

## (N)SSCHÖU-J 0.6/1kV Cable



Eland Product Group: A7J

### APPLICATION

Heavy duty tough rubber flexible cable for dynamic or static applications. It is suitable for installation inside or outside in dry, damp, wet and in hazardous environments. The overall screen provides a high level of electrical safety with EMC protection and makes the cable especially suitable for frequency converter controlled drives. This cable can be permanently submerged in water (fresh, salt, waste, storm, oily, sewage contaminated) to a depth of 100 metres. Suitable for indoor and outdoor applications.

### CHARACTERISTICS

**Voltage Rating** U<sub>0</sub>/U  
0.6/1kV

**Test Voltage:**  
3kV

Max AC Voltage: 0.7/1.2kV  
Max DC Voltage: 1.8kV

**Temperature Range**  
Maximum Short Circuit Temperature: 250°C  
Static Condition: -40°C to +80°C  
Mobile Condition: -25°C to +80°C

**Minimum Bending Radius**  
Fixed: 4 x overall diameter  
Flexed: 5 x overall diameter

### CONSTRUCTION

**Phase Conductor**  
Class 5 tinned copper conductor

**Earth Conductor**  
Class 5 tinned copper conductor

**Insulation**  
Rubber compound

**Screen**  
TCWB (Tinned Copper Wire Braid)

**Inner Sheath**  
Rubber compound

**Outer Sheath**  
Rubber compound

**Sheath Colour**  
● Yellow

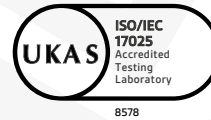
### STANDARDS

VDE 0250 Part 812, VDE 0295, EN 60228

Flame Retardant according to IEC/EN 60332-1-2

### ISO/IEC 17025 LABORATORY TESTED

This product is subject to the Quality Assurance protocols of The Cable Lab®, an ISO/IEC 17025 accredited cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.



### REGULATORY COMPLIANCE

This cable meets the requirements of the Low Voltage Directive 2014/35/EU and the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab® as meeting the requirements of the BSI RoHS Trusted Kitemark™.





## DIMENSIONS

| ELAND PART NO. | NO. OF CORES<br>(PHASE + EARTH) | NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> |                 | CONDUCTOR<br>DIAMETER<br>mm | MINIMUM<br>OVERALL<br>DIAMETER<br>mm | MAXIMUM<br>OVERALL<br>DIAMETER<br>mm | NOMINAL CROSS<br>SECTIONAL AREA<br>OF SCREEN<br>mm <sup>2</sup> | NOMINAL<br>WEIGHT<br>kg/km | MAXIMUM<br>TENSILE<br>LOAD<br>N |
|----------------|---------------------------------|---|-----------------|-----------------------------|--------------------------------------|--------------------------------------|---|----------------------------|---------------------------------|
|                |                                 | Phase Conductor                                 | Earth Conductor |                             |                                      |                                      |   |                            |                                 |
| A7J1016YW      | 3 + 3                           | 16  | 2.5E            | 4.8                         | 24.6                                 | 27.1                                 | 12  | 1170                       | 720                             |
| A7J1025YW      | 3 + 3                           | 25  | 4E              | 6.1                         | 28.4                                 | 31.1                                 | 15  | 1650                       | 1125                            |
| A7J1035YW      | 3 + 3                           | 35  | 16/3E           | 7.2                         | 31.9                                 | 33.6                                 | 22  | 2200                       | 1575                            |
| A7J1050YW      | 3 + 3                           | 50  | 25/3E           | 8.9                         | 37.6                                 | 39.3                                 | 25  | 3110                       | 2250                            |
| A7J1070YW      | 3 + 3                           | 70  | 35/3E           | 10.6                        | 41.4                                 | 44.2                                 | 30  | 3990                       | 3150                            |
| A7J1095YW      | 3 + 3                           | 95  | 50/3E           | 12.5                        | 47.7                                 | 49.4                                 | 34  | 5080                       | 4275                            |
| A7J1120YW      | 3 + 3                           | 120   | 70/3E           | 14.2                        | 51.6                                 | 53.4                                 | 38  | 6250                       | 5400                            |
| A7J1150YW      | 3 + 3                           | 150   | 70/3E           | 15.9                        | 56.5                                 | 58.3                                 | 53  | 7450                       | 6750                            |
| A7J1185YW      | 3 + 3                           | 185   | 95/3E           | 17.7                        | 62.4                                 | 64.4                                 | 59  | 9200                       | 8325                            |
| A7J1240YW      | 3 + 3                           | 240   | 120/3E          | 20.1                        | 68.4                                 | 71.3                                 | 67  | 11700                      | 10800                           |

## CURRENT CARRYING CAPACITY

| NOMINAL CROSS<br>SECTIONAL AREA<br>mm <sup>2</sup> | LAYING ON<br>THE FLOOR<br>Amps | FREE<br>IN AIR<br>Amps | REELED<br>Amps |         |         |         |         |         |         |
|--|--------------------------------|------------------------|----------------|---------|---------|---------|---------|---------|---------|
|  |                                |                        | 1 Layer        | 2 Layer | 3 Layer | 4 Layer | 5 Layer | 6 Layer | 7 Layer |
| 16   | 99                             | 104                    | 79             | 60      | 49      | 42      | 38      | 27      | 22      |
| 25   | 131                            | 138                    | 105            | 80      | 64      | 55      | 50      | 35      | 29      |
| 35   | 162                            | 170                    | 130            | 99      | 79      | 68      | 62      | 44      | 36      |
| 50   | 202                            | 212                    | 162            | 123     | 99      | 85      | 77      | 55      | 44      |
| 70   | 250                            | 263                    | 200            | 153     | 123     | 105     | 95      | 68      | 55      |
| 95   | 301                            | 316                    | 241            | 184     | 147     | 126     | 114     | 81      | 66      |
| 120  | 352                            | 370                    | 282            | 215     | 172     | 148     | 134     | 95      | 77      |
| 150  | 404                            | 424                    | 323            | 246     | 198     | 170     | 154     | 109     | 89      |
| 185  | 461                            | 484                    | 369            | 281     | 226     | 194     | 175     | 124     | 101     |
| 240  | 528                            | 554                    | 422            | 322     | 259     | 222     | 201     | 143     | 116     |

Ambient temperature of 30°C

## VOLTAGE DROP

| NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | POWER FACTOR |      |      |      |
|---|--------------|------|------|------|
|   | 0.7          | 0.8  | 0.9  | 1    |
| 16  | 1.96         | 2.21 | 2.45 | 2.66 |
| 25  | 1.29         | 1.45 | 1.6  | 1.71 |
| 35  | 0.95         | 1.06 | 1.16 | 1.23 |
| 50  | 0.69         | 0.77 | 0.83 | 0.87 |
| 70  | 0.51         | 0.56 | 0.6  | 0.61 |
| 95  | 0.41         | 0.45 | 0.47 | 0.47 |
| 120   | 0.34         | 0.36 | 0.38 | 0.36 |
| 150   | 0.29         | 0.31 | 0.32 | 0.29 |
| 185   | 0.25         | 0.27 | 0.27 | 0.24 |
| 240   | 0.21         | 0.22 | 0.21 | 0.18 |

## DE-RATING FACTORS

| AMBIENT TEMPERATURE | 10°C | 15°C | 20°C | 25°C | 30°C | 35°C | 40°C | 45°C | 50°C | 55°C | 60°C | 65°C | 70°C | 75°C | 80°C |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| DE-RATING FACTOR    | 1.15 | 1.12 | 1.08 | 1.04 | 1.00 | 0.96 | 0.91 | 0.87 | 0.82 | 0.76 | 0.71 | 0.65 | 0.58 | 0.50 | 0.41 |

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.