

## 6941AB Power Cable - BS6724, XLPE, AWA, LSZH - 50mm<sup>2</sup> to 1000mm<sup>2</sup>



### Description

Designed for use in AC circuits, the aluminium armour prevents magnetic build up. Suitable for power networks and direct burial where fire and emissions of smoke and toxic fumes create a serious potential threat.

### Key Features



**Voltage Rating**  
600/1000 Volts



**Minimum Bending Radius**  
Fixed: 8 x overall diameter



**Flame Retardancy**  
BS EN/IEC 60332-1-2  
BS EN/IEC 60332-3-24



**Temperature Limits**  
Temperature Range:-20°C to +90°C

### Core Colours

Brown

### Standards

- BS EN/IEC 60332-3-24 (cat C)
- BS6724
- BS EN/IEC 60332-1-2
- IEC/EN 60754-1/2
- BS EN/IEC 61034-2
- BS EN/IEC 60228

### Construction

- **Conductor:** Class 2 stranded copper conductor
- **Insulation:** Cross Linked polyethylene (XLPE)
- **Bedding:** Low Smoke Zero Halogen (LSZH)
- **Armour:** Aluminium Wire Armour (AWA)
- **Outer Sheath:** Low Smoke Zero Halogen (LSZH)
- **Sheath Colour:** Black

### 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

## 6941AB Power Cable - BS6724, XLPE, AWA, LSZH - 50mm<sup>2</sup> to 1000mm<sup>2</sup> - Dimensions

| Reference  | Conductor Size (mm <sup>2</sup> ) | No Of Cores | Stranding(mm) | Overall Diameter(mm) | Weight(Kg/Km ) | Gland Size Brass A2(mm) | Gland Size cw Ali(mm) | Trefoil Cleat | Nylon Cleat Size |
|------------|-----------------------------------|-------------|---------------|----------------------|----------------|-------------------------|-----------------------|---------------|------------------|
| 6941AB50   | 50                                | 1           | 19/1.78       | 17.7                 | 638            | 25                      | 20                    | NONE          | 0.7              |
| 6941AB70   | 70                                | 1           | 19/2.14       | 19.6                 | 891            | 32                      | 25                    | NONE          | 0.8              |
| 6941AB95   | 95                                | 1           | 19/2.52       | 21.5                 | 1166           | 32                      | 25                    | NONE          | 0.9              |
| 6941AB120  | 120                               | 1           | 37/2.03       | 23.1                 | 1412           | 32                      | 25                    | NONE          | 1                |
| 6941AB150  | 150                               | 1           | 37/2.25       | 26                   | 1800           | 40                      | 32                    | NONE          | 1.1              |
| 6941AB185  | 185                               | 1           | 37/2.52       | 28                   | 2200           | 40                      | 32                    | TASB04        | 1.2              |
| 6941AB240  | 240                               | 1           | 61/2.25       | 32                   | 2800           | 50S                     | 40                    | TASB06        | 1.4              |
| 6941AB300  | 300                               | 1           | 61/2.52       | 33                   | 3400           | 50S                     | 40                    | TASB06        | 1.4              |
| 6941AB400  | 400                               | 1           | 61/2.85       | 38                   | 4450           | 50                      | 40                    | TASB10        | 1.6              |
| 6941AB500  | 500                               | 1           | 61/3.20       | 43                   | 5550           | 63S                     | 50S                   | TASB13        | 1.8              |
| 6941AB630  | 630                               | 1           | 127/2.52      | 47                   | 7100           | 63S                     | 50                    | TASB15        | 2                |
| 6941AB800  | 800                               | 1           | 127/2.85      | 55                   | 9200           | 75S                     | 63S                   | TASB20        | TC9              |
| 6941AB1000 | 1000                              | 1           | 127/3.20      | 58.8                 | 11270          | 75S                     | 63S                   | NONE          | TC10             |



