



(N)TSCGECEWÖU 8.7/15kV and 12/20kV ATB Cable (Ground Check Conductor)



Eland Product Group: A7HG

APPLICATION

Flexible cable for the energy supply to heavy mobile equipment such as drag lines, shovels, dredges and drills under extreme mechanical stresses and abrasion during trailing operation in opencast mines. Special construction with additional ground check conductor. Suitable for indoor and outdoor applications.

CHARACTERISTICS

Voltage Rating U_0/U

8.7/15kV
12/20kV

Test Voltage

8.7/15kV: 24kV
12/20kV: 29kV

Ambient Temperature

Fixed: -40°C to +80°C;
Flexed: -25°C to +80°C

Maximum Short Circuit Temperature

+250°C

Minimum Bending Radius

Fixed: 6 x overall diameter
Flexed: 10 x overall diameter

CONSTRUCTION

Phase Conductor

Class 5 tinned copper conductor

Insulation

Rubber compound

Semi-Conductive Layers

Semi-conductive tape over the conductor and inner and outer semi-conductive rubber layer on the insulation

Earth Conductor

Individual copper braid
2 x copper earth conductors
1 x copper checking earth wiring conductor

Central Filler

Rubber compound on a textile polyester support

Inner Sheath

Abrasion resistant rubber compound

Anti-Torsion Braid

Polyester braid between the inner and outer sheath

Outer Sheath

Abrasion resistant rubber compound

Sheath Colour

● Yellow

STANDARDS

VDE 0250 Part 813, 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.



8578



FS 672069



EMS 672067

OHS 672066

REGULATORY COMPLIANCE

This cable meets the requirements of 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™.



KM 634267





DIMENSIONS

| ELAND PART NO. | VOLTAGE kV | NO. OF CORES (PHASE + EARTH + GROUND CHECK CONDUCTOR) | NOMINAL CROSS SECTIONAL AREA mm ² | | | CONDUCTOR DIAMETER mm | MINIMUM OVERALL DIAMETER mm | MAXIMUM OVERALL DIAMETER mm | MAXIMUM TENSILE LOAD N | NOMINAL WEIGHT kg/km |
|----------------|---------------|--|---|--------------------|---------------------------|-----------------------------|--------------------------------------|--------------------------------------|------------------------------|----------------------------|
| | | | Phase Conductor | Earth Conductor | Ground Check Conductor | | | | | |
| A7HG15KV025YW | 8.7/15 | 3+2+1 | 25 | 25/2 | 10 | 6.8 | 53.9 | 59.3 | 1125 | 4490 |
| A7HG15KV035YW | 8.7/15 | 3+2+1 | 35 | 25/2 | 10 | 7.8 | 55.3 | 60.8 | 1575 | 4920 |
| A7HG15KV050YW | 8.7/15 | 3+2+1 | 50 | 25/2 | 10 | 9.4 | 58.5 | 64.2 | 2250 | 5700 |
| A7HG15KV070YW | 8.7/15 | 3+2+1 | 70 | 35/2 | 10 | 11.2 | 64.2 | 70.5 | 3150 | 7200 |
| A7HG15KV095YW | 8.7/15 | 3+2+1 | 95 | 50/2 | 10 | 12.7 | 67.9 | 74.4 | 4257 | 8480 |
| A7HG20KV025YW | 12/20 | 3+2+1 | 25 | 25/2 | 10 | 6.8 | 58.2 | 63.9 | 1125 | 5110 |
| A7HG20KV035YW | 12/20 | 3+2+1 | 35 | 25/2 | 10 | 7.8 | 59.8 | 65.7 | 1575 | 5580 |
| A7HG20KV050YW | 12/20 | 3+2+1 | 50 | 25/2 | 10 | 9.4 | 64.6 | 70.9 | 2250 | 6550 |
| A7HG20KV070YW | 12/20 | 3+2+1 | 70 | 35/2 | 10 | 11.2 | 68.3 | 74.8 | 3150 | 7800 |

CURRENT CARRYING CAPACITY

| NOMINAL CROSS SECTIONAL AREA mm ² | LAYING ON THE FLOOR Amps | REELED Amps | | | | | | |
|--|--------------------------------|----------------|---------|---------|---------|---------|---------|---------|
| | | 1 Layer | 2 Layer | 3 Layer | 4 Layer | 5 Layer | 6 Layer | 7 Layer |
| 25 | 139 | 111 | 85 | 68 | 58 | 53 | 38 | 31 |
| 35 | 172 | 138 | 105 | 84 | 72 | 65 | 46 | 38 |
| 50 | 216 | 173 | 132 | 106 | 91 | 82 | 58 | 48 |
| 70 | 265 | 212 | 162 | 130 | 111 | 101 | 72 | 58 |
| 95 | 319 | 255 | 195 | 156 | 134 | 121 | 86 | 70 |

Ambient temperature of 30°C

VOLTAGE DROP

| NOMINAL CROSS SECTIONAL AREA mm ² | POWER FACTOR | | | |
|--|--------------|------|------|------|
| | 0.7 | 0.8 | 0.9 | 1 |
| 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 |

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.