

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Cable Tray**with type designation(s)
Defem

Issued to

AB Wibe
MORA, Swedenis found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft**Application :****For installation on board Mobile 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 **2017-01-18**DNV GL local station: **Stockholm**Approval Engineer: **Nicolay Horn**for **DNV GL**

Andreas Kristoffersen
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.

Job Id: **262.1-002116-7**
 Certificate No: **TAE00000MR**
 Revision No: **1**

Name and place of manufacturer

Schneider Electric
 WIBE, MORA,
 Sweden

Product description

Cable wire trays (mesh tray) for marine applications with accessories.

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
6.4 Electrical Conductivity	Electrical Conductivity Characteristics
6.5 Resistance Against Corrosion	Class 1, Zink Plated Trays Class 6, Hot Dip Galvanized Class 90, Stainless Steel
6.6.1 Minimum Temperature	- 20 °C
6.6.2 Maximum Temperature	+90 °C
6.7 Perforation in the Base Area	More Than 30%
6.9 Impact resistance	Up to 20 J

Type: Defem Wire Tray

Article	Article no.	Material m:
75x5/55	1149m10	m=1 for Zinc Plated
120/60	1149m01	m=2 for Hot Dip Galvanized
220/60	1149m02	m=3 for Stainless Steel
320/60	1149m03	
420/60	1149m14	
120/110	1149m04	
220/110	1149m05	
320/110	1149m06	
422/110	1149m07	
522/110	1149m08	
622/110	1149m09	

Type: Defem C-Wire Tray

Article	Article no.
75x75	1149m12
120/60	1149m12
220/60	1149m12

Type Defem G-Wire Tray

Article	Article no.
75x95	1149m38
120x150	1149m39

Type: Defem Z-Wire Tray

Article	Article no.
75x75	1149340
120x75	1149341
220x130	1149342

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Type: Defem Mini Mesh

Article	Article no.
B30-D	1149m12

Cantilever arm 50i

Standard surface:	Hot dip galvanised, ZINKPOX, pre-galvanized with or without powder coating.				
	Length (mm)	Hight (mm)	Weight 100 pcs (kg/m)	Thickness (mm)	Deflection (mm)
Cantilever arm 50i- 100	150	80	19	1,5	5,6
Cantilever arm 50i- 200	250	85	29	1,5	5,9
Cantilever arm 50i- 300	350	110	46	1,5	9,8
Cantilever arm 50i- 400	450	115	83	2	10,9
Cantilever arm 50i- 500	550	150	170	2,5	9,7
Cantilever arm 50i- 600	650	150	191	2,5	10,5

Standard surface:	Pre-galvanized with or without powder coating.				
	Length (mm)	Hight (mm)	Weight 100 pcs (kg/m)	Thickness (mm)	Deflection (mm)
Cantilever arm 50i- 100	150	80	19	1,5	5,6
Cantilever arm 50i- 200	250	85	29	1,5	5,9
Cantilever arm 50i- 300	350	110	46	1,5	9,8
Cantilever arm 50i- 400	450	115	83	2	10,9
Cantilever arm 50i- 500	550	150	170	2,5	9,7
Cantilever arm 50i- 600	650	150	191	2,5	10,5

Standard surface:	Electroplated				
	Length (mm)	Hight (mm)	Weight 100 pcs (kg/m)	Thickness (mm)	Deflection (mm)
Cantilever arm 50i- 100	150	80	19	1,5	5,6
Cantilever arm 50i- 200	250	85	29	1,5	5,9
Cantilever arm 50i- 300	350	110	46	1,5	9,8
Cantilever arm 50i- 400	450	115	83	2	10,9
Cantilever arm 50i- 500	550	150	170	2,5	9,7
Cantilever arm 50i- 600	650	150	191	2,5	10,5

Application/Limitation

The cable tray systems must be installed in accordance with the producer's loading table for the mentioned type.

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

Type Approval documentation

[Datasheet/Diagrams:](#)
[Defem Wire Trays 08 Art.nr.297105 \(Brochure\)](#)

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Test reports:

Schneider Electric CE file "Common accessories Wibe/Defem & Catalogue LSB02867_01-2015_EN issued 2016-05-09.

Schneider Test Report No. TST-2015/00195 undated.

Schneider Test Report No. TST-2016/00008 dated 2016-10-03.

Schneider Test Report No. TST-2016/00032 dated 2014-07-15.

Schneider Test Report No. TP1049 dated 1998-06-10.

Schneider Test Report No. TP1058 dated 1998-06-10.

Schneider Test Report No. TP1059 dated 1998-06-10.

SP rapport: 91M10530(1991-08-23), 91M10579 (1991-11-04), 91M10856 (1992-03-18), 94M51439 (1994-02-07), 94M51439A (1994-02-08), 94H14050 (1994-02-10), 94F20903 (1994-02-11), 97H50333a (1997-04-28), 99H50703 (1999-03-25), 97H50333b (2000-03-29), MKhP007525 (2000-07-25), additional info to 91M10856, 97H50333a,b and 99H507030 (2000-03-29), F205777 (2002-06-11)

Wibe rapport: WTO 801,802,...813 (2007-09-26 to 2007-10-24), WTO 825, 826,...833 (2007-10-25 to 2008-03-18), WTO 837,838 (2008-3-20)

Pavus rapport Zp-05-1.02.003 (2005-05-18)

Tests carried out

Load, corrosion, vibration, potential equalization and fire resistance tests

Marking of product

Defem and 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)
- 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 2 and 3,5 year.

END OF CERTIFICATE