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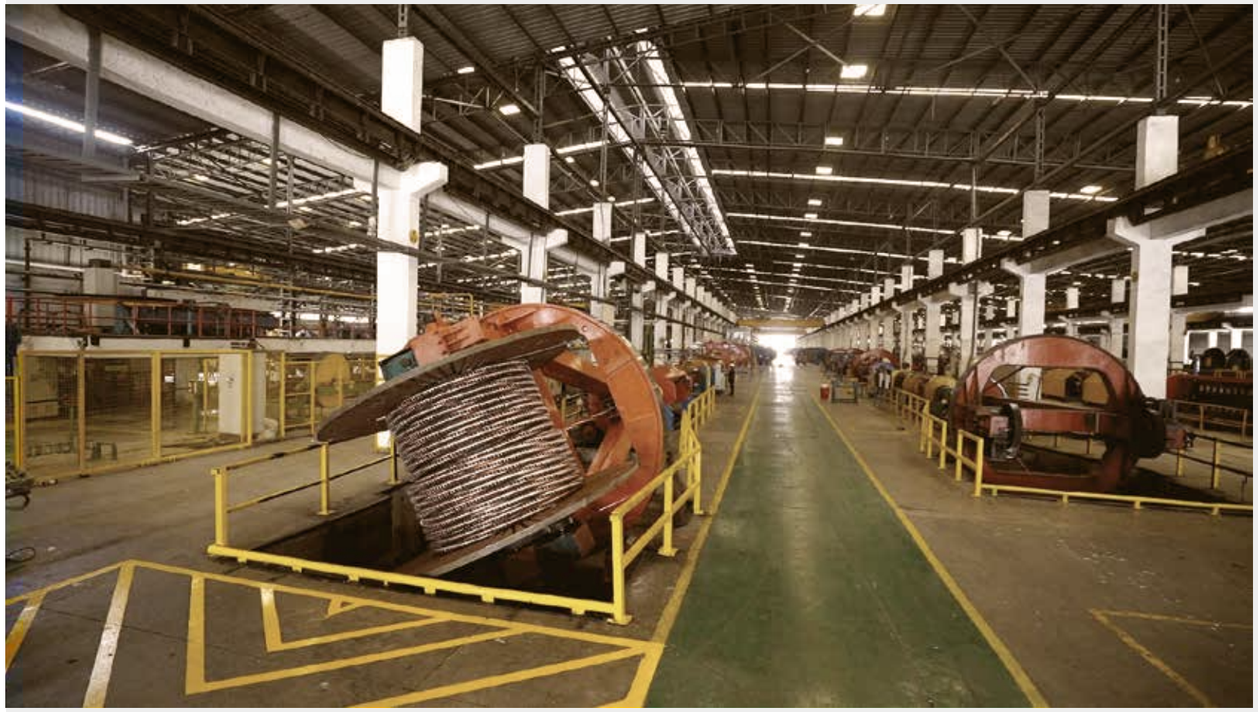
UNINTERRUPTED **POWER** UNSTOPPABLE **PROGRESS**

Polycab Extra High Voltage Cable



CONTENTS

INTRODUCTION

POLYCAB:
MAKING INDIAN LIVES EASIER, SAFER AND BETTER.

Ever since its inception in 1964, Polycab has been relentlessly innovating to make a positive difference in people's lives. Every product reflects the Company's response to evolving needs as well as its commitment to pushing the technological envelope.

Today, Polycab is India's largest manufacturer of wires and cables, producing around 3.9 million kilometres of cables every year. Its huge product range, offered in voltage grades from 1.1 kV to 220 kV, caters to a wide spectrum of the industry: Utilities, power generation, transmission and distribution, oil refineries, OEM, EPC contractors, steel, cement, chemicals, nuclear power, etc. More importantly, Polycab's corporate ethos anchored on pillars like product innovation, superior quality and ready availability helps the brand bond with millions of satisfied customers every year.

66 - 220 kV XLPE cables

Strengthening this bond further is the company's heavy duty offering – Polycab Extra High Voltage cable. The Company offers EHV cables with copper as well as aluminium conductor in the range of 66 KV to 220 KV. A result of decades long expertise and cutting-edge technology, Polycab EHV cables score high in quality, performance and durability. The cables are mainly used to supply electricity from the power station to distribution unit or substation through underground ducts, trenches or tunnels.

Polycab EHV cables are successfully type tested as per IEC 60840, IEC 62067 and IS:7098 Part 3 for all critical electrical, mechanical, thermal and installation parameters, ensuring unparalleled quality and reliability.

Manufacturing Process

Polycab was among the first cable brands to spearhead 'manufacturing in India' decades before 'Make in India' became a national slogan. Polycab's extensive range of electrical wires and cables are manufactured using the latest technology with world-class materials under strict quality assurance procedures.

High Voltage cable is manufactured at one of Polycab's largest plants in Halol, Gujarat – located only a few hours drive from Mumbai. State-of-the-art machines like Maillifer, Scolz, John Royale, along with an ultramodern testing facility ensure a high degree of automation, minimal contamination and optimal production at all times.

Scan to watch Polycab EHV cable manufacturing video

XLPE Cables

XLPE insulated cables are increasingly replacing conventional oil-filled paper insulated cables for higher service voltage up to 220 kV. EHV cable up to 500 kV are being manufactured with XLPE insulation and slowly replacing oil filled cables.

Detailed studies conducted over 20 years show that XLPE EHV cable don't display any fundamental failures, such as internal breakdowns or premature ageing. On the contrary, these cables effectively surpass the performance of oil-filled paper insulated cables under all kinds of practical service conditions.

The advantages for the substitution of XLPE cables as compared to oil-filled cables are as:

