



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. E-8874
This Certificate consists of 3 pages


This is to certify that the
Disconnection Switch
with type designation(s)
OT 200 OT 400

Manufactured by
ABB OY, LOW VOLTAGE PRODUCTS
VAASA, Finland

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det
Norske Veritas' Offshore Standards

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

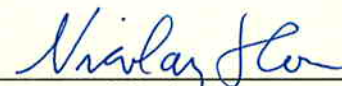
Place and date
Høvik, 2008-03-05
for DET NORSKE VERITAS AS


Marit Laumann
Head of Section



Local Office
DNV Helsinki

This Certificate is valid until
2012-06-30


Nicolay Horn
Surveyor *lvabu*

**Notice: 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.**

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Cert. No.: E-8874
File No.: 823.30

Product description

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

Type OT 200 – OT 400 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

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

Application/Limitation

Current data given for an ambient temperature of 40 °C. To be modified for an ambient temperature of 45 °C

Type Approval documentation

Technical info:

OT 200...OT 400 Switch-Disconnector, Bulletin OT 23 GB 04_11.

Test reports:

SGS Fimko reports nos. 234540-1 & 234540-2 dated 2004-09-09 and 234540-3 dated 2004-10-11. Technobothinia reports nos. TA2004-21 dated 2004-12-07 and TA2004-23 dated 2004-12-16.



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Tests carried out

Type tests in accordance to IEC 60947-3 / 1999

Environmental tests (Vibration, dry heat and damp heat in accordance with DNV CN 2.4 and shock in accordance with IEC60068-2-27).

Marking of product

ABB Oy - Type designation - Rated voltage - Rated current

Certificate retention survey

The scope of the retention/renewal survey 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 survey are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and 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.

Survey to be performed at least every second year.

END OF CERTIFICATE