



CERTIFICATE NUMBER 19-HS1843864-PDA
EFFECTIVE DATE 18-Apr-2019
EXPIRATION DATE 17-Apr-2024
ABS TECHNICAL OFFICE
Houston ESD – Offshore
Equipment

CERTIFICATE OF

Product Design Assessment

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

SIEMENS AG GWA

located at

WERNER-VON-SIEMENS-STR. 48, D-92220 AMBERG, Germany

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: Circuit Breaker

**Model: 3RA211, 3RA212, 3RA213, 3RA214, 3RA215, 3RA216, 3RA221, 3RA222,
3RA29, 3RA19, 8US1**

This Product Design Assessment (PDA) Certificate remains valid until expiration date 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: 3 - Type Approved, unit certification not required

Product: Circuit Breaker
Model: 3RA211, 3RA212, 3RA213, 3RA214, 3RA215, 3RA216, 3RA221, 3RA222, 3RA29, 3RA19, 8US1

Intended Service:

Marine and Offshore Application: electrical load feeders in use for load protection and installed in switchboards and panels in electrical systems on board of ships and offshore platforms.

Description:

The 3RA2 fuseless load feeders are fixed mounted Load Feeders, a combination of circuit breakers and contactors, consist of the 3RV2 motor starter protector and the 3RT2 electromechanical contactor. The devices are electrically and mechanically connected using preassembled assembly kits.

Rating:

Rated Operating Voltage: 400 - 690V AC, 50/60 Hz
Maximum Rated Current: up to 100 A

More details of the devices rating information are given in the manufacturer's product catalogues as specified in the documents list.

Service Restriction:

- 1) The devices are to be used only in non-classified locations.
- 2) 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.

Comments:

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

Notes/Drawing/Documentation:

Document No. 2956c_sizes_S00_S0, Test Certificate- Load Feeder- Combination of Circuit-Breakers and Contactors, Place: Amberg, Germany, Date: 2013-01-03, Pages: 24
Document No. 3292a_Size_S2, Type Test Certificate- Load Feeder- Combination of Circuit-Breakers and Contactors, Place: Amberg, Germany, Date: 2016-01-29, Pages: 10
Document No. A0212_01_Size_S3, Siemens- Confirmation- Fuseless Load Feeders, Place: Amberg, Germany, Date: 2017-09-15, Pages: 27
Drawing No. A5E02173301A - Load Feed for Direct Starter 3RA2 Size S00 Screw Terminal, Revision: 03, Pages: 1
Drawing No. A5E02173602A - Load Feed for Direct Starter 3RA2 Size S0- Type 3RA2120, Revision: 02, Pages: 1
Drawing No. A5E02177802A - Load Feed for Direct Starter 3RA2 Size S0, Revision: 02, Pages: 1
Drawing No. A5E02180893A - Load Feed for Direct Starter 3RA2 Size S00 with Fastbus Adapter, Revision: 005, Pages: 1
Drawing No. A5E02184337A - Load Feed for Direct Starter 3RA2 Size S0 with Fastbus Adapter, Revision: 006, Pages: 1
Drawing No. A5E02191173A - Load Feed for Direct Starter 3RA2 Size S00 with Fastbus Adapter, Revision: 005, Pages: 2
Drawing No. A5E02191810A - Load Feed for Direct Starter 3RA2 Size S00, Revision: 02, Pages: 1
Drawing No. A5E02192149A - Load Feed for Direct Starter 3RA2 Size S0, Revision: 02, Pages: 1
Drawing No. A5E02192411A - Load Feed for Direct Starter 3RA2 Size S0 with Fastbus Adapter, Revision: 005, Pages: 1
Drawing No. A5E02192462A - Load Feed for Direct Starter 3RA2 Size S0 with Fastbus Adapter, Revision: 005, Pages: 1
Drawing No. A5E02192507A - Load Feed for Direct Starter 3RA2 Size S0 with Fastbus Adapter, Revision: 02, Pages: 1
Drawing No. A5E02196610A - Load Feed for Reversing Starter 3RA2 Size S0 with Din Rail Mounting Adapter,

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Tier: 3 - Type Approved, unit certification not required

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:

2019 ABS Rules for Condition of Classification, Part 1: 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:
2019 Steel Vessels Rules: 4-8-3/1.7, 4-8-3//1.17, 4-8-3/5.3.3, 4-8-3/13
2019 Marine Vessels Rules: 4-8-3/1.7, 4-8-3//1.17, 4-8-3/5.3.3, 4-8-3/13

2019 ABS Rules for Condition of Classification Part 1: Offshore Units and Structures, 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:
2019 Mobile Offshore Drilling Units Rules: 4-3-3/9.3, 6-1-7/13.1
2019 Mobile Offshore Units Rules: 4-3-3/9.3, 6-1-7/13.1
2019 Facilities Rules: 3-6/11.3.3, 3-6/15

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA