



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	Protective Devices
Description	<p>Multi-function Relay for protection, control measurements and monitoring of applications where generators, transformers, motors and/or feeders.</p> <p>MVR-200 series consisting of: F201, F205, F210, F215, F255 (feeder applications) M210, G215, M215, M255, G257, M257 (generator/motor applications) T215, T216, T256, T257 (transformer applications) V211 (busbar protection)</p> <p>Software Version: V2.1.x.x (F20x, F21x, G21x, M21x, T21x, V21x) Software Version: V2.5.x.x (F25x, G25x, M25x, T25x)</p>
Trade Name	MVR-200 series
Application	Marine, Offshore and Industrial applications for use in environmental categories ENV1 and ENV2 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – 2024.
Specified Standard	<p>Manufacturer's Specification. IEC60255-21-1; IEC60255-21-2; IEC 60255-26; IEC 60255-27 Refer to data sheet "4921240605C", dated 2019</p>

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Ratings	Degrees of pollution 2 Insulation Class 1 Overvoltage Category III 24/48VDC (+30/-25%) 100...240VDC (+/-10%) 100...240VAC, 50/60Hz (+/-10%)
Additional Tests	Ingress Protection rating IP54 (front); IP20 (rear) Shock Test 10g / 11ms Dry Heat Test +70°C / 16hrs Low Temperature Test -25°C / 16hrs
Other Conditions	Final functional arrangements are to comply with appropriate Lloyd's Register Rules and will be subject of the Plan Approval process. Devices of the MVR-200 series can only be operated in power distribution zones. A current de-rating shall be done for the digital input and output cards for a thermal continuous rating $\geq 50^{\circ}\text{C}$ from max. 5A to max. 4A (refer to data sheet).

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.

The Design Appraisal Document TSO/25-041211/ML and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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Appendix

TYPE

MVR-200 series consisting of:

F201, F205, F210, F215, F255 (feeder applications)
M210, G215, M215, M255, G257, M257 (generator/motor applications)
T215, T216, T256, T257 (transformer applications)
V211 (busbar protection)

Software Version: **V2.1.x.x** (F20x, F21x, G21x, M21x, T21x, V21x)

Software Version: **V2.5.x.x** (F25x, G25x, M25x, T25x)

Protection	ANSI-Code
Three-phase over-current protection stages INST, DT or IDMT	50/51
(Sensitive) Earth-fault protection stages INST, DT or IDMT	50N/51N
Harmonic over-current protection/inrush blocking stages INST, DT or IDMT	50H/51H/68H
Current unbalance/broken conductor protection stages INST, DT or IDMT	46/46R/46L
Under-current monitor	37
Restricted earth-fault protection (low-imp)	87N
Transformer, motor or generator differential protection, 2-winding	87T/G/M
Machine, transformer or line thermal overload protection	49M/T/L
Directional three-phase over-current protection stages DT or IDMT	67
Directional (sensitive) residual over-current protection stages DT or IDMT	67N
Over-voltage protection stages INST, DT or IDMT	59
Residual voltage protection stages INST, DT or IDMT	59N
Positive sequence under-/over-voltage protection stages INST, DT or IDMT	59P/27P/47
Under-voltage protection stages INST, DT or IDMT	27
Synchro check/ Synchroniser	25
Reverse-/under-/over-power protection stages INST, DT or IDMT	32/32R
Motor start-up supervision element	48/14
Frequency protection stages	81O/U



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Lloyd's Register Type Approval – Design Appraisal Document

Issue by: Global Technical Support Office
Issued to: DEIF A/S, Skive, Denmark
For: Medium Voltage Relay
Type: MVR-Series x20x / x21x / x25x

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval Schemes Procedure (01/01/2025) and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

V.2 January 2024	Type Approval Application Checklist – Renewal of Certificate LR2002017TA	10.07.2025
GSM03-11-14	Request for Marine Services – Type Approval	14.07.2025
10676112	ISO9001:2015 Certificate, issued by LRQA	01.01.2025
10456380	ISO14001:2015 Certificate, issued by LRQA	06.07.2022
PRJ11100460662	LR PQA – Production Quality Assurance Assessment Form	12.02.2025
HTS/ETS 39475-20	LR Design Appraisal Document of expired Certificate LR2002017TA	26.03.2020


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LR031.2022

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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.

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.

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