TYPE APPROVAL CERTIFICATE

Certificate no.:
TAE00004YK
Revision No:
1

This is to certify:

that the Disconnection Switch

with type designation(s)
OT16-160G_

issued to
ABB Oy, Smart Power
VAASA, **Finland**

is found to comply with
DNV 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.

Issued at **Høvik** on **2025-10-14**

This Certificate is valid until **2029-11-10**.
DNV local unit: **Finland CMC**

Approval Engineer: **Qiang William Guo**

for **DNV**

This document has been digitally signed and will therefore not have handwritten signature

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 AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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 USD 300 000.

Name and place of Manufacture

ABB Oy, Smart Power	ABB Xinhui Low Voltage Switchgear Company Ltd.
Muottitie 2A, 65320 Vaasa, Finland	Jinguzhou Industrial Development Zone,Xinhui District,Jiangmen,Guangdong Province,China

Product description

Switch disconnectors for installation inside switchboards / Enclosures for control and isolation onboard ships and mobile offshore units.

Type OT63 / OT160 as specified in the table below.

Technical data:

Protection class:	IP20
Operational voltage, Ue	600 / 690 V *
Insulation voltage, Ui	800 V*
Rated impulse withstand voltage, Uimp	8 kV*
Rated frequency:	50 - 60Hz

*) See Application / limitation

	OT63G2		**OT80G2**		**OT100G2**	
Rated thermal current Ith	63 A		80 A		100 A	
Rated operational voltage Ue	415 V	690 V	415 V	690 V	415 V	690 V
Rated operational current AC-21A	63 A	63 A	80 A	80 A	100 A	80 A
Rated operational current AC-22A	63 A	63 A	80 A	80 A	100 A	80 A
Rated operational current AC-23A	63 A	32 A	80 A	40 A	80 A	40 A
Rated operational current AC-23Ae	50 A	25 A	60 A	32 A	65 A	32 A
Rated short time withstand current Icw, 690V	1.5 kA 1 s, 2.5 kA 0.25 s		1.5 kA 1 s, 2.5 kA 0.25 s		1.5 kA 1 s, 2.5 kA 0.25 s	
Rated short time making capacity Icm	3.55 kA		3.55 kA		3.55 kA	

	OT30G3 / OT40G3		**OT63G3 / OT60G3**		**OT80G3**	
Rated thermal current Ith	40 A		63A		80 A	
Rated operational voltage Ue	415 V	690 V	415 V	690 V	415 V	690 V
Rated operational current AC-21A	40 A	40 A	63 A	63 A	80 A	80 A
Rated operational current AC-22A	40 A	40 A	63 A	63 A	80 A	80 A
Rated operational current AC-23A	40 A	40 A	63 A	50 A	80 A	50 A
Rated operational current AC-23Ae	40 A	40 A	63 A	50 A	63 A	50 A
Rated short time withstand current Icw, 690V 1s	2.5 kA 1 s, 3.25 kA 0.25 s		2.5 kA 1 s, 3.25 kA 0.25 s		2.5 kA 1 s, 3.25 kA 0.25 s	
Rated short time making capacity Icm	4.78 kA		4.78 kA		4.78 kA	

	OT100G3		**OT125G3**		**OT160G3**	
Rated thermal current Ith	100 A		125 A		160 A	
Rated operational voltage Ue	415 V	690 V	415 V	690 V	415 V	690 V
Rated operational current AC-21A	100 A	100 A	125 A	125 A	160 A	125 A
Rated operational current AC-22A	100 A	100 A	125 A	125 A	160 A	125 A
Rated operational current AC-23A	100 A	63 A	125 A	63 A	125 A	63 A
Rated operational current AC-23Ae	80 A	63 A	80 A	63 A	80 A	63 A
Rated short time withstand current Icw, 690V 1s	2.5 kA 1 s, 3.25 kA 0.25 s		2.5 kA 1 s, 3.25 kA 0.25 s		2.5 kA 1 s, 3.25 kA 0.25 s	
Rated short time making capacity Icm	4.78 kA		4.78 kA		4.78 kA	

Types OT16-63G1_ (3,4,6 and 8 poles)
Uimp=8kV, Ui=800V

	OT16G1_, OT20G1_		OT25G1_, OT30G1_		OT40G1_	
Rated thermal current Ith	16 A		25 A		40 A	
Rated operational voltage Ue	415 V	690 V	415 V	690 V	415 V	690 V
Rated operational current AC-21A	16 A	16 A	25 A	25 A	40 A	40 A
Rated operational current AC-22A	16 A	16 A	25 A	25 A	40 A	40 A
Rated operational current AC-23A	16 A	16 A	25 A	25 A	40 A	25 A
Rated operational current AC-23Ae	16 A	16 A	20 A	16 A	25 A	20 A
Rated short time withstand current Icw, 690V 1s	0.8 kA 1 s, 1.25 kA 0.25 s		0.8 kA 1 s, 1.25 kA 0.25 s		0.8 kA 1 s, 1.25 kA 0.25 s	
Rated short time making capacity Icm	1.76 kA		1.76 kA		1.76 kA	

	OT50G1_, OT63G1_	
Rated thermal current Ith	63 A	
Rated operational voltage Ue	415 V	690 V
Rated operational current AC-21A	63 A	40 A
Rated operational current AC-22A	63 A	40 A
Rated operational current AC-23A	40 A	25 A
Rated operational current AC-23Ae	25 A	20 A
Rated short time withstand current Icw, 690V 1s	0.8 kA 1 s, 1.25 kA 0.25 s	
Rated short time making capacity Icm	1.76 kA	

Application/Limitation

The instruction from maker shall be observed before installation on board
Location classes: Temperature :D, Humidity: B, Vibration : A
When Uimp = 8 kV and overvoltage category IV the max. rated voltage is 600 V when used in IT (ship) net. It can be used in applications with directly earthed systems with rated voltage of 400 / 690 V.

Type Approval documentation

Documentation/Report Name	Documentation/Report No.	Issued date
Product description	-	-
Test report HELLES	2304000537-1	2023-11-07
Test report HELLES	2305000590-1	2023-11-07
Test report HELLES	2208000898-1	2023-11-06
Test report HELLES	2211001265-1	2023-11-06
ABB test report Environmental test	SGS_017_S22_486	2022-12-16
ABB test report Environmental test	SGS_025_S23_153	2023-06-21
ABB test report Vibration test	SGS_017_S22_565	2023-01-06
ABB test report Vibration test	SGS_025_S23_364	2023-09-22

Type Designation	Document Type	Reference	Date
OT16G1-, OT20G1-	CB Test Certificate	FI-63637, FI-63700	2025-03-27
OT25G1-, OT30G1-	CB Test Certificate	FI-63641, FI-63706	2025-03-27
OT40G1-	CB Test Certificate	FI-63642, FI-63708	2025-03-27
OT50G1-, OT63G1-	CB Test Certificate	FI-63643, FI-63709	2025-03-28
OT16-63G1- 6 and 8 poles	CB Test Report	HELES2411001017	2025-03-11
OT16-63G1- 3 and 4 poles	CB Test Report	HELES2302000166	2025-03-10
General	IPH Report	14896-25-0030	2025-03-06

Tests carried out

Type tests in accordance with IEC 60947-3: 2020 in conjunction with IEC 60947-1:2020
Environmental tests (dry heat and damp heat and low temperature test) in accordance with DNV- CG- 0339 Aug. 2021 and shock/vibrations in accordance with IEC60068-2-27 and IEC60068-2-6.

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 are 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 Routine Tests (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 2 and 3.5 year and at renewal.

END OF CERTIFICATE