

Certificate No:
E-11179
 File No:
827.10
 Job Id:
262.1-004504-3

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electric Power Cable

with type designation(s)

**MOR Polyrad XT-125, Type P, TP..PCP, TP(I/S)..PCP, TT(I/S)..PCP 0,6/1 kV,
 MOR Polyrad XT-125, Type P, TP(OS)..PCP, TP(I/S-OS)..PCP, TT(I/S-OS)..PCP 0,6/1 kV**

Issued to

**General Cable
 WILLIMANTIC CT, United States**

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)
 IEEE 45 1998
 IEC 60332-3-22 (2009-02)**

Application :

Control.

Mud resistant according to NEK606.

Type	Voltage class (kV)	Temp. class (°C)
MOR Polyrad XT-125, Type P, TP..PCP, TP(I/S)..PCP, TT(I/S)..PCP 0,6/1 kV	0,6/1	95
MOR Polyrad XT-125, Type P, TP(OS)..PCP, TP(I/S-OS)..PCP, TT(I/S-OS)..PCP 0,6/1 kV	0,6/1	95

This Certificate is valid until **2015-06-30**.

Issued at **Høvik** on **2014-08-26**

DNV GL local station: **New York**

Approval Engineer: **Ivar Bull**

for **DNV GL**

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**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. If any person suffers loss or damage which is proven to have been caused by any negligent act or omission of the Society, then the Society shall pay compensation to such person for his proven direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question. The maximum compensation shall never exceed USD 2 million. In this provision the "Society" shall mean DNV GL AS as well as all its direct and indirect owners, affiliates, subsidiaries, directors, officers, employees, agents and any other person or entity acting on behalf of DNV GL AS.

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Product description

MOR POLYRAD XT-125, Type P, TP..PCP, TP(I/S)..PCP, TT(I/S)..PCP 0,6/1 kV
 MOR POLYRAD XT-125, Type P, TP(OS)..PCP, TP(I/S-OS)..PCP, TT(I/S-OS)..PCP 0,6/1 kV

Conductors:	Tinned stranded copper
Insulation:	XLPO(Cross-linked Polyethylene) (Type P)
Screen:	Aluminium/Mylar tape w/ tinned copper drain wire or a tinned Copper wire braid. (I/S and O/S only)
Filler:	Flame Retardant, Non-hygroscopic Polypropylene (as needed)
Inner Sheath:	Chlorosulfonated Polyethylene (Type CP)

TP..PCP TP(OS)..PCP

Number of cores x conductor cross- section		Overall diameter	
mm ²	AWG/ MCM	mm	inches
1 x 2 x 0,62	20	8,48	0,334
2 x 2 x 0,62	20	11,58	0,456
4 x 2 x 0,62	20	13,31	0,524
7 x 2 x 0,62	20	15,75	0,62
10 x 2 x 0,62	20	19,89	0,783
1 x 2 x 0,96	18	8,99	0,354
2 x 2 x 0,96	18	12,40	0,488
4 x 2 x 0,96	18	14,27	0,562
7 x 2 x 0,96	18	16,97	0,668
10 x 2 x 0,96	18	22,53	0,887
1 x 2 x 1,22	16	9,35	0,368
2 x 2 x 1,22	16	12,98	0,511

Number of cores x conductor cross- section		Overall diameter	
mm ²	AWG/ MCM	mm	inches
3 x 2 x 1,22	16	13,69	0,539
4 x 2 x 1,22	16	14,96	0,589
5 x 2 x 1,22	16	16,41	0,646
7 x 2 x 1,22	16	17,81	0,701
8 x 2 x 1,22	16	19,33	0,761
10 x 2 x 1,22	16	23,67	0,932
12 x 2 x 1,22	16	24,41	0,961
14 x 2 x 1,22	16	25,65	1,010
24 x 2 x 1,22	16	33,32	1,312

TP(I/S)..PCP TP(I/S-OS)..PCP

Number of cores x conductor cross- section		Overall diameter	
mm ²	AWG/ MCM	mm	inches
1 x 2 x 0,62	20	8,51	0,335
2 x 2 x 0,62	20	12,83	0,505
3 x 2 x 0,62	20	14,10	0,555
4 x 2 x 0,62	20	14,86	0,585
7 x 2 x 0,62	20	17,65	0,695
10 x x 0,62	20	23,24	0,915
19 x x 0,62	20	27,94	1,100
25 x x 0,62	20	33,27	1,310
1 x 2 x 0,96	18	8,89	0,350
2 x 2 x 0,96	18	13,72	0,540
3 x 2 x 0,96	18	14,73	0,580
4 x 2 x 0,96	18	16,00	0,630
5 x 2 x 0,96	18	17,40	0,685
6 x 2 x 0,96	18	19,05	0,750
7 x 2 x 0,96	18	19,05	0,750
8 x 2 x 0,96	18	20,32	0,800
10 x 2 x 0,96	18	24,89	0,980
12 x 2 x 0,96	18	25,27	0,995

