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SPECIFICATION
FOR
0.6/1kV FIRE RESISTANT CABLE
(MAX-FOH)

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SPECIFICATION

FOR

0.6/1kV FIRE RESISTANT CABLE

(MAX-FOH)

1. Scope

This specification covers 0.6/1kV concentric stranded plain annealed copper conductor, cross-linked polyethylene (XLPE) compound insulated , low smoke halogen free (LSHF) compound sheathed fire resistant cable comply to IEC 60502-1, IEC 60331, BS6387 Cat.CWZ, IEC60332-3-22.

2. Conductor

The conductor shall be concentric stranded plain annealed copper wires in accordance with IEC 60228 class 2.

3. Fire barrier

The fire barrier shall be two layer of mica tape applied over the conductor with overlap of 25% minimum and applied with binder tape (mylar tape) (optional).The thickness of mica tape shall be approximately 0.14 mm.

4. Insulation

The insulation shall be extruded with cross-linked polyethylene (XLPE) compound.

The average thickness of insulation shall be not less than the nominal value give in the attached table.

The minimum thickness at any point shall be not fall below the nominal value by more than 10% + 0.1 mm.

5. Identification of cores

Each cores shall be identified by :

1 Core : Natural

6. Sheath

The outer sheath shall be extruded with low smoke halogen free (LSHF) compound and meet requirement of IEC 60502-1, IEC 60332-3-22.

The average thickness of sheath shall be not less than the nominal value given in the attached table.

The minimum thickness shall be not fall below the nominal value by more than 15% + 0.1 mm.

The colour shall be orange.

7. Inspection and Test

The following test on the cable shall be performed IEC 60502-1 e.g.

1. Routine test

- Conductor resistance measurement.
- A.C. High voltage test.

2. Special test (Optional)

- Hot set test for XLPE insulation.
- IEC60331 : Fire resistant characteristics of electric cable
- IEC60332-3 : Tests on electric cable under fire conditions Part 3 test on bunched wires or cables
- BS6387 / SS299 Part 1 : Performance requirements for cables required to maintain circuit integrity under fire conditions -
 - Category C fire alone
 - Category W fire with water
 - Category Z fire with mechanical shock

8. Marking

The marking information shall be marked on the sheath surface of the cable the as follow :-

1. Manufacturer's name and/or trade mark.
2. Type of cable
3. Rated voltage.
4. Type of material
5. Standard
6. Number of core and size of conductor
7. Cable length marking interval 1 meter.

9. Packing

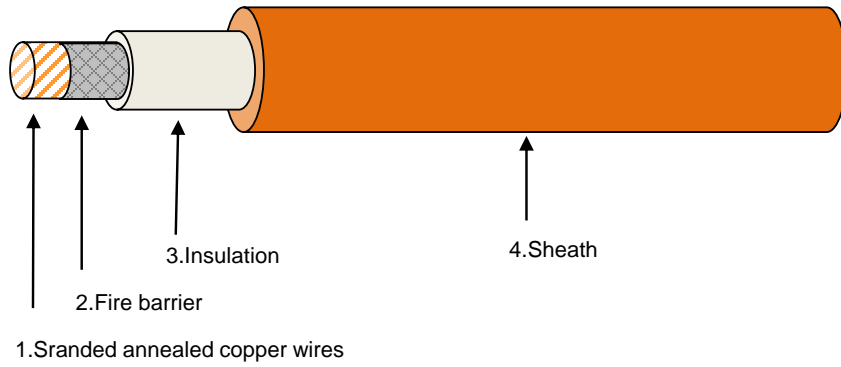
The length of cable shall be wound on a non-returnable wooden drum. Each drum shall have clearly at least information as follow :-

1. Manufacturer's name and/or trade mark.
2. Type of cable.
3. Number core and size of conductor
4. Length of the cable.
5. Net weight and gross weight
6. Drum number.

ATTACHED TABLE

No. of core	Conductor		Insulation thickness mm. (Nominal)	Sheath thickness mm. (Nominal)	Overall diameter of cable $\pm 10\%$ mm. (Approx.)	Conductor resistance at 20 °C Ω / km (Max.)	Cable weight kg / km (Approx.)	Standard length m/Drum (Approx.)
	Size mm ²	No.& dia. of wires No./mm.						
1	1.5	7/0.53	0.7	1.4	6.7	12.1	64	1000
1	2.5	7/0.67	0.7	1.4	7.2	7.41	77	1000
1	4	7/0.85	0.7	1.4	7.7	4.61	95	1000
1	6	7/1.04	0.7	1.4	8.3	3.08	122	1000
1	10	7/1.35	0.7	1.4	9.2	1.83	169	1000
1	16	7/1.70	0.7	1.4	10.2	1.15	233	1000
1	25	7/2.14	0.9	1.4	11.9	0.727	344	1000
1	35	19/1.53	0.9	1.4	13.3	0.524	453	1000
1	50	19/1.78	1.0	1.4	14.7	0.387	587	1000
1	70	19/2.14	1.1	1.4	16.7	0.268	810	1000
1	95	19/2.52	1.1	1.5	18.8	0.193	1087	1000
1	120	37/2.03	1.2	1.5	20.7	0.153	1351	500
1	150	37/2.25	1.4	1.6	22.8	0.124	1652	500
1	185	37/2.52	1.6	1.7	25.3	0.0991	2055	500
1	240	61/2.25	1.7	1.7	28.1	0.0754	2611	500
1	300	61/2.52	1.8	1.8	30.9	0.0601	3241	500
1	400	61/2.85	2.0	1.9	34.5	0.047	4109	500
1	500	61/3.20	2.2	2.1	38.5	0.0366	5151	300
1	630	127/2.52	2.4	2.2	43.1	0.0283	6672	300

Figure and description



Item No.	Description	Material
1	Conductor	Plain annealed copper stranded wires
2	Fire barrier	Mica tape
3	Insulation	Cross-linked polyethylene (XLPE)
4	Sheath	Low smoke halogen free (LSHF) compound