

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electrical Measuring and Protection Relay

with type designation(s)
Electronic Circuit Breaker EPSITRON®

Issued to

WAGO Kontakttechnik GmbH & Co. KG
Minden, Nordrhein-Westfalen, Germany

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes:

Temperature D

Humidity B

Vibration A

EMC A

Enclosure Required protection according to the Rules shall be provided upon installation on board.

Issued at **Hamburg** on **2019-02-20**

This Certificate is valid until **2023-04-03**.

DNV GL local station: **Essen**

for **DNV GL**

Approval Engineer: **Heinz Scheffler**

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Joannis Papanuskas
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

Electronic Circuit Breaker	
Item number	Designation
0787-1662	ELEKTRON. ABSICHERUNG DC 24V 2x 10A
0787-1662/0000-0054	EL. ABSICH. 2x 10A DC 24V POTENTIALFR. MELDEKONTAKT
0787-1662/0000-0250	EL. ABSICH. DC 48V 2x 10A POTENTIALFR. MELDEKONT.
0787-1662/0006-1000	EL. ABSICH. DC 24V 2x 6A STROMBEGR.
0787-1662/0106-0000	ELEKTRON. ABSICHERUNG DC 24V 2x 6A
0787-1664	ELEKTRON. ABSICHERUNG DC 24V 4X 10A
0787-1664/0000-0004	ELEKTRON. ABSICHERUNG DC 24V 4X 10A
0787-1664/0000-0005	ELEKTRON. ABSICHERUNG DC 24V 4X 10A
0787-1664/0000-0011	ELEKTRON. ABSICHERUNG DC 24V 4X 10A NPN-SIGNALISIERUNG
0787-1664/0000-0054	EL. ABSICH. 4x 10A DC 24V POTENTIALFR. MELDEKONTAKT
0787-1664/0000-0080	ELEKTRON. ABSICHERUNG DC 24V 4X 10A mit IO-Link
0787-1664/0000-0100	ELEKTRON. ABSICHERUNG DC 12V 4x 10A
0787-1664/0000-0200	ELEKTRON. ABSICHERUNG DC 48V 4X10A
0787-1664/0000-0250	EL. ABSICH. DC 48V 4x 10A POTENTIALFR. MELDEKONT.
0787-1664/0006-1000	EL. ABSICH. DC 24V 4x 6A STROMBEGR.
0787-1664/0006-1054	EL. ABSICH. DC 24V 4x 6A STROMBEGR.
0787-1664/0106-0000	ELEKTRON. ABSICHERUNG DC 24V 4X 6A
0787-1664/0106-0006	ELEKTRON. ABSICHERUNG DC 24V 4x 6A
0787-1664/0106-0011	ELEKTRON. ABSICHERUNG DC 24V 4X 6A NPN-SIGNALISIERUNG
0787-1664/0212-1000	EL. ABSICH. DC 24V 4x 12A STROMBEGR.
0787-1668	ELEKTRON. ABSICHERUNG DC 24V 8X 10A
0787-1668/0000-0004	ELEKTR. ABSICHERUNG DC 24V 8X 10A
0787-1668/0000-0005	ELEKTRON. ABSICHERUNG DC 24V 8X 10A
0787-1668/0000-0054	EL. ABSICH. 8x 10A DC 24V POTENTIALFR. MELDEKONTAKT
0787-1668/0000-0080	ELEKTRON. ABSICHERUNG DC 24V 8X 10A mit IO-Link
0787-1668/0000-0200	ELEKTRON. ABSICHERUNG DC 48V 8X10A
0787-1668/0000-0250	EL. ABSICH. DC 48V 8x 10A POTENTIALFR. MELDEKONT.
0787-1668/0006-1000	EL. ABSICH. DC 24V 8x 6A STROMBEGR.
0787-1668/0006-1054	EL. ABSICH. DC 24V 8x 6A STROMBEGR.
0787-1668/0106-0000	ELEKTRON. ABSICHERUNG DC 24V 8x 6A
0787-1668/0106-0054	EL. ABSICH. 8x 6A mit potentialfreiem Meldekontakt & Sonderkonf.

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case.
Reference is made to DNV GL Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Type Approval documentation

TAA0000281 Document and Test Report List, Rev.0 (21.02.2019)

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.

Marking of product

The products to be marked with:

- Model name
- Manufacturer name
- Serial number

Periodical assessment

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE