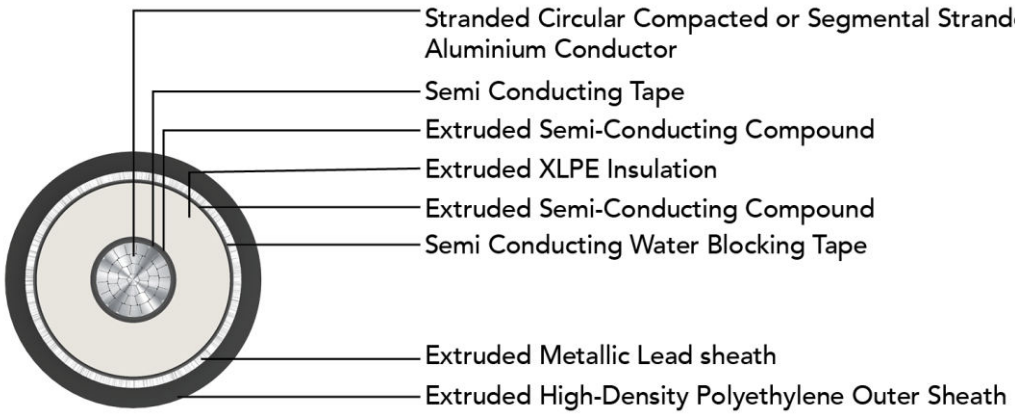
POLYCAB HV PB IEC 60840 64/110 kV (123 kV)

HV Cable with Aluminium Conductor, Lead Sheath



Outstanding Features

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

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.

Voltage Rating

Nominal Voltage: 64/110 kV (123 kV)

Operation Temperature

Max. operating temperature: +90°C
Max. Short Circuit Temperature: 250°C

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
- Inner Sheath: Extruded Metallic Lead alloy
- Outer Sheath: Extruded High-density polyethylene (HDPE) (PVC, available as per demand), Colour: Black
- Optional Semi-conductive layer

Bending Radius: 20D

: D is overall diameter of cable

Standard and References:

IEC 60228
IEC 60840
IS 7098-3
ICEA S-108-720

Impulse Test Voltage

550kV

Compliance

- Conductor resistance IEC 60228

POLYCAB HV PB IEC 60840 64/110 kV (123 kV)

HV Cable with Aluminium Conductor, Lead Sheath

DIMENSIONS AND WEIGHT:

Product Code	No. of Cores No.	Core Cross sectional Area mm^2	Conductor type	Insulation thickness (Approx.) mm	Sheath thickness (Approx.) mm	Diameter Overall (Nominal) mm	Weight (Approx.) Kg/Km
EHIS25AXUAPH001C400SAXXXX	1	400	Compact	16	3.6	74.0	9900
EHIS25AXUAPH001C500SAXXXX	1	500	Compact	16	3.8	79.0	10900
EHIS25AXUAPH001C630SAXXXX	1	630	Compact	16	3.8	82.0	11800
EHIS25AXUAPH001C800SAXXXX	1	800	Compact	16	4	86.0	13200
EHIS25AXUAPH001C01KSAXXXX	1	1000	Compact	16	4	92.0	15500
EHIS25AXUAPH001C1K2SAXXXX	1	1200	Milliken	16	4	99.0	17500
EHIS25AXUAPH001C1K4SAXXXX	1	1400	Milliken	16	4	103.0	18900
EHIS25AXUAPH001C1K6SAXXXX	1	1600	Milliken	16	4	106.0	20000
EHIS25AXUAPH001C1K8SAXXXX	1	1800	Milliken	16	4	110.0	21500
EHIS25AXUAPH001C02KSAXXXX	1	2000	Milliken	16	4	112.0	22600
EHIS25AXUAPH001C2K5SAXXXX	1	2500	Milliken	16	4	118.0	25800

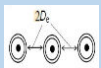
ELECTRICAL CHARACTERISTICS:

Core Cross sectional Area mm^2	Max. DC Resistance at 20˚C Ω/km	Max. AC Resistance at 90˚C Ω/km	Approx. Star Reactance Ω/km	Approx. Star Impedance Ω/km	Approx. Capacitance µF/km	Surge Impedance Ω	Cable Zero sequence Resistance Ω/km	Cable Zero sequence Reactance Ω/km	Cable Zero sequence Impedance Ω/km
400	0.0778	0.101	0.136	0.169	0.17	51	0.175	0.0825	0.193
500	0.0605	0.0791	0.131	0.153	0.19	47	0.161	0.0771	0.179
630	0.0469	0.0621	0.126	0.140	0.20	45	0.149	0.0727	0.166
800	0.0367	0.0497	0.121	0.131	0.22	42	0.142	0.0683	0.158
1000	0.0291	0.0407	0.117	0.124	0.24	39	0.138	0.0642	0.152
1200	0.0247	0.0320	0.113	0.117	0.26	37	0.133	0.0604	0.146
1400	0.0212	0.0276	0.110	0.113	0.28	35	0.133	0.0583	0.145
1600	0.0186	0.0244	0.108	0.111	0.29	34	0.134	0.0565	0.145
1800	0.0165	0.0218	0.106	0.108	0.30	34	0.134	0.0550	0.145
2000	0.0149	0.0198	0.104	0.106	0.32	32	0.134	0.0534	0.144
2500	0.0127	0.0172	0.101	0.102	0.35	30	0.139	0.0504	0.148

POLYCAB HV PB IEC 60840 64/110 kV (123 kV)

HV Cable with Aluminium Conductor, Lead Sheath

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	433	458	625	703	37.6
500	493	524	727	821	47.0
630	559	598	839	954	59.2
800	628	679	963	1104	75.2
1000	698	761	1093	1264	94.0
1200	787	858	1260	1456	112.8
1400	849	930	1378	1601	131.6
1600	904	996	1488	1739	150.4
1800	956	1060	1591	1870	169.2
2000	1001	1118	1687	1994	188.0
2500	1079	1219	1859	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