TABLE 4E3A

## CURRENT-CARRYING CAPACITY (Amps)

Ambient temperature: 30°C  
Conductor operating temperature: 90°C

| Conductor cross sectional area | Reference Method C (clipped direct)  |                                    | Reference Method F<br>(in free air or on a perforated cable tray, horizontal or vertical) |                               |                                  |                              |                            |                                |            |          |            |          |            |
|--------------------------------|--------------------------------------|------------------------------------|---|-------------------------------|----------------------------------|------------------------------|----------------------------|--------------------------------|------------|----------|------------|----------|------------|
|                                | Touching                             |                                    | Touching  |                               |                                  | Spaced by one cable diameter |                            |                                |            |          |            |          |            |
|                                | 2 cables, single phase AC or DC flat | 3 or 4 cables, three phase AC flat | 2 cables, single phase AC or DC flat  | 3 cables, three phase AC flat | 4 cables, three phase AC Trefoil | 2 cables, DC                 | 2 cables, single- phase AC | 3 or 4 cables, three- phase AC | Horizontal | Vertical | Horizontal | Vertical | Horizontal |
| (mm <sup>2</sup> )             | (A)                                  | (A)                                | (A)   | (A)                           | (A)                              | (A)                          | (A)                        | (A)                            | (A)        | (A)      | (A)        | (A)      | (A)        |
| 50                             | 237                                  | 220                                | 253   | 232                           | 222                              | 284                          | 270                        | 282                            | 266        | 288      | 266        |          |            |
| 70                             | 303                                  | 277                                | 322   | 293                           | 285                              | 356                          | 349                        | 357                            | 337        | 358      | 331        |          |            |
| 95                             | 367                                  | 333                                | 389   | 352                           | 346                              | 446                          | 426                        | 436                            | 412        | 425      | 393        |          |            |
| 120                            | 425                                  | 383                                | 449   | 405                           | 402                              | 519                          | 497                        | 504                            | 477        | 485      | 449        |          |            |
| 150                            | 488                                  | 437                                | 516   | 462                           | 463                              | 600                          | 575                        | 566                            | 539        | 549      | 510        |          |            |
| 185                            | 557                                  | 496                                | 587   | 524                           | 529                              | 688                          | 660                        | 643                            | 614        | 618      | 574        |          |            |
| 240                            | 656                                  | 579                                | 689   | 612                           | 625                              | 815                          | 782                        | 749                            | 714        | 715      | 666        |          |            |
| 300                            | 755                                  | 662                                | 792   | 700                           | 720                              | 943                          | 906                        | 842                            | 805        | 810      | 755        |          |            |
| 400                            | 853                                  | 717                                | 899   | 767                           | 815                              | 1137                         | 1094                       | 929                            | 889        | 848      | 797        |          |            |
| 500                            | 962                                  | 791                                | 1016  | 851                           | 918                              | 1314                         | 1266                       | 1032                           | 989        | 923      | 871        |          |            |
| 630                            | 1082                                 | 861                                | 1146  | 935                           | 1027                             | 1528                         | 1474                       | 1139                           | 1092       | 992      | 940        |          |            |
| 800                            | 1170                                 | 904                                | 1246  | 987                           | 1119                             | 1809                         | 1744                       | 1204                           | 1155       | 1042     | 978        |          |            |
| 1000                           | 1261                                 | 961                                | 1345  | 1055                          | 1214                             | 2100                         | 2026                       | 1289                           | 1238       | 1110     | 1041       |          |            |

\* with or without a protective conductor

1. Where it is intended to connect the cables in this table to equipment or accessories designed to operate at a temperature lower than the maximum operating temperature of the cable, the cables should be rated at the maximum operating temperature of the equipment or accessory (see Regulation 512.1.5).

2. Where it is intended to group a cable in this table with other cables, the cable should be rated at the lowest of the maximum operating temperatures of any of the cables in the group (see Regulation 512.1.5).



