



Images not to scale. Follow table for dimensions

## APPLICATION

POLY CAB HV 127/220 KV (245 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: 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 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 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 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
EHIS27CXUAPH001C400SAXXXX	1	400	Compact	27	4	100.0	21000
EHIS27CXUAPH001C500SAXXXX	1	500	Compact	27	4	104.0	23500
EHIS27CXUAPH001C630SAXXXX	1	630	Compact	27	4	107.0	26000
EHIS27CXUAPH001C800SAXXXX	1	800	Compact	27	4	111.0	28500
EHIS27CXUAPH001C01KSAXXXX	1	1000	Compact	27	4	115.0	31500
EHIS27CXUAPH001C1K2SAXXXX	1	1200	Milliken	27	4	119.0	35000
EHIS27CXUAPH001C1K4SAXXXX	1	1400	Milliken	27	4	123.0	38000
EHIS27CXUAPH001C1K6SAXXXX	1	1600	Milliken	27	4	126.0	40500
EHIS27CXUAPH001C1K8SAXXXX	1	1800	Milliken	27	4	129.0	43000
EHIS27CXUAPH001C02KSAXXXX	1	2000	Milliken	27	4	131.0	45500
EHIS27CXUAPH001C2K5SAXXXX	1	2500	Milliken	27	4	138.0	52000

**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
400	0.0470	0.0615	0.154	0.166	0.12	64	0.130	0.102	0.165
500	0.0366	0.0488	0.148	0.156	0.13	60	0.122	0.0959	0.155
630	0.0283	0.0388	0.142	0.147	0.14	57	0.115	0.0902	0.146
800	0.0221	0.0316	0.136	0.140	0.15	54	0.111	0.0852	0.140
1000	0.0176	0.0266	0.131	0.134	0.17	50	0.109	0.0804	0.135
1200	0.0151	0.0203	0.126	0.128	0.18	47	0.107	0.0760	0.131
1400	0.0129	0.0177	0.123	0.124	0.19	45	0.106	0.0731	0.129
1600	0.0113	0.0158	0.121	0.122	0.20	44	0.108	0.0707	0.129
1800	0.0101	0.0145	0.119	0.120	0.21	42	0.108	0.0691	0.128
2000	0.0090	0.0132	0.117	0.118	0.21	42	0.111	0.0672	0.130
2500	0.0072	0.0113	0.113	0.114	0.23	40	0.115	0.0635	0.131

**CURRENT RATING:**

Core Cross sectional Area  <b>mm<sup>2</sup></b>	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		
<b>400</b>	539	578	772	851	57.2	
<b>500</b>	608	657	889	986	71.5	
<b>630</b>	682	743	1018	1139	90.1	
<b>800</b>	755	831	1151	1299	114.4	
<b>1000</b>	823	917	1282	1463	143.0	
<b>1200</b>	934	1045	1493	1705	171.6	
<b>1400</b>	995	1122	1618	1863	200.2	
<b>1600</b>	1049	1193	1729	2006	228.8	
<b>1800</b>	1093	1253	1823	2127	257.4	
<b>2000</b>	1140	1315	1926	2262	286.0	
<b>2500</b>	1228	1437	2124	2533	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