DNV·GL

Certificate No:
TAE000003M

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electric Power Cable

with type designation(s)
TU 0,6/1kV

Issued to
Falmat Inc.
SAN MARCOS CA, 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
IEC 60092-350 (2008-02)
IEC 60092-353 (2011-08)
IEC 60332-3-22 (2009-02)
IEC 60754-1 (2011-11)
IEEE 45 Section 18.13

Application :

Instrumentation and communication.
Flame retardant Cat. A. Low Halogen.

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)	**90**

This Certificate is valid until **2019-06-30**.

Issued at **Høvik** on **2015-07-01**

for **DNV GL**

DNV GL local station: **Long Beach**

Approval Engineer: **Georgy Abramenko**

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.

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Job Id: **262.1-002974-4**
Certificate No: **TAE000003M**

Product description

Type: TU 0,6/1 kV

Conductors: Tinned stranded copper
Insulation: XLPE
Filler: Halogen-free polyolefin
Screen: Alu/Mylar tape
Outer Sheath: SHF1

Number of cores conductor cross-section mm²
2 x 1,0
3 x 1,0
4 x 1,0
7 x 1,0
8 x 1,0
10 x 1,0
12 x 1,0
15 x 1,0
17 x 1,0
20 x 1,0
30 x 1,0
2 x 1,32
3 x 1,32
4 x 1,32
5 x 1,32
7 x 1,32
10 x 1,32
12 x 1,32
15 x 1,32
20 x 1,32
25 x 1,32
30 x 1,32
35 x 1,32
40 x 1,32
50 x 1,32
60 x 1,32

Number of cores conductor cross-section mm²
65 x 1,32
2 x 2,08
3 x 2,08
4 x 2,08
7 x 2,08
10 x 2,08
12 x 2,08
2 x 3,3
3 x 3,3
4 x 3,3
5 x 3,3
7 x 3,3
10 x 3,3
12 x 3,3
2 x 5,32
3 x 5,32
4 x 5,32
5 x 5,32
10 x 5,32
3 x 8,4
4 x 8,4
1 x 2 x 1,0

Number of cores conductor cross-section mm²
2 x 2 x 1,0
3 x 2 x 1,0
4 x 2 x 1,0
5 x 2 x 1,0
6 x 2 x 1,0
7 x 2 x 1,0
8 x 2 x 1,0
10 x 2 x 1,0
12 x 2 x 1,0
1 x 2 x 1,32
2 x 2 x 1,32
3 x 2 x 1,32
4 x 2 x 1,32
5 x 2 x 1,32
7 x 2 x 1,32
10 x 2 x 1,32
12 x 2 x 1,32
15 x 2 x 1,32
1 x 2 x 3,3
2 x 2 x 3,3
4 x 2 x 3,3
5 x 2 x 3,3
7 x 2 x 3,3
10 x 2 x 3,3
12 x 2 x 3,3

Number of cores conductor cross-section mm²
1 x 3 x 1,0
3 x 3 x 1,0
4 x 3 x 1,0
5 x 3 x 1,0
6 x 3 x 1,0
7 x 3 x 1,0
10 x 3 x 1,0
12 x 3 x 1,0
1 x 3 x 1,32
3 x 3 x 1,32
4 x 3 x 1,32
5 x 3 x 1,32
7 x 3 x 1,32
10 x 3 x 1,32
12 x 3 x 1,32
1 x 3 x 3,3
2 x 3 x 3,3
5 x 3 x 3,3
7 x 3 x 3,3
10 x 3 x 3,3
15 x 3 x 3,3

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 tests according to IEC 60092-350, IEC 60092-353, IEEE 45-1983 and IEC 60332-3,

Marking of product

FALMAT – TU – Size – 0,6/1 kV – IEC 60332 Cat. A – Lot. No.

Periodical assessment

The scope of the retention/renewal survey 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.

Survey to be performed at least every second year.

END OF CERTIFICATE