



EN 60332-3-24 NHXCH FE180-E30 0.6/1kV Cable



Eland Product Group: A5K

APPLICATION

Safety cables are used in all locations where a high degree of protection against fire and fire damage has to be provided for human life and equipment and are, therefore, subject to high security requirements. These cables may be used indoors. They may not be installed directly into the ground or into water. Fire resistant to FE 180 and Circuit integrity to E 30.

CHARACTERISTICS

Voltage Rating U₀/U
0.6/1kV

Temperature Rating
-5°C to +90°C

Minimum Bending Radius
12 x overall diameter

CONSTRUCTION

Conductor

RE: Class 1 solid copper conductor
RM: Class 2 stranded copper conductor

Insulation

LSZH (Low Smoke Zero Halogen)

Inner Sheath

LSZH (Low Smoke Zero Halogen)

Concentric Conductor

Copper wires with counter helix of copper tape

Outer Sheath

LSZH (Low Smoke Zero Halogen)

Core Identification

2 cores: ● Brown ● Blue
3 cores: ● Brown ● Black ● Grey
4 cores: ● Brown ● Black ● Grey ● Blue
5 cores: ● Brown ● Black ● Grey ● Blue ● Black
7 core and above: ● Black with ○ White numbers

Sheath Colour

● Orange

STANDARDS

DIN VDE 0266, DIN VDE 0276-604, DIN VDE 0472 - 814, EN 60228

Flame retardant according to: IEC/EN 60332-3-24

THE CABLE LAB[®]

AN ISO/IEC 17025 AND IECEE CBTL ACCREDITED FACILITY

Our world-class testing facility assures the quality and compliance of this cable through a continuous and rigorous testing regime.



SUSTAINABILITY COMMITMENT

We are on a journey to Net Zero.

We've committed to near-term emissions reductions and a net-zero target with the Science Based Targets initiative and we're a signatory to the United Nations Global Compact Sustainable Development Goals.

Learn more about embodied carbon and our carbon emissions reduction actions, our comprehensive recycling services, and wider ESG activities for sustainable operations at: www.elandcables.com/company/about-us/esg-sustainability



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 | NOMINAL CROSS SECTIONAL AREA mm ² | CONCENTRIC CONDUCTOR mm | CONDUCTOR TYPE | NOMINAL OVERALL DIAMETER mm | NOMINAL WEIGHT kg/km |
|----------------|--------------|---|----------------------------|----------------|--------------------------------|-------------------------|
| A5KCHE30-02015 | 2 | 1.5 | RE | 1.5 | 10.8 | 133 |
| A5KCHE30-02025 | 2 | 2.5 | RE | 2.5 | 12 | 171 |
| A5KCHE30-03015 | 3 | 1.5 | RE | 1.5 | 11.2 | 166 |
| A5KCHE30-03025 | 3 | 2.5 | RE | 2.5 | 12.5 | 219 |
| A5KCHE30-03040 | 3 | 4 | RE | 4 | 13.4 | 291 |
| A5KCHE30-03060 | 3 | 6 | RE | 6 | 15.3 | 393 |
| A5KCHE30-0310 | 3 | 10 | RE | 10 | 17 | 576 |
| A5KCHE30-0316 | 3 | 16 | RE | 16 | 19.6 | 860 |
| A5KCHE30-0325 | 3 | 25 | RM | 16 | 23 | 1194 |
| A5KCHE30-0335 | 3 | 35 | RM | 16 | 25.6 | 1521 |
| A5KCHE30-0350 | 3 | 50 | RM | 25 | 28.8 | 2037 |
| A5KCHE30-0370 | 3 | 70 | RM | 35 | 33.7 | 2841 |
| A5KCHE30-0395 | 3 | 95 | RM | 50 | 38.2 | 384 |
| A5KCHE30-03120 | 3 | 120 | RM | 70 | 42.3 | 4869 |
| A5KCHE30-03150 | 3 | 150 | RM | 70 | 46.6 | 5844 |
| A5KCHE30-03185 | 3 | 185 | RM | 95 | 52.3 | 7400 |
| A5KCHE30-03240 | 3 | 240 | RM | 120 | 59.7 | 9661 |
| A5KCHE30-04015 | 4 | 1.5 | RE | 1.5 | 11.9 | 192 |
| A5KCHE30-04025 | 4 | 2.5 | RE | 2.5 | 13.3 | 254 |
| A5KCHE30-04040 | 4 | 4 | RE | 4 | 14.3 | 341 |
| A5KCHE30-04060 | 4 | 6 | RE | 6 | 16.3 | 471 |
| A5KCHE30-0410 | 4 | 10 | RE | 10 | 18.2 | 685 |
| A5KCHE30-0416 | 4 | 16 | RM | 16 | 21.1 | 1035 |
| A5KCHE30-0425 | 4 | 25 | RM | 16 | 25 | 1465 |
| A5KCHE30-0435 | 4 | 35 | RM | 16 | 27.8 | 1886 |
| A5KCHE30-0450 | 4 | 50 | RM | 25 | 31.6 | 2539 |
| A5KCHE30-0470 | 4 | 70 | RM | 35 | 37 | 3556 |
| A5KCHE30-0495 | 4 | 95 | RM | 50 | 41.9 | 4816 |
| A5KCHE30-04120 | 4 | 120 | RM | 70 | 46.6 | 6101 |
| A5KCHE30-04150 | 4 | 150 | RM | 70 | 51.1 | 7323 |
| A5KCHE30-04185 | 4 | 185 | RM | 95 | 57.6 | 9285 |
| A5KCHE30-04240 | 4 | 240 | RM | 120 | 65.8 | 12141 |
| A5KCHE30-05025 | 5 | 2.5 | RE | 2.5 | 14.3 | 283 |
| A5KCHE30-05060 | 5 | 6 | RE | 6 | 17.5 | 530 |
| A5KCHE30-07015 | 7 | 1.5 | RE | 2.5 | 14.2 | 274 |
| A5KCHE30-12015 | 12 | 1.5 | RE | 2.5 | 17.4 | 399 |
| A5KCHE30-24015 | 24 | 1.5 | RE | 6 | 23.7 | 744 |
| A5KCHE30-30015 | 30 | 1.5 | RE | 6 | 24.8 | 873 |
| A5KCHE30-07025 | 7 | 2.5 | RE | 2.5 | 15.4 | 348 |
| A5KCHE30-12025 | 12 | 2.5 | RE | 4 | 19.2 | 556 |
| A5KCHE30-24025 | 24 | 2.5 | RE | 10 | 26.1 | 1027 |
| A5KCHE30-30025 | 30 | 2.5 | RE | 10 | 27.4 | 1216 |

