

TYPE APPROVAL CERTIFICATE

Certificate No:
TAE000013C
Revision No:
2

This is to certify:

That the Disconnection Switch

with type designation(s)
OT100G - 400

Issued to

ABB Oy, Smart Power
VAASA, Finland

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Issued at **Høvik** on **2021-02-25**

This Certificate is valid until **2025-12-31**.

DNV GL local station: **Finland CMC**

Approval Engineer: **Nicolay Horn**



for **DNV GL**

Digitally Signed By: Alonso Pontes, Marta

Location: DNV GL Høvik, Norway

Marta Alonso Pontes
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: TA 251

Revision: 2020-02

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Job Id: **262.1-022138-3**
Certificate No: **TAE000013C**
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Product description

Switch disconnectors for installation inside switchboards / enclosures onboard ships and mobile offshore units.

Type OT100G – OT400 as specified in the tables below.

Technical data:

Protection class:	IP20
Operational voltage, U_e	230 - 690 V
Insulation voltage, U_i	1000 V
Rated impulse withstand voltage, U_{imp}	12 kV
Rated frequency:	50 - 60 Hz

	OT100G_	OT125G_	OT160G_	OT160EV
Rated thermal current I_{th}	100 A	125 A	160 A	160 A
Rated operational current AC-21A	100 A	125 A	160 A	160 A
Rated operational current AC-22A	100 A	125 A	160 A	160 A
Rated operational current AC-23A	100 A	125 A	160 A	160 A
Rated breaking capacity AC-23	800 A	1000 A	1280 A	1280 A
Rated short time withstand current I_{cw} , 690 V 1 s.	4 kA	4 kA	4 kA	8 kA
Rated short time making capacity I_{cm}	12 kA	12 kA	12 kA	30 kA

	OT200E_	OT250E_	OT315E_	OT400_
Rated thermal current I_{th}	200 A	250 A	315 A	400 A
Rated operational current AC-21A	200 A	250 A	315 A	400 A
Rated operational current AC-22A	200 A	250 A	315 A	400 A
Rated operational current AC-23A	200 A	250 A	315 A	400 A
Rated breaking capacity AC-23	1600 A	2000 A	2520 A	3200 A
Rated short time withstand current I_{cw} , 690 V 1 s.	8 kA	8 kA	15 kA	15 kA
Rated short time making capacity I_{cm}	30 kA	30 kA	65 kA	65 kA

Application/Limitation

Switch-disconnectors for control and isolation for installation onboard ships and mobile offshore units

Type Approval documentation

Technical info:

Technical data, XL sheet from ABB

OT 160G switch -disconnector, brochure from ABB

Switches Switch-disconnectors OT, OETL, OTDC and OTM, catalogue from ABB (parts).

Test reports:

SGA Fimko Ltd. Test report no. 281631-1, issued 2015-12-03

TRC Test Report no. TA2016-34, issued 2016-11.10

ABB Test report no. L16-005 issued 2016-11-03

SGS Fimko Test certificates FI 7077 & 7081 dated 2012-02-07/08.

Technobothnia reports nos. TA2004-21 dated 2004-12-07 and TA2004-23 dated 2004-12-16.

SGS Fimko Test certificates FI 42728, 42742, 42750 incl. 294585-1 2019.11.08.

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Tests carried out

Type tests in accordance to IEC 60947-3:2008, AMD1:2012, AMD2:2015.

Environmental tests (Vibration, dry heat and damp heat in accordance with DNVGL-CG-0339 and shock in accordance with IEC60068-2-27).

Marking of product

ABB Oy - Type designation - Rated voltage - Rated current

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type Approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routines (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval certificate.

Assessment to be performed at least 2 and 3,5 year and at renewal.

END OF CERTIFICATE