



# EN 60332-3-24 NHXH FE180-E90 0.6/1kV Cable



Eland Product Group: A5N

## 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 90.

## CHARACTERISTICS

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

**Temperature Rating**  
-5°C to +90°C

**Minimum Bending Radius**  
RE: 12 x overall diameter  
RM: 15 x overall diameter

## CONSTRUCTION

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

**Insulation**  
Flame protecting wrapping, LSZH (Low Smoke Zero Halogen)

**Inner Sheath**  
LSZH (Low Smoke Zero Halogen)

**Outer Sheath**  
LSZH (Low Smoke Zero Halogen)

**Core Identification**  
3 cores: ● Green/Yellow ● Brown ● Black  
4 cores: ● Green/Yellow ● Brown ● Black ● Grey  
5 cores: ● Green/Yellow ● Blue ● Brown ● Black ● Grey  
7 core and above: ● Black with ○ White numbers

**Sheath Colour**  
● Orange

## STANDARDS

DIN VDE 0266, DIN VDE 0276-604, DIN VDE 0472 - 814, DIN 4102-12, 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 <sup>2</sup>	CONDUCTOR TYPE	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A5KNHE90-1016	1	16	RM	10.5	250
A5KNHE90-1025	1	25	RM	12.5	355
A5KNHE90-1035	1	35	RM	13.5	460
A5KNHE90-1050	1	50	RM	15	596
A5KNHE90-1070	1	70	RM	16.5	810
A5KNHE90-1095	1	95	RM	19	1100
A5KNHE90-1120	1	120	RM	20.5	1350
A5KNHE90-1150	1	150	RM	22.5	1650
A5KNHE90-1185	1	185	RM	25	2050
A5KNHE90-1240	1	240	RM	28	2650
A5KNHE90-1300	1	300	RM	31	3275
A5KNHE90-20015	2	1.5	RE	14.3	275
A5KNHE90-20025	2	2.5	RE	14.9	320
A5KNHE90-30015	3	1.5	RM	15	315
A5KNHE90-30025	3	2.5	RM	15.9	371
A5KNHE90-30040	3	4	RM	16.7	435
A5KNHE90-30060	3	6	RM	17.8	526
A5KNHE90-3010	3	10	RM	19.5	691
A5KNHE90-3016	3	16	RM	22.3	982
A5KNHE90-3025	3	25	RM	25.8	1392
A5KNHE90-3035	3	35	RM	28.4	1778
A5KNHE90-3035/16	3	35/16	RM	29.5	1964
A5KNHE90-3050/25	3	50/25	RM	33.6	2633
A5KNHE90-3070/35	3	70/35	RM	38.1	3563
A5KNHE90-3095/50	3	95/50	RM	43.4	4768
A5KNHE90-3120/70	3	120/70	RM	46.9	5856
A5KNHE90-40015	4	1.5	RE	16.1	365
A5KNHE90-40025	4	2.5	RE	17	429
A5KNHE90-40040	4	4	RE	18	515
A5KNHE90-40060	4	6	RE	19.2	628
A5KNHE90-4010	4	10	RE	21.1	839
A5KNHE90-4016	4	16	RE	24.3	1210
A5KNHE90-4025	4	25	RM	28.1	1717
A5KNHE90-4035	4	35	RM	31	2209
A5KNHE90-4050	4	50	RM	35.1	2921
A5KNHE90-4070	4	70	RM	40	3980
A5KNHE90-4095	4	95	RM	45.2	5321
A5KNHE90-4120	4	120	RM	49	6475
A5KNHE90-4150	4	150	RM	53	7725
A5KNHE90-50015	5	1.5	RE	17.4	429
A5KNHE90-50025	5	2.5	RE	18.4	506
A5KNHE90-50040	5	4	RE	19.5	612
A5KNHE90-50060	5	6	RE	20.9	752
A5KNHE90-5010	5	10	RE	23	1009
A5KNHE90-5016	5	16	RM	26.6	1465
A5KNHE90-5025	5	25	RM	30.9	2105
A5KNHE90-5035	5	35	RM	36	2500

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONDUCTOR TYPE	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A5KNHE90-70015	7	1.5	RE	18.6	497
A5KNHE90-70025	7	2.5	RE	19.8	599
A5KNHE90-120015	12	1.5	RE	23.5	744
A5KNHE90-120025	12	2.5	RE	25.2	910

## CONDUCTORS

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

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	
	Circular Annealed Copper Conductors	
	Plain Wires	
1.5	12.1	
2.5	7.41	
4	4.61	
6	3.08	
10	1.83	

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

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	MINIMUM NO. OF WIRES IN CONDUCTOR						MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km
	Circular		Circular Compacted		Shaped		Circular Annealed Copper Conductors  Plain Wires
	Cu	Al	Cu	Al	Cu	Al	
16	7	7	6	6	-	-	1.15
25	7	7	6	6	6	6	0.727
35	7	7	6	6	6	6	0.524
50	19	19	6	6	6	6	0.387
70	19	19	12	12	12	12	0.268
95	19	19	15	15	15	15	0.193
120	37	37	18	15	18	15	0.153
150	37	37	18	15	18	15	0.124
185	37	37	30	30	30	30	0.0991
240	37	37	34	30	34	30	0.0754
300	61	61	34	30	34	30	0.0601

## CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	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.