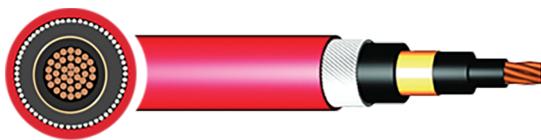


BS7835 Single Core Armoured Power Cable 33kV - XLPE, AWA, LSZH - 70mm² to 1000mm²



Description

BS7835 cables are armoured power cables designed for medium voltage fixed installations, such as power networks and industrial installations, including power supply stations, and sub stations. Can be installed indoors, outdoors, underground, and in cable ducts. These Single core cables have copper conductors with cross-linked polyethylene (XLPE) insulation various screen options, water blocking options, aluminium wire armour and LSZH bedding and outer sheath.

The UV resistant LSZH outer sheath means this cable is suitable for Internal use in buildings, power stations, or switchboards and are often run in cable tray for industrial applications. They can also be used externally in cable duct and due to the armour can be buried directly in free draining soil.

Key Features



Voltage Rating
19kV / 33kV (36kV)
Tested To Voltage And Duration of BS7835



Minimum Bending Radius
15 x Overall Diameter



Flame Retardancy
BS EN/IEC 60332-1
BS EN/IEC 60332-3-24



Temperature Limits
Maximum operating temp: 90°C
Initial temperature at S.C.C for screen: 80°C
Maximum temp during short circuit: 250°C

Core Colours

Outer Sheath: UV Resistant Red

Standards

- BS 7835
- BS EN/IEC 60754-1
- BS EN/IEC 60332-1-2 & BS EN/IEC 60332-3-24
- BS EN/IEC 60228 & IEC 61034-1

Construction

- **Conductor:** Class 2 stranded copper conductor
- **Insulation:** Cross Linked polyethylene (XLPE)
- **Insulation Screen:** Semi-Conductive XLPE
- **Bedding:** Low Smoke Zero Halogen (LSZH)
- **Metallic Screen:** Individual copper tape screen
- **Armour:** Aluminium Wire Armour (AWA)
- **Outer Sheath:** Low Smoke Zero Halogen (LSZH)

QA Lab

Cleveland Cable Test & Training Lab

Our state-of-the-art cable testing facility ensures that every cable meets the highest standards of quality and compliance through continuous, rigorous testing. Where applicable, cables are independently tested and certified by BASEC to ensure full compliance.



CPR

Cleveland Cable Company is committed to compliance with the Construction Products Regulation (CPR). Where applicable, all cables manufactured after 1st July 2017 have been assessed in accordance with CPR requirements, with full supporting documentation available.



Our Sustainability Commitment

We are committed to the journey to Net Zero as a business partner, an employer and a community member.

By thinking and acting sustainably, we deliver excellent customer service while reducing carbon emissions in collaboration with our customers and suppliers.



ecovadis

Cleveland Cable Company has been independently assessed by EcoVadis, a globally recognised provider of business sustainability ratings. Our score places us among the top 35% of companies evaluated worldwide, reflecting our strong commitment to environmental, social, and ethical performance.

ecovadis

BS7835 Single Core Armoured Power Cable 33kV - XLPE, AWA, LSZH - 70mm² to 1000mm² - Dimensions

| Reference | Conductor Size (mm ²) | No Of Cores | Stranding(mm) | Overall Diameter(mm) | Weight(Kg/Km) |
|-----------------|-----------------------------------|-------------|---------------|----------------------|---------------|
| 33KVLZH1X70RD | 70 | 1 | 19/2.14 | 41.5 | 2315 |
| 33KVLZH1X95RD | 95 | 1 | 19/2.52 | 43.5 | 2700 |
| 33KVLZH1X120RD | 120 | 1 | 37/2.03 | 45.0 | 3050 |
| 33KVLZH1X150RD | 150 | 1 | 37/2.25 | 48.0 | 3525 |
| 33KVLZH1X185RD | 185 | 1 | 37/2.52 | 50.0 | 4025 |
| 33KVLZH1X240RD | 240 | 1 | 61/2.25 | 52.0 | 4650 |
| 33KVLZH1X300RD | 300 | 1 | 61/2.52 | 55.0 | 5465 |
| 33KVLZH1X400RD | 400 | 1 | 61/2.85 | 58.0 | 6350 |
| 33KVLZH1X500RD | 500 | 1 | 61/3.20 | 61.5 | 7620 |
| 33KVLZH1X630RD | 630 | 1 | 127/2.52 | 65.5 | 9165 |
| 33KVLZH1X800RD | 800 | 1 | 127/2.85 | 72.0 | 11125 |
| 33KVLZH1X1000RD | 1000 | 1 | 127/3.20 | 77.0 | 13425 |



22KV AND 33KV SINGLE CORE ELECTRICAL CHARACTERISTICS

| CONDUCTOR SIZE | MAX DC RESISTANCE AT 20°C | CONDUCTOR AC RESISTANCE AT MAX OPERATING TEMPERATURE AND 50Hz | CAPACITANCE | CHARGING CURRENT | DIELECTRIC LOSSES | CONDUCTOR S.C.C FOR 1 SEC | SCREEN S.C.C FOR 1 SEC | | CURRENT RATING | | |
|-----------------|---------------------------|---|-------------|------------------|-------------------|---------------------------|------------------------|-----------------------|----------------|--------------|------------------|
| | | | | | | | 35mm ² CWS | 50mm ² CWS | LAID IN GROUND | LAID IN DUCT | LAID IN FREE AIR |
| MM ² | (Ω/km) | (Ω/km) | mf/km | (A/km) | (W/km) | (KA) | (KA) | (KA) | AMPS | AMPS | AMPS |
| 70 | 0.268 | 0.342 | 0.159 | 0.947 | 72.00 | 10.02 | 4.80 | 8.20 | 270 | 260 | 310 |
| 95 | 0.193 | 0.247 | 0.171 | 1.022 | 77.64 | 13.50 | 4.80 | 8.20 | 320 | 305 | 375 |
| 120 | 0.153 | 0.196 | 0.184 | 1.101 | 83.67 | 17.17 | 4.80 | 8.20 | 360 | 340 | 430 |
| 150 | 0.124 | 0.159 | 0.199 | 1.191 | 90.51 | 21.46 | 4.80 | 8.20 | 410 | 375 | 490 |
| 185 | 0.0991 | 0.128 | 0.213 | 1.275 | 96.88 | 26.47 | 4.80 | 8.20 | 455 | 410 | 550 |
| 240 | 0.0754 | 0.0975 | 0.236 | 1.408 | 107.03 | 34.34 | 4.80 | 8.20 | 520 | 470 | 650 |
| 300 | 0.0601 | 0.0784 | 0.258 | 1.541 | 117.11 | 42.93 | 4.80 | 8.20 | 580 | 500 | 740 |
| 400 | 0.047 | 0.0623 | 0.282 | 1.684 | 127.99 | 57.23 | 4.80 | 8.20 | 650 | 530 | 840 |
| 500 | 0.0366 | 0.0498 | 0.313 | 1.870 | 142.16 | 71.54 | 4.80 | 8.20 | 710 | 570 | 930 |
| 630 | 0.0283 | 0.0401 | 0.356 | 2.127 | 161.68 | 90.14 | 4.80 | 8.20 | 760 | 620 | 1040 |
| 800 | 0.0221 | 0.0332 | 0.394 | 2.351 | 178.65 | 114.47 | 4.80 | 8.20 | 810 | 660 | 1140 |
| 1000 | 0.0176 | 0.03 | 0.42 | 2.583 | 195.75 | 129.53 | 4.80 | 8.20 | 860 | 690 | 1230 |

Electrical Data:

Maximum conductor operating temperature: 90°C
 Maximum screen operating temperature: 80°C
 Maximum conductor temperature during S.C: 250°C

Laying conditions at trefoil formation are as below:

Soil thermal resistivity: 120°C. Cm/Watt
 Burial depth: 0.8m
 Ground temperature: 15°C
 Air temperature: 25°C
 Frequency: 50Hz

THE INFORMATION CONTAINED WITHIN THIS DATASHEET IS FOR GUIDANCE ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE OR LIABILITY. WE BELIEVE THE INFORMATION IS CORRECT AT THE TIME OF PUBLICATION. PLEASE NOTE WHEN SELECTING CABLE ACCESSORIES THAT ACTUAL CABLE DIMENSIONS MAY VARY DUE TO MANUFACTURING TOLERANCES.

