

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Disconnection Switch

with type designation(s)
OTP_ and OTE_

Issued to

**ABB Oy, Protection and Connection
VAASA, Finland**

is found to comply with
DNV GL rules for classification – Ships and offshore units

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2020-12-31**.

Issued at **Høvik** on **2016-06-17**

DNV GL local station: **Turku**

Approval Engineer: **Nicolay Horn**

for **DNV GL**

**Marit Laumann
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.

Product description

Plastic Enclosed Safety and Plastic Enclosed Load Break Switches, TYPE OTP _:

Rated insulation and operation voltage: 400 V

Protection class: IP65

Family	Type designation	Type of switch 1)	Switch disconnecter	Ie max 400V [A]		Pe max 400V [kW]
				AC 22A	AC 23A	
OTP 16_	OTP 16B_ OTP 16HB_	E	OT 16F_	16	16	7,5
	OTP 16A_ OTP 16H_ OTP 16K_ OTP 16T_	S	OT 40_	-	16	7,5
OTP 25_	OTP 25B_	E	OT 25F_	25	20	9
	OTP 25A_ OTP 25T_	S	OT 63_	-	30	15
OTP 32_	OTP 32B_	E	OT 40F_	32	23	11
OTP 36_	OTP 36A_ OTP 36T_	S	OT 80_	-	38	18,5
OTP 45_	OTP 45B_	E	OT 63F_	45	30	15
OTP 63_	OTP 63B_	E	OT 80F_	63	38	18,5
	OTP 63A_ OTP 63T_	S	OT 100_	-	63	30
OTP 75_	OTP 75A_ OTP 75T_	S	OT 100_	-	80	37
OTP 90_	OTP 90A_ OTP 90T_	S	OT 125F_	-	90	45
OTP 125_	OTP 125B_	E	OT 125F_	125	90	45

1) Type of switch, description:

S	Enclosed Safety Switch
E	Enclosed Load Break Switch

Plastic Enclosed EMC-safety switches TYPE OTE _:

Protection class: IP65

Family	Type designation	Type of switch 2)	Switch disconnecter	Ie max 400V [A]		Pe max 400V [kW]
				AC 22A	AC 23A	
OTE 16_	OTE 16T_ , OTE 16A_	S	OT 40_	-	16	7,5
OTE 25_	OTE 25T_ , OTE 25A_	S	OT 63_	-	30	15
OTE 36_	OTE 36T_ , OTE 36A_	S	OT 80_	-	38	18,5
OTE 75_	OTE 75T_ , OTE 75A_	S	OT 100_	-	80	37
OTE 90_	OTE 90T_ , OTE 90A_	S	OT 125F_	-	90	45

2) Type of switch, description:

S	Enclosed Safety Switch
E	Enclosed Load Break Switch

Application/Limitation

Plastic Enclosed Safety Switches and Plastic Enclosed Load Break Switches for use Onboard Ships and Offshore units.

Temperature class: D
Vibration class: A
Enclosure class: B

Installation procedures according to the manufacturer to be followed
Switch-disconnectors used in the products as listed above are to be in accordance with conditions as given in Type Approval certificate E-9050.

Type Approval documentation

Tests carried out

Job Id: **262.1-022138-1**
Certificate No: **TAE000013E**

Type tests in accordance with:

IEC 60947-1 / 2007 (CB certificates and test reports)
IEC 60947-3 / 2008 (CB certificates and test reports)
IEC 60529 Degree of protection

Environmental tests according to DNV Standard for Certification note 2.4:

3.6 Vibration Test
3.8 Damp Heat Test
3.9 Cold Test

Marking of product

ABB and/or Strömberg - OT - type designation

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 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.

Assessment to be performed at least every second year.

END OF CERTIFICATE