







## 'ENHANCED' FIRE RESISTANT CABLE 300/500 V





## Conductor

Plain annealed copper. Solid (1.5 & 2.5 mm<sup>2</sup>) or stranded circular conductors (4.0 mm<sup>2</sup>) to meet the requirements of BS EN 60228 class 1 or class 2.

### Insulation

High performance, damage resistant enhanced Insudite<sup>™</sup> to meet BS EN 50363-5, Type El5. Including mica tape for 2c4mm<sup>2</sup> and all 3 & 4

## Overall metallic screen and CPC

Polyester backed laminated aluminium or copper tape bonded to outer sheath to provide overall screen. In contact with full sized, tinned annealed copper circuit protective conductor and laid-up with the cores to provide automatic screen earthing

## Sheath

Robust thermoplastic low smoke, zero halogen and reduced flame propagation outer sheath. Standard colours white and red with bespoke colours available to special order. Suitable for outdoor installation with exposure to normal daylight UV.

# **Key Applications**

- > Fire detection and fire alarm systems for buildings
- > Voice alarm systems and emergency voice communication
- > Emergency and escape lighting
- > Control circuits for fire safety and fire fighting systems
- > Other essential service control circuits for 'enhanced' fire resistance

# British Standards, Tests & Approvals

- > BS 7629-1 Enhanced 120\*
- > BS EN 50200 PH30, PH60, PH120\*
- > BS 8434-2 Flame, impact & water test for 'enhanced' cable\*
- > BS 5839-1, 6, 8 & 9 'enhanced' fire resisting cable\*
- > BS 5266-1 'enhanced' fire resisting cable
- > BS 8519 catagory 2 contol cable
- > BASEC approved
- > LPCB approved\*
- > BS 6387 CWZ\*

### Core identification

Harmonised - standard

- o o brown-blue
- o o o brown-black-grey
- o o o blue-brown-black-grey

Non harmonised - to special order

- o o red-black
- oo red-yellow-blue
- oooo black-red-yellow-blue



-20 to +70°C



Bending Radius r=6D







Rigid



Halogen Free



Low Smoke Emissions BS EN 61034-2



BS EN 50200 PH30, PH60, PH120 BS 8434-2 BS 6387 CW2

| Nominal<br>cross<br>sectional | Conductor<br>Construction | Approximate<br>overall<br>diameter | Approximate cable weight | Maximum<br>conductor<br>resistance<br>at 20°C | Current<br>rating DC or<br>single phase<br>AC<br>Enclosed | Current<br>rating DC or<br>single phase<br>AC<br>Clipped direct | Volt drop<br>DC or single<br>phase<br>AC | Recommended accessories<br>Colour - White or Red |                         |
|-------------------------------|---------------------------|------------------------------------|--------------------------|---|---|---|--|--|-------------------------|
| area                          |                           |                                    |                          |   |   |   |  | LSOH   | Nylon                   |
| mm²                           | no/mm                     | mm                                 | kg/km                    | Ω/km  | Amps  | Amps  | mV/A/m                                   | fixing<br>clips                                  | LSOH <sup>°</sup> gland |
| Two core                      |                           |                                    |                          |   |   |   |  |  |                         |
| 1.5                           | 1/1.38                    | 9.2                                | 115                      | 12.1  | 16.5  | 19.5  | 29                                       | AP9  | 251/GL2520              |
| 2.5                           | 1/1.78                    | 11.5                               | 180                      | 7.41  | 23  | 27  | 18                                       | AP11   | 252/GL2520              |
| 4.0*                          | 7/0.85                    | 12.2                               | 235                      | 4.6   | 30  | 36  | 11                                       | AP12   | 252                     |
|                               |                           |                                    |                          |   |   |   |  |  |                         |
|                               |                           |                                    |                          | Three   |   |   |  |  |                         |
| 1.5                           | 1/1.38                    | 11.7                               | 175                      | 12.2  | 16.5  | 19.5  | 29                                       | AP11   | 252/GL2520              |
| 2.5                           | 1/1.78                    | 12.7                               | 230                      | 7.41  | 23  | 27  | 18                                       | AP12   | 252                     |
| 4.0*                          | 7/0.85                    | 13.0                               | 290                      | 4.6   | 30  | 36  | 11                                       | AP13   | 252                     |
|                               |                           |                                    |                          |   |   |   |  |  |                         |
| Four Core Four Core           |                           |                                    |                          |   |   |   |  |  |                         |
| 1.5                           | 1/1.38                    | 12.5                               | 210                      | 12.2  | 16.5  | 19.5  | 29                                       | AP12   | 252                     |
| 2.5                           | 1/1.78                    | 13.5                               | 270                      | 7.41  | 23  | 27  | 18                                       | AP13   | 254                     |
| 4.0*                          | 7/0.85                    | 14.7                               | 355                      | 4.6   | 30  | 36  | 11                                       | AP14   | 254                     |
|                               |                           |                                    |                          |   |   |   |  |  |                         |

<sup>\*</sup>Product FP PLUS FLEX

### Notes to table

- > Recommended clip spacing 300 mm horizontal and 400mm vertical.
- > Minimum recommended installation temperature 0°C. Installation methods for current rating in accordance with BS7671/IET Wiring Regulations.
- > The tabulated ratings are based upon a 30°C ambient temperature and 70°C operating temperature. For other ambient temperatures or where cables are grouped together, appropriate de-rating factors should be applied.
- > De-rate by factor 0.8 when 4 cores are loaded

## Correction factors for Ambient temperatures: Table 4B1

| Ambient Temperature°C                                | 25   | 30   | 35   | 40   | 45   | 50   |
|--|------|------|------|------|------|------|
| Rating factor  | 1.03 | 1.00 | 0.94 | 0.87 | 0.79 | 0.71 |
| Correction factors for grouping of cables: Table 4C1 |      |      |      |      |      |      |

| Number of cables | 2    | 3    | 4    | 5    | 6    | 7    |
|------------------|------|------|------|------|------|------|
| Rating factor    | 0.80 | 0.70 | 0.65 | 0.60 | 0.57 | 0.54 |

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Should you have any concerns about unsafe, non-approved or counterfeit cable, please contact the ACI

Tel: 020 8946 6978 Email: report@aci.org.uk



For further information please see our dedicated FP Cables website: www.fpcables.co.uk



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