## Caledonian

FIRETOX LSZH Flame Retardant Power \& Control Cables
www.caledonian-cables.com marketing@caledonian-cables.com

600/1000V XLPE Insulated, LSZH Sheathed Power Cables to IEC 60502-1 (2 Cores)
FTX400 1RZ1-R 2C10 (CU/XLPE/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 TUV approved.

## STANDARDS

Basic design to IEC 60502-1
APPROVALS
TUV Certification (B 0982000033 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 <br> 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: 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 and thickness shall be as per IEC 60502-1.
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
Insulation Colour

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2-core: Brown and blue.
3-core: Brown, black and grey.
4-core: Blue, brown, black and grey.
5-core: Green and yellow, blue, brown, black, grey.
Above 5 Cores: Black cores with white numerals.
Other colours can be offered upon request.
Sheath Colour: Black; other colours can be offered upon request

## PHYSICAL AND THERMAL PROPERTIES

Maximum temperature range during operation: $90^{\circ} \mathrm{C}$
Maximum short circuit temperature ( 5 Seconds): $250^{\circ} \mathrm{C}$
Minimum bending radius
circular copper conductors $\mathrm{OD}<=25 \mathrm{~mm}$ : $4 \times$ Overall Diameter
circular copper conductors OD>25mm: $6 \times$ Overall Diameter
shaped copper conductors: $8 \times$ Overall Diameter

## Electrical Properties

Conductor operating temperature: $90^{\circ} \mathrm{C}$
Ambient temperature: $30^{\circ} \mathrm{C}$

## DIMENSION AND PARAMETERS

| No. of Cores <br> $\times$ Cross- <br> sectional Area | Conductor Class | Nominal <br> Insulation <br> Thickness | Nominal Sheath <br> Thickness | Approx. Overall <br> Diameter | Approx. <br> Weight |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. $\times \mathrm{mm}^{2}$ |  | mm | mm | mm | $\mathrm{~kg} / \mathrm{km}$ |
| $2 \times 10$ | 2 | 0.7 | 1.8 | 13.6 | 349 |

Current-Carrying Capacities (Amp) according to BS 7671:2008 table 4E2A

| Conductor <br> Cross- <br> sectional Area | Ref. Method <br> A 2cables, <br> 1-phase <br> a.c. or d.c. | Ref. Method <br> A 3/4 cables, <br> 3-phase a.c. | Ref. Method B 2 <br> cables, 1-phase <br> a.c. or d.c | Ref. Method <br> B 3/4 cables, <br> 3 -phase a.c. | Ref. Method C 2 <br> cables, 1-phase <br> a.c. or d.c. flat <br> and touching | Ref. Method C <br> 3/4 cables, 3- <br> phase a.c. flat <br> and touching <br> or trefoil | Ref. Method <br> Eable, One 2C | Ref. Method <br> E One 3C or <br> a.c. or d.c. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{mm}^{2}$ | A | A | A | A cable, 3- |  |  |  |  |
| phase a.c. |  |  |  |  |  |  |  |  |

Voltage Drop (Per Amp Per Meter) according to BS 7671:2008 table 4E2B

| Conductor Cross-sectional Area | 2C cable, d.c. | 2C cable, 1-phase a.c. | 3C or 4C cable, 3-phase a.c. |
| :---: | :---: | :---: | :---: |
| $\mathrm{mm}^{2}$ | $\mathrm{mV} / \mathrm{A} / \mathrm{m}$ | $\mathrm{mV} / \mathrm{A} / \mathrm{m}$ | $\mathrm{mV} / \mathrm{A} / \mathrm{m}$ |
| 10 | 4.7 | 4.7 | 4.0 |

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