Feb 2021)		
Ratings	Power supply:	24 VDC to 220 VDC, -25/+30%	
		57,5 VAC to 690 VAC, ±20%	
	Measuring voltage:	57,7 VAC to 690 VAC, ±20%	
	Power supply:	380-400 V ±20% for RMT-111Q96 only	
Other Conditions	HAS-111DG is approved with dead bus option B1 and B2		

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 EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: 98/20022 (E6)

The Design Appraisal Document HPC1762123-22/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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LLOYD'S REGISTER TYPE APPROVAL – DESIGN APPRAISAL DOCUMENT
ISSUED BY: HAMBURG TECHNICAL SUPPORT OFFICE
ISSUED TO: DEIF A/S, DK-7800 SKIVE, DENMARK
FOR: GENERATOR AND MAINS CONTROL, MONITORING AND PROTECTION UNITS
TYPE UNI-LINE

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval System Procedure TA14 Version 04 (September 2020) and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Unnumbered	Type Approval Application Checklist	20.07.2022
329786	Request for Marine Services – Type Approval	22.08.2022
HTS/ETS 36057-17	Design Appraisal Document for previous certificate no. 98/20022 (E6)	06.11.2017
PRJ11100373511	Production Quality Assessment Form	27.04.2022

TEST REPORTS

4910217502N	Deif Type test certificate and test report	30.10.2020
4910217502N	Deif Type test certificate and test report	05.05.2020
4910216501M	Deif Type test certificate and test report	30.10.2020
4910216501M	Deif Type test certificate and test report	05.05.2020



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Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

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Certificate No: LR22450906TA
Issue Date: 17.11.2022
Expiry Date: 04.11.2027
Reference: HPC1762123-22/TW

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations. Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.