



CERTIFICATE NUMBER	21-2157448-PDA
EFFECTIVE DATE	15-Sep-2021
EXPIRY DATE	14-Sep-2026
ABS TECHNICAL OFFICE	CN Shanghai ESD

CERTIFICATE OF Product Design Assessment

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

ABB ELECTRIFICATION SWEDEN AB

located at

**MOTOR STARTING & SAFETY, MOTORGRAND 20, VASTERAS,
Sweden, SE 721 61**

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: Contactor, Electrical
Model: GF875-20, GF1050-20, GF1325-20
Endorsements:
Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 14/Sep/2026 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

S Balakan

Serkan Balakan, 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)

ABB ELECTRIFICATION SWEDEN AB

MOTOR STARTING & SAFETY

MOTORGRAND 20

VASTERAS

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Tier: 2 - PDA Issued

Product: Contactor, Electrical
Model: GF875-20, GF1050-20, GF1325-20
Endorsements:

Intended Service:

- Installations inside switchboard/enclosures onboard ships and offshore units.
- For use on ABS classed Vessels and Offshore Facilities in accordance with the listed ABS Rules and International Standards.

Description:

2-Pole GF contactor intended for control and protection of electrical equipment in DC applications.

Rating:

1) Mode GF875-20:

- Rated insulation voltage (Ui): 1500V
- Rated impulse withstand voltage (Uimp): 8kV
- Rated Frequency: 50/60Hz
- Degree of protection: IP00
- Rated thermal current (Ith): 875A
- Rated operational voltage (Ue): 1500V
- Rated operational current (Ie/Iscl): 1) DC-1: Iscl = 210A; and 2) DC-PV3: Ie = 875A at ambient temp. 60°C, Ie = 650A at ambient temp. 70°C, Iscl = 210A.

2) Mode GF1050-20:

- Rated insulation voltage (Ui): 1500V
- Rated impulse withstand voltage (Uimp): 8kV
- Rated Frequency: 50/60Hz
- Degree of protection: IP00
- Rated thermal current (Ith): 1050A
- Rated operational voltage (Ue): 1500V
- Rated operational current (Ie/Iscl): 1) DC-1: Iscl = 210A; and 2) DC-PV3: Ie = 1050A at ambient temp. 60°C, Ie = 850A at ambient temp. 70°C, Iscl = 210A.

3) Mode GF1350-20:

- Rated insulation voltage (Ui): 1500V
- Rated impulse withstand voltage (Uimp): 8kV
- Rated Frequency: 50/60Hz
- Degree of protection: IP00
- Rated thermal current (Ith): 1325A
- Rated operational voltage (Ue): 1500V
- Rated operational current (Ie): DC-1: Ie = 210A

Service Restriction:

1. Unit Certification is not required for this product.
2. 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.
3. Equipment is for marine application in non-hazardous areas.

Comments:

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

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Notes/Drawing/Documentation:

Drawing No. 1SBC100214C0202, Main catalogue, Revision: A, Pages: 1;

Drawing No. 1SFB535006G1002, Dimensional drawing, Revision: A, Pages: 1;

Drawing No. 1SFC100003M0001, Instruction, Revision: H, Pages: 1;

Drawing No. Technical data - GF, Technical data - GF, Revision: A, Pages: 1;

Drawing No. SE-96220, CB-Certificate dated 21-Nov-2019, issued by Intertek Semko AB;

Drawing No. SE-96221, CB-Certificate dated 21-Nov-2019, issued by Intertek Semko AB;

Drawing No. 1905129VAS-001, CB-Report dated 21-Nov-2019, issued by Intertek Semko AB;

Drawing No. 1905129VAS-002, CB-Report dated 21-Nov-2019, issued by Intertek Semko AB;

Drawing No. 620-20237-11-R0, EMC-Report dated 08-Oct-2019, issued by Intertek Semko AB;

Drawing No. 1818103STO-001, EMC-Report dated 20-Oct-2020, issued by DELTA Development Technology AB.

Terms of Validity:

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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.

STANDARDS

ABS Rules:

2021 ABS Rules for Condition of Classification, Part 1: 1-1-4/7.7, 1-1-A3 and 1-1-A4, which covers the following:
2021 Marine Vessels Rules: 4-8-3/1.3, 4-8-3/1.7, 4-8-3/1.17.

2021 ABS Rules for Condition of Classification - Offshore Units and Structures, Part 1: 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2021 Mobile Offshore Units Rules: 4-3-1/11, 4-3-1/17.

National:

International:

IEC 60947-4-1 Ed 4.0: 2018

Government:

NA

EUMED:

NA

OTHERS:

NA