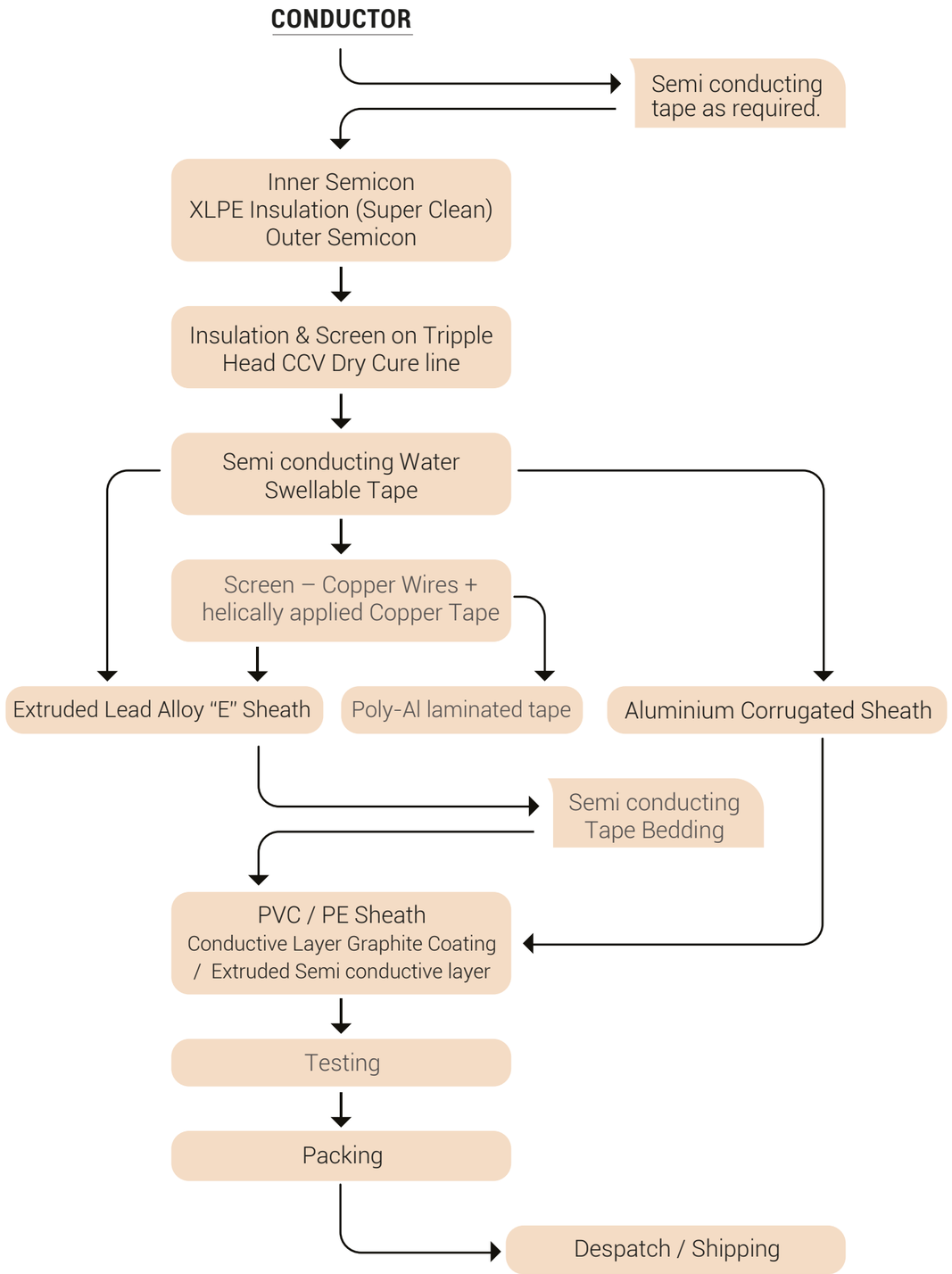
1. XLPE cables have extremely low dielectric losses and are therefore economical in use.
2. XLPE cables – properly designed, manufactured and installed – are reliable and have a long service life expectancy.
3. XLPE cables are lighter and easier to handle, thus reducing the installation costs.
4. Jointing and terminations are easier with XLPE cables.
5. XLPE cables do not contain oil and are therefore pro-environmental.
6. XLPE cables require lesser maintenance.

In fact, certain countries have stopped using oil-filled cable due to pollution aspects.

Out of various process being used today, Polycab manufactures EHV cables with a dry cure/dry cool technology on the world's latest manufacturing lines. The important feature of this technology is discussed in the following pages in detail.

Process Flow Diagram

EHV XLPE Cables from 66 kV up to 220 kV



Material Handling & Environment Control

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Manufacturing Process Highlights

Superior grade insulating materials that conform to global quality standards are sourced from the world's leading XLPE suppliers. While the high voltage cables are made from specially developed polyethylene with a cross-linkable structure; the semiconductive materials are chosen on the basis of their compatibility, uniform smoothness and excellent extrusion properties.

It said, "A contamination-free insulation is essential when demanding a long lifetime under high electrical stress." Therefore, the material transportation process involves: Nitrogen purging of delivery containers, feeding of compounds only to clean rooms having buffers, and use of sealed stainless steel pipes to deliver materials to hopper dryers.

This ensures the following:

- Minimum personal contact with material
- Prevention of contamination entering into the insulation or semiconducting material
- Removes materials fins if any

The entire insulation process is performed in clean room condition with positive pressure to maintain a conducive environment.

Quality Planning and Process of Production

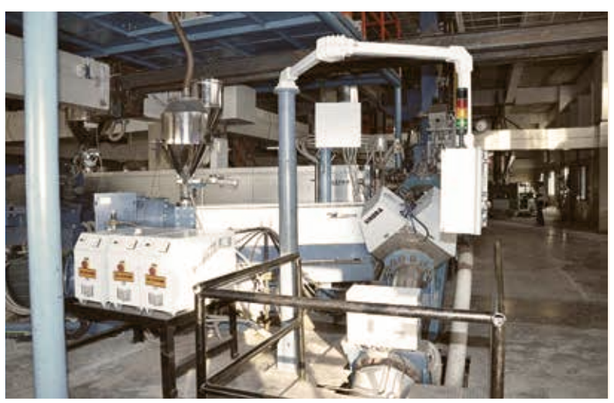
Material Handling up to Manufacturing Lines

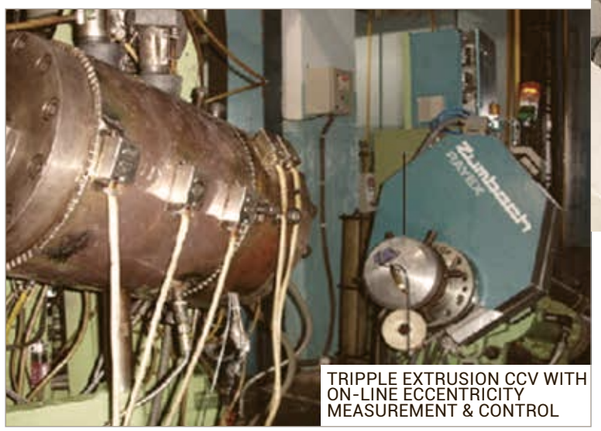
Three polymeric layers cover the conductor in an EHV application. The first layer comprises of a conductor screen, (semiconducting compound and semiconducting tape – optional), the XLPE insulation (super smooth clean grade of XLPE compound) comes second, finally followed by an insulation screen. The protective layers consist of the bedding, a copper wire screen or tape screen, metallic (Lead Sheath*), Aluminium corrugation or Poly Al. Sheath* outer PVC/HDPE Sheath.

PROCESS

(a) Conductor: The conductor is made from high purity Copper or Aluminium rods. To begin with, the rods are carefully drawn into required diameter wires having excellent smoothness and circularity. These wires are then stranded together to required size conductors of good compactness & smoothness. The conductor resistance is measured online with Resistance Meter made by Asea Cartelloid (Switzerland).

(b) XLPE insulation (Continuous Triple Extrusion & Continuous Catenary Vulcanization): The insulation process is the most critical phase of the manufacturing chain as the insulation layer of a high voltage or extra high voltage cable is constantly exposed to high electrical stress and hence should be free from defects.



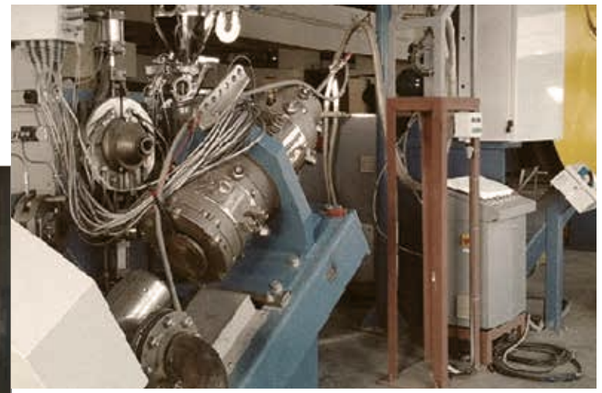


TRIPPLE EXTRUSION CCV WITH ON-LINE ECCENTRICITY MEASUREMENT & CONTROL

During extrusion, the compound is handled with due care reducing the possibility of contamination and fed directly to the hopper of extruders. The temperature profile of all three extruders & the head is controlled by computers within an accuracy of ±0.2°C. All requirements are pre-programmed. Highly advanced CCV lines equipped with world-class features have been specially sourced from Europe for this purpose.

