



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 U_o/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

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	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.