A2XS(FL)2Y HDPE High Voltage 26/45 (52) kV Cable

Eland Product Group: H9D

APPLICATION

High Voltage cables for distribution networks; also for connection to generation units and plant and process connection. For installation in ground, in water outdoors, indoors and in cable ducts for power stations, industry and distribution networks. The water blocking tape avoids water propagation inside the cable.

CHARACTERISTICS

Voltage Rating Uo/U
26/45 (52) kV

CONSTRUCTION

Conductor
Aluminium conductor (optional watertightness – WTC)

Conductor Screen
Semi-conductive screen extruded on the phase conductor

Insulation
XLPE (Cross-linked Polyethylene)

Insulation Screen
Semi-conductive screen extruded on insulation

Wrapping
Semi-conductive water swelling tape

Metallic Screen
Copper wires and equalising tape

Wrapping
Semi-conductive water swelling tape

Tape
Longitudinally applied aluminium tape coated with PE copolymer

Sheath
HDPE (High Density Polyethylene)

Optional – semi-conductive layer

Sheath Colour
● Black

STANDARDS

IEC 60840

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 RoHS Directive 2015/65/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab®.

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	NOMINAL DIAMETER OF CONDUCTOR mm	INSULATION mm		METALLIC SCREEN		NOMINAL OUTER DIAMETER OF CABLE mm	NOMINAL WEIGHT kg/km	MAXIMUM PULLING FORCE mm	MINIMUM BENDING RADIUS m
				Nominal thickness	Nominal diamter over	Nominal cross section mm²	Nominal diameter over mm				
H9D45KV010095	1	95RM	11.3	9.0	30.5	35	34.3	41	1690	3.3	1.0
H9D45KV010120	1	120RM	12.5	9.0	31.7	35	35.5	42	1810	4.2	1.1
H9D45KV010150	1	150RM	14.1	9.0	33.3	35	37.1	43	1940	5.3	1.1
H9D45KV010185	1	185RM	15.8	9.0	35.0	35	38.8	45	2110	6.5	1.1
H9D45KV010240	1	240RM	17.9	9.0	37.1	35	40.9	47	2350	8.4	1.2
H9D45KV010300	1	300RM	20.0	9.0	39.2	35	43.0	49	2590	10.5	1.2
H9D45KV010400	1	400RM	22.9	9.0	42.5	35	46.7	53	3040	14.0	1.3
H9D45KV010500	1	500RM	25.7	9.0	45.3	35	49.5	56	3470	17.5	1.4
H9D45KV010630	1	630RM	29.3	9.0	49.1	35	53.3	60	4030	22.1	1.5
H9D45KV010800	1	800RM	33.0	9.0	52.8	35	57.0	64	4650	28.0	1.6
H9D45KV011000	1	1000RM	38.0	9.0	58.2	35	62.8	71	5570	35.0	1.8
H9D45KV011200	1	1200RM	42.5	9.0	62.7	50	67.3	75	6560	42.0	1.9
H9D45KV011200R	1	1200RMS	43.0	9.0	65.2	50	69.8	78	6840	42.0	2.0
H9D45KV011400	1	1400RMS	45.1	9.0	67.3	50	71.9	80	7490	49.0	2.0
H9D45KV011600	1	1600RMS	48.5	9.0	70.7	50	75.3	84	8270	56.0	2.1
H9D45KV011800	1	1800RMS	52.7	9.0	74.9	50	79.5	88	9170	63.0	2.2
H9D45KV012000	1	2000RMS	54.5	9.0	76.7	50	81.3	90	9760	70.0	2.3
H9D45KV012500	1	2500RMS	59.0	9.0	82.2	50	87.2	97	11270	87.5	2.4
H9D45KV013000	1	3000RMS	67.0	9.0	90.2	50	95.2	105	13690	100.0	2.6

ELECTRICAL DATA

De – Cable diameter

Cables in flat formation, the distance between the cable axes = 2 × De

Cables in trefoil formation, the distance between the cable axes = De

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm²	NOMINAL RESISTANCE OF CONDUCTOR 90 °C Ω/km	ELECTRICAL FIELD STRESS kV/mm		CAPACITANCE µF/km	ZERO REACTANCE Ω/km	INDUCTANCE Ω/km	
		Conductor screen	Insulation			Flat formation	Trefoil formation
95RM	0.4110	4.70	1.95	0.150	0.087	0.200	0.145
120RM	0.3247	4.55	2.00	0.160	0.083	0.195	0.140
150RM	0.2645	4.40	2.05	0.175	0.078	0.190	0.135
185RM	0.2108	4.25	2.10	0.185	0.074	0.185	0.130
240RM	0.1610	4.15	2.15	0.205	0.069	0.180	0.125
300RM	0.1291	4.00	2.20	0.220	0.065	0.180	0.120
400RM	0.1009	3.90	2.25	0.245	0.062	0.175	0.115
500RM	0.0792	3.80	2.30	0.265	0.058	0.170	0.110
630RM	0.0622	3.70	2.35	0.295	0.055	0.165	0.105
800RM	0.0498	3.60	2.40	0.320	0.052	0.160	0.105

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

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		Conductor screen	Insulation			Flat formation	Trefoil formation
1000RM	0.0408	3.50	2.45	0.360	0.049	0.160	0.100
1200RM	0.0359	3.45	2.45	0.395	0.046	0.155	0.095
1200RMS	0.0319	3.45	2.50	0.415	0.048	0.155	0.095
1400RMS	0.0275	3.40	2.50	0.430	0.047	0.155	0.095
1600RMS	0.0242	3.40	2.55	0.455	0.045	0.155	0.095
1800RMS	0.0216	3.35	2.55	0.485	0.043	0.150	0.095
2000RMS	0.0195	3.35	2.55	0.500	0.042	0.150	0.095
2500RMS	0.0168	3.30	2.60	0.540	0.042	0.150	0.090
3000RMS	0.0130	3.25	2.60	0.600	0.039	0.150	0.090

CURRENT RATING FOR SINGLE-CORE CABLES – AMPERES

NOMINAL CROSS SECTIONAL AREA mm²	FLAT FORMATION		TREFOIL FORMATION		FLAT FORMATION		TREFOIL FORMATION	
	CONFIGURATIONS							
	SPP; CB	BOTH-ENDS	SPP; CB	BOTH-ENDS	SPP; CB	BOTH-ENDS	SPP; CB	BOTH-ENDS
	CABLES IN EARTH				CABLES IN AIR			
	65°C	90°C	65°C	90°C	65°C	90°C	65°C	90°C	65°C	90°C	65°C	90°C	65°C	90°C	65°C	90°C
95RM	220	265	215	260	210	255	210	250	235	320	230	315	205	280	205	275
120RM	250	300	245	290	240	285	235	285	275	370	265	360	235	320	235	320
150RM	280	340	270	325	270	320	265	320	310	420	300	405	265	365	265	360
185RM	320	385	305	365	305	365	300	360	360	485	340	460	305	415	305	415
240RM	370	445	345	420	355	425	345	420	420	570	395	540	360	490	355	485
300RM	420	505	385	465	400	480	390	470	485	655	445	610	415	565	405	555
400RM	485	580	430	525	455	550	445	535	565	765	505	695	480	660	470	645
500RM	555	665	455	580	520	625	505	610	660	890	575	790	560	765	545	745
630RM	635	765	520	640	595	715	570	690	770	1045	645	895	650	890	625	865
800RM	725	870	560	695	670	810	635	770	890	1210	715	1000	745	1025	715	985
1000RM	815	980	600	745	750	905	700	850	1025	1395	790	1110	850	1175	805	1115
1200RM	885	1070	595	745	805	975	730	895	1135	1545	810	1145	935	1290	865	1205
1200RMS	930	1115	610	760	870	1040	780	950	1185	1605	830	1170	1010	1375	925	1275
1400RMS	1005	1210	630	790	940	1130	830	1015	1300	1755	870	1235	1100	1505	995	1380
1600RMS	1085	1300	650	815	1005	1210	875	1070	1415	1910	910	1290	1195	1635	1065	1480
1800RMS	1160	1395	665	835	1075	1295	920	1130	1535	2080	950	1350	1295	1775	1140	1590
2000RMS	1225	1470	675	850	1130	1360	955	1175	1630	2205	975	1390	1370	1880	1190	1665
2500RMS	1335	1605	695	875	1225	1475	1015	1245	1790	2425	1020	1460	1505	2065	1285	1800
3000RMS	1540	1855	720	910	1400	1690	1105	1370	2120	2875	1085	1565	1765	2425	1445	2040

SPB – Single Point Bonding; CB – Cross-bonding Both-ends; BE – Both-ends bonding