Continuous Catenary Vulcanization: The insulated conductor then enters a heated vulcanization zone located within a tube of 250mm diameter and up to 275 mtrs. long, in "Catenary" form. The heating is done using inert & dry pressurized (10-12 bar) Nitrogen gas to minimize voids and moisture content.

Also, the hot dry nitrogen sweeps away all volatiles such as peroxides, acetophenone, methane, methylstyrene, ethane and water vapours. The M/C is equipped with auto-centering device and fixed with X-ray machinery sourced from Zumbach,



Germany /Sikora for Triple Extrusion. The dry cool zone of this Catenary tube relieves the stress to the core particularly the innermost layer of the insulation, in addition to cooling the insulated conductor.

The complete CCV line is automated with programming system and ensures achievement of required parameters.

(c) Taping: Semi-conducting Water Blocking or water swellable tape of superior quality are applied on the insulated conductor. This being done on double helical tape dispenser machines with synchronized payoffs and take ups.

(d) Copper Screening & Taping: The metallic part of the screening consists of copper wires /copper tape(s) helically applied. Screening is selected on the basis of fault current requirement.

(e) Extruded Lead Alloy 'E' Sheathing:

Introduction: Basic purpose of Lead Sheathing is to protect the core and prevent moisture reaching the insulation during service.

The inherent inertness and excellent corrosion resistance of lead and moisture repellent nature make it an obvious choice for underground cables. Continuous Lead extruders are used for this process.

Process: Lead Ingot of 99.98% min. purity is melted in the melting pot of 10-ton capacity at approx. 370°C. Masterbatch is added to bring right metallurgy to make lead alloy 'E', which yields to good extrusion, smoothness and pliability in lead Sheathing.

Post melting, the lead is transported by Omega-shaped gravity feed pipe to the vertical screw housing at the bottom, while the rotating screw transports the lead alloy up to the die block - equipped with water cooling system - to control the plasticity of the lead. The lead alloy is now pushed through the cross head die block and takes the form of a tube. A computerized system controls the output and dimensions of the lead alloy, to required thickness.

(f) Corrugated Aluminium Sheathing:

An alternative to Lead Sheathing, Corrugated Aluminium Sheath* is fast gaining popularity owing to its low weight, higher short circuit rating and cost effectiveness.

Process: Aluminium sheet of required width and thickness is formed on cable online welded and corrugated. The process is established to form a uniform corrugation that give good mechanical strength.

(g) Taping: Semiconducting cotton tape is helically wound on the core as bedding.

(h) Sheathing with graphite coating: The Sheathing material is either PVC or Black Polyethylene.

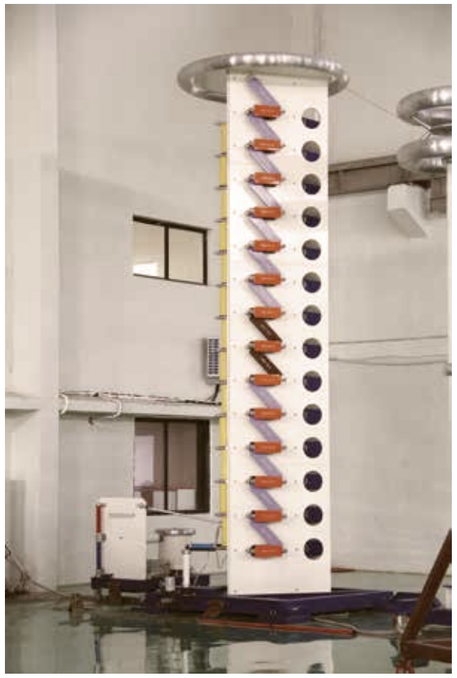
Quality Assurance and Testing

1) Testing:

All cable drums are tested for High voltage test, partial discharge and Conductor Resistance, as per IS:7098 Part 3 or IEC 60840, IEC 62067. Online inspection is carried out through stagewise physical inspection and measurement of thickness, diameter, voids, eccentricity, and hot set test. The verification of cable is done with detailed cable engineering data sheets.

Quality Assurance Testing: Polycab EHV cables are tested to ensure high reliability in performance. Continuous process monitoring and post manufacturing tests are conducted to ensure compliance to Indian and International Standards.

Polycab's in-house laboratory is equipped with world-class equipment and systems to conduct all Routine, Type & Special Tests from time to time.



Impulse Generator

Impulse Generator

(A) Routine Tests:

- Partial Discharge Test
- High Voltage Test
- Conductor Resistance Test.

Routine Test Enclosure

(B) Type Tests: Type Test is performed on a representative sample.

i) Electrical: All electrical type tests as per IEC 60840, IEC 62067 or IS:7098 Part 3 are carried out on the cable samples.

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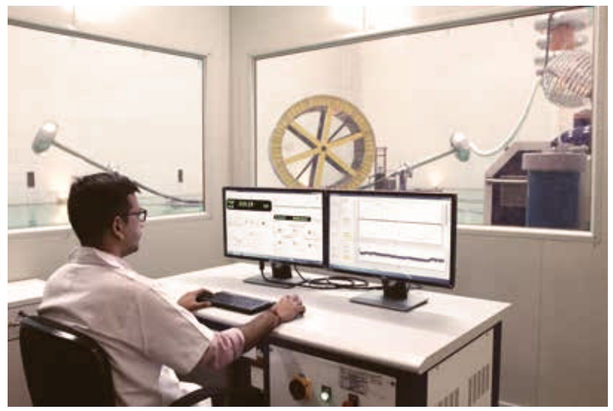
ii) Non-Electrical: All non- electrical type tests as per IEC 60840, IEC 62067 or IS:7098 Part 3 are carried out on the cable samples.



Computerised Partial Discharge Detector

Basic Design of 66 To 220 kV cables

Polycab EHV XLPE cables are designed to meet diverse requirement of customer and conform to national and international standards mainly Indian Standard IS-7098 Part 3 and IEC 60840, IEC 62067.

Polycab has an established system of Quality Management which complies ISO 9001 requirements and ensures customer needs and expectations.

Applicable Standards for EHV XLPE cables 66 to 220 kV

The cable systems described in this publication generally conform, where appropriate, to the following standards:

1. IS Standards 7098 Part 3:	Cross-linked Polyethylene insulated Thermoplastic Specification Sheathed cables - Part 3 for working voltages from 66 kV up to and including 220 kV.
2. IEC Publication 60228	Conductors of insulated cables.
3. IEC 60840	Power cables with extruded insulation and their accessories for rated voltages above 30 kV (Um = 36 kV) up to 150 kV (Um = 170 kV) – Test methods and requirements.
4. IEC 62067	Power cables with extruded insulation and their accessories for rated voltages above 150 kV (Um = 170 kV) up to 500 kV (Um = 550 kV) – Test methods and requirements
5. IEC 60287	Electric cables calculation of current rating.
6. IEC- 60332	Tests on Electric cables under fire conditions.

Scan to watch Polycab Quality & Test Laboratory Video

Major Test requirement of cables from 66 kV up to 220 kV as per IEC 60840, IEC 62067 and IS:7098 Part 3

No.	Description of the Test	Type Designation			
		Routine	Special	Elect.	Non-Elect.
1	Partial Discharge Test	X		X	
2	Voltage Test	X		X	
3	Electrical test on non-metallic Sheath (if required)	X			
4	Conductor examination		X		X
5	Measurement of electrical resistance of conductor	X			
6	Measurement of thickness of insulation and non-metallic Sheaths				X
7	Measurement of thickness of metallic Sheaths		X		X
8	Measurement of diameters (if required)		X		
9	Hot set test for XLPE Insulation				X
10	Measurement of capacitance		X	X	
11	Check on insulation thickness of cable for electrical type tests				X
12	Bending test followed by partial discharge test			X	
13	Tangent Delta Measurement			X	
14	Heating Cycle voltage test, followed by partial discharge test			X	
15	Impulse withstand test followed by a power frequency voltage test			X	
16	Resistivity of semi-conducting layers.			X	
17	Determining the mechanical properties of insulation before and after ageing.				X
18	Determining the mechanical properties of non-metallic Sheath before and after ageing.				X
19	Ageing tests on pieces of complete cable				X
20	Loss of mass test on PVC Sheath				X
21	Pressure test at high temperature on Sheaths				X
22	Tests on PVC Sheaths at low temperature				X
23	Heat shock test for PVC Sheaths				X
24	Carbon black content of PE Sheaths				X
25	Shrinkage test for XLPE Insulation				X
26	Test under fire conditions (if required)				X
27	Water penetration test.				X

Technical Data - Cable Construction / Electrical Characteristics

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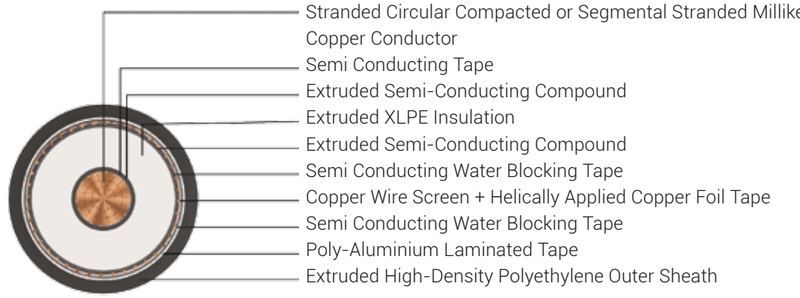
Polycab HV CS + PAL IEC 60840 38/66 kV (72.5 kV)
HV Cable with Copper Conductor, Copper Screen and Poly Al. laminated



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

Application
POLYCAB HV 38/66 KV (72.5 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.

Voltage Rating
Nominal Voltage: 38/66 kV (72.5 kV)

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

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
- Shield: Poly-Al. laminated Tape
- Outer Sheath: Extruded High-density polyethylene (HDPE), 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
325kV

Compliance
• Conductor resistance IEC 60228

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.	mm²		mm	mm	mm	Kg/Km
EHIS24CXUAPH001C240SAXXXX	1	240	Compact	11	3	57.0	5300
EHIS24CXUAPH001C300SAXXXX	1	300	Compact	11	3	59.0	6000
EHIS24CXUAPH001C400SAXXXX	1	400	Compact	11	3.2	62.0	6900
EHIS24CXUAPH001C500SAXXXX	1	500	Compact	11	3.2	65.0	8300
EHIS24CXUAPH001C630SAXXXX	1	630	Compact	11	3.4	69.0	9800
EHIS24CXUAPH001C800SAXXXX	1	800	Compact	11	3.6	73.0	11100
EHIS24CXUAPH001C01KSAXXXX	1	1000	Compact	11	3.8	79.0	13300
EHIS24CXUAPH001C1K2SAXXXX	1	1200	Milliken	11	3.8	82.0	15300
EHIS24CXUAPH001C1K4SAXXXX	1	1400	Milliken	11	4	86.0	17400
EHIS24CXUAPH001C1K6SAXXXX	1	1600	Milliken	11	4	89.0	19400
EHIS24CXUAPH001C1K8SAXXXX	1	1800	Milliken	11	4	93.0	21400
EHIS24CXUAPH001C02KSAXXXX	1	2000	Milliken	11	4	95.0	23300
EHIS24CXUAPH001C2K5SAXXXX	1	2500	Milliken	11	4	101.0	28100

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
240	0.0754	0.0973	0.133	0.165	0.19	47	0.156	0.0781	0.174
300	0.0601	0.0782	0.128	0.150	0.21	44	0.141	0.0735	0.159
400	0.0470	0.0620	0.123	0.138	0.22	42	0.128	0.0687	0.145
500	0.0366	0.0494	0.118	0.128	0.25	39	0.118	0.0639	0.134
630	0.0283	0.0397	0.113	0.120	0.27	37	0.110	0.0598	0.125
800	0.0221	0.0327	0.109	0.114	0.29	35	0.105	0.0562	0.119
1000	0.0176	0.0279	0.106	0.110	0.32	32	0.101	0.0530	0.114
1200	0.0151	0.0206	0.102	0.104	0.35	30	0.095	0.0497	0.107
1400	0.0129	0.0181	0.100	0.102	0.38	29	0.0933	0.0481	0.105
1600	0.0113	0.0162	0.0987	0.100	0.40	28	0.0918	0.0465	0.103
1800	0.0101	0.0149	0.0973	0.0984	0.41	27	0.0907	0.0454	0.101
2000	0.0090	0.0137	0.0957	0.0967	0.43	27	0.0898	0.0441	0.100
2500	0.0072	0.0119	0.0928	0.0936	0.47	25	0.0882	0.0417	0.0976

Polycab HV CS + PAL IEC 60840 38/66 kV (72.5 kV)
HV Cable with Copper Conductor, Copper Screen and Poly Al. laminated

POLYCAB Connection Zindagi Ka

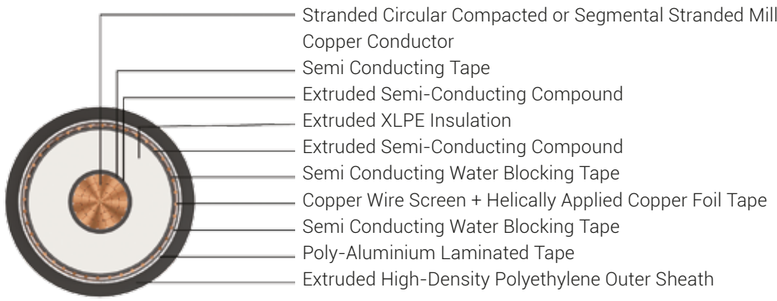
CURRENT RATING:

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	
					
mm²	Amps				KAmps
240	435	455	607	690	34.3
300	490	514	692	789	42.9
400	556	585	801	916	57.2
500	631	668	927	1067	71.5
630	713	760	1069	1239	90.1
800	795	855	1214	1420	114.4
1000	873	947	1358	1605	143.0
1200	1027	1095	1632	1895	171.6
1400	1107	1187	1782	2077	200.2
1600	1176	1267	1915	2242	228.8
1800	1235	1338	2031	2390	257.4
2000	1296	1411	2153	2549	286.0
2500	1412	1558	2397	2876	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

POLYCAB HV CS+PAL IEC 60840 64/110 kV (123 kV)
HV Cable with Copper Conductor, Copper Screen and Poly Al. laminated



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

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.