CONDUCTORS

Class 1 Solid Conductors for Single Core and Multi-Core Cables

| NOMINAL CROSS SECTIONAL AREA mm ² | MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km |
|---|---|
| | Plain Wires |
| 0.5 | 36 |
| 0.75 | 24.5 |
| 1 | 18.1 |
| 1.5 | 12.1 |
| 2.5 | 7.41 |
| 4 | 4.61 |
| 6 | 3.08 |
| 10 | 1.83 |
| 16 | 1.15 |

The above table is in accordance with EN 60228

Class 2 Stranded Conductors for Single Core and Multi-Core Cables

| NOMINAL CROSS SECTIONAL AREA mm ² | MINIMUM NO. OF WIRES IN CONDUCTOR | | | | | | MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km | | |
|---|-----------------------------------|----|--------------------|----|--------|----|---|--------------------|--|
| | Circular | | Circular Compacted | | Shaped | | Circular Annealed Copper Conductors | | Aluminium or Aluminium Alloy Conductor |
| | Cu | Al | Cu | Al | Cu | Al | Plain Wires | Metal-Coated Wires | |
| 10 | 7 | 7 | 6 | 6 | - | - | 1.83 | 1.84 | 3.08 |
| 16 | 7 | 7 | 6 | 6 | - | - | 1.15 | 1.16 | 1.91 |
| 25 | 7 | 7 | 6 | 6 | 6 | 6 | 0.727 | 0.734 | 1.2 |
| 35 | 7 | 7 | 6 | 6 | 6 | 6 | 0.524 | 0.529 | 0.868 |
| 50 | 19 | 19 | 6 | 6 | 6 | 6 | 0.387 | 0.391 | 0.641 |
| 70 | 19 | 19 | 12 | 12 | 12 | 12 | 0.268 | 0.27 | 0.443 |
| 95 | 19 | 19 | 15 | 15 | 15 | 15 | 0.193 | 0.195 | 0.32 |
| 120 | 37 | 37 | 18 | 15 | 18 | 15 | 0.153 | 0.154 | 0.253 |
| 150 | 37 | 37 | 18 | 15 | 18 | 15 | 0.124 | 0.126 | 0.206 |
| 185 | 37 | 37 | 30 | 30 | 30 | 30 | 0.0991 | 0.1 | 0.164 |
| 240 | 37 | 37 | 34 | 30 | 34 | 30 | 0.0754 | 0.0762 | 0.125 |
| 300 | 61 | 61 | 34 | 30 | 34 | 30 | 0.0601 | 0.0607 | 0.1 |

CURRENT CARRYING CAPACITY

| NOMINAL CROSS SECTIONAL AREA mm ² | CURRENT RATING (CLIPPED DIRECT) Amps | | | | | |
|---|---|--------|------------|----------------|--------|------------|
| | 2 Core Cables | | | 3 Core Cables | | |
| | Clipped Direct | In Air | In Conduit | Clipped Direct | In Air | In Conduit |
| 1.5 | 24 | - | 22 | 22 | - | 19.5 |
| 2.5 | 33 | - | 30 | 30 | - | 26 |
| 4 | 45 | - | 40 | 40 | - | 35 |
| 6 | 58 | - | 51 | 52 | - | 44 |
| 10 | 80 | - | 69 | 71 | - | 60 |
| 16 | 107 | - | 91 | 96 | - | 80 |
| 25 | 138 | 161 | 119 | 119 | 135 | 105 |
| 35 | 171 | 200 | 146 | 147 | 169 | 128 |
| 50 | 209 | 242 | 175 | 179 | 207 | 154 |
| 70 | 269 | 310 | 221 | 229 | 268 | 194 |
| 95 | 328 | 377 | 265 | 278 | 328 | 233 |
| 120 | 382 | 437 | 305 | 322 | 383 | 268 |
| 150 | 441 | 504 | - | 371 | 444 | - |
| 185 | 506 | 575 | - | 424 | 510 | - |
| 240 | 599 | 679 | - | 500 | 607 | - |
| 300 | 693 | 783 | - | 576 | 703 | - |

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.