

POLYCAB HV. CS+PAL IEC 60840 64/110 KV (123 KV)

HV Cable with AL Conductor, Cu Screen and Poly Al. laminated



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB HV 64/110 KV (123 kV) XLPE insulated cable with Aluminium conductor is suitable to use in high voltage transmission for external and direct burial applications in power network system.

CHARACTERISTICS

Voltage Rating

Nominal Voltage: 64/110 kV (123 kV)

Operation Temperature

Max. operating temperature: +90°C

Max. Short Circuit Temperature: 250°C

Bending Radius: 20D

: D is overall diameter of cable

Impulse Test Voltage

550kV

CONSTRUCTION

- Conductor: Circular Compacted or segmental stranded Milliken Aluminium conductor as per IEC 60228, class 2
- Separator: Semi Conducting Tape
- Conductor Screen: Extruded Semi-conductive compound
- Insulation: Crosslinked polyethylene
- Non-Metallic Insulation Screen: Extruded Semi-conductive compound
- Separator: Semi Conducting Water Blocking Tape
- Metallic Insulation Screen: Copper Wires + Helically applied Copper Foil Tape
- Separator: Semi Conducting Water Blocking Tape
- Shield: Poly-Al. laminated Tape
- Outer Sheath: Extruded High-density polyethylene (HDPE), Colour: Black

OUTSTANDING FEATURES

- High life
- UV resistance
- Longitudinal water resistant
- Radial water resistant

STANDARD FOLLOWS

IEC 60228

IEC 60840

IS 7098-3

ICEA S-108-720

COMPLIANCE

- Conductor resistance IEC 60228

OUR ACCREDITATIONS



APPROVAL



POLYCAB HV. CS+PAL IEC 60840 64/110 KV (123 KV)

HV Cable with AL Conductor, Cu Screen and Poly Al. laminated

DIMENSIONS AND WEIGHT:





Product Code	No. of Cores	Core Cross sectional Area	Conductor type	Insulation thickness (Approx.)	Sheath thickness (Approx.)	Diameter Overall (Nominal)	Weight (Approx.)
	No.	mm ²		mm	mm	mm	Kg/Km
EHIS25AXUAPH001C400SAXXXX	1	400	Compact	16	3.6	73.0	5500
EHIS25AXUAPH001C500SAXXXX	1	500	Compact	16	3.6	76.0	6200
EHIS25AXUAPH001C630SAXXXX	1	630	Compact	16	3.8	80.0	6900
EHIS25AXUAPH001C800SAXXXX	1	800	Compact	16	4	84.0	7700
EHIS25AXUAPH001C01KSAXXXX	1	1000	Compact	16	4	89.0	8700
EHIS25AXUAPH001C1K2SAXXXX	1	1200	Milliken	16	4	94.0	9500
EHIS25AXUAPH001C1K4SAXXXX	1	1400	Milliken	16	4	100.0	10400
EHIS25AXUAPH001C1K6SAXXXX	1	1600	Milliken	16	4	103.0	11200
EHIS25AXUAPH001C1K8SAXXXX	1	1800	Milliken	16	4	106.0	12100
EHIS25AXUAPH001C02KSAXXXX	1	2000	Milliken	16	4	109.0	12800
EHIS25AXUAPH001C2K5SAXXXX	1	2500	Milliken	16	4	116.0	14700

ELECTRICAL CHARACTERISTICS:

Core Cross sectional Area	Max. DC Resistance at 20°C	Max. AC Resistance at 90°C	Approx. Star Reactance	Approx. Star Impedance	Approx. Capacitance	Surge Impedance	Cable Zero sequence Resistance	Cable Zero sequence Reactance	Cable Zero sequence Impedance
mm ²	Ω/km	Ω/km	Ω/km	Ω/km	μF/km	Ω	Ω/km	Ω/km	Ω/km
400	0.0778	0.101	0.133	0.167	0.17	50	0.158	0.0798	0.177
500	0.0605	0.0791	0.128	0.150	0.19	46	0.141	0.0744	0.159
630	0.0469	0.0622	0.123	0.138	0.20	44	0.128	0.0702	0.146
800	0.0367	0.0498	0.118	0.128	0.22	41	0.118	0.0658	0.135
1000	0.0291	0.0408	0.114	0.121	0.24	39	0.111	0.0617	0.127
1200	0.0247	0.0321	0.110	0.115	0.26	37	0.104	0.0582	0.119
1400	0.0212	0.0277	0.108	0.111	0.28	35	0.101	0.0560	0.115
1600	0.0186	0.0244	0.105	0.108	0.29	34	0.098	0.0541	0.112
1800	0.0165	0.0218	0.104	0.106	0.30	33	0.0959	0.0527	0.109
2000	0.0149	0.0199	0.102	0.104	0.32	32	0.0944	0.0512	0.107
2500	0.0127	0.0172	0.0987	0.100	0.35	30	0.0922	0.0483	0.104

POLYCAB HV. CS+PAL IEC 60840 64/110 KV (123 KV) HV Cable with AL Conductor, Cu Screen and Poly Al. laminated

CURRENT RATING:

Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm ²	Amps				KAmps
400	437	459	623	697	37.6
500	500	526	726	815	47.0
630	570	602	842	949	59.2
800	645	684	970	1099	75.2
1000	722	771	1107	1262	94.0
1200	825	874	1289	1458	112.8
1400	896	952	1417	1607	131.6
1600	961	1024	1536	1748	150.4
1800	1023	1093	1651	1884	169.2
2000	1079	1157	1759	2014	188.0
2500	1174	1265	1953	2252	235.0

Current ratings based on IEC 60287

Supply frequency	50 Hz
Maximum conductor temperature	90°C
Ambient air temperature	40°C
Ground temperature	30°C
Depth of laying	1000 m
Thermal resistivity of soil	1.5 K.m/W