Caledonian

FIRETOX LSZH Flame Retardant Power & Control Cables

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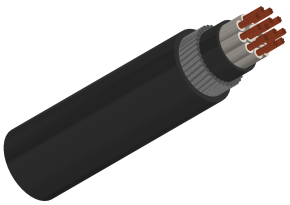
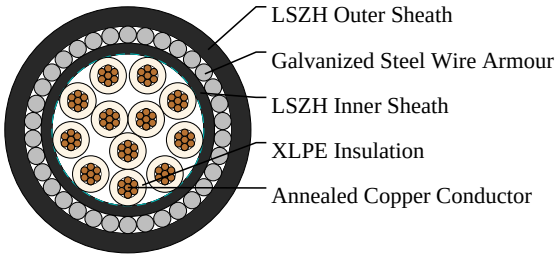
600/1000V XLPE Insulated, LSZH Sheathed, Armoured Power Cables to IEC 60502-1 (Multicore)

FTX400 1RZ1MZ1-R 12C2.5(CU/XLPE/LSZH/SWA/LSZH 600/1000V Class 2)





APPLICATIONS

The cables are mainly used in power stations, mass transit underground passenger systems,airports,petrochemical plants, hotels, hospitals and high-rise buildings. This product type is CE approved.

STANDARDS

Basic design to IEC 60502-1

APPROVALS

TUV Certification (B 098200 0033 Rev.00)

FIRE PERFORMANCE

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
CPR Compliance	Eca

VOLTAGE RATING

600/1000V

CABLE CONSTRUCTION

Conductor: The conductors shall be class 2 plain or metal-coated annealed copper in accordance with IEC 60228. Class 1 and class 5 conductor can be offered as option.
Insulation: Thermosetting XLPE material as per IEC 60502-1.
Inner Covering: Thermoplastic halogen free compound ST8 as per IEC 60502-1.
Armouring: Steel wire armour.
Outer Sheath: Thermoplastic halogen free compound ST8 as per IEC 60502-1.

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

COLOUR CODE

Core identification: White insulation with black printed numerals. (Other colors available upon request)
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: 6 × Overall Diameter
shaped copper conductors: 8 × Overall Diameter

Electrical Properties

Conductor operating temperature: 90°C
Air ambient temperature: 30°C
Ground ambient temperature: 20°C

DIMENSION AND PARAMETERS

No. of Cores × Cross-sectional Area	Conductor Class	Nominal Insulation Thickness	Nominal Bedding Thickness	Nominal Sheath Thickness	Nominal Steel Wire Armour Diameter	Approx. Overall Diameter	Approx. Weight
No.×mm²		mm	mm	mm	mm	mm	kg/km
12×2.5	2	0.7	1.0	1.8	1.6	24.0	1214

Current-Carrying Capacities (Amp) according to Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4E4A

Conductor Cross-sectional Area	Ref. Method C One 1C cable, 1-phase a.c. or d.c.	Ref. Method C One 3C or 4C cable, 3-phase a.c.	Ref. Method D One 2C cable, 1-phase a.c. or d.c.	Ref. Method D One 3C or 4C cable, 3-phase a.c.	Ref. Method E One 2C cable, 1-phase a.c. or d.c.	Ref. Method E One 3C or 4C cable, 3-phase a.c.
mm²	A	A	A	A	A	A
2.5	36	31	33	28	39	33

Voltage Drop (Per Amp Per Meter) according to Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4E4B

Conductor Cross-sectional Area	2C cable, d.c.	2C cable, 1-phase a.c.	3C or 4C cable, 3-phase a.c.
mm²	mV/A/m	mV/A/m	mV/A/m
2.5	19	19	16

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Rated voltage



Flame Retardancy
IEC 60332-1-2



Halogen Free
IEC 60754-1



IEC60502-1



Low Corrosivity
IEC 60754-2



Low Smoke Emission
IEC 61034-2



Reduced Fire Propagation
IEC 60332-3-24