



## ● Application

Medium voltage power cables specifically designed for robust power transmission and distribution in medium voltage networks. These cables are engineered to be suitable for underground installations, within cable ducting, and direct burial, making them ideal for use in utility networks, industrial plants, and commercial infrastructure where reliable and efficient power delivery is crucial. The cables are also well-suited for applications that require high mechanical protection and resistance to environmental stressors such as UV radiation, chemicals, and oils.

## ● Performance

Voltage rating  $U_0/U(Um)$ : 8.7/15(17.5)kV

Mechanical performance:

Minimum bending radius of single core: 15 x overall diameter

Minimum bending radius of three cores: 12 x overall diameter

Single core: 12 x overall diameter and three cores: 10 x overall diameter where bends are positioned adjacent to a joint or termination, provided that the bending is carefully controlled by the use of a former.

Temperature rating:

Fixed: 0°C to +90°C

Fire performance:

Flame retardant according to IEC/EN 60332-1-2 standard

Reduced emission of halogens chlorine <15%

## ● Construction

Conductor: Class 2 stranded copper conductor

Conductor Screen: Semi-conductive XLPE (Cross-Linked Polyethylene)

Insulation: XLPE (Cross-Linked Polyethylene)

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Metallic Screen: Individual or collective overall copper tape screen

Filler: PET (polyethylene terephthalate) fibres

Separator: Binding tape

Inner Sheath: PVC (Polyvinyl chloride)

Armour:

Single-core conductor: AWA (Aluminium Wire Armouring)

Multi-core conductor: SWA (Steel Wire Armouring)

Outer Sheath: PVC (Polyvinyl chloride)

Sheath Colour: Red, black

## ● Specification

-BS 6622, IEC/EN 60228

## ● Eastful Cable Lab



We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction.

CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

## ● Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TÜV Rheinland and CCS.



## ● National Green Factory



Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China.

We are committed to the development of high-end, intelligent and green manufacturing industry.

\*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

## ● Technical Parameters

| Physical Performance Parameters |                            |                   |              |  |       |                  |         |                |
|---------------------------------|----------------------------|-------------------|--------------|--|-------|------------------|---------|----------------|
| Number of Cores                 | Nominal Cross Section Area | Minimum Thickness |              | Nominal Thickness of Semi Conductive Layer |       | Nominal Diameter |         | Nominal Weight |
|                                 |                            | Insulation        | Outer Sheath | Inner                                      | Outer | Over Insulation  | Overall |                |
| -                               | mm <sup>2</sup>            | mm                | mm           | mm   | mm    | mm               | mm      | kg/km          |
| 1                               | 50                         | 3.95              | 1.32         | 0.50                                       | 0.80  | 19.50            | 29      | 1400           |
| 1                               | 70                         | 3.95              | 1.40         | 0.50                                       | 0.80  | 21.10            | 31      | 1700           |
| 1                               | 95                         | 3.95              | 1.48         | 0.50                                       | 0.80  | 22.80            | 34      | 2100           |
| 1                               | 120                        | 3.95              | 1.48         | 0.50                                       | 0.80  | 24.10            | 35      | 2350           |
| 1                               | 150                        | 3.95              | 1.56         | 0.50                                       | 0.80  | 26.00            | 37      | 2700           |
| 1                               | 185                        | 3.95              | 1.56         | 0.50                                       | 0.80  | 27.30            | 39      | 3200           |
| 1                               | 240                        | 3.95              | 1.64         | 0.50                                       | 0.80  | 30.00            | 42      | 3750           |
| 1                               | 300                        | 3.95              | 1.72         | 0.50                                       | 0.80  | 32.10            | 45      | 4600           |
| 1                               | 400                        | 3.95              | 1.80         | 0.50                                       | 0.80  | 35.00            | 48      | 5500           |
| 1                               | 500                        | 3.95              | 1.88         | 0.50                                       | 0.80  | 38.00            | 51      | 6750           |
| 1                               | 630                        | 3.95              | 1.96         | 0.50                                       | 0.80  | 42.10            | 56      | 8200           |
| 3                               | 50                         | 3.95              | 2.12         | 0.50                                       | 0.80  | 19.50            | 57      | 5500           |
| 3                               | 70                         | 3.95              | 2.20         | 0.50                                       | 0.80  | 21.10            | 61      | 6500           |
| 3                               | 95                         | 3.95              | 2.28         | 0.50                                       | 0.80  | 22.80            | 65      | 7600           |
| 3                               | 120                        | 3.95              | 2.36         | 0.50                                       | 0.80  | 24.10            | 68      | 8600           |
| 3                               | 150                        | 3.95              | 2.52         | 0.50                                       | 0.80  | 26.00            | 74      | 10500          |
| 3                               | 185                        | 3.95              | 2.60         | 0.50                                       | 0.80  | 27.30            | 77      | 11900          |
| 3                               | 240                        | 3.95              | 2.76         | 0.50                                       | 0.80  | 30.00            | 83      | 14200          |
| 3                               | 300                        | 3.95              | 2.84         | 0.50                                       | 0.80  | 32.10            | 88      | 16600          |
| 3                               | 400                        | 3.95              | 3.08         | 0.50                                       | 0.80  | 35.00            | 95      | 19700          |
| 3                               | 500                        | 3.95              | 3.24         | 0.50                                       | 0.80  | 38.00            | 103     | 23600          |

