

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, EIU32.0

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 **2018-07-10**for **DNV GL**This Certificate is valid until **2022-07-02**.DNV GL local station: **Augsburg**Approval Engineer: **Dariusz Lesniewski**

**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.



Job Id: **262.1-025683-3**
Certificate No: **TAA000015X**
Revision No: **2**

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

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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

EIU32.0: EtherNet/IP™ interface

Mounting direct on a UMC100.3 or remotely on a SMK3.0 adapter

Power supply: 24V DC

2x RJ45 Ethernet ports with two LEDs yellow/green

1x LED module status, bicolor green/red

1x LED network status, bicolor green/red

1x Functional earth connector

1x Reset button

Type Approval documentation

Test Report: paconsult GmbH No. 12-4421 Rev. 1, dated 25.07.2012

Test Report: paconsult GmbH No. 16-8399 Rev. 1, dated 21.04.2017

Test Report: EMV Rhein-Neckar GmbH No. 3893-396a, dated 25.10.2012

Test Report: EMV Rhein-Neckar GmbH No. 3893-3112a, dated 25.10.2012

Test Report: EMV Rhein-Neckar GmbH No. 3893-3107, dated 15.02.2012

Test Report: EMV Rhein-Neckar GmbH No. 3808-309a, dated 18.10.2014

Test Report: EMV Rhein-Neckar GmbH No. 3808-312, dated 22.08.2015

Test Report: EMV Rhein-Neckar GmbH No. 3808-313, dated 18.09.2015

Test Report: UL International Demko A/S No. 4786353668 of 24.10.2014 (IEC 60947-4-1:2009+A1)

Test Report: UL International Demko A/S No. 4786353668-2 of 27.02.2015 (IEC 60947-8:2011+A1+A2)

Test Report: paconsult GmbH No. 18-10023 Rev.1, dated 12.06.2018

Test Report: EMV Rhein-Neckar GmbH No. 3808-318, dated 08.07.2017

ATEX Certificate: PTB 10 ATEX 3016

Technical descriptions

Software Development Documentation; Firmware documents

Reference Document: ABB Ship Approval, Project UMC100.3, dated 24.11.2016

Manual EIU32.0 Ethernet/IP™ interface (05.2018)

Drawings No.: 1SAJ262011F0002(A), 1SAJ262021F0002(B), 1SAJ266601P0001(B), 1SAJ266602P0001(B)

Type approval initial assessment report issued at Augsburg on 2017-04-13

Type approval initial assessment report issued at Augsburg on 2018-05-20

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

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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