



Marine & Offshore
Division

Certificate number: 04793/F0 BV

File number: ACE 01/003/35

Product code: 25011

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Nexans Deutschland GmbH

Mönchengladbach - GERMANY

for the type of product

CABLES (LOW VOLTAGE)

150/250V and 0.6/1 kV Type: MPRX, MPRXCX, MPRX-FLEXISHIP, MPRXCX-FLEXISHIP
0.6/1 kV Type: MPRXCX EMC, MPRXCX EMC FLEXISHIP

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships and Offshore Units.

IEC 60092-350 (2014), 353 (2011), 376 (2003), 360 (2014), IEC 60228 (2004), IEC 60332-1 (2004), IEC 60332-3-22 Cat.A (2009), IEC 60754-1/2 (2011), IEC 61034-1/2 (2013), IEC 60684-2 (2011)

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 11 Jan 2021

For BUREAU VERITAS,

At BV HAMBURG, on 11 Jan 2016,

Dirk Hoefner



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <http://www.veristarnb.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=cr02809kng>

BV Mod. Ad.E 530 October 2014

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Flame retardant, low smoke and halogen free Marine and Offshore Power, Control and Instrumentation cables.

1.1 - Common specifications:

Rated voltage:	150/250V or 0.6/1 kV
Temperature class:	90°C
Flame retardant:	IEC 60332-1 and IEC 60332-3-22 Cat. A
Low smoke:	IEC 61034-1/2
Halogen free:	IEC 60754-1/2 & IEC 60684-2

1.2 - Construction:

Conductor:	Plain or tinned copper (Class 2 or Class 5 for FLEXISHIP Types or Class 5 Sector Shaped for FLEXISHIP Types)
Insulation:	Halogen free cross-Linked Polyethylene (XLPE)
Armouring:	Plain or tinned copper braid (MPRXCX Type) and copper tape (optional, for EMC types)
Outer Sheath:	Halogen Free polyolefin (SHF1)

1.3 - Approval Range:

1.3.1 - Power Cables - 0.6/1 kV

Type	Number of cores	Cross sect. area (mm ²)
MPRX - MPRXCX	1 to 5	1 to 300
MPRX FLEXISHIP - MPRXCX FLEXISHIP	6 to 37	1 to 4
MPRXCX EMC	1 to 4	10 to 150
MPRXCX EMC FLEXISHIP		

1.3.2 - Instrumentation and Communication Cables - 150/250V

Type	Number of cores	Cross sect. area (mm ²)
MPRX - MPRXCX	2 to 48	0.5 - 0.75 - 1 - 1.5

2. DOCUMENTS AND DRAWINGS:

As per document filed in ACE 01/003/35.

3. TEST REPORTS:

3.1 - According to reports N°:

L 03081 / 1/5/7

L 03055 / 2/4/5

L 03058 / 2/3

L 03045 / 2

L 03086 / 6

All issued on 14 January 1998.

3.2 - Approval file dated 14.01.99 issued by Alcatel Cable. The tests were witnessed by a Society's Surveyor.

3.3 - Test reports dated 15/12/2003, 05/07/2004, 03/12/2004, 27/01/2004, 03/11/2003.

3.4 - Witnessed Approval Test certificates according to IEC 60332-1 dated 15/12/2003, 03/12/2004 and 21/07/2005.

4. APPLICATION / LIMITATION:

BUREAU VERITAS Rules for the Classification of Steel Ships and Offshore Units.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The cables are to be supplied by **Nexans Deutschland GmbH** in compliance with the type and the requirements described in this certificate.

5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.

5.3 - BV product certificate is required.

6. MARKING OF PRODUCT:

The cable shall be marked on the surface outer sheath, in a durable legible and visible manner, with the following information through the length of cable:

- 6.1 - Voltage grade
- 6.2 - Cable symbol & Temperature Class
- 6.3 -Applicable standard(s) to flame retardant
- 6.4 - No. of conductor & conductor size
- 6.5 - Manufacturer's name or trade mark
- 6.6 - Year of manufacture.

7. OTHERS :

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the cables at any time, and that **Nexans Deutschland GmbH**, will accept the responsibility for informing shipbuilders or their sub-contractors of the proper methods of use and general maintenance of the cables and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 04793/E2 BV issued on 19.Jun.2015 by the Society.

*** END OF CERTIFICATE ***