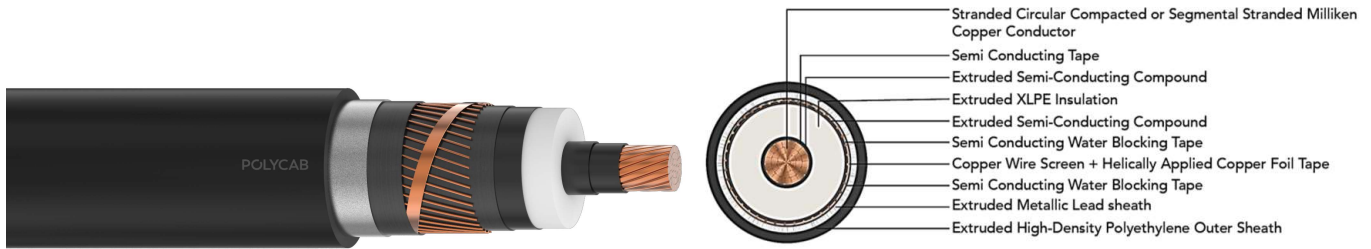


# POLYCAB HV CS+PB IEC 60840 76/132 KV (145 KV)

## HV Cable with Copper Conductor, Copper Screen and Lead Sheath



Images not to scale. Follow table for dimensions

### APPLICATION

POLYCAB HV 76/132 KV (145 kV) XLPE insulated cable with copper 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 Copper 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
- Inner Sheath: Extruded Metallic Lead alloy
- Outer Sheath: Extruded High-density polyethylene (HDPE), (PVC, available as per demand), 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



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### 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 <sup>2</sup>		mm	mm	mm	Kg/Km
EHIS26CXUAPH001C300SAXXXX	1	300	Compact	18	3.8	79.0	14300
EHIS26CXUAPH001C400SAXXXX	1	400	Compact	18	3.8	81.0	15500
EHIS26CXUAPH001C500SAXXXX	1	500	Compact	18	4	85.0	17600
EHIS26CXUAPH001C630SAXXXX	1	630	Compact	18	4	89.0	19700
EHIS26CXUAPH001C800SAXXXX	1	800	Compact	18	4	93.0	22000
EHIS26CXUAPH001C01KSAXXXX	1	1000	Compact	18	4	98.0	25200
EHIS26CXUAPH001C1K2SAXXXX	1	1200	Milliken	18	4	101.0	27600
EHIS26CXUAPH001C1K4SAXXXX	1	1400	Milliken	18	4	106.0	30600
EHIS26CXUAPH001C1K6SAXXXX	1	1600	Milliken	18	4	109.0	33000
EHIS26CXUAPH001C1K8SAXXXX	1	1800	Milliken	18	4	112.0	35900
EHIS26CXUAPH001C02KSAXXXX	1	2000	Milliken	18	4	115.0	38600
EHIS26CXUAPH001C2K5SAXXXX	1	2500	Milliken	18	4	120.0	44800

### 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 <sup>2</sup>	Ω/km	Ω/km	Ω/km	Ω/km	μF/km	Ω	Ω/km	Ω/km	Ω/km
300	0.0601	0.0780	0.146	0.166	0.15	56	0.159	0.0922	0.184
400	0.0470	0.0617	0.140	0.153	0.16	53	0.148	0.0867	0.172
500	0.0366	0.0490	0.134	0.143	0.17	50	0.139	0.0810	0.161
630	0.0283	0.0391	0.129	0.135	0.19	47	0.134	0.0760	0.154
800	0.0221	0.0320	0.124	0.128	0.20	44	0.131	0.0717	0.149
1000	0.0176	0.0271	0.120	0.123	0.22	42	0.130	0.0675	0.146
1200	0.0151	0.0204	0.115	0.117	0.24	39	0.128	0.0637	0.143
1400	0.0129	0.0178	0.113	0.114	0.25	38	0.130	0.0615	0.144
1600	0.0113	0.0160	0.111	0.112	0.27	36	0.131	0.0595	0.144
1800	0.0101	0.0146	0.109	0.110	0.28	35	0.131	0.0579	0.143
2000	0.0090	0.0134	0.107	0.108	0.29	34	0.132	0.0562	0.143
2500	0.0072	0.0115	0.103	0.104	0.31	33	0.141	0.0531	0.151

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### CURRENT RATING:

Core Cross sectional Area  mm <sup>2</sup>	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.  KAmps
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
	Amps				
300	484	514	686	766	42.9
400	548	584	791	888	57.2
500	618	664	911	1030	71.5
630	695	754	1044	1191	90.1
800	770	844	1181	1362	114.4
1000	839	931	1314	1534	143.0
1200	961	1066	1542	1795	171.6
1400	1028	1148	1675	1965	200.2
1600	1084	1220	1790	2115	228.8
1800	1131	1283	1888	2248	257.4
2000	1178	1349	1991	2389	286.0
2500	1273	1478	2201	2681	357.5

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