



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	Protection and power management unit Software version PPM-3: 3.0x.x Software version GPU-3: 3.1x.x Software version PPU-3: 3.1x.x Software version MDR-2: 2.0x.x
Trade Name	PPM-3, PPU-3, GPU-3 and MDR-2
Application	Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2 and ENV3 (power distribution zone) as defined in LR Type Approval System, Test Specification Number 1 – 2002.
Specified Standard	Manufacturer's specification IACS unified requirements E10 (Rev.9 Aug 2023)
Ratings	Power supply (VDC): 12 and 24 Input voltage (VAC): 100-690 Input current (A): 1 or 5

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

Thorsten Wolff

Electrical & Control - Senior Specialist to
Lloyd's Register EMEA
A member of the Lloyd's Register group

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.



Type Approval Certificate

Input frequency (Hz): 30-70

Additional Tests

Low temperature (-25C°/16 hours)
Enclosure IP5X (display unit front)

Other Conditions

The complete installation is subject to a separate plan appraisal according to applicable Rules and Regulations when installed on LR classed vessels. GPU-3 and PPU-3 may be used as safety system for diesel engine provided the LR requirements for programmable electronic systems used in safety critical systems are fulfilled. This certificate does not contain LR Software Conformity Assessment.

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: LR2190120TA

The Design Appraisal Document TSO-24-023930/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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.