

## 6941AB SINGLE CORE LSZH AWA MAINS CABLE



### APPLICATION

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.

### CABLE STANDARDS

BS6724

Flame propagation to IEC 60332-1, IEC 60332-3, BS EN 50265, Category C; BS EN 50266

Smoke emission to BS EN 50268 (IEC 61034)

Acid gas emission to BS EN 50267 (IEC 60754-1)

BASEC Approved

### CONSTRUCTION

**Conductor:** Stranded Plain Annealed Compacted Circular Copper Conductors

**Insulation:** Cross Link Polyethylene (XLPE)

**Bedding:** LSZH Extruded Bedding

**Armouring:** Aluminium Wire Armour

**Sheath:** LSZH

### CHARACTERISTICS

**Voltage Rating:** 600/1000 Volts

**Temperature Limits:** -25°C to +90°C

**Minimum Bending Radius:**

As per cable manufacturer datasheet

### CORE IDENTIFICATION

■ Brown

Should not be installed at temperatures below 0°C or above +40°C

## 6941AB SINGLE CORE LSZH AWA MAINS CABLE - DIMENSIONS

| CCC CODE   | CONDUCTOR SIZE (MM <sup>2</sup> ) | STRANDING (MM) | NO. OF CORES | WEIGHT (KG/KM) | OVERALL DIAMETER (MM) | Gland Size (CW) Ali (MM) | GLAND SIZE BRASS A2 (MM) | NYLON CLEAT SIZE | TREFOIL CLEAT |
|------------|-----------------------------------|----------------|--------------|----------------|-----------------------|--------------------------|--------------------------|------------------|---------------|
| 6941AB50   | 50                                | 19/1.78        | 1            | 638            | 17.70                 | 20                       | 25                       | 0.7              | -             |
| 6941AB70   | 70                                | 19/2.14        | 1            | 891            | 19.60                 | 25                       | 32                       | 0.8              | -             |
| 6941AB95   | 95                                | 19/2.52        | 1            | 1166           | 21.50                 | 25                       | 32                       | 0.9              | -             |
| 6941AB120  | 120                               | 37/2.03        | 1            | 1412           | 23.10                 | 25                       | 32                       | 1.0              | -             |
| 6941AB150  | 150                               | 37/2.52        | 1            | 1800           | 26.00                 | 32                       | 40                       | 1.1              | -             |
| 6941AB185  | 185                               | 61/2.25        | 1            | 2200           | 28.00                 | 32                       | 40                       | 1.2              | TASB04        |
| 6941AB240  | 240                               | 61/2.52        | 1            | 2800           | 32.00                 | 40                       | 50S                      | 1.4              | TASB06        |
| 6941AB300  | 300                               | 61/2.25        | 1            | 3400           | 33.00                 | 40                       | S50                      | 1.4              | TASB06        |
| 6941AB400  | 400                               | 61/2.85        | 1            | 4450           | 38.00                 | 40                       | 50                       | 1.6              | TASB10        |
| 6941AB500  | 500                               | 61/3.2         | 1            | 5550           | 43.00                 | 50S                      | 63S                      | 1.8              | TASB13        |
| 6941AB630  | 630                               | 127/2.85       | 1            | 7100           | 47.00                 | 50                       | 63S                      | 2.0              | TASB15        |
| 6941AB800  | 800                               | 127/2.85       | 1            | 9200           | 55.00                 | 63S                      | 75S                      | TC9              | TASB20        |
| 6941AB1000 | 1000                              | 127/3.2        | 1            | 11270          | 58.80                 | 63S                      | 75S                      | TC10             | TASB20        |

## 6941AB SINGLE CORE AWA MAINS CABLE – CARRYING CAPACITY (AMPERES)

| CONDUCTOR CROSS-SECTIONAL AREA | REFERENCE METHOD C (CLIPPED DIRECT)      |  |  |                                   |                                 | REFERENCE METHOD F (IN FREE AIR OR ON A PERFORATED CABLE TRAY, HORIZONTAL OR VERTICAL) |          |                                 |          |                                   |          |
|--------------------------------|--|--|--|-----------------------------------|---------------------------------|--|----------|---------------------------------|----------|-----------------------------------|----------|
|                                | SINGLE PHASE                             |  | TOUCHING                                 |                                   |                                 | SPACED BY ONE CABLE DIAMETER   |          |                                 |          |                                   |          |
|                                | 2 CABLES SINGLE-PHASE AC OR DC FLAT AMPS | 3 OR 4 CABLES THREE-PHASE AC FLAT AMPS | 2 CABLES SINGLE PHASE AC OR DC FLAT AMPS | 3 CABLES THREE PHASE AC FLAT AMPS | 3 CABLES THREE PHASE AC TREFOIL | 2 CABLES DC AMPS   |          | 2 CABLES SINGLE – PHASE AC AMPS |          | 3 OR 4 CABLES THREE PHASE AC AMPS |          |
|                                |  |  |  |                                   |                                 | HORIZONTAL   | VERTICAL | HORIZONTAL                      | VERTICAL | HORIZONTAL                        | VERTICAL |
| 50                             | 237                                      | 220                                    | 253                                      | 232                               | 222                             | 284  | 270      | 282                             | 266      | 288                               | 266      |
| 70                             | 303                                      | 277                                    | 332                                      | 239                               | 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     |

THE ABOVE IS IN ACCORDANCE WITH 18TH EDITION OF IET WIRING REGULATIONS

## 6941AB SINGLE CORE AWA MAINS CABLE - VOLTAGE DROP

| NOMINAL CROSS SECTIONAL AREA MM² | TWO CORE CABLE DC | REFERENCE METHOD C & F (CLIPPED DIRECT, ON TRAY OR IN FREE AIR) |       |       |         |      |      |                                     |       |       |                   |       |      |                  |       |      |
|----------------------------------|-------------------|---|-------|-------|---------|------|------|-------------------------------------|-------|-------|-------------------|-------|------|------------------|-------|------|
|                                  |                   | 2 CABLES SINGLE-PHASE AC mV/A/m                                 |       |       |         |      |      | 3 OR 4 CABLES THREE-PHASE AC mV/A/m |       |       |                   |       |      |                  |       |      |
|                                  |                   | TOUCHING  |       |       | SPACED* |      |      | TREFOIL AND TOUCHING                |       |       | FLAT AND TOUCHING |       |      | FLAT AND SPACED* |       |      |
|                                  |                   | R   | X     | Z     | R       | X    | Z    | R                                   | X     | Z     | R                 | X     | Z    | R                | X     | Z    |
| 50                               | 0.980             | 0.990   | 0.210 | 1.000 | 0.980   | 0.29 | 1.00 | 0.860                               | 0.180 | 0.870 | 0.840             | 0.250 | 0.88 | 0.840            | 0.330 | 0.90 |
| 70                               | 0.670             | 0.680   | 0.200 | 0.710 | 0.690   | 0.29 | 0.75 | 0.590                               | 0.170 | 0.620 | 0.600             | 0.250 | 0.65 | 0.620            | 0.320 | 0.70 |
| 95                               | 0.490             | 0.510   | 0.195 | 0.550 | 0.530   | 0.28 | 0.60 | 0.440                               | 0.170 | 0.470 | 0.460             | 0.240 | 0.52 | 0.490            | 0.310 | 0.58 |
| 120                              | 0.390             | 0.410   | 0.190 | 0.450 | 0.430   | 0.27 | 0.51 | 0.350                               | 0.165 | 0.390 | 0.380             | 0.240 | 0.44 | 0.410            | 0.300 | 0.51 |
| 150                              | 0.310             | 0.330   | 0.185 | 0.380 | 0.360   | 0.27 | 0.45 | 0.290                               | 0.160 | 0.330 | 0.310             | 0.230 | 0.39 | 0.340            | 0.290 | 0.45 |
| 185                              | 0.250             | 0.270   | 0.185 | 0.330 | 0.300   | 0.26 | 0.40 | 0.230                               | 0.160 | 0.280 | 0.260             | 0.230 | 0.34 | 0.290            | 0.290 | 0.41 |
| 240                              | 0.195             | 0.210   | 0.180 | 0.280 | 0.240   | 0.26 | 0.35 | 0.180                               | 0.155 | 0.240 | 0.210             | 0.220 | 0.30 | 0.240            | 0.280 | 0.37 |
| 300                              | 0.155             | 0.170   | 0.175 | 0.250 | 0.195   | 0.25 | 0.32 | 0.145                               | 0.150 | 0.210 | 0.170             | 0.220 | 0.28 | 0.200            | 0.270 | 0.34 |
| 400                              | 0.115             | 0.145   | 0.170 | 0.220 | 0.180   | 0.24 | 0.30 | 0.125                               | 0.150 | 0.195 | 0.160             | 0.210 | 0.27 | 0.200            | 0.270 | 0.33 |
| 500                              | 0.093             | 0.125   | 0.170 | 0.210 | 0.165   | 0.24 | 0.29 | 0.105                               | 0.145 | 0.180 | 0.145             | 0.200 | 0.25 | 0.190            | 0.240 | 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            | 0.230 | 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 |

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