| Conductors  |                               |   |                                    |                                    |
|---|-------------------------------|---|------------------------------------|------------------------------------|
| Class 2 Stranded Conductors for Single Core and Multi-Core Cables |                               |   |                                    |                                    |
| Nominal Cross Section Area  | Nominal Diameter of Conductor | Nominal Short Circuit Current at 1 Second | Conductor D.C. Resistance at 20 °C | Conductor A.C. Resistance at 90 °C |
| mm <sup>2</sup>   |                               | kA  | Ω/km                               | Ω/km                               |
| 50  | 8.10                          | 7.15                                      | 0.387                              | 0.497                              |
| 70  | 9.70                          | 10.01                                     | 0.268                              | 0.344                              |
| 95  | 11.40                         | 13.59                                     | 0.193                              | 0.248                              |
| 120   | 12.70                         | 17.16                                     | 0.153                              | 0.196                              |
| 150   | 14.50                         | 21.45                                     | 0.124                              | 0.160                              |
| 185   | 15.90                         | 26.46                                     | 0.0991                             | 0.128                              |
| 240   | 18.60                         | 34.32                                     | 0.0754                             | 0.098                              |
| 300   | 20.70                         | 42.90                                     | 0.0601                             | 0.080                              |
| 400   | 23.50                         | 57.20                                     | 0.0470                             | 0.064                              |
| 500   | 26.50                         | 71.50                                     | 0.0366                             | 0.0510                             |
| 630   | 30.20                         | 90.09                                     | 0.0283                             | 0.0420                             |

| Electrical Performance Parameters |                            |                           |                |                                |
|-----------------------------------|----------------------------|---------------------------|----------------|--------------------------------|
| Number of Cores                   | Nominal Cross Section Area | Current Carrying Capacity |                | Conductor Losses in the Ground |
|                                   |                            | in ground (20 °C)         | in air (30 °C) |                                |
|                                   | mm <sup>2</sup>            | A                         | A              | kw/km                          |
| 1                                 | 50                         | 249                       | 277            | 30.81                          |
| 1                                 | 70                         | 303                       | 345            | 31.58                          |
| 1                                 | 95                         | 358                       | 418            | 31.78                          |
| 1                                 | 120                        | 404                       | 481            | 31.99                          |
| 1                                 | 150                        | 441                       | 537            | 31.12                          |
| 1                                 | 185                        | 493                       | 612            | 31.11                          |
| 1                                 | 240                        | 563                       | 716            | 31.06                          |
| 1                                 | 300                        | 626                       | 811            | 31.35                          |
| 1                                 | 400                        | 676                       | 901            | 29.25                          |
| 1                                 | 500                        | 743                       | 1006           | 28.15                          |
| 1                                 | 630                        | -                         | -              | -                              |
| 3                                 | 50                         | 210                       | 206            | 65.75                          |
| 3                                 | 70                         | 256                       | 257            | 67.63                          |
| 3                                 | 95                         | 307                       | 313            | 70.12                          |
| 3                                 | 120                        | 349                       | 360            | 71.62                          |
| 3                                 | 150                        | 392                       | 410            | 73.76                          |
| 3                                 | 185                        | 443                       | 469            | 75.36                          |
| 3                                 | 240                        | 513                       | 553            | 77.40                          |
| 3                                 | 300                        | 576                       | 635            | 79.60                          |
| 3                                 | 400                        | 650                       | 731            | 81.10                          |
| 3                                 | 500                        | -                         | -              | -                              |