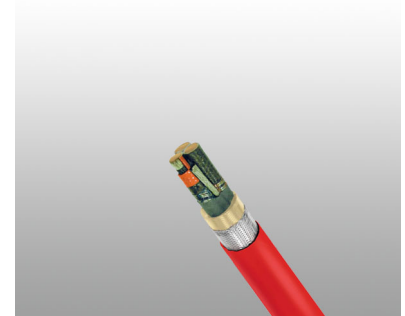




### P2 or P2/P9 RFOU/TFOU 3.6/6KV

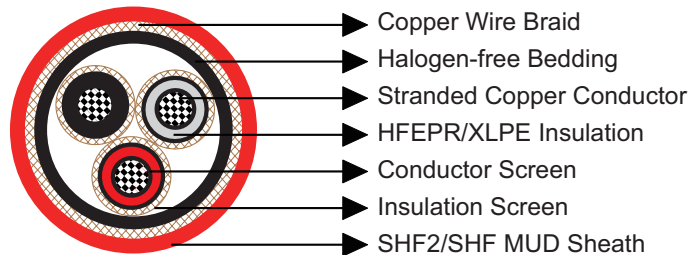
#### Applications

These cables are flame retardant, low smoke, halogen free and mud resistant, used for fixed installation for medium voltage power.



#### Standards

- IEC 60092-354
- IEC 60092-351
- IEC 60092-359
- IEC 60332-1
- IEC 60332-3-22
- IEC 60754-1,2
- IEC 61034-1,2
- NEK 606:2004



#### Construction

- **Conductors:** Circular tinned annealed stranded copper to IEC 60228 class 2.
- **Conductor Screen:** Semi conducting material.
- **Insulation:** Halogen-free EPR. XLPE can be offered as an option (for TFOU cable).
- **Insulation Screen:** Semi conducting material and tinned copper wire braid.
- **Bedding:** Halogen free compound.
- **Armour:** Tinned copper wire braid.
- **Outer Sheath:** Halogen free thermosetting compound, SHF2 (for TYPE P2), or halogen free mud resistant thermosetting compound, SHF MUD (for TYPE P2/P9), coloured red.

#### Electrical Characteristics

|                            |                 |     |     |     |     |      |      |      |
|----------------------------|-----------------|-----|-----|-----|-----|------|------|------|
| Nominal Cross Section Area | mm <sup>2</sup> | 16  | 25  | 35  | 50  | 70   | 95   | 120  |
| Nominal Conductor Diameter | mm              | 5.1 | 6.5 | 7.4 | 8.7 | 10.3 | 12.2 | 13.8 |



## Medium Voltage Power Cables

[www.caledonian-cables.co.uk](http://www.caledonian-cables.co.uk)

|                                       |      |       |       |       |       |       |       |       |
|---------------------------------------|------|-------|-------|-------|-------|-------|-------|-------|
| Maximum DC Resistant@20°C             | Ω/km | 1.16  | 0.734 | 0.529 | 0.391 | 0.27  | 0.195 | 0.154 |
| Continuous Current Rating@45°C 1 Core | A    | 96    | 127   | 157   | 196   | 242   | 293   | 339   |
| Continuous Current Rating@45°C 3 Core | A    | 67    | 89    | 110   | 137   | 169   | 205   | 237   |
| Short Circuit Current 1s              | A    | 2290  | 3580  | 5010  | 7150  | 10020 | 13590 | 17170 |
| Operating Voltage                     | KV   | 3.6/6 | 3.6/6 | 3.6/6 | 3.6/6 | 3.6/6 | 3.6/6 | 3.6/6 |

|                                       |                 |       |       |        |        |        |        |        |
|---------------------------------------|-----------------|-------|-------|--------|--------|--------|--------|--------|
| Nominal Cross Section Area            | mm <sup>2</sup> | 150   | 185   | 240    | 300    | 400    | 500    | 630    |
| Nominal Conductor Diameter            | mm              | 15.1  | 17.0  | 19.6   | 21.9   | 24.6   | 27.6   | 32.5   |
| Maximum DC Resistant@20°C             | Ω/km            | 0.126 | 0.1   | 0.0762 | 0.0607 | 0.0475 | 0.0369 | 0.0286 |
| Continuous Current Rating@45°C 1 Core | A               | 389   | 444   | 522    | 601    | 690    | 780    | 890    |
| Continuous Current Rating@45°C 3 Core | A               | 272   | 311   | 365    | 421    | 483    | 546    | 623    |
| Short Circuit Current 1s              | A               | 21460 | 26470 | 34340  | 42930  | 57230  | 71540  | 90140  |
| Operating Voltage                     | KV              | 3.6/6 | 3.6/6 | 3.6/6  | 3.6/6  | 3.6/6  | 3.6/6  | 3.6/6  |

