



# TYPE APPROVAL CERTIFICATE

Certificate No:  
**TAE00001AS**  
Revision No:  
**3**

## This is to certify:

### That the Disconnection Switch

with type designation(s)  
**OTM40 .... 3200**

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 **2022-01-12**

This Certificate is valid until **2026-11-15**.  
DNV local station: **Finland CMC**

Approval Engineer: **Nicolay Horn**



for **DNV**  
Digitally Signed By: **Sjåvåg, Trond**  
Location: **DNV Høvik, Norway**

**Trond Sjåvåg**  
**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 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 300,000 USD.



## Product description

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

Type OTM40 – OTM3200\_CM230C as specified in the tables below.

Technical data:

Protection class:	IP20
Operational voltage, U <sub>e</sub>	690 V (415 V: OTM2000-3200)
Insulation voltage, U <sub>i</sub>	1000 V (800 V: OTM40 to OTM125)
Rated impulse withstand voltage, U <sub>imp</sub>	12 kV (8 kV: OTM40 to OTM125)
Rated frequency:	50 - 60 Hz

	OTM40	OTM63	OTM80	OTM100
Rated thermal current I <sub>th</sub>	40 A	63 A	80 A	100 A
Rated operational current AC-21A	40 A	63 A	80 A	100 A
Rated operational current AC-22A	40 A	63 A	80 A	100 A
Rated operational current AC-23A	40	500 V: 60 A 690 V: 40 A	500 V: 60 A 690 V: 40 A	500 V: 60 A 690 V: 40 A
Rated operational current AC-31B	-	-	-	-
Rated operational current AC-33B	-	-	-	-
Rated short time withst. current I <sub>cw</sub> , 690 V 1s	2.5 kA	2.5 kA	2.5 kA	2.5 kA
Rated short time making capacity I <sub>cm</sub> *	3.6kA; 690 V	3.6kA; 690 V	3.6kA; 690 V	3.6kA; 690 V

	OTM125	OTM160_	OTM200_	OTM250_
Rated thermal current I <sub>th</sub>	125 A	160 A	200 A	250 A
Rated operational current AC-21A		160 A	200 A	250 A
Rated operational current AC-22A		160 A	200 A	250 A
Rated operational current AC-23A	500 V: 70 A 690 V: 50 A	160 A	200 A	250 A
Rated operational current AC-31B	-	160 A	200 A	250 A
Rated operational current AC-33B	-	160 A	200 A	250 A
Rated short time withst. current I <sub>cw</sub> , 690 V 1s	2.5 kA	8 kA	8 kA	8 kA
Rated short time making capacity I <sub>cm</sub> *	3.6kA; 690 V	30kA; 1 kV	30kA; 1 kV	30 kA; 1 kV

	OTM315_	OTM400_	OTM630_	OTM800_
Rated thermal current I <sub>th</sub>	315 A	400 A	630 A	800 A
Rated operational current AC-21A	315 A	400 A	630 A	800 A
Rated operational current AC-22A	315 A	400 A	630 A	800 A
Rated operational current AC-23A	315 A	400 A	630 A	800 A
Rated operational current AC-31B	315 A	400 A	650 A	720 A
Rated operational current AC-33B	315 A	400 A	650 A	650 A
Rated short time withst. current I <sub>cw</sub> , 690 V 1s	8 kA	8 kA	20 kA	20 kA
Rated short time making capacity I <sub>cm</sub> *	60 kA; 690V	60kA; 690V	80kA; 690V	80kA; 690 V

	OTM1000_	OTM1250_	OTM1600_
Rated thermal current I <sub>th</sub>	1000 A	1250 A	1600 A
Rated operational current AC-21A	1000 A	1250 A	1600 A
Rated operational current AC-22A	1000 A	1250 A	1600 A
Rated operational current AC-23A	1000 A	1250 A	1250 A
Rated operational current AC-31B	1000 A	1250 A	1600 A
Rated operational current AC-33B	1000 A	1000 A	1000 A
Rated short time withst. current I <sub>cw</sub> , 690 V 0.1s	50 kA	50 kA	50 kA
Rated short time making capacity I <sub>cm</sub> *	92 kA; 690V	92 kA; 690V	92 kA; 690V

	OTM2000_	OTM2500_	OTM3200_
Rated thermal current I <sub>th</sub>	2000 A	2500 A	3200 A
Rated operational current AC-21B	2000 A	2500 A	3200 A
Rated operational current AC-22A	-	-	-
Rated operational current AC-23A	-	-	-
Rated operational current AC-31B	-	-	-
Rated operational current AC-33B	-	-	-
Rated short time withst. current I <sub>cw</sub> , 690 V 1s / 0.1 s	55 kA *) (0.1s)	55 kA *) (0.1s)	65 kA *)
Rated short time making capacity I <sub>cm</sub> *	110 kA; 690 V*)	110 kA; 690 *)	143 kA; 690 V*)

\*) Only applicable for use in a 415 V system

## Application/Limitation

Switch-disconnectors for control and isolation for installation onboard ships and mobile offshore units. The OTM2000, OTM2500 and OTM3200 can only be used in a system up to 415 V.

## Type Approval documentation

### Technical info:

Switches Switch-disconnectors OTM, catalogue from ABB (parts).

### Test reports:

SGS Fimko Test certificates FI6458, FI6454, FI6452 & FI6447 dated 2010-11-30, 282075-1 dated 2016-04-25, FI9210 dated 2016-04-27.

Technobothnia reports nos. TA2017-15 dated 2017-06-15. Supplementary report for TA2017-15 dated 21.6.2017.

ABB test reports nos. L16-006 dated 2016-11-11.

SGS Fimko Test certificates 245815-1, 245815-2, 246840-1, 246840-2 dated 2007.06.08, 248833-1, 248833-2 dated 2008.12.12, 255395-1, 255395-2, 255398-1 dated 2009.05.25, FI4298, FI4301, FI4302, FI4303 dated 2007.06.15,

FI5105A1 dated 2008.08.28, FI5109 dated 2008.06.27, FI5729 dated, FI5732, FI5734 dated 2009.05.25, L10-018 dated 2010-12-16 and L15-001 dated 2011-01-07.

Technobothnia reports nos. TA2010-178 dated 2010-11-23 and TA2014-53 dated 2013-04-08.

## Tests carried out

Type tests in accordance to IEC 60947-3 / 2008

Environmental tests (Vibration, dry heat and damp heat in accordance with DNVGL CG 0339 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, 3.5 year and at renewal.

END OF CERTIFICATE