

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Cable Tray

with type designation(s)
OLE, OLA, OLF, OTA, OTB

Issued to

**SUZHOU ONTOP MECHANICAL&ELECTRICAL EQUIPMENT CO.
LTD**
Suzhou, China

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

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

Material **Metallic**
Suitable for open deck **Yes**

Issued at **Hamburg** on **2020-04-27**

This Certificate is valid until **2025-04-26**.

DNV GL local station: **Shanghai**

for **DNV GL**

Approval Engineer: **Carsten Hunsalz**

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Arne Schaarmann
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

Cable Ladder type OLE

Widths [mm]: 900
Height [mm]: 100, 150
Thickness[mm]: 1.5; 2; 2.5
Standard length [m] : 3, 6

OLE Stainless steel Classification according to IEC 61537:

6.1 Material:	Metallic
6.2 Flame propagation:	Non-flame propagating system
6.3 Electrical continuity:	With electrical continuity characteristics
6.4 Electrical conductivity	Electrical conductive
6.5 Resistance against corrosion:	Class 9D (stainless steel)
6.6 Temperature:	-20°C to 120°C
6.7 Perforation in the base area:	N/A
6.8 Free base area:	Classification Y
6.9 Impact resistance	30J at -52°C

OLE Hot Dip Galvanized Carbon steel Classification according to IEC 61537:

6.1 Material:	Metallic
6.2 Flame propagation:	Non-flame propagating system
6.3 Electrical continuity:	With electrical continuity characteristics
6.4 Electrical conductivity	Electrical conductive
6.5 Resistance against corrosion:	Class 6/7/8 9D (hot dip galvanized)
6.6 Temperature:	-20°C to 120°C
6.7 Perforation in the base area:	N/A
6.8 Free base area:	Classification Y
6.9 Impact resistance	30J at -52°C

Cable Ladder type OLA

Widths [mm]: 900
Height [mm]: 100, 150
Thickness[mm]: 1.5; 2; 2.5
Standard length [m] : 3, 6

OLA Stainless steel Classification according to IEC 61537:

6.1 Material:	Metallic
6.2 Flame propagation:	Non-flame propagating system
6.3 Electrical continuity:	With electrical continuity characteristics
6.4 Electrical conductivity	Electrical conductive
6.5 Resistance against corrosion:	Class 9D (stainless steel)
6.6 Temperature:	-20°C to 120°C
6.7 Perforation in the base area:	N/A
6.8 Free base area:	Classification Y
6.9 Impact resistance	30J at -52°C

OLA Hot Dip Galvanized Carbon steel Classification according to IEC 61537:

6.1 Material:	Metallic
6.2 Flame propagation:	Non-flame propagating system
6.3 Electrical continuity:	With electrical continuity characteristics
6.4 Electrical conductivity	Electrical conductive
6.5 Resistance against corrosion:	Class 6/7/8 9D (hot dip galvanized)
6.6 Temperature:	-20°C to 120°C
6.7 Perforation in the base area:	N/A
6.8 Free base area:	Classification Y
6.9 Impact resistance	30J at -52°C

Cable Ladder type OLF

Widths [mm]: 900
Height [mm]: 127, 157
Thickness[mm]: 1.5; 2.2
Standard length [m] : 3, 6

OLF Aluminium alloy Classification according to IEC 61537:

6.1 Material:	Metallic
6.2 Flame propagation:	Non-flame propagating system
6.3 Electrical continuity:	With electrical continuity characteristics
6.4 Electrical conductivity	Electrical conductive
6.5 Resistance against corrosion:	N/A
6.6 Temperature:	-52°C to 45°C
6.7 Perforation in the base area:	N/A
6.8 Free base area:	Classification Y
6.9 Impact resistance	30J at -52°C

Cable Tray type OTA

Widths [mm]: 300, 600, 900
Height [mm]: 50, 100, 150
Thickness[mm]: 1.5; 2; 2.5
Standard length [m] : 3, 6

OTA Stainless steel Classification according to IEC 61537:

6.1 Material:	Metallic
6.2 Flame propagation:	Non-flame propagating system
6.3 Electrical continuity:	With electrical continuity characteristics
6.4 Electrical conductivity	Electrical conductive
6.5 Resistance against corrosion:	Class 9D (stainless steel)
6.6 Temperature:	-20°C to 120°C
6.7 Perforation in the base area:	N/A
6.8 Free base area:	Classification B
6.9 Impact resistance	30J at -52°C

OTA Hot Dip Galvanized Carbon steel Classification according to IEC 61537:

6.1 Material:	Metallic
6.2 Flame propagation:	Non-flame propagating system
6.3 Electrical continuity:	With electrical continuity characteristics
6.4 Electrical conductivity	Electrical conductive
6.5 Resistance against corrosion:	Class 6/7/8 9D (hot dip galvanized)
6.6 Temperature:	-20°C to 120°C
6.7 Perforation in the base area:	N/A
6.8 Free base area:	Classification B
6.9 Impact resistance	30J at -52°C

Cable Tray type OTB

Widths [mm]: 300, 600, 900
Height [mm]: 50, 100, 150
Thickness[mm]: 1.5; 2; 2.5
Standard length [m] : 3, 6

OTB Stainless steel Classification according to IEC 61537:

6.1 Material:	Metallic
6.2 Flame propagation:	Non-flame propagating system
6.3 Electrical continuity:	With electrical continuity characteristics
6.4 Electrical conductivity	Electrical conductive
6.5 Resistance against corrosion:	Class 9D (stainless steel)
6.6 Temperature:	-20°C to 120°C
6.7 Perforation in the base area:	N/A
6.8 Free base area:	Classification B
6.9 Impact resistance	30J at -52°C

OTB Hot Dip Galvanized Carbon steel Classification according to IEC 61537:

6.1 Material:	Metallic
6.2 Flame propagation:	Non-flame propagating system
6.3 Electrical continuity:	With electrical continuity characteristics
6.4 Electrical conductivity	Electrical conductive
6.5 Resistance against corrosion:	Class 6/7/8 9D (hot dip galvanized)
6.6 Temperature:	-20°C to 120°C
6.7 Perforation in the base area:	N/A
6.8 Free base area:	Classification B
6.9 Impact resistance	30J at -52°C

Application/Limitation

To be installed in accordance with the manufacturer's instructions and DNV GL rules.

Suitable for open deck

Job Id: **262.1-027022-1**
Certificate No: **TAE00003XD**

Type Approval documentation

Specification: SUZHOU ONTOP MECHANICAL & ELECTRICAL EQUIPMENT CO. LTD, submitted 12/2019.

Test Report: SGS Report No.: IN-SUZ-5801-19070,
Suzhou Electrical Apparatus Science Research Institute Co., Ltd., No.: 19X0599-S
STD No.: STD-20191106-026NC-2

Tests carried out

Type tests in accordance with IEC 61537:2006.

Marking of product

Manufacturer – Type designation – Type - Width – Height – Length – Lot no.

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.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE