RHZ1-2OL (S)-AL Cable

Eland Product Group: H7F

APPLICATION

Halogen-free, flame retardant, CPR classified medium voltage cables for distribution networks; also for connection to generation units and plant and process connection. To be laid directly in ground, outdoors, indoors and in cable ducts.

CHARACTERISTICS

Voltage Rating Uo/U (Um)
8.7/15 (17.5) kV
12/20 (24)kV
18/30 (36)kV

Temperature Rating
-20°C to +90°C

Minimum Bending Radius
20 x overall diameter during installation
15 x overall diameter installed

CONSTRUCTION

Conductor
Class 2 stranded aluminium

Conductor Screen
Semi-conductive material

Insulation
XLPE (Cross-Linked Polyethylene)

Insulation Screen
Semi-conductive material

Longitudinal Waterblocking
Water-swellable tape

Screen
Copper wires

Longitudinal Waterblocking
Water-swellable tape

Sheath
PO (Polylefin) DMZ2/ST8

Sheath Colour
Red with Grey stripes

STANDARDS

IEC 60502-2, HD 620 10E-4, EN 60228

Flame Retardant to CPR Classification Eca
Halogen Free to IEC 60754-1/2
UV Resistant to UNE 211605, HD 605, Subclause 2.2.13

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 is compliant with European Reglation EN 50575, the Construction Products Regulation.

Eca

This cable meets the requirements of the RoHS Directive 2015/65/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab®.

DIMENSIONS 8.7/15 (17.5)KV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	NOMINAL CONDUCTOR DIAMETER mm	NOMINAL INSULATION THICKNESS mm	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL METALLIC SCREEN CROSS SECTION mm²	NOMINAL OUTER SHEATH THICKNESS mm	NOMINAL OUTER DIAMETER mm	NOMINAL WEIGHT kg/km
H7F15KV01050	1	50	8.0	4.5	18.2	16	2.5	28.1	720
H7F15KV01095	1	95	11.2	4.5	21.4	16	2.5	31.2	1100
H7F15KV01150	1	150	14.0	4.5	24.2	16	2.7	34.1	1440
H7F15KV01240	1	240	17.9	4.5	28.1	16	3.0	37.8	1780
H7F15KV01400	1	400	23.1	4.5	33.3	16	3.0	42.8	2300
H7F15KV01630	1	630	29.1	4.5	39.6	16	3.0	50.3	3190

ELECTRICAL CHARACTERISTICS 8.7/15 (17.5)KV

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM DC CONDUCTOR RESISTANCE AT 20°C ohm/km	NOMINAL AC CONDUCTOR RESISTANCE AT 90°C ohm/km	MAXIMUM METALLIC SCREEN RESISTANCE AT 20°C ohm/km	INDUCTANCE IN TREFOIL mH/km	CAPACITANCE µF/km	CURRENT RATING A		MAXIMUM SHORT-CIRCUIT CURRENT DURING 1 SECOND kA	
						In air trefoil	Buried in soil	Conductor	Screen
50	0.641	0.822	1.15	0.42	0.20	170	140	4.7	2.4
95	0.320	0.411	1.15	0.37	0.25	255	205	9.0	2.4
150	0.206	0.265	1.15	0.35	0.30	335	260	14.2	2.4
240	0.125	0.161	1.15	0.32	0.36	455	345	22.7	2.4
400	0.0778	0.102	1.15	0.30	0.44	610	445	37.8	2.4
630	0.0469	0.064	1.15	0.28	0.54	830	575	59.5	2.4

In Air - +40°C Trefoil Buried in soil at +25°C, depth 1m, thermal resistivity 1.5k m/W

MECHANICAL CHARACTERISTICS 8.7/15 (17.5)KV

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM PULLING EFFORT - CONDUCTOR dAN	MIMINUM BENDING RADIUS mm	
		During installation	After Installation
50	150	562	421
95	285	624	468
150	450	682	511
240	720	756	567
400	1200	856	642
630	1890	1006	755

UK T 020 7241 8787 | F 020 7241 8700 | sales@elandcables.com | www.elandcables.com
International T +44 20 7241 8740 | F +44 20 7241 8700 | international@elandcables.com