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 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
- Shield: Poly-Al. laminated Tape
- Outer Sheath: Extruded High-density polyethylene (HDPE), 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

DIMENSIONS AND WEIGHT:

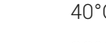
Product Code	No. of Cores	Core Cross sectional Area	Conductor type	Insulation thickness (Approx.)	Sheath thickness (Approx.)	Diameter Overall (Nominal)	Weight (Approx.)
	No.	mm²		mm	mm	mm	Kg/Km
EHIS25CXUAPH001C240SAXXXX	1	240	Compact	16	3.4	67.0	6100
EHIS25CXUAPH001C300SAXXXX	1	300	Compact	16	3.4	70.0	6900
EHIS25CXUAPH001C400SAXXXX	1	400	Compact	16	3.6	73.0	7800
EHIS25CXUAPH001C500SAXXXX	1	500	Compact	16	3.6	76.0	9200
EHIS25CXUAPH001C630SAXXXX	1	630	Compact	16	3.8	80.0	10600
EHIS25CXUAPH001C800SAXXXX	1	800	Compact	16	4	84.0	12500
EHIS25CXUAPH001C01KSAXXXX	1	1000	Compact	16	4	89.0	14700
EHIS25CXUAPH001C1K2SAXXXX	1	1200	Milliken	16	4	94.0	16700
EHIS25CXUAPH001C1K4SAXXXX	1	1400	Milliken	16	4	100.0	18800
EHIS25CXUAPH001C1K6SAXXXX	1	1600	Milliken	16	4	103.0	20800
EHIS25CXUAPH001C1K8SAXXXX	1	1800	Milliken	16	4	106.0	22800
EHIS25CXUAPH001C02KSAXXXX	1	2000	Milliken	16	4	109.0	24700
EHIS25CXUAPH001C2K5SAXXXX	1	2500	Milliken	16	4	116.0	29600

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
240	0.0754	0.0972	0.144	0.174	0.15	55	0.156	0.0900	0.180
300	0.0601	0.0781	0.138	0.159	0.16	52	0.141	0.0851	0.165
400	0.0470	0.0618	0.133	0.147	0.17	50	0.128	0.0798	0.151
500	0.0366	0.0491	0.128	0.137	0.19	46	0.118	0.0744	0.139
630	0.0283	0.0393	0.122	0.128	0.20	44	0.110	0.0697	0.130
800	0.0221	0.0322	0.118	0.122	0.22	41	0.105	0.0656	0.124
1000	0.0176	0.0273	0.114	0.117	0.24	39	0.101	0.0617	0.118
1200	0.0151	0.0205	0.110	0.112	0.26	37	0.0953	0.0582	0.112
1400	0.0129	0.0179	0.108	0.109	0.28	35	0.0933	0.0560	0.109
1600	0.0113	0.0161	0.105	0.106	0.29	34	0.0918	0.0541	0.107
1800	0.0101	0.0147	0.104	0.105	0.30	33	0.0907	0.0527	0.105
2000	0.0090	0.0135	0.102	0.103	0.32	32	0.0898	0.0512	0.103
2500	0.0072	0.0117	0.0987	0.0994	0.35	30	0.0882	0.0483	0.101

POLYCAB HV CS+PAL IEC 60840 64/110 kV (123 kV)
HV Cable with Copper Conductor, Copper Screen and Poly Al. laminated

CURRENT RATING:

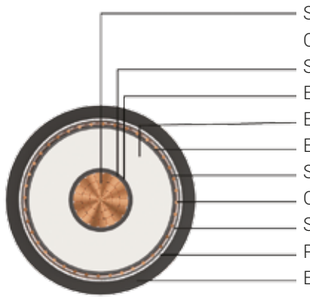
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
240	436	456	603	672	34.3
300	491	515	688	769	42.9
400	558	587	796	892	57.2
500	634	670	921	1037	71.5
630	718	762	1062	1204	90.1
800	802	859	1207	1379	114.4
1000	882	951	1352	1557	143.0
1200	1032	1099	1612	1833	171.6
1400	1114	1192	1761	2011	200.2
1600	1184	1272	1893	2173	228.8
1800	1244	1343	2009	2315	257.4
2000	1307	1418	2131	2469	286.0
2500	1427	1563	2374	2783	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

POLYCAB HV CS+PAL IEC 60840 76/132 kV (145 kV)
HV Cable with Copper Conductor, Copper Screen and Poly Al. laminated

POLYCAB Connection Zindagi Ka



1. Stranded Circular Compacted or Segmental Stranded Milliken Copper Conductor
2. Semi Conducting Tape
3. Extruded Semi-Conducting Compound
4. Extruded XLPE Insulation
5. Extruded Semi-Conducting Compound
6. Semi Conducting Water Blocking Tape
7. Copper Wire Screen + Helically Applied Copper Foil Tape
8. Semi Conducting Water Blocking Tape
9. Poly-Aluminium Laminated Tape
10. Extruded High-Density Polyethylene Outer Sheath

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

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.

Voltage Rating
Nominal Voltage: 76/132 kV (145 kV)

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

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
- Shield: Poly-Al. laminated Tape
- Outer Sheath: Extruded High-density polyethylene (HDPE), 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
650kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

REACH COMPLIANCE RoHS COMPLIANT OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001 NABL ABS IRS

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.	mm²		mm	mm	mm	Kg/Km
EHIS26CXUAPH001C300SAXXXX	1	300	Compact	18	3.6	74.0	7800
EHIS26CXUAPH001C400SAXXXX	1	400	Compact	18	3.6	77.0	8700
EHIS26CXUAPH001C500SAXXXX	1	500	Compact	18	3.8	80.0	9800
EHIS26CXUAPH001C630SAXXXX	1	630	Compact	18	4	84.0	11300
EHIS26CXUAPH001C800SAXXXX	1	800	Compact	18	4	88.0	13100
EHIS26CXUAPH001C01KSAXXXX	1	1000	Compact	18	4	93.0	15400
EHIS26CXUAPH001C1K2SAXXXX	1	1200	Milliken	18	4	100.0	17400
EHIS26CXUAPH001C1K4SAXXXX	1	1400	Milliken	18	4	104.0	19500
EHIS26CXUAPH001C1K6SAXXXX	1	1600	Milliken	18	4	107.0	21600
EHIS26CXUAPH001C1K8SAXXXX	1	1800	Milliken	18	4	110.0	23600
EHIS26CXUAPH001C02KSAXXXX	1	2000	Milliken	18	4	114.0	25600
EHIS26CXUAPH001C2K5SAXXXX	1	2500	Milliken	18	4	119.0	30600

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
300	0.0601	0.0780	0.143	0.163	0.15	55	0.141	0.0896	0.167
400	0.0470	0.0617	0.137	0.150	0.16	52	0.128	0.0841	0.153
500	0.0366	0.0491	0.131	0.140	0.17	50	0.118	0.0785	0.142
630	0.0283	0.0392	0.126	0.132	0.19	46	0.110	0.0736	0.132
800	0.0221	0.0321	0.122	0.126	0.20	44	0.105	0.0693	0.126
1000	0.0176	0.0272	0.117	0.120	0.22	41	0.101	0.0653	0.120
1200	0.0151	0.0205	0.113	0.115	0.24	39	0.0953	0.0615	0.113
1400	0.0129	0.0179	0.110	0.111	0.25	37	0.0933	0.0592	0.110
1600	0.0113	0.0160	0.108	0.109	0.27	36	0.0918	0.0572	0.108
1800	0.0101	0.0147	0.106	0.107	0.28	35	0.0907	0.0557	0.106
2000	0.0090	0.0135	0.105	0.106	0.29	34	0.0898	0.0540	0.105
2500	0.0072	0.0116	0.101	0.102	0.31	32	0.0882	0.0510	0.102

POLYCAB HV CS+PAL IEC 60840 76/132 kV (145 kV)
HV Cable with Copper Conductor, Copper Screen and Poly Al. laminated

POLYCAB Connection Zindagi Ka

CURRENT RATING:

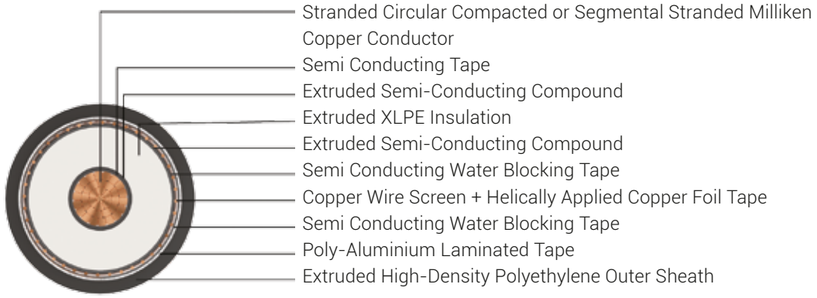
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
300	491	515	686	761	42.9
400	559	588	793	883	57.2
500	635	671	918	1027	71.5
630	720	763	1059	1191	90.1
800	805	859	1204	1363	114.4
1000	885	954	1348	1540	143.0
1200	1034	1100	1604	1811	171.6
1400	1116	1193	1752	1987	200.2
1600	1187	1274	1884	2146	228.8
1800	1248	1343	1999	2286	257.4
2000	1311	1418	2120	2438	286.0
2500	1432	1567	2363	2747	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

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

POLYCAB HV CS+PAL IEC 62067 127/220 kV (245 kV)
HV Cable with Copper Conductor, Copper Screen and Poly Al. laminated



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

Application

POLYCAB 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.

Voltage Rating
Nominal Voltage: 127/220 kV (245 kV)

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

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
- Shield: Poly-Al. laminated Tape
- Outer Sheath: Extruded High-density polyethylene (HDPE), Colour: Black
- Optional Semi-conductive layer

Bending Radius: 20D
: D is overall diameter of cable

Standard and References:
IEC 60228
IEC 62067
IS 7098-3
ICEA S-108-720

Impulse Test Voltage
1050kV

Compliance
• Conductor resistance IEC 60228

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.	mm²		mm	mm	mm	Kg/Km
EHIS27CXUAPH001C400SAXXXX	1	400	Compact	27	4	94.0	11200
EHIS27CXUAPH001C500SAXXXX	1	500	Compact	27	4	97.0	12200
EHIS27CXUAPH001C630SAXXXX	1	630	Compact	27	4	101.0	13700
EHIS27CXUAPH001C800SAXXXX	1	800	Compact	27	4	105.0	15700
EHIS27CXUAPH001C01KSAXXXX	1	1000	Compact	27	4	109.0	18000
EHIS27CXUAPH001C1K2SAXXXX	1	1200	Milliken	27	4	115.0	20100
EHIS27CXUAPH001C1K4SAXXXX	1	1400	Milliken	27	4	120.0	22300
EHIS27CXUAPH001C1K6SAXXXX	1	1600	Milliken	27	4	123.0	24500
EHIS27CXUAPH001C1K8SAXXXX	1	1800	Milliken	27	4	127.0	26600
EHIS27CXUAPH001C02KSAXXXX	1	2000	Milliken	27	4	130.0	28600
EHIS27CXUAPH001C2K5SAXXXX	1	2500	Milliken	27	4	136.0	33700

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
400	0.0470	0.0616	0.152	0.164	0.12	63	0.111	0.0999	0.149
500	0.0366	0.0488	0.145	0.153	0.13	60	0.101	0.0936	0.138
630	0.0283	0.0389	0.139	0.144	0.14	56	0.0934	0.0880	0.128
800	0.0221	0.0317	0.134	0.138	0.15	53	0.0878	0.0831	0.121
1000	0.0176	0.0267	0.129	0.132	0.17	49	0.0839	0.0783	0.115
1200	0.0151	0.0203	0.124	0.126	0.18	47	0.0785	0.0739	0.108
1400	0.0129	0.0177	0.121	0.122	0.19	45	0.0764	0.0711	0.104
1600	0.0113	0.0159	0.119	0.120	0.20	43	0.0750	0.0687	0.102
1800	0.0101	0.0145	0.117	0.118	0.21	42	0.0739	0.0672	0.0999
2000	0.0090	0.0133	0.115	0.116	0.21	42	0.0729	0.0653	0.0979
2500	0.0072	0.0113	0.111	0.112	0.23	39	0.0714	0.0616	0.0943

POLYCAB HV CS+PAL IEC 62067 127/220 kV (245 kV)
HV Cable with Copper Conductor, Copper Screen and Poly Al. laminated

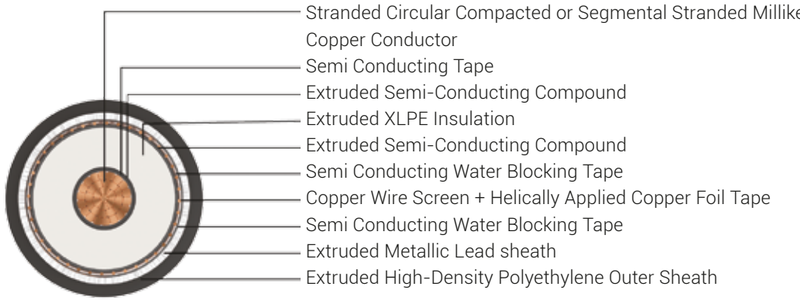
CURRENT RATING:

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	
					
mm²	Amps				KAmps
400	554	583	778	850	57.2
500	630	665	900	986	71.5
630	714	756	1037	1141	90.1
800	799	852	1180	1305	114.4
1000	881	944	1323	1474	143.0
1200	1021	1086	1562	1726	171.6
1400	1102	1176	1706	1893	200.2
1600	1173	1257	1834	2043	228.8
1800	1234	1327	1946	2173	257.4
2000	1297	1399	2065	2315	286.0
2500	1419	1544	2303	2606	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

POLYCAB HV CS+PB IEC 60840 38/66 kV (72.5 kV)
HV Cable with Copper Conductor, Copper Screen and Lead Sheath



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

Application
POLYCAB HV 38/66 KV (72.5 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.

Voltage Rating
Nominal Voltage: 38/66 kV (72.5 kV)

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

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

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
325kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

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.	mm²		mm	mm	mm	Kg/Km
EHIS24CXUAPH001C240SAXXXX	1	240	Compact	11	3.2	62.0	9500
EHIS24CXUAPH001C300SAXXXX	1	300	Compact	11	3.2	64.0	10400
EHIS24CXUAPH001C400SAXXXX	1	400	Compact	11	3.4	67.0	11800
EHIS24CXUAPH001C500SAXXXX	1	500	Compact	11	3.4	71.0	13400
EHIS24CXUAPH001C630SAXXXX	1	630	Compact	11	3.6	75.0	15500
EHIS24CXUAPH001C800SAXXXX	1	800	Compact	11	3.8	79.0	18000
EHIS24CXUAPH001C01KSAXXXX	1	1000	Compact	11	4	85.0	21100
EHIS24CXUAPH001C1K2SAXXXX	1	1200	Milliken	11	4	88.0	23400
EHIS24CXUAPH001C1K4SAXXXX	1	1400	Milliken	11	4	92.0	26300
EHIS24CXUAPH001C1K6SAXXXX	1	1600	Milliken	11	4	95.0	29000
EHIS24CXUAPH001C1K8SAXXXX	1	1800	Milliken	11	4	98.0	31400
EHIS24CXUAPH001C02KSAXXXX	1	2000	Milliken	11	4	101.0	33700
EHIS24CXUAPH001C2K5SAXXXX	1	2500	Milliken	11	4	107.0	39800

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
240	0.0754	0.0973	0.137	0.168	0.19	48	0.166	0.0809	0.185
300	0.0601	0.0781	0.132	0.153	0.21	45	0.152	0.0763	0.170
400	0.0470	0.0619	0.127	0.141	0.22	43	0.141	0.0716	0.158
500	0.0366	0.0493	0.121	0.131	0.25	39	0.132	0.0668	0.148
630	0.0283	0.0395	0.117	0.123	0.27	37	0.126	0.0625	0.141
800	0.0221	0.0325	0.113	0.118	0.29	35	0.122	0.0589	0.135
1000	0.0176	0.0277	0.109	0.112	0.32	33	0.121	0.0555	0.133
1200	0.0151	0.0206	0.105	0.107	0.35	31	0.117	0.0521	0.128
1400	0.0129	0.0180	0.103	0.105	0.38	29	0.118	0.0505	0.128
1600	0.0113	0.0162	0.101	0.102	0.40	28	0.119	0.0489	0.129
1800	0.0101	0.0148	0.0998	0.101	0.41	28	0.120	0.0477	0.129
2000	0.0090	0.0136	0.0982	0.0991	0.43	27	0.122	0.0464	0.131
2500	0.0072	0.0118	0.0954	0.0961	0.47	25	0.126	0.0440	0.133

POLYCAB HV CS+PB IEC 60840 38/66 kV (72.5 kV)
HV Cable with Copper Conductor, Copper Screen and Lead Sheath

POLYCAB Connection Zindagi Ka

CURRENT RATING:

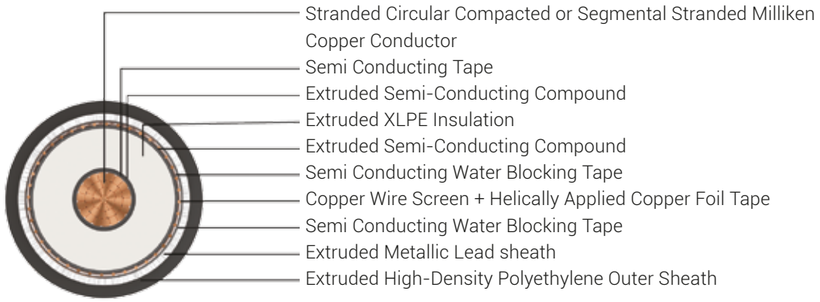
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
240	431	455	610	697	34.3
300	483	512	694	797	42.9
400	545	583	799	924	57.2
500	614	662	921	1074	71.5
630	688	750	1054	1243	90.1
800	760	839	1190	1419	114.4
1000	827	925	1322	1600	143.0
1200	950	1058	1558	1873	171.6
1400	1014	1140	1688	2045	200.2
1600	1068	1211	1802	2203	228.8
1800	1112	1272	1898	2339	257.4
2000	1158	1336	2002	2488	286.0
2500	1246	1462	2207	2791	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

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

POLYCAB HV CS+PB IEC 60840 64/110 kV (123 kV)
HV Cable with Copper Conductor, Copper Screen and 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 copper 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 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

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

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.	mm²		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
mm²	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)
HV Cable with Copper Conductor, Copper Screen and Lead Sheath

CURRENT RATING:

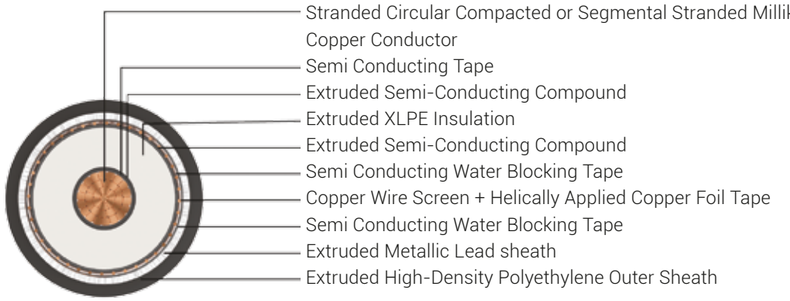
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
240	431	456	605	678	34.3
300	484	513	689	774	42.9
400	547	584	793	897	57.2
500	617	663	914	1042	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

POLYCAB HV CS+PB IEC 60840 76/132 kV (145 kV)
HV Cable with Copper Conductor, Copper Screen and Lead Sheath

POLYCAB Connection Zindagi Ka



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

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.

Voltage Rating
Nominal Voltage: 76/132 kV (145 kV)

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

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

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
650kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

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.	mm²		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
mm²	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

POLYCAB HV CS+PB IEC 60840 76/132 kV (145 kV)
HV Cable with Copper Conductor, Copper Screen and Lead Sheath

POLYCAB Connection Zindagi Ka

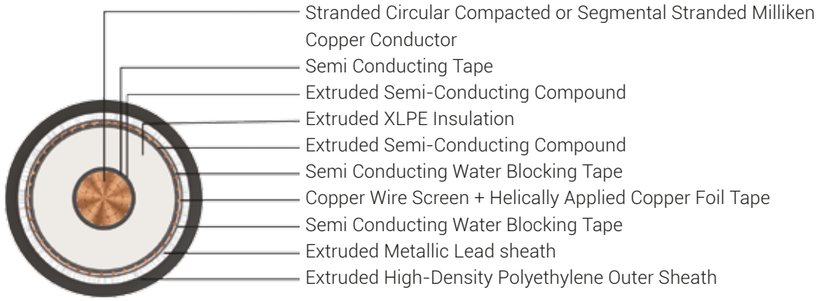
CURRENT RATING:

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	
					
mm²	Amps				KAmps
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

POLYCAB HV CS+PB IEC 62067 127/220 kV (245 kV)
HV Cable with Copper Conductor, Copper Screen and Lead Sheath



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

Application

POLYCAB 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.

Voltage Rating
Nominal Voltage: 127/220 kV (245 kV)

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

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

Bending Radius: 20D
: D is overall diameter of cable

Standard and References:
IEC 60228
IEC 62067
IS 7098-3
ICEA S-108-720

Impulse Test Voltage
1050kV

Compliance
• Conductor resistance IEC 60228

POLYCAB Connection Zindagi Ka

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.	mm²		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

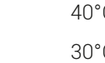
ELECTRICAL CHARACTERISTICS:

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
mm²	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

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

POLYCAB HV CS+PB IEC 62067 127/220 kV (245 kV)
HV Cable with Copper Conductor, Copper Screen and Lead Sheath

CURRENT RATING:

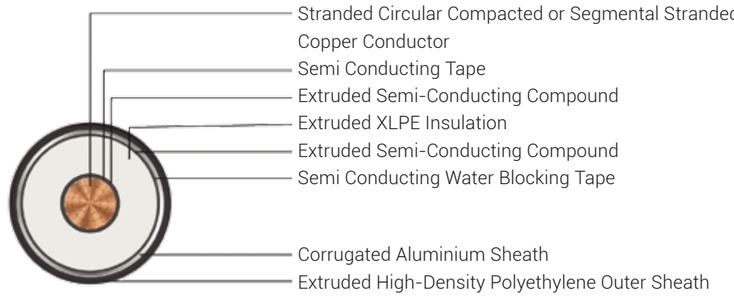
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	539	578	772	851	57.2
500	608	657	889	986	71.5
630	682	743	1018	1139	90.1
800	755	831	1151	1299	114.4
1000	823	917	1282	1463	143.0
1200	934	1045	1493	1705	171.6
1400	995	1122	1618	1863	200.2
1600	1049	1193	1729	2006	228.8
1800	1093	1253	1823	2127	257.4
2000	1140	1315	1926	2262	286.0
2500	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

POLYCAB HV AL.COR IEC 60840 38/66 kV (72.5 kV)
HV Cable with Copper Conductor, Aluminium Corrugated Sheath

POLYCAB
Connection Zindagi Ka



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

Application
POLYCAB HV 38/66 KV (72.5 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.

