



Images not to scale. Follow table for dimensions

## APPLICATION

POLY CAB HV 127/220 KV (245 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: 127/220 KV (245 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

1050KV

## 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
- Inner Sheath: Extruded Metallic Lead
- 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 62067

IS 7098-3

ICEA S-108-720

## COMPLIANCE

- Conductor resistance IEC 60228

## OUR ACCREDITATIONS



## APPROVAL



**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
EHIS27AXUAPH001C400SAXXXX	1	400	Compact	27	4	100.0	18700
EHIS27AXUAPH001C500SAXXXX	1	500	Compact	27	4	104.0	20100
EHIS27AXUAPH001C630SAXXXX	1	630	Compact	27	4	107.0	21300
EHIS27AXUAPH001C800SAXXXX	1	800	Compact	27	4	111.0	23000
EHIS27AXUAPH001C01KSAXXXX	1	1000	Compact	27	4	115.0	25300
EHIS27AXUAPH001C1K2SAXXXX	1	1200	Milliken	27	4	119.0	27000
EHIS27AXUAPH001C1K4SAXXXX	1	1400	Milliken	27	4	123.0	28600
EHIS27AXUAPH001C1K6SAXXXX	1	1600	Milliken	27	4	126.0	30300
EHIS27AXUAPH001C1K8SAXXXX	1	1800	Milliken	27	4	129.0	31700
EHIS27AXUAPH001C02KSAXXXX	1	2000	Milliken	27	4	131.0	32900
EHIS27AXUAPH001C2K5SAXXXX	1	2500	Milliken	27	4	138.0	35900

**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 Resistance	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
400	0.0778	0.101	0.154	0.184	0.12	64	0.160	0.102	0.190
500	0.0605	0.0789	0.148	0.168	0.13	60	0.145	0.0959	0.174
630	0.0469	0.0619	0.142	0.155	0.14	57	0.132	0.0908	0.160
800	0.0367	0.0493	0.137	0.146	0.15	54	0.124	0.0855	0.151
1000	0.0291	0.0402	0.131	0.137	0.17	50	0.119	0.0804	0.144
1200	0.0247	0.0319	0.126	0.130	0.18	47	0.116	0.0760	0.139
1400	0.0212	0.0275	0.123	0.126	0.19	45	0.114	0.0731	0.135
1600	0.0186	0.0242	0.121	0.123	0.20	44	0.114	0.0707	0.134
1800	0.0165	0.0216	0.119	0.121	0.21	42	0.114	0.0691	0.133
2000	0.0149	0.0196	0.117	0.119	0.21	42	0.115	0.0672	0.133
2500	0.0127	0.0169	0.113	0.114	0.23	40	0.119	0.0635	0.135

**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 		
400	427	454	608	667	37.6	
500	486	519	705	777	47.0	
630	550	592	813	900	59.2	
800	618	669	932	1039	75.2	
1000	686	751	1058	1190	94.0	
1200	770	845	1214	1366	112.8	
1400	827	913	1325	1501	131.6	
1600	880	978	1429	1627	150.4	
1800	929	1039	1526	1746	169.2	
2000	975	1095	1620	1862	188.0	
2500	1049	1191	1784	2071	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