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FIREFLIX Fire Resistant Power & Control Cables

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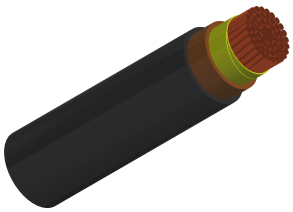
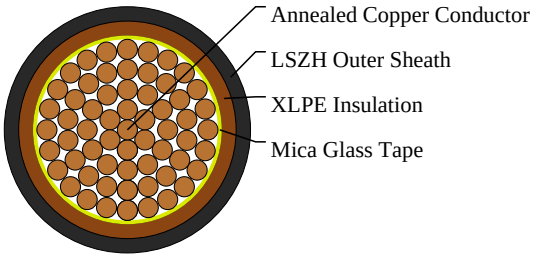
600/1000V Mica+XLPE Insulated, LSZH Sheathed Power Cables to BS 8573 (1C300)

FFX300 1mRZ1-R (CU/MGT+XLPE/LSZH 600/1000V Class 2)





APPLICATIONS

These XLPE insulated and LSZH sheathed cables are generally used for fixed installation. Suitable forbuilding wiring, especially in areas where smoke and fume emissions may cause a potential threat to life butnot for burial in the ground, either directly or in ducts.

STANDARDS

Basic design adapted from BS 8573:2012

FIRE PERFORMANCE

Circuit Integrity	IEC 60331-21; BS 6387; BS 8491
Flame Retardance (Single vertical wire or cable test)	IEC 60332-1-2; EN 60332-1-2
Reduced Fire Propagation (Vertically-mounted bundled wires & cables test)	IEC 60332-3-24; EN 60332-3-24
Halogen Free	IEC 60754-1; EN 50267-2-1
No Corrosive Gas Emission	IEC 60754-2; EN 50267-2-2
Minimum Smoke Emission	IEC 61034-2; EN 61034-2

VOLTAGE RATING

600/1000V

CABLE CONSTRUCTION

Conductor: Annealed copper conductor, stranded according to BS EN 60228 class 2.
Fire Barrier: Mica glass tape.
Insulation: XLPE type GP 8 according to BS 7655-1.3. HEPR type GP 6 according to BS 7655-1.2 or crosslinked polyolefin material type EI 5 according to BS EN 50363-5 can be offered as option.
Inner Covering Option: The optional inner covering, where used, shall consist of an extruded layer of synthetic polymeric material. It shall surround the single core and the laid-up two, three, four or five cores, giving the assembly a practically circular shape.
Outer Sheath: Extruded layer of polymeric material LTS 4 according to BS 7655-6.1.

Outer Sheath Option: UV resistance, hydrocarbon resistance, oil resistance, anti-rodent and anti-termite properties can be offered as option.

COLOUR CODE

Insulation Colour: Brown or blue.
Sheath Colour: Black; other colours can be offered upon request.

PHYSICAL AND THERMAL PROPERTIES

Maximum temperature range during operation: 90°C
Maximum short circuit temperature (5 Seconds): 250°C
Minimum bending radius:
circular copper conductors OD<=25mm: 4 × Overall Diameter
circular copper conductors OD>25mm: 6 × Overall Diameter
shaped copper conductors: 8 × Overall Diameter

Electrical Properties

Conductor operating temperature: 90°C
Ambient temperature: 30°C

DIMENSION AND PARAMETERS

No. of Cores × Cross-sectional Area	Conductor Class	Nominal Insulation Thickness	Nominal Thickness of Inner Covering	Nominal Sheath Thickness	Approx. Overall Diameter	Approx. Weight
No.×mm²		mm	mm	mm	mm	kg/km
1×300	2	1.8	1.0	1.8	30.9	3479

Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4E1A

Conductor Cross-sectional Area	Ref. Method A 2cables, 1-phase a.c. or d.c.	Ref. Method A 3/4 cables, 3-phase a.c.	Ref. Method B 2 cables, 1-phase a.c. or d.c	Ref. Method B 3/4 cables, 3-phase a.c.	Ref. Method C 2 cables, 1-phase a.c. or d.c. flat and touching	Ref. Method C 3/4 cables, 3-phase a.c. flat and touching or trefoil	Ref. Method F 2 cables, 1-phase a.c. or d.c. flat	Ref. Method F 3 cables, 3-phase a.c. flat	Ref. Method F 3 cables, 3-phase a.c. trefoil	Ref. Method G 2 cables, 1-phase a.c. or d.c. or 3 cables 3-phase a.c. Horizontal	Ref. Method G 2 cables, 1-phase a.c. or d.c. or 3 cables 3-phase a.c. Vertical
mm²	A	A	A	A	A	A	A	A	A	A	A
300	486	435	603	514	743	681	783	736	703	902	833

Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4E1B

Conductor Cross-sectional Area	2 cables d.c.	Ref. Methods A,B 2 cables, 1-phase a.c.	Ref. Methods C,F,G 2 cables, 1-phase a.c. (Cables touching)	Ref. Methods C,F,G 2 cables, 1-phase a.c. (Cables spaced)	Ref. Methods A,B 3 or 4 cables, 3-phase a.c.	Ref. Methods C,F,G 3 or 4 cables, 3-phase a.c. (Cables touching,Trefoil)	Ref. Methods C,F,G 3 or 4 cables, 3-phase a.c. (Cables touching,Flat)	Ref. Methods C,F,G 3 or 4 cables, 3-phase a.c. (Cables spaced,Flat)
mm²	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m

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300	0.155	r:0.175 x:0.25 z:0.31	r:0.160 x:0.160 z:0.22	r:0.155 x:0.25 z:0.29	r:0.150 x:0.22 z:0.27	r:0.140 x:0.140 z:0.195	r:0.135 x:0.160 z:0.21	r:0.135 x:0.24 z:0.27

Rated voltage

BS 8573

Circuit Integrity
IEC 60331-21/BS6387/BS 8491


Flame Retardancy
IEC 60332-1-2

Halogen Free
IEC 60754-1


Low Corrosivity
IEC 60754-2


Low Smoke Emission
IEC 61034-2


Reduced Fire Propagation
IEC 60332-3-24