## Ambient Temperature Correction Factors

|  |     |      |     |      |      |      |      |      |      |      |
|--|-----|------|-----|------|------|------|------|------|------|------|
| Ambient Temperature Correction Factors | 35  | 40   | 45  | 50   | 55   | 60   | 65   | 70   | 75   | 80   |
| Rating Factor                          | 1.1 | 1.05 | 1.0 | 0.94 | 0.88 | 0.82 | 0.74 | 0.67 | 0.58 | 0.47 |

## Mechanical and Thermal Properties

- Bending Radius: 15×OD (during installation); 9×OD (fixed installed)
- Temperature Range: -20°C ~ +90°C

## Dimensions and Weight

| Construction<br>No. of cores×Cross<br>section(mm <sup>2</sup> ) | Nominal Insulation<br>Thickness<br>mm | Nominal Sheath Thickness<br>mm |       | Nominal Overall<br>Diameter<br>mm | Nominal Weight<br>kg/km |
|---|---------------------------------------|--------------------------------|-------|-----------------------------------|-------------------------|
|   |                                       | Inner                          | Outer |                                   |                         |
| 1×16  | 2.5                                   | 1.0                            | 1.6   | 22.8                              | 780                     |
| 1×25  | 2.5                                   | 1.0                            | 1.6   | 24.0                              | 1020                    |
| 1×35  | 2.5                                   | 1.0                            | 1.7   | 25.1                              | 1155                    |
| 1×50  | 2.5                                   | 1.0                            | 1.7   | 26.3                              | 1320                    |
| 1×70  | 2.5                                   | 1.0                            | 1.8   | 28.2                              | 1595                    |
| 1×95  | 2.5                                   | 1.0                            | 1.9   | 30.0                              | 1905                    |
| 1×120   | 2.5                                   | 1.0                            | 1.9   | 31.8                              | 2235                    |





| Construction<br>No. of cores×Cross<br>section(mm <sup>2</sup> ) | Nominal Insulation<br>Thickness<br>mm | Nominal Sheath Thickness<br>mm |       | Nominal Overall<br>Diameter<br>mm | Nominal Weight<br>kg/km |
|---|---------------------------------------|--------------------------------|-------|-----------------------------------|-------------------------|
|   |                                       | Inner                          | Outer |                                   |                         |
| 1×150   | 2.5                                   | 1.2                            | 2.0   | 33.5                              | 2550                    |
| 1×185   | 2.5                                   | 1.2                            | 2.1   | 35.4                              | 3015                    |
| 1×240   | 2.6                                   | 1.2                            | 2.2   | 38.8                              | 3725                    |
| 1×300   | 2.8                                   | 1.2                            | 2.3   | 42.3                              | 4625                    |
| 1×400   | 3.0                                   | 1.4                            | 2.5   | 46.6                              | 5420                    |
| 1×500   | 3.2                                   | 1.4                            | 2.6   | 50.8                              | 6610                    |
| 1×630   | 3.2                                   | 1.4                            | 2.8   | 55.1                              | 8170                    |
| 3×16  | 2.5                                   | 1.2                            | 2.3   | 44.9                              | 2930                    |
| 3×25  | 2.5                                   | 1.2                            | 2.4   | 45.4                              | 3390                    |
| 3×35  | 2.5                                   | 1.4                            | 2.5   | 47.6                              | 3820                    |
| 3×50  | 2.5                                   | 1.4                            | 2.6   | 50.9                              | 4495                    |
| 3×70  | 2.5                                   | 1.4                            | 2.8   | 54.8                              | 5585                    |
| 3×95  | 2.5                                   | 1.6                            | 2.9   | 58.9                              | 6765                    |
| 3×120   | 2.5                                   | 1.6                            | 3.1   | 63.5                              | 8165                    |
| 3×150   | 2.5                                   | 1.6                            | 3.2   | 67.4                              | 9495                    |
| 3×185   | 2.5                                   | 1.6                            | 3.4   | 75.8                              | 10660                   |
| 3×240   | 2.6                                   | 1.8                            | 3.6   | 82.3                              | 11660                   |
| 3×300   | 2.8                                   | 1.8                            | 3.9   | 89.3                              | 12940                   |

Note: For XLPE insulated cable, a thinner insulation thickness is applied.

