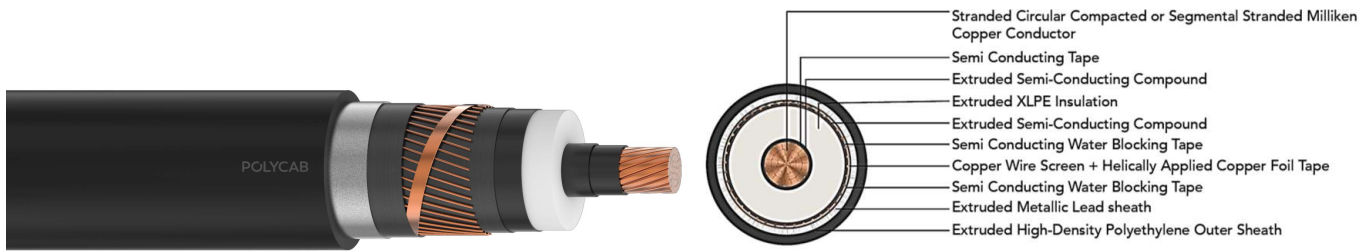


# POLYCAB HV CS+PB IEC 60840 64/110 KV (123 KV)

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



Images not to scale. Follow table for dimensions

### APPLICATION

POLYCAB HV 64/110 KV (123 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: 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 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
EHIS25CXUAPH001C240SAXXXX	1	240	Compact	16	3.4	72.0	11700
EHIS25CXUAPH001C300SAXXXX	1	300	Compact	16	3.6	74.0	12700
EHIS25CXUAPH001C400SAXXXX	1	400	Compact	16	3.6	77.0	13900
EHIS25CXUAPH001C500SAXXXX	1	500	Compact	16	3.8	81.0	15800
EHIS25CXUAPH001C630SAXXXX	1	630	Compact	16	4.0	85.0	17900
EHIS25CXUAPH001C800SAXXXX	1	800	Compact	16	4.0	89.0	20400
EHIS25CXUAPH001C01KSAXXXX	1	1000	Compact	16	4.0	95.0	23600
EHIS25CXUAPH001C1K2SAXXXX	1	1200	Milliken	16	4.0	98.0	25900
EHIS25CXUAPH001C1K4SAXXXX	1	1400	Milliken	16	4.0	102.0	28600
EHIS25CXUAPH001C1K6SAXXXX	1	1600	Milliken	16	4.0	105.0	31200
EHIS25CXUAPH001C1K8SAXXXX	1	1800	Milliken	16	4.0	108.0	33700
EHIS25CXUAPH001C02KSAXXXX	1	2000	Milliken	16	4.0	111.0	36300
EHIS25CXUAPH001C2K5SAXXXX	1	2500	Milliken	16	4.0	117.0	42400

### 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
240	0.0754	0.0972	0.147	0.176	0.15	56	0.171	0.0927	0.195
300	0.0601	0.0780	0.142	0.162	0.16	53	0.156	0.0878	0.179
400	0.0470	0.0618	0.136	0.149	0.17	51	0.145	0.0825	0.167
500	0.0366	0.0491	0.131	0.140	0.19	47	0.138	0.0771	0.158
630	0.0283	0.0392	0.126	0.132	0.20	45	0.131	0.0722	0.150
800	0.0221	0.0321	0.121	0.125	0.22	42	0.128	0.0681	0.145
1000	0.0176	0.0272	0.117	0.120	0.24	39	0.128	0.0642	0.143
1200	0.0151	0.0205	0.113	0.115	0.26	37	0.125	0.0604	0.139
1400	0.0129	0.0179	0.110	0.111	0.28	35	0.126	0.0583	0.139
1600	0.0113	0.0160	0.108	0.109	0.29	34	0.128	0.0565	0.140
1800	0.0101	0.0147	0.106	0.107	0.30	34	0.129	0.0550	0.140
2000	0.0090	0.0135	0.104	0.105	0.32	32	0.130	0.0534	0.141
2500	0.0072	0.0116	0.101	0.102	0.35	30	0.135	0.0504	0.144

# POLYCAB HV CS+PB IEC 60840 64/110 KV (123 KV)

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### CURRENT RATING:

Continuous current ratings for 3 single core cables, single ended bonded					Short Circuit Rating for 1 Sec
Core Cross sectional Area	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
mm <sup>2</sup>	Amps				KAmps
240	431	456	605	678	34.3
300	484	513	689	774	42.9
400	547	584	793	897	57.2
500	617	663	914	1042	71.5
630	693	753	1048	1206	90.1
800	767	843	1184	1378	114.4
1000	837	930	1318	1552	143.0
1200	958	1064	1546	1815	171.6
1400	1023	1145	1678	1985	200.2
1600	1080	1218	1795	2140	228.8
1800	1127	1280	1894	2275	257.4
2000	1173	1345	1996	2418	286.0
2500	1264	1473	2201	2710	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