

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Electric Power Cable**

with type designation(s)

**SPCPEAS/TS/BS, DPCPEAS/TS/BS, TPCPEAS/TS/BS, QPCPEAS/TS/BS & FPCPEAS/TS/BS
0,6/1 kV**

Issued to

**Conductores Monterrey, S.A. de C.V. /Viakon
SAN NICOLAS DE LOS GARZA NUEVO LEÓN, Mexico**

is found to comply with

**Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske
Veritas' Offshore Standards
IEEE 1580 (2010)
IEC 60332-3-22 (2009-02)****Application :****General Power and lighting.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed
by DNV GL.****Voltage class (kV) 0,6/1
Temp. class (°C) 95**This Certificate is valid until **2019-06-30**.Issued at **Høvik** on **2015-07-27**for **DNV GL**DNV GL local station: **Long Beach**Approval Engineer: **Marta Alonso Pontes**

**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.

Job Id: **262.1-018970-2**
 Certificate No: **TAE0000076**

Product description

Type: SPCPEAS/TS/BS, DPCPEAS/TS/BS, TPCPEAS/TS/BS, QPCPEAS/TS/BS & FPCPEAS/TS/BS 0,6/1 kV

Construction:

Conductors: Tinned stranded copper flexible
 Core insulation: Type P (XLPO)
 Inner sheath: Type CPE
 Metal covering: Aluminium or Tinned copper or Bronze
 Outer sheath: Type CPE

Number of cores	Cross-section	Overall diameter Nominal
	AWG or MCM	mm
SPCPEAS/TS/BS		
1	18	8,9
1	16	9,1
1	14	9,5
1	12	10,0
1	10	10,8
1	8	12,1
1	6	14,3
1	4	15,8
1	2	17,2
1	1	20,1
1	1/0	22,1
1	2/0	23,5
1	3/0	25,7
1	4/0	28,1
1	263	29,9
1	313	31,6
1	374	33,3
1	444	35,2
1	535	38,1
1	646	40,3
1	777	44,5
1	1111	53,2
DPCPEAS/TS/BS		
2	8	19,6
2	6	23,6
2	4	27,5
2	2	30,3
2	1	34,6
2	1/0	36,6
2	2/0	39,4
2	3/0	45,4
2	4/0	48,2
2	262	53,3
2	313	56,6
2	373	59,9
2	444	63,8
2	535	71,1

Number of cores	Cross-section	Overall diameter Nominal
	AWG or MCM	mm
2	646	75,5
2	777	82,3
TPCPEAS/TS/BS		
3	8	20,5
3	6	24,7
3	4	28,9
3	2	31,9
3	1	36,5
3	1/0	38,7
3	2/0	41,7
3	3/0	48,0
3	4/0	52,6
3	262	56,4
3	313	60,0
3	373	63,6
3	444	67,8
3	535	75,5
3	646	81,8
3	777	87,5
FPCPEAS/TS/BS		
4	8	23,1
4	6	27,7
4	4	31,2
4	2	34,6
4	1	39,8
4	1/0	42,2
4	2/0	47,0
4	3/0	54,0
4	4/0	57,4
4	262	61,7
4	313	65,7
4	373	71,2
4	444	75,9
4	535	84,4
4	646	89,8
4	777	96,1

Job Id: **262.1-018970-2**
Certificate No: **TAE0000076**

Number of cores	Cross-section	Overall diameter Nominal
	AWG or MCM	mm
QPCPEAS/TS/BS		
5	8	24,8
5	6	29,8
5	4	33,8
5	2	37,6
5	1	44,9
5	1/0	47,5
5	2/0	52,8

Number of cores	Cross-section	Overall diameter Nominal
	AWG or MCM	mm
5	3/0	58,9
5	4/0	62,6
5	262	67,5
5	313	73,5
5	373	79,5
5	444	84,7
5	535	92,5
5	646	98,5
5	777	105,7

Application/Limitation

The requirements of SOLAS Amendments Chapter II-1, Part D, Reg. 45, 5.2 (provision to be taken to limit Fire Propagation along Bunches of Cables or Wires) are fulfilled without any additional measures.

Type Approval documentation

Tests carried out

Type test according to IEEE 1580-2010 and IEC 60332-22

Marking of product

CME WIRE AND CABLE SPCPE⁽¹⁾ or DPCPE⁽¹⁾ or TPCPE⁽¹⁾ or FPCPE⁽¹⁾ or QPCPE⁽¹⁾ – kcmil - 600/1000V

(1) AS or TS or BS, depending on the armor material

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 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