Number of cores x conductor cross- section		Overall diameter	
mm ²	AWG/ MCM	mm	inches
14 x 2 x 0,96	18	27,56	1,085
16 x 2 x 0,96	18	28,96	1,140
20 x 2 x 0,96	18	32,26	1,270
24 x 2 x 0,96	18	36,07	1,420
1 x 2 x 1,22	16	9,14	0,360
2 x 2 x 1,22	16	14,22	0,560
3 x 2 x 1,22	16	15,11	0,595
4 x 2 x 1,22	16	16,38	0,645
5 x 2 x 1,22	16	18,16	0,715
6 x 2 x 1,22	16	19,68	0,775
7 x 2 x 1,22	16	20,73	0,816
8 x 2 x 1,22	16	22,48	0,885
10 x 2 x 1,22	16	26,16	1,030
12 x 2 x 1,22	16	27,05	1,065
14 x 2 x 1,22	16	28,45	1,120
15 x 2 x 1,22	16	29,34	1,155
16 x 2 x 1,22	16	30,35	1,195
20 x 2 x 1,22	16	33,78	1,330

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Number of cores x conductor cross- section		Overall diameter	
mm ²	AWG/ MCM	mm	inches
22 x 2 x 1,22	16	35,43	1,395
24 x 2 x 1,22	16	37,46	1,475
1 x 2 x 1,94	14	10,03	0,395
2 x 2 x 1,94	14	15,75	0,620
3 x 2 x 1,94	14	16,38	0,645
4 x 2 x 1,94	14	18,54	0,730
5 x 2 x 1,94	14	20,45	0,805
6 x 2 x 1,94	14	22,73	0,895

Number of cores x conductor cross- section		Overall diameter	
mm ²	AWG/ MCM	mm	inches
7 x 2 x 1,94	14	22,73	0,895
12 x 2 x 1,94	14	30,61	1,205
20 x 2 x 1,94	14	33,65	1,325
30 x 2 x 1,94	14	46,74	1,840
1 x 2 x 3,08	12	11,05	0,435
10 x 2 x 3,08	12	33,15	1,305
12 x 2 x 3,08	12	34,16	1,345
1 x 2 x 5,52	10	12,57	0,495

TT(I/S)..PCP TT(I/S-OS)..PCP

Number of cores x conductor cross- section		Overall diameter	
mm ²	AWG/ MCM	mm	inches
1 x 3 x 0,96	18	9,27	0,365
2 x 3 x 0,96	18	13,72	0,540
3 x 3 x 0,96	18	15,87	0,625
4 x 3 x 0,96	18	17,27	0,680
5 x 3 x 0,96	18	18,92	0,745
6 x 3 x 0,96	18	20,70	0,815
7 x 3 x 0,96	18	20,70	0,815
1 x 3 x 1,22	16	9,65	0,380
2 x 3 x 1,22	16	14,73	0,580

Number of cores x conductor cross- section		Overall diameter	
mm ²	AWG/ MCM	mm	inches
3 x 3 x 1,22	16	16,64	0,655
4 x 3 x 1,22	16	18,16	0,715
5 x 3 x 1,22	16	19,94	0,785
6 x 3 x 1,22	16	24,13	0,950
7 x 3 x 1,22	16	24,13	0,950
8 x 3 x 1,22	16	26,67	1,050
12 x 3 x 1,22	16	31,88	1,255
16 x 3 x 1,22	16	35,31	1,390

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.

Type Approval documentation

Tests carried out

Type tests according to IEEE 45, IEC 60092-350 and IEC 60332-3 cat. A

Marking of product


MOR POLYRAD XT-125, Type P, TP..PCP or TP (I/S)..PCP or TT (I/S)..PCP or TP(OS)..PCP or TP(I/S-OS)..PCP or TT(I/S-OS)..PCP size, 0,6/1 kV – IEC 60332-3-22 - Lot No

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 survey 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.



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Survey to be performed at least every second year.

END OF CERTIFICATE