

POLYCAB HV.CS+PAL IEC 60840 76/132 KV (145 KV)

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



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB HV 76/132 KV (145 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: 76/132 kV (145 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

650kV

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
- Optional Semi-conductive layer

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 76/132 KV (145 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
EHIS26AXUAPH001C400SAXXXX	1	400	Compact	18	3.6	77.0	6400
EHIS26AXUAPH001C500SAXXXX	1	500	Compact	18	3.8	80.0	6800
EHIS26AXUAPH001C630SAXXXX	1	630	Compact	18	4	84.0	7500
EHIS26AXUAPH001C800SAXXXX	1	800	Compact	18	4	88.0	8300
EHIS26AXUAPH001C01KSAXXXX	1	1000	Compact	18	4	93.0	9300
EHIS26AXUAPH001C1K2SAXXXX	1	1200	Milliken	18	4	100.0	10100
EHIS26AXUAPH001C1K4SAXXXX	1	1400	Milliken	18	4	104.0	11000
EHIS26AXUAPH001C1K6SAXXXX	1	1600	Milliken	18	4	107.0	11900
EHIS26AXUAPH001C1K8SAXXXX	1	1800	Milliken	18	4	110.0	12700
EHIS26AXUAPH001C02KSAXXXX	1	2000	Milliken	18	4	114.0	13500
EHIS26AXUAPH001C2K5SAXXXX	1	2500	Milliken	18	4	119.0	15400

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	0.137	0.170	0.16	52	0.158	0.0841	0.179
500	0.0605	0.0791	0.131	0.153	0.17	50	0.141	0.0785	0.161
630	0.0469	0.0622	0.127	0.141	0.19	46	0.128	0.0741	0.148
800	0.0367	0.0498	0.122	0.132	0.20	44	0.118	0.0695	0.137
1000	0.0291	0.0408	0.117	0.124	0.22	41	0.111	0.0653	0.129
1200	0.0247	0.0321	0.113	0.117	0.24	39	0.104	0.0615	0.121
1400	0.0212	0.0277	0.110	0.113	0.25	37	0.101	0.0592	0.117
1600	0.0186	0.0244	0.108	0.111	0.27	36	0.098	0.0572	0.113
1800	0.0165	0.0218	0.106	0.108	0.28	35	0.0959	0.0557	0.111
2000	0.0149	0.0199	0.105	0.107	0.29	34	0.0944	0.0540	0.109
2500	0.0127	0.0172	0.101	0.102	0.31	32	0.0922	0.0510	0.105

POLYCAB HV.CS+PAL IEC 60840 76/132 KV (145 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	621	690	37.6
500	501	527	723	806	47.0
630	571	603	838	938	59.2
800	647	685	966	1086	75.2
1000	724	773	1103	1247	94.0
1200	826	875	1282	1441	112.8
1400	897	953	1409	1588	131.6
1600	962	1025	1527	1726	150.4
1800	1025	1092	1641	1860	169.2
2000	1081	1156	1749	1988	188.0
2500	1177	1268	1941	2222	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