DIMENSIONS 12/20 (24)KV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	NOMINAL CONDUCTOR DIAMETER mm	NOMINAL INSULATION THICKNESS mm	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL METALLIC SCREEN CROSS SECTION mm²	NOMINAL OUTER SHEATH THICKNESS mm	NOMINAL OUTER DIAMETER mm	NOMINAL WEIGHT kg/km
H7F20KV01050	1	50	8.0	5.5	20.2	16	2.5	28.0	850
H7F20KV01095	1	95	11.2	5.5	23.4	16	2.7	32.0	1100
H7F20KV01150	1	150	14.0	5.5	26.2	16	3.0	34.0	1400
H7F20KV01240	1	240	17.9	5.5	30.1	16	3.0	38.0	1800
H7F20KV01400	1	400	23.1	5.5	35.3	16	3.0	43.0	2500
H7F20KV01630	1	630	29.1	5.5	41.6	16	3.0	50.0	3500

ELECTRICAL CHARACTERISTICS 12/20 (24)KV

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM DC CONDUCTOR RESISTANCE AT 20°C ohm/km	NOMINAL AC CONDUCTOR RESISTANCE AT 90°C ohm/km	MAXIMUM METALLIC SCREEN RESISTANCE AT 20°C ohm/km	INDUCTANCE IN TREFOIL mH/km	CAPACITANCE µF/km	CURRENT RATING A		MAXIMUM SHORT-CIRCUIT CURRENT DURING 1 SECOND kA	
						In air	Buried in soil	Conductor	Screen
50	0.641	0.822	1.15	0.43	0.18	170	140	4.7	2.4
95	0.320	0.411	1.15	0.39	0.22	255	205	9.0	2.4
150	0.206	0.265	1.15	0.36	0.26	335	260	14.2	2.4
240	0.125	0.161	1.15	0.34	0.31	455	345	22.7	2.4
400	0.0778	0.102	1.15	0.31	0.37	610	445	37.8	2.4
630	0.0469	0.063	1.15	0.29	0.45	830	575	59.5	2.4

In Air - +40°C Trefoil Buried in soil at +25°C, depth 1m, thermal resistivity 1.5k m/W

MECHANICAL CHARACTERISTICS 12/20 (24)KV

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM PULLING EFFORT - CONDUCTOR dAN	MIMINUM BENDING RADIUS mm	
		During installation	After Installation
50	150	560	420
95	285	640	480
150	450	680	510
240	720	760	570
400	1200	860	645
630	1890	1000	750

DIMENSIONS 18/30 (36)KV

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	NOMINAL CONDUCTOR DIAMETER mm	NOMINAL INSULATION THICKNESS mm	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL METALLIC SCREEN CROSS SECTION mm²	NOMINAL OUTER SHEATH THICKNESS mm	NOMINAL OUTER DIAMETER mm	NOMINAL WEIGHT kg/km
H7F30KV01050	1	50	8.0	8.0	25.2	16	2.7	32.0	900
H7F30KV01095	1	95	11.2	8.0	28.4	16	3.0	35.0	1200
H7F30KV01150	1	150	14.0	8.0	31.2	16	3.0	38.0	1500
H7F30KV01240	1	240	17.9	8.0	35.1	16	3.0	43.0	1900
H7F30KV01400	1	400	23.1	8.0	40.3	16	3.0	48.0	2750
H7F30KV01630	1	630	29.1	8.0	46.6	16	3.0	56.0	3500

ELECTRICAL CHARACTERISTICS 18/30 (36)KV

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM DC CONDUCTOR RESISTANCE AT 20°C ohm/km	NOMINAL AC CONDUCTOR RESISTANCE AT 90°C ohm/km	MAXIMUM METALLIC SCREEN RESISTANCE AT 20°C ohm/km	INDUCTANCE IN TREFOIL mH/km	CAPACITANCE µF/km	CURRENT RATING A		MAXIMUM SHORT-CIRCUIT CURRENT DURING 1 SECOND kA	
						In air	Buried in soil	Conductor	Screen
50	0.641	0.822	1.15	0.47	0.14	170	140	4.7	2.4
95	0.320	0.411	1.15	0.42	0.17	255	205	9.0	2.4
150	0.206	0.265	1.15	0.39	0.19	335	260	14.2	2.4
240	0.125	0.161	1.15	0.36	0.23	455	345	22.7	2.4
400	0.0778	0.101	1.15	0.33	0.27	610	445	37.8	2.4
630	0.0469	0.063	1.15	0.31	0.33	830	575	59.5	2.4

In Air - +40°C Trefoil Buried in soil at +25°C, depth 1m, thermal resistivity 1.5k m/W

MECHANICAL CHARACTERISTICS 18/30 (36)KV

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM PULLING EFFORT - CONDUCTOR dAN	MIMINUM BENDING RADIUS mm	
		During installation	After Installation
50	150	640	485
95	285	700	525
150	450	760	570
240	720	860	645
400	1200	960	720
630	1090	1120	840