TABLE 4E3B

## VOLTAGE DROP (per ampere per metre)

Conductor operating temperature: 90°C

| Conductor cross-sectional area<br>(mm <sup>2</sup> ) | 2 cables, DC<br>(mV/ A/m) | Reference Methods C & F (clipped direct, on tray or in free air) |       |       |                     |      |      |                                  |       |       |                               |       |      |       |       |      |
|--|---------------------------|--|-------|-------|---------------------|------|------|----------------------------------|-------|-------|-------------------------------|-------|------|-------|-------|------|
|  |                           | 2 cables, single-phase AC  |       |       |                     |      |      | 3 or 4 cables, three-phase AC    |       |       |                               |       |      |       |       |      |
|  |                           | touching<br>(mV/A/m)   |       |       | spaced*<br>(mV/A/m) |      |      | trefoil and touching<br>(mV/A/m) |       |       | flat and touching<br>(mV/A/m) |       |      |       |       |      |
| r  | x                         | z  | r     | x     | z                   | r    | x    | z                                | r     | x     | z                             | r     | x    | z     |       |      |
| 50   | 0.98                      | 0.99   | 0.21  | 1.00  | 0.98                | 0.29 | 1.00 | 0.86                             | 0.180 | 0.87  | 0.84                          | 0.25  | 0.88 | 0.84  | 0.33  | 0.90 |
| 70   | 0.67                      | 0.68   | 0.200 | 0.71  | 0.69                | 0.29 | 0.75 | 0.59                             | 0.170 | 0.62  | 0.60                          | 0.25  | 0.65 | 0.62  | 0.32  | 0.70 |
| 95   | 0.49                      | 0.51   | 0.195 | 0.55  | 0.53                | 0.28 | 0.60 | 0.44                             | 0.170 | 0.47  | 0.46                          | 0.24  | 0.52 | 0.49  | 0.31  | 0.58 |
| 120  | 0.39                      | 0.41   | 0.190 | 0.45  | 0.43                | 0.27 | 0.51 | 0.35                             | 0.165 | 0.39  | 0.38                          | 0.24  | 0.44 | 0.41  | 0.30  | 0.51 |
| 150  | 0.31                      | 0.33   | 0.185 | 0.38  | 0.36                | 0.27 | 0.45 | 0.29                             | 0.160 | 0.33  | 0.31                          | 0.23  | 0.39 | 0.34  | 0.29  | 0.45 |
| 185  | 0.25                      | 0.27   | 0.185 | 0.33  | 0.30                | 0.26 | 0.40 | 0.23                             | 0.160 | 0.28  | 0.26                          | 0.23  | 0.34 | 0.29  | 0.29  | 0.41 |
| 240  | 0.195                     | 0.21   | 0.180 | 0.28  | 0.24                | 0.26 | 0.35 | 0.180                            | 0.155 | 0.24  | 0.21                          | 0.22  | 0.30 | 0.24  | 0.28  | 0.37 |
| 300  | 0.155                     | 0.170  | 0.175 | 0.25  | 0.195               | 0.25 | 0.32 | 0.145                            | 0.150 | 0.21  | 0.170                         | 0.22  | 0.28 | 0.20  | 0.27  | 0.34 |
| 400  | 0.115                     | 0.145  | 0.170 | 0.22  | 0.180               | 0.24 | 0.30 | 0.125                            | 0.150 | 0.195 | 0.160                         | 0.21  | 0.27 | 0.20  | 0.27  | 0.33 |
| 500  | 0.093                     | 0.125  | 0.170 | 0.21  | 0.165               | 0.24 | 0.29 | 0.105                            | 0.145 | 0.180 | 0.145                         | 0.20  | 0.25 | 0.190 | 0.24  | 0.31 |
| 630  | 0.073                     | 0.105  | 0.165 | 0.195 | 0.150               | 0.23 | 0.27 | 0.092                            | 0.145 | 0.170 | 0.135                         | 0.195 | 0.24 | 0.175 | 0.23  | 0.29 |
| 800  | 0.056                     | 0.090  | 0.160 | 0.190 | 0.145               | 0.23 | 0.27 | 0.086                            | 0.140 | 0.165 | 0.130                         | 0.180 | 0.23 | 0.175 | 0.195 | 0.26 |
| 1000   | 0.045                     | 0.092  | 0.155 | 0.180 | 0.140               | 0.21 | 0.25 | 0.080                            | 0.135 | 0.155 | 0.125                         | 0.170 | 0.21 | 0.165 | 0.180 | 0.24 |

NOTE: \* Spacings larger than one cable diameter will result in a larger voltage drop.

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.

