DNV·GL

Certificate No:
TAE00000MM

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Cable Tray

with type designation(s)
KHZP, KHZPS, KHZPV, KHZ, KHZV, KHZP 20C and accessories

Issued to
AB Wibe
MORA, Sweden

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

Application :

For installation on board Offshore Units and Ships.

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

This Certificate is valid until **2019-12-31**.

Issued at **Høvik** on **2015-11-24**

for **DNV GL**

DNV GL local station: **Stockholm**

Approval Engineer: **Nicolay Horn**

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.

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Name and place of manufacturer

Schneider Electric,
WIBE, SWEDEN

Product description

Cable ladder with the type designation(s) KHZP, KHZPS, KHZPV, KHZ, KHZV & KHZP 20C

Classification according to:	IEC 61537 Class
6.1 Material	Metallic
6.2 Resistant to Flame Propagation	Non Flame Propagation
6.3 Electrical Continuity Characteristics	With Electrical Continuity Characteristics
6.4 Electrical Conductivity	Electrical Conductivity Characteristics
6.5 Resistance Against Corrosion	System component made of steel with metallic Finishes or stainless steel
6.6.1 Minimum Temperature	- 40 ºC
6.6.2 Maximum Temperature	+120 ºC
6.7 Perforation in the Base Area	NA
6.8 free base area	Classification X
6.9 Impact resistance	Up to 20 J

TYPE:	KHZP – Heavy duty ladder for both indoor and outdoor installation.
Standard surface:	Hot dip galvanized, Stainless steel or ZINKPOX
Thickness:	Hot dip galvanised 1,0 mm /Stainless Steel 1,0 mm.

Type	Total with (mm)	Weight (kg/m)	Length (mm)	Type	Total with (mm)	Weight (kg/m)	Length (mm)
KHZP-150	147	2,60	6000	KHZP-500	497	3,40	6000
KHZP-200	197	2,70	6000	KHZP-600	597	3,60	6000
KHZP-300	297	2,90	6000	KHZP-1000	997	5,60	6000
KHZP-400	397	3,15	6000				

TYPE:	KHZPS – Heavy duty ladder for indoor installation.
Standard surface:	Pre-galvanized
Thickness:	1,0 mm

Type	Total with (mm)	Weight (kg/m)	Length (mm)	Type	Total with (mm)	Weight (kg/m)	Length (mm)
KHZPS-150	147	2,25	6000	KHZPS-500	497	3,00	6000
KHZPS-200	197	2,35	6000	KHZPS-600	597	3,15	6000
KHZPS-300	297	2,55	6000	KHZPS-800	797	4,10	6000
KHZPS-400	397	2,75	6000	KHZPS-1000	997	4,90	6000

TYPE:	KHZPV – Heavy duty ladder for both indoor and outdoor installation
Standard surface:	Hot dip galvanized or ZINKPOX.
Thickness:	Hot dip galvanised 1,0 mm

Type	Total with (mm)	Weight (kg/m)	Length (mm)	Type	Total with (mm)	Weight (kg/m)	Length (mm)
KHZPV-200	200	4,26	6000	KHZPV-500	500	4,93	6000
KHZPV-300	300	4,48	6000	KHZPV-600	600	5,15	6000
KHZPV-400	400	4,70	6000	KHZPV-1000	1000	7,00	6000

TYPE:	KHZ-Heavy duty ladder for both indoor and outdoor installation
Standard surface:	Hot dip galvanized, Stainless steel, ZINKPOX
Thickness:	1,0 mm

Type	Total with (mm)	Weight (kg/m)	Length (mm)	Type	Total with (mm)	Weight (kg/m)	Length (mm)
KHZ-150	147	2,7	6000	KHZ-400	397	3,2	6000
KHZ-200	197	2,8	6000	KHZ-500	497	3,4	6000
KHZ-300	297	3,0	6000	KHZ-600	597	3,6	6000

TYPE:	KHZV-Heavy duty ladder for both indoor and outdoor installation
Standard surface:	Hot dip galvanized, ZINKPOX
Thickness:	1,0 mm

KHZV-200	200	4,4	6000
KHZV-300	300	4,6	6000
KHZV-400	400	4,8	6000
KHZV-200	200	4,4	6000

TYPE:	KHZP 20C Heavy duty high-sided cable ladder for outdoor installation
Standard surface:	Hot dip galvanized, ZINKPOX
Thickness:	1,0 mm

Type	Total with (mm)	Weight (kg/m)	Length (mm)	Type	Total with (mm)	Weight (kg/m)	Length (mm)
KHZP 20C-200	200	8,7	6050	KHZP 20C-600	600	10,0	6050
KHZP 20C-300	300	9,0	6050	KHZP 20C-800	800	10,3	6050
KHZP 20C-400	400	9,3	6050	KHZP 20C-1000	1000	10,7	6050
KHZP 20C-500	500	9,7	6050				

Application/Limitation

The installation is to be mechanically protected in accordance with DNV Rules and especially on weather decks in cargo hold areas and through cargo holds.

Cable ladders must not to be used as a walkway.

Type Approval documentation

Tests carried out

Load bending test according to IEC 61537, Test for impact resistance, Electrical continuity & salt mist test.

Marking of product

WIBE – Type designation – Width – Material (cover marking).

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)
- 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