



CERTIFICATE NUMBER	23-2361804-PDA
EFFECTIVE DATE	23-Feb-2023
EXPIRY DATE	22-Feb-2028
ABS TECHNICAL OFFICE	Hamburg Engineering Department

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

ABB STOTZ KONTAKT GMBH

located at

EPPELHEIMER STR. 82, , HEIDELBERG, Germany, D-69123

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Electronic Motor Protection Relay

Model: UMC100.3-DC/UC

Endorsements:

Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 22/Feb/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping


Efstratios Maliatsos, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

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Tier: 2 - PDA Issued

Product: Electronic Motor Protection Relay

Model: UMC100.3-DC/UC

Endorsements:

Intended Service:

Motor Controller

Description:

Universal Motor Controller with integrated protection functions and additional diagnostic and fieldbus communication for 3-phase AC induction motors.

Application: Direct Starter, Reversing Starter, Star- Delta Starter, Pole-Changing Starter, Actuator, Softstarter.

Protection Functions: Overload, Phase failure, Earth fault detection, Undervoltage.

Additional auxiliary modules:

Communication modules: PDP32.0 ; MRP31.0 ; DNP31.0 ; MTQ22.0 ; PNQ22.0 ;

I/O modules: DX111-FBP.0 ; DX122-FBP.0; DX111.0 ; DX122.0 ;

Analog module: AI111.0 (order code: 1SAJ613000R0101 / 1SAJ613000R0102) ;

Current transformers: CT4Lxx ; CT5Lxx ;

3ph. voltage module: VI150-FBP.0; VI155-FBP.0; VI150.0; VI155.0;

Single Mounting KIT: SMK3.0 ;

Profibus termination unit: PDR31.0;

LCD Control Panel : UMC100PAN.

Rating:

Power Supply controller: 24V DC (DC type), 110...240V AC/DC (UC type);

Power Supply modules : 24V DC;

Current range: 0.24 up to 63 A;

Degree of Protection: IP20 (IP52/IP54 for the LCD Control Panel);

Operating Temperature: 5°C to 70°C.

Service Restriction:

1. Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

2. The product is approved for installation in the general power distribution zone only.

Comments:

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

2. Each particular application and the individual set points are to be specifically approved in conjunction with the relevant system in which the units are being used.

Notes/Drawing/Documentation:

Operating Manuals

Drawing No. 2CDC135032D0204, Datasheet UMC100.3- range, Revision: E (Reval. 2023)

Drawing No. 2CDC135032D0204, Datasheet / Technical data UMC100.3- Family, Revision: D

Drawing No. 2CDC135035M6801, Instruction Manual UMC100.3xC, Revision: B

Drawing No. 2CDC135037M6801, Instruction Manual AI111, Revision: B

Drawing No. 2CDC135057M6801, Instruction Manual EIU32.0, Revision: B

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Drawing No. 2CDC192017M6801, Instruction Manual PDP32.0, Revision: A

Drawing No. 2CDC194004M6802, Instruction Manual PNQ22 / MTQ22, Revision: A

Drawing No. 2CDC194006M6801, Instruction Manual MRP31.0, Revision: A

Drawing No. 2CDC135012M6801, Instruction Manual DX111 / DX122, Revision: B

Drawing No. 2CDC135016M6801, Instruction Manual VI150 / VI155, Revision: B

Firmware

Drawing No. 1SAJ260025B0003, Firmware MTQ22 Modbus TCP Interface, Revision: C

Drawing No. 1SAJ261025B0001, Firmware PNQ22 Profinet Interface, Revision: F

Drawing No. 1SAJ530025B0103, Firmware UMC100.3xC, Revision: D

Drawing No. 1SAJ590000S0001, Firmware UMC100-PAN / Operator Panel, Revision: A

Drawing No. 1SAJ610015S0001, Firmware DX1xx Digital Extension Module, Revision: A

Drawing No. 1SAJ613015B0001, Firmware AI111.0 Analog Extension Module, Revision: D

Drawing No. 1SAJ650015B0002, Firmware VI15x Voltage Modules, Revision: C

Drawing No. 1SAJ251015B0001, Firmware MRP31.0 Modbus Interface Module, Revision: D

Drawing No. 1SAJ610015S0001, Firmware drawing DX1xx.0, Revision: A

Drawing No. 1SAJ613015B0001, Firmware drawing AI111.0, Revision: D

Drawing No. 1SAJ650015B0002, Firmware drawing VI15x.0, Revision: C

Drawings

Drawing No. 1saj530000f0100_drw, Drawing

Drawing No. 1saj530000f1100_drw, Drawing

Drawing No. pdf_1saj242000f0001_drw, Drawing

Drawing No. pdf_1saj251000f0001_drw, Drawing

Drawing No. pdf_1saj262000f0100_drw, Drawing

Drawing No. pdf_general_drawing_umc100-pan_drw, Drawing

Drawing No. 1SAJ611000F0102, General drawing DX111.0, Revision: B

Drawing No. 1SAJ613000F0102, General drawing AI111.0, Revision: B

Drawing No. 1SAJ622000F0102, General drawing DX122.0, Revision:

Drawing No. 1SAJ650000F0101, General drawing VI150.0, Revision: B

Drawing No. 1SAJ655000F0101, General drawing VI155.0, Revision: B

Drawing No. pdf_1svr600001p0011_drw, Housing Left, Revision: B

Drawing No. 1svr600220p0020_drw, Terminal Housing, Revision: F

Drawing No. 1svr600130p8020_drw, Frontplate, Revision: D

Electronic Schematics

Drawing No. 1SAJ530130F0002-01-A0, Schecmatic

Drawing No. 1SAJ530020F0002-01-A0, Schecmatic

Drawing No. 1SAJ262021F0002-01-B, Schecmatic

Drawing No. 1SAJ262011F0002-01-A EIU32-0 Power-PCB_schematic, Schecmatic

Drawing No. 1SAJ260020F0003-01-A0, Schecmatic

Drawing No. 1SAJ260010F0003-01-A1, Schecmatic

Drawing No. 1SAJ251010F0002-01-A0, Schecmatic

Drawing No. 1SAJ242010F0002-01-A0, Schecmatic

Drawing No. 1SAJ611010F0000, Schematic DX111.0 CPU- Board, Revision: A

Drawing No. 1SAJ611020F0000, Schematic DX111.0 IO- Board, Revision: A

Drawing No. 1SAJ613010F0002, Schematic AI111.0, Revision: A

Drawing No. 1SAJ622010F0000, Schematic DX122.0 CPU- Board, Revision: A

Drawing No. 1SAJ622020F0000, Schematic DX122.0 IO- Board, Revision: A

Drawing No. 1SAJ650010F0003, Schematic VI150.0, Revision: A

Drawing No. 1SAJ655010F0003, Schematic VI155.0, Revision: A

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Test Reports

Drawing No. 12-4421-BE-UMC100-FBP, DX111, DX122, MTQ22, VI155 - Environmental Test, PAConsult, 25.07.2012, Revision: A
Drawing No. 16-8399-BE-UMC100, UMC100.3xC, UMC100-PAN, AI111, PDR31.0, MRP31.0, Environmental Test, PAConsult, 14.02.2017, Revision: A
Drawing No. 18-10023-BE-EUI 32 UMC 100, EIU32.0 - Environmental Test, PAConsult, 12.06.2018, Revision: A
Drawing No. 3803-335, AI111.0, VI150.0, VI155.0 - EMC Test Report, EMV Rhein-Neckar GmbH, 29.09.2022, Revision: A
Drawing No. 3808-309a, UMC100.3xC, UMC100.3 PAN, PDP32.0, MRP31.0 - EMC Test Report, EMV Rhein-Neckar GmbH, 18.10.2014, Revision: A
Drawing No. 3808-318, EIU32.0 - EMC Test Report, EMV Rhein-Neckar GmbH, 08.07.2017, Revision: A
Drawing No. 3893-3112a, MTQ22 - EMC Test Report, EMV Rhein-Neckar GmbH, 25.10.2012, Revision: A
Drawing No. 463464TRFEMC006, DX122 - EMC Test Report, Nemko GmbH, 02.06.2022, Revision: A
Drawing No. 463464TRFEMC008, DX111 - EMC Test report, Nemko GmbH, 08.04.2022, Revision: A
Drawing No. 2022-05-09 UMC100.3 CWR 3-6 GHz, Radiated electromagnetic field immunity test / 6GHz, Rhein-Neckar GmbH, 09.05.2022, Revision: A
Drawing No. Needle_Flame_Test, VDE Pruf-und Zertifizierungsinstitut, 13.02.2007
(2023 Reports)
Drawing No. 22DE-01096-BE-UMC100-3 (ABB), Environmental test report, PAConsult GmbH, 15.12.2022
Drawing No. 3803-335, EMC test- report AI111.0, VI150.0, VI155.0, EMV Rhein-Neckar, 29.09.2022
Drawing No. 463464TRFEMC006, EMC test- report DX122.0, Nemko GmbH, 02.06.2022
Drawing No. 463464TRFEMC008, EMC test- report DX111.0, Nemko GmbH, 02.06.2022
Drawing No. PN_UMC100.3-Accessory_Modules_6x0_22_195, Test report initial & final assessment, Revision: A

Test Reports IEC 60947-4-1: 2009 (Third Edition) + A1:2012

Drawing No. NC14664-4786654032-Amendment-Certificate, IEC 60947-4-1 CB- Scheme Certificate
Drawing No. NC14664-D1-CB-1-Original, IEC 60947-4-1 Test Report, UL International Demko A/S, 23.01.2015
Drawing No. NC14664-D1-CB-1-Amendment-1, IEC 60947-4-1 Test Report / Amd. 1
Drawing No. NC14664-D1-CB-1-Amendment-2, IEC 60947-4-1 Test Report / Amd. 2
Drawing No. NC14664-D1-CB-1-Amendment-3, IEC 60947-4-1 Test Report / Amd. 3

UL Certificates

Drawing No. 20141015-E48139, UL Certificates
Drawing No. UL E48139-Vol15-Sec1-20161107, UL Test Report
Drawing No. 3GF20V0 Frianyl UL Certification E86034 - Component - Plastics, Material Yellowcard
Drawing No. LATAMID 6H2G 20 V2HFUL Certification E54080 - Component - Plastics, Material Yellowcard
Drawing No. UL Certification E86034 - Component - Plastics, FRIANYL A3 RV0 Material Yellowcard

Terms of Validity:

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STANDARDS

ABS Rules:

2023 Marine Vessel Rules: 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-8-2/9.17.1, ,4-8-2/9.17.2, 4-8-2/9.17.3, 4-8-3.1.11.1, 4-8-3.1.17, 4-8-3/5.7, 4-9-9/Table 1

2023 Mobile Offshore Units Rules: 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-3-2/9.13.1, 4-3-2/9.13.2, 4-3-2/9.13.3, 4-3-2/9.13.4, 4-3-2/9.13.5, 6-1-7/9.15

National:

UL 60947-4-1 Ed. 3 & Ed. 5

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA