



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. E-9050
This Certificate consists of 4 pages

This is to certify that the
Disconnection Switch
with type designation(s)
OT_

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
IEC 60947-1 (2004)
IEC 60947-3 (1999) + A1:2001 + A2:2005

Application
Switch disconnectors for installation inside switchboards / enclosures Onboard Ships and
Mobile Offshore units.

Place and date
Høvik, 2009-06-17
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

**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-9050
 File No.: 823.30
 Job Id.: 262.1-4167-2

Product description

Switch disconnectors for installation inside switchboards / enclosures onboard ships and mobile offshore units according to the type designations as given in the tables below.

Switch disconnectors, TYPE OT_

Switch disconnectors for base, DIN-rail or door mounting.

Protection class: IP20
 Rated insulation voltage: 750 V
 Rated operation voltage: 690 V

Type designation	Volt [V]	AC 21A	Amp. 1) AC 22A	AC 23A	Ics [kA]	Icm [kA]	Iew [kA]	Construction Family
OT16F_	415	16	16	16				
OT16FT_	500	16	16	16				
OT16M_	690	16	16	10	50	0,7	0,5	OT40F_
OT25F_	415	25	25	20				
OT25FT_	500	25	25	20				
OT25M_	690	25	25	11	50	0,7	0,5	OT40F_
OT40F_	415	40	40	23				
OT40FT_	500	40	40	23				
OT40M_	690	40	40	12	50	0,7	0,5	OT40F_
OT63F_	415	63	63	45				
OT63FT_	500	63	63	45	100			
OT45ML_	690	63	63	20	50	1,4	1	OT80F_
OT80F_	415	80	80	75				
OT80FT_	500	80	80	58	100			
OT63ML_	690	80	80	20	50	1,4	1	OT80F_
OT100F_	415	100	100	80				
OT100FT_	500	100	100	60				
OT100M_	690	100	100	40	50	3,6	2,5	OT125F_
OT125F_	415	125	125	90				
OT125FT_	500	125	125	70				
OT125M_	690	125	125	50	50	3,6	2,5	OT125F_
OT125A_	415	125	125	105				
OT125AT_	500	125	125	70	100			
OT125ML_	690	125	125	50	50	12	4	OT160E_
OT160E_	415	160	160	135				
OT160ET_	500	160	160	125	100			
OT160M_	690	160	160	80	50	12	4	OT160E_



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1) According to IEC 60947-1 and 60947-3.

AC 21 = Switching of resistive loads, including moderate overloads.

AC 22 = Switching of mixed resistive and inductive loads, including moderate overloads.

AC 23 = Switching of motor loads or other highly inductive loads.

Application/Limitation

Temperature class: D

Vibration class: A

Enclosure class: B

To be installed inside switchboard / enclosures.

Installation procedures according to the manufacturer's instructions to be followed.

Type Approval documentation

Name of document	Number	Issue date
Tech Brochure, SwitchLine Load Break Switches / Switch-Disconnectors	OT-OET 1 GB	04/2002
Tech Brochure, Low Voltage Products, Rotary Type Installation Switches 16...160 A	OT...M22GB	01/2003
Common test procedures for the shipping approvals of the OT_range	-	16/09/1998
CB Test Certificate and Test Reports for OT	FI4854 to FI4861, 248219-1, 248218-1, 249883-1	11/02/2009 and 18-19/02/20/08
Type test on switch-disconnector OT160E	9 AFX94-291,	01/10/1994
Vibration test for the OT_range switch-disconnectors	AUT/TES/742/98,	15/10/1998
Environmental test on safety switches	9 AFX98-239,	28/10/1998

Tests carried out

Type tests in accordance with:

IEC 60947-1 / 2004 (CB certificates and test reports)

IEC 60947-3 / 1999 + A1:2001 + A2:2005 (CB certificates and test reports)

IEC 60529 Degree of protection

Environmental tests according to DNV Certification note 2.4:

3.6 Vibration Test

3.8 Damp Heat Test

3.9 Cold Test



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Marking of product

ABB and/or Strömberg OT - type designation

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