

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Universal Motor Controller, expansion modules and accessories**

with type designation(s)

UMC100.3-UC/DC, UMC100-PAN, AI111.0, PDP32.0, MRP31.0, DNP31.0, MTQ22-FBP.0, PNQ22-FBP.0, PDR31.0, SMK3.0, DX111/122-FBP.0, VI150/155-FBP.0, CT4L185R/4, CT4L310R/4, CT5L500R/4, CT5L850R/4

Issued to

**ABB Stotz-Kontakt GmbH
HEIDELBERG, 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	B
Humidity	B
Vibration	A
EMC	A
Enclosure	A

Issued at **Hamburg** on **2017-04-25**This Certificate is valid until **2022-04-24**.DNV GL local station: **Augsburg**for **DNV GL**Approval Engineer: **Dariusz Lesniewski**

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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

UMC100.3 UC/DC

UMC100.3 UC/DC (ATEX and ATEX + coated type)

Universal Motor Controller for control and protection of 3-phase AC induction motors

Main features:

Standard application as: direct starter, reversing starter, star-delta starter, actuator

Earth fault detection

Power and voltage based protection functions

Supervision of the network quality (Total Harmonic Distortion)

Power supply: 24V DC (DC type)

110...240V AC/DC (UC type)

Current range: 0.24 up to 63 A (up to 850 A, when using additional current transformers)

Thermistor motor protection (PTC)

6 x digital inputs

3 x relay outputs, 1x 24 V output

Communication interface: fieldbus communication options by connecting of various communication interfaces

Connection for the Control Panel

UMC100-PAN: Control panel for configuration and parameter setting

Graphical display with backlight

Status LEDs

Full access to all UMC100.3 parameters

USB port for PC connection

VI150/155-FBP.0: Voltage extension module

Extension module with additional voltage and power functions

VI150-FBP.0 for grounded networks

VI155-FBP.0 for ungrounded networks (IT) or networks with high resistance to ground

Voltage inputs from 110VAC – 690AC (L1, L2, L3)

Power supply: 24V DC

1 x relay output

2 x status LED's

DX111/122-FBP.0: I/O extension modules

8 x digital inputs

4 x relay outputs

1 x analog output (V/mA)

DX111-FBP.0: digital inputs for 24V DC

DX122-FBP.0: digital inputs for 119V AC – 230V AC

AI111.0: Analog temperature module

3 x analog inputs (0-10V, 0/4-20mA, Pt100, Pt1000)

Configurable for temperature sensors and standard analog signals (V/mA)

PDP32.0 *(PDP32): PROFIBUS DP communication interface

MRP31.0 *(MRP31): MODBUS-RTU communication interface

DNP31.0: DeviceNet communication interface

PNQ22-FBP.0: Profinet IO interface for connection of up to 4 FBP devices

MTQ22-FBP.0: Modbus TCP interface for connection of up to 4 FBP devices

PDR31.0 *(PDR31): PROFIBUS DP termination unit

SMK3.0: Single mounting kit

CT4L185R/4 *(CT4L185R/4-FBP.0): Current transformer (external)
Current range up to 185 A

CT4L310R/4 *(CT4L310R/4-FBP.0): Current transformer (external)
Current range up to 310 A

CT5L500R/4 *(CT5L500R/4-FBP.0): Current transformer (external)
Current range up to 500 A

CT5L850R/4 *(CT5L850R/4-FBP.0): Current transformer (external)
Current range up to 850 A

*alternate type designation

Type Approval documentation

Tests carried out

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

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings

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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE