DNV·GL

Certificate No:
TAE00003D6

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electric Power Cable

with type designation(s)
BOSTRIG-125 Type P, ...PCPE,
BOSTRIG-125 Type P, SPCPE2kV(HD),
BOSTRIG-125 Type P VFD

Issued to
Prysmian Cables and Systems USA, LLC
Highland Heights, KY, USA

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Power, Lighting and Control including VFD variants. CPE sheath.

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Type	Rated voltage (kV)	Temp. class (°C)
BOSTRIG-125 Type P, ...PCPE	0,6/1	95
BOSTRIG-125 Type P, SPCPE2kV(HD)	2	95
BOSTRIG-125 Type P VFD	2	95

Issued at **Høvik** on **2020-11-17**
This Certificate is valid until **2024-12-31**.
DNV GL local station: **New York**

Approval Engineer: **Ivar Bull**

for **DNV GL**

Marta Alonso Pontes
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:

Prysmian Power Cables and Systems, Taunton, MA 02780, United States.

Product description

Construction:
Conductor: Tinned stranded copper
Insulation: XLPO
Filler: Flame Retardant, non hygroscopic (as needed)
Outer sheath: Thermoset CPE

Number of cores x conductor cross-section		Type designation
mm²	AWG/ MCM	
2 x 7,57	8	DPCPE-8
2 x 12,5	6	DPCPE-6
2 x 18,6	5	DPCPE-5
2 x 21,5	4	DPCPE-4
2 x 25,6	3	DPCPE-3
2 x 30,7	2	DPCPE-2
2 x 46,0	1	DPCPE-1
2 x 56,3	1/0	DPCPE-1/0
2 x 66,5	2/0	DPCPE-2/0
2 x 92,1	3/0	DPCPE-3/0
2 x 112,6	4/0	DPCPE-4/0
2 x 133,0	262	DPCPE-262
2 x 158,6	313	DPCPE-313
2 x 189,3	373	DPCPE-373
2 x 225,1	444	DPCPE-444
2 x 271,2	535	DPCPE-535
2 x 327,5	646	DPCPE-646
2 x 393,8	777	DPCPE-777
3 x 7,57	8	TPCPE-8
3 x 12,5	6	TPCPE-6
3 x 18,6	5	TPCPE-5
3 x 21,5	4	TPCPE-4
3 x 25,6	3	TPCPE-3
3 x 30,7	2	TPCPE-2
3 x 46,0	1	TPCPE-1
3 x 56,3	1/0	TPCPE-1/0
3 x 66,5	2/0	TPCPE-2/0
3 x 92,1	3/0	TPCPE-3/0
3 x 112,6	4/0	TPCPE-4/0
3 x 133,0	262	TPCPE-262
3 x 158,6	313	TPCPE-313
3 x 189,3	373	TPCPE-373
3 x 225,1	444	TPCPE-444
3 x 271,2	535	TPCPE-535
3 x 327,5	646	TPCPE-646
3 x 393,8	777	TPCPE-777
4 x 7,57	8	FPCPE-8
4 x 12,5	6	FPCPE-6
4 x 18,6	5	FPCPE-5
4 x 21,5	4	FPCPE-4
4 x 25,6	3	FPCPE-3
4 x 30,7	2	FPCPE-2

Number of cores x conductor cross-section		Type designation
mm²	AWG/ MCM	
4 x 46,0	1	FPCPE-1
4 x 56,3	1/0	FPCPE-1/0
4 x 66,5	2/0	FPCPE-2/0
4 x 92,1	3/0	FPCPE-3/0
4 x 112,6	4/0	FPCPE-4/0
4 x 133,0	262	FPCPE-262
4 x 158,6	313	FPCPE-313
4 x 189,3	373	FPCPE-373
4 x 225,1	444	FPCPE-444
4 x 271,2	535	FPCPE-535
4 x 327,5	646	FPCPE-646
4 x 393,8	777	FPCPE-777
5 x 7,57	8	QPCPE-8
5 x 12,5	6	QPCPE-6
5 x 18,6	5	QPCPE-5
5 x 21,5	4	QPCPE-4
5 x 25,6	3	QPCPE-3
5 x 30,7	2	QPCPE-2
5 x 46,0	1	QPCPE-1
5 x 56,3	1/0	QPCPE-1/0
5 x 66,5	2/0	QPCPE-2/0
5 x 92,1	3/0	QPCPE-3/0
5 x 112,6	4/0	QPCPE-4/0
7 x 7,57	8	7PCPE-8
4 x 3,08	12	[FP-12/C(OS)14P-4]CPE-8
4 x 1,94	14	
4 x 7,57	8	[FP-8/C(OS)14P-4]CPE-8
4 x 1,94	14	
4 x 21,5	4	[FP-4/C(OS)14P-4]CPE-8
4 x 1,94	14	
4 x 30,7	2	[FP-2/C(OS)14P-4]CPE-8
4 x 1,94	14	
4 x 46,0	1	[FP-1/C(OS)14P-4]CPE-8
4 x 1,94	14	
2 x 18,6	5	[DP-2/FP-8/C14P-26/
4 x 7,57	8	TP(I/S)14P-3]CPE-38
26 x 1,94	14	
3 x2 x1,94	14	
7 x 6,0	9	[C9P-7/C13P-7/

Number of cores x conductor cross-section		Type designation
mm²	AWG/ MCM	
7 x 2,5	13	C15P-12]CPE-26
12 x 1,5	15	
2 x 0,96	18	C18PCPE-2
3 x 0,96	18	C18PCPE-3
4 x 0,96	18	C18PCPE-4
5 x 0,96	18	C18PCPE-5
6 x 0,96	18	C18PCPE-6
7 x 0,96	18	C18PCPE-7
8 x 0,96	18	C18PCPE-8
10 x 0,96	18	C18PCPE-10
12 x 0,96	18	C18PCPE-12
16 x 0,96	18	C18PCPE-16
20 x 0,96	18	C18PCPE-20
24 x 0,96	18	C18PCPE-24
30 x 0,96	18	C18PCPE-30
37 x 0,96	18	C18PCPE-37
44 x 0,96	18	C18PCPE-44
45 x 0,96	18	C18PCPE-45
60 x 0,96	18	C18PCPE-60
91 x 0,96	18	C18PCPE-91
2 x 1,23	16	C16PCPE-2
3 x 1,23	16	C16PCPE-3
4 x 1,23	16	C16PCPE-4
5 x 1,23	16	C16PCPE-5
6 x 1,23	16	C16PCPE-6
7 x 1,23	16	C16PCPE-7
8 x 1,23	16	C16PCPE-8
10 x 1,23	16	C16PCPE-10
12 x 1,23	16	C16PCPE-12
16 x 1,23	16	C16PCPE-16
18 x 1,23	16	C16PCPE-18
20 x 1,23	16	C16PCPE-20
22 x 1,23	16	C16PCPE-22
24 x 1,23	16	C16PCPE-24
30 x 1,23	16	C16PCPE-30
37 x 1,23	16	C16PCPE-37
44 x 1,23	16	C16PCPE-44
60 x 1,23	16	C16PCPE-60
91 x 1,23	16	C16PCPE-91
2 x 1,94	14	C14PCPE-2 or DPCPE-14
3 x 1,94	14	C14PCPE-3 or TPCPE-14
4 x 1,94	14	C14PCPE-4 or FPCPE-14

Number of cores x conductor cross-section		Type designation
mm²	AWG/ MCM	
5 x 1,94	14	C14PCPE-5 or QPCPE-14
6 x 1,94	14	C14PCPE-6
7 x 1,94	14	C14PCPE-7
8 x 1,94	14	C14PCPE-8
10 x 1,94	14	C14PCPE-10
12 x 1,94	14	C14PCPE-12
14 x 1,94	14	C14PCPE-14
16 x 1,94	14	C14PCPE-16
19 x 1,94	14	C14PCPE-19
20 x 1,94	14	C14PCPE-20
24 x 1,94	14	C14PCPE-24
30 x 1,94	14	C14PCPE-30
37 x 1,94	14	C14PCPE-37
44 x 1,94	14	C14PCPE-44
60 x 1,94	14	C14PCPE-60
91 x 1,94	14	C14PCPE-91
2 x 3,08	12	C12PCPE-2 or DPCPE-12
3 x 3,08	12	C12PCPE-3 or TPCPE-12
4 x 3,08	12	C12PCPE-4 or FPCPE-12
5 x 3,08	12	C12PCPE-5 or QPCPE-12
6 x 3,08	12	C12PCPE-6
7 x 3,08	12	C12PCPE-7
8 x 3,08	12	C12PCPE-8
10 x 3,08	12	C12PCPE-10
12 x 3,08	12	C12PCPE-12
16 x 3,08	12	C12PCPE-16
20 x 3,08	12	C12PCPE-20
24 x 3,08	12	C12PCPE-24
30 x 3,08	12	C12PCPE-30
37 x 3,08	12	C12PCPE-37
44 x 3,08	12	C12PCPE-44
60 x 3,08	12	C12PCPE-60
91 x 3,08	12	C12PCPE-91
2 x 5,53	10	C10PCPE-2 or DPCPE-10
3 x 5,53	10	C10PCPE-3 or TPCPE-10
4 x 5,53	10	C10PCPE-4 or FPCPE-10
5 x 5,53	10	C10PCPE-5 or QPCPE-10
6 x 5,53	10	C10PCPE-6
7 x 5,53	10	C10PCPE-7
8 x 5,53	10	C10PCPE-8
9 x 5,53	10	C10PCPE-9
10 x 5,53	10	C10PCPE-10

VFD Cables:

Construction:
Conductor: Tinned stranded copper
Insulation: XLPO
Ground conductors: Three symmetrically distributed reduced ground conductors in interstices
Filler: Flame Retardant, non hygroscopic (as needed)
Shield: Tinned copper braid with 95% coverage
Outer sheath: Thermoset CPE

Number of cores x conductor cross-section:		Reduced grounds	Type designation
mm^2	AWG/MCM	SIZE (3)	
3x 7.6 + 3x 3,3	3x 8 AWG	12 AWG	TP(OBS)CPE-8 w/grds
3x 12.5 + 3x 3,3	3x 6 AWG	12 AWG	TP(OBS)CPE-6 w/grds
3x 18.5 + 3x 5,2	3x 5 AWG	10 AWG	TP(OBS)CPE-5 w/grds
3x 21.1 + 3x 5,2	3x 4 AWG	10 AWG	TP(OBS)CPE-4 w/grds
3x 27.2 + 3x 5,2	3x 3 AWG	10 AWG	TP(OBS)CPE-3 w/grds
3x 34.0 + 3x 5,2	3x 2 AWG	10 AWG	TP(OBS)CPE-2 w/grds
3x 43.0 + 3x 5,2	3x 1 AWG	10 AWG	TP(OBS)CPE-1 w/grds
3x 54.0 + 3x 5,2	3x 1/0 AWG	10 AWG	TP(OBS)CPE-1/0 w/grds
3x 70.0 + 3x 7,6	3x 2/0 AWG	8 AWG	TP(OBS)CPE-2/0 w/grds
3x 86.0 + 3x 7,6	3x 3/0 AWG	8 AWG	TP(OBS)CPE-3/0 w/grds
3x 109.0 + 3x 12,5	3x 4/0 AWG	6 AWG	TP(OBS)CPE-4/0 w/grds
3x 132.0 + 3x 12,5	3x 262 KCMIL	6 AWG	TP(OBS)CPE-262 w/grds
3x 159.0 + 3x 12,5	3x 313 KCMIL	6 AWG	TP(OBS)CPE-313 w/grds
3x 189.0 + 3x 12,5	3x 373 KCMIL	6 AWG	TP(OBS)CPE-373 w/grds
3x 227.0 + 3x 18,6	3x 444 KCMIL	5 AWG	TP(OBS)CPE-444 w/grds
3x 273.0 + 3x 18,6	3x 535 KCMIL	5 AWG	TP(OBS)CPE-535 w/grds
3x 326.0 + 3x 18,6	3x 646 KCMIL	5 AWG	TP(OBS)CPE-646 w/grds
3x 394.0 + 3x 18,6	3x 777 KCMIL	5 AWG	TP(OBS)CPE-777 w/grds
3x 562.0 + 3x 21,1	3x 1111 KCMIL	4 AWG	TP(OBS)CPE-1111 w/grds

Application/Limitation

The requirements of SOLAS Amendments 1981 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.

When HD cables are installed outside enclosure, precautions are to be taken to avoid mechanical damage.

Type Approval documentation

Tests carried out

Test according to IEEE 45 (2002), IEEE 1580 (2010) and IEC 60332-3 cat. A.

Marking of product

Draka 32 BOSTRIG P - -Type designation - Number and size of conductors – Voltage or
Draka 32 BOSTRIG P - VFD -Type designation - Number and size of conductors - Voltage.

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) and selected type tests (ref. to applicable class programs) checked (if not available these tests shall 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