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SPECIFICATION
FOR
300/500V OVERALL SCREEN FIRE RESISTANT CABLE
(MAX-FOH-OSCR)

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Customer

SPECIFICATION

FOR

300/500V OVERALL SCREEN FIRE RESISTANT CABLE

(MAX-FOH-OSCR)

1. Scope

This specification covers 300/500V concentric stranded plain annealed copper conductor, cross-linked polyethylene (XLPE) compound insulated and low smoke halogen free (LSF) compound sheathed overall screened fire resistant cable.

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 30 % minimum and wrapped with binder tape mylar tape (optional).

The thickness of mica tape shall be approximately 0.13 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 Pair

Each pair shall be identified by :

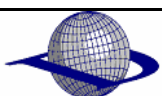
Single-core : Natural.

Single-pair : White and Black.

Multi-pairs : The pairs shall be one black and one white core , identified by numbering start from 1 up n (n = number of each pair) are printed on the insulation surface.

6. Pairs Assembly

Two cores shall be stranded together to form a pair.



7. Grouping pairs

The pair shall be stranded together. The binder tape shall be applied over the grouping pairs and optional PP-Yarn filler may be used to maintain a circular formation.

8. Overall screen

The polyester coated aluminium foil shall be applied over the grouping pair with an overlap minimum 25%. The aluminium shall be faced inside down in contact with the drain wire.

The thickness of screened tape shall be approximately 0.026 mm.

The drain wire consisting of tinned copper wire of minimum cross-section area 0.5 mm² (7/0.3 mm.) shall be laid under the screened.

9. Sheath

The sheath shall be extruded with low smoke halogen free (LSF) compound.

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 20% + 0.2 mm.

The colour shall be orange.

10. Inspection and Test

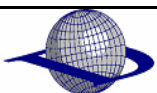
The following test on the cable shall be performed in accordance with IEC60502.

1. Routine test

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

2. Special test

- Conductor examination.
- Check of dimension.
- Hot set test for XLPE insulation.
- IEC60331 : Fire resistant characteristics of electric cable (750 °C for 3 hours)
- IEC60332-1 : Tests on electric cable under fire condition test on a single vertical insulate wire or cable.
- BS 6387 : Performance requirements for cable required to maintain circuit integrity under fire conditions.
Category **C** : tested at 950 °C for 3 hours.
Category **W** : fire with water
Category **Z** : fire with mechanical shock.



11. Marking

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

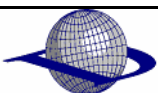
11.1 Manufacturer's name and/or trade mark.	" MCI-Draka Cable "
11.2 Properties of cable	" FIRE RESISTANT CABLE "
11.3 Rated voltage.	" 300/500V "
11.4 Type of cable.	" MAX-FOH-OSCR"
11.5 Standard	" BS 6387(950°C), IEC60331, IEC 60332-1 "
11.6 Number of pairs.	As per attached
11.7 Size of conductor.	As per attached

12. Packing

The length of cable shall be wound on a non-returnable wooden drum lagged.

Each drum shall be clearly marked as follows.

12.1 Manufacturer's name and/or trade mark.	" MCI-Draka Cable "
12.2 Type of cable.	" MAX-FOH-OSCR"
12.3 Number core.	As per attached
12.4 Size of conductor.	As per attached
12.5 Length of the cable.	As per attached
12.6 Net weight.	As per attached
12.7 Gross weight.	To be indicated
12.8 Drum number.	To be indicated

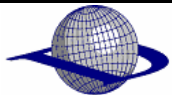


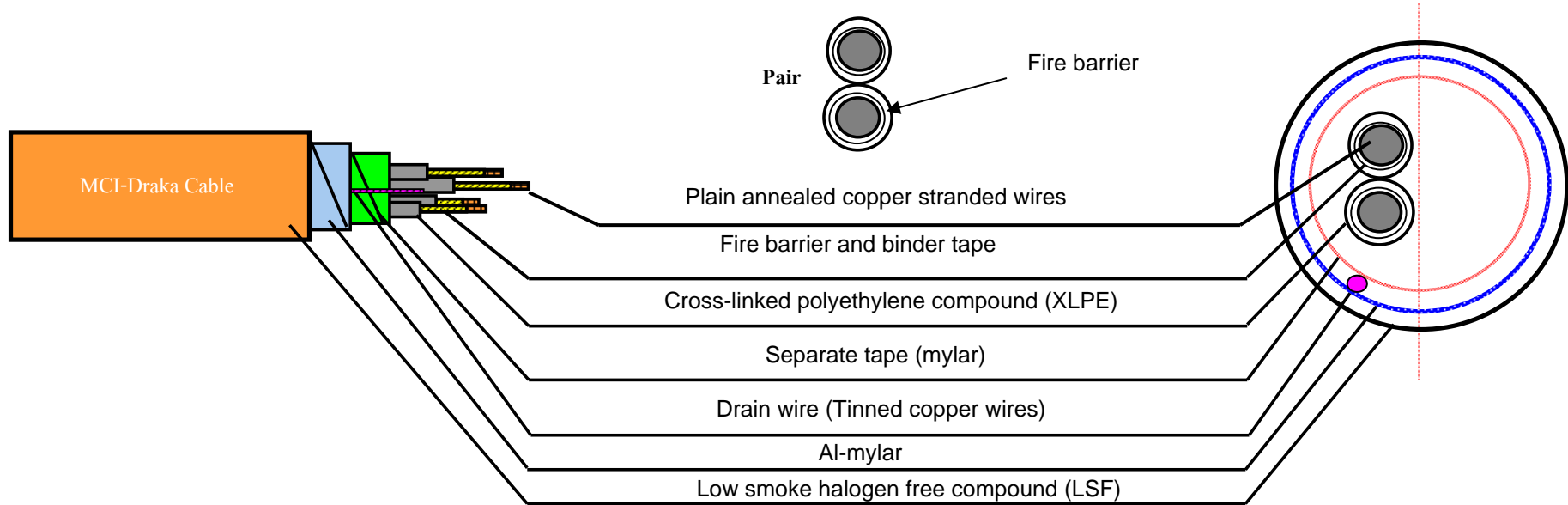
Attached Table

No. of core	No. of pair	Conductor			Insulation thickness mm. (Nominal)	Sheath thickness mm. (Nominal)	Overall diameter mm. (Approx.)	Cable weight kg./km. (Approx.)	Conductor resistance @ 20° C Ω / km. (Max.)	Standard length m.
		size mm ²	No.&dia. of wire No./mm.	Diameter of conductor mm. (Approx.)						
2	2	1.5	7/0.53	1.59	0.6	0.9	14.2	190	12.1	1000/D
2	2	2.5	7/0.67	2.01	0.6	1.0	15.5	248	7.41	1000/D

D : Packing in drum.

2 core = 1 pair





Item No.	Description	Material
1	Conductor	Plain annealed copper stranded wires.
2	Fire barrier	Mica tape.
3	Binding tape	Mylar tape(optional).
4	Insulation	Cross-linked polyethylene (XLPE).
5	Separate tape	Mylar tape
6	Drain wire	Tinned copper wires.
7	Shield	polyester coated aluminum foil.
8	Sheath	Low smoke halogen free (LSF).