Voltage Rating
Nominal Voltage: 38/66 kV (72.5 kV)

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

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
- Shield: Aluminium Corrugated Sheath
- Outer Sheath: Extruded High-density polyethylene (HDPE) (PVC, also available per request), 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
325kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

REACH COMPLIANCE RoHS COMPLIANT OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001 NABL ABS IRS

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.	mm²		mm	mm	mm	Kg/Km
EHIS24CXATPH001C240SAXXXX	1	240	Compact	11	3.2	64.0	6400
EHIS24CXATPH001C300SAXXXX	1	300	Compact	11	3.2	66.0	7200
EHIS24CXATPH001C400SAXXXX	1	400	Compact	11	3.4	69.0	8100
EHIS24CXATPH001C500SAXXXX	1	500	Compact	11	3.6	73.0	9600
EHIS24CXATPH001C630SAXXXX	1	630	Compact	11	3.6	76.0	11000
EHIS24CXATPH001C800SAXXXX	1	800	Compact	11	3.8	80.0	12300
EHIS24CXATPH001C01KSAXXXX	1	1000	Compact	11	4	86.0	14500
EHIS24CXATPH001C1K2SAXXXX	1	1200	Milliken	11	4	93.0	17000
EHIS24CXATPH001C1K4SAXXXX	1	1400	Milliken	11	4	97.0	19100
EHIS24CXATPH001C1K6SAXXXX	1	1600	Milliken	11	4	100.0	21100
EHIS24CXATPH001C1K8SAXXXX	1	1800	Milliken	11	4	103.0	23100
EHIS24CXATPH001C02KSAXXXX	1	2000	Milliken	11	4	106.0	25000
EHIS24CXATPH001C2K5SAXXXX	1	2500	Milliken	11	4	112.0	29900

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
240	0.0754	0.0972	0.145	0.175	0.19	49	0.166	0.0883	0.188
300	0.0601	0.0780	0.140	0.160	0.21	46	0.150	0.0836	0.172
400	0.0470	0.0618	0.134	0.148	0.22	44	0.135	0.0782	0.156
500	0.0366	0.0491	0.128	0.137	0.25	40	0.125	0.0726	0.145
630	0.0283	0.0393	0.123	0.129	0.27	38	0.115	0.0679	0.134
800	0.0221	0.0322	0.118	0.122	0.29	36	0.107	0.0638	0.125
1000	0.0176	0.0274	0.114	0.117	0.32	34	0.103	0.0598	0.119
1200	0.0151	0.0205	0.110	0.112	0.35	32	0.0980	0.0560	0.113
1400	0.0129	0.0179	0.107	0.108	0.38	30	0.0949	0.0540	0.109
1600	0.0113	0.0161	0.105	0.106	0.40	29	0.0904	0.0522	0.104
1800	0.0101	0.0147	0.104	0.105	0.41	28	0.0864	0.0511	0.100
2000	0.0090	0.0135	0.102	0.103	0.43	28	0.0829	0.0496	0.0966
2500	0.0072	0.0116	0.0992	0.0999	0.47	26	0.0765	0.0469	0.0897

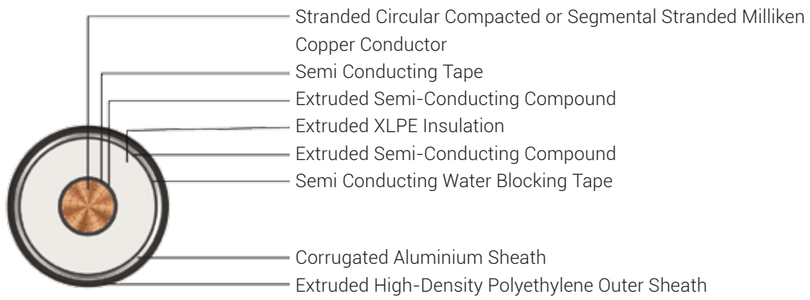
CURRENT RATING:

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	
					
mm²	Amps				KAmps
240	427	452	595	666	34.3
300	478	509	676	760	42.9
400	540	579	778	881	57.2
500	608	657	894	1021	71.5
630	681	743	1022	1181	90.1
800	751	831	1151	1347	114.4
1000	815	915	1276	1515	143.0
1200	930	1045	1494	1769	171.6
1400	988	1121	1612	1930	200.2
1600	1034	1188	1712	2070	228.8
1800	1070	1242	1794	2192	257.4
2000	1106	1299	1880	2319	286.0
2500	1167	1404	2039	2576	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

POLYCAB HV AL.COR IEC 60840 64/110 kV (123 kV)
HV Cable with Copper Conductor, Aluminium Corrugated 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 Copper 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 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
- Shield: Aluminium Corrugated Sheath
- Outer Sheath: Extruded High-density polyethylene (HDPE) (PVC, also available per request), 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

DIMENSIONS AND WEIGHT:

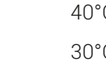
Product Code	No. of Cores	Core Cross sectional Area	Conductor type	Insulation thickness (Approx.)	Sheath thickness (Approx.)	Diameter Overall (Nominal)	Weight (Approx.)
	No.	mm²		mm	mm	mm	Kg/Km
EHIS25CXATPH001C240SAXXXX	1	240	Compact	16	3.6	75.0	7700
EHIS25CXATPH001C300SAXXXX	1	300	Compact	16	3.6	77.0	8400
EHIS25CXATPH001C400SAXXXX	1	400	Compact	16	3.8	80.0	9400
EHIS25CXATPH001C500SAXXXX	1	500	Compact	16	4	84.0	10900
EHIS25CXATPH001C630SAXXXX	1	630	Compact	16	4	87.0	12500
EHIS25CXATPH001C800SAXXXX	1	800	Compact	16	4	91.0	13700
EHIS25CXATPH001C01KSAXXXX	1	1000	Compact	16	4	96.0	15900
EHIS25CXATPH001C1K2SAXXXX	1	1200	Milliken	16	4	103.0	18500
EHIS25CXATPH001C1K4SAXXXX	1	1400	Milliken	16	4	107.0	20600
EHIS25CXATPH001C1K6SAXXXX	1	1600	Milliken	16	4	110.0	22700
EHIS25CXATPH001C1K8SAXXXX	1	1800	Milliken	16	4	113.0	24800
EHIS25CXATPH001C02KSAXXXX	1	2000	Milliken	16	4	116.0	26700
EHIS25CXATPH001C2K5SAXXXX	1	2500	Milliken	16	4	122.0	31700

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
240	0.0754	0.0972	0.154	0.182	0.15	57	0.16	0.0985	0.188
300	0.0601	0.0780	0.148	0.167	0.16	54	0.145	0.0932	0.172
400	0.0470	0.0617	0.142	0.155	0.17	52	0.131	0.0874	0.157
500	0.0366	0.0490	0.136	0.145	0.19	48	0.12	0.0816	0.145
630	0.0283	0.0391	0.130	0.136	0.20	45	0.113	0.0763	0.136
800	0.0221	0.0320	0.125	0.129	0.22	43	0.106	0.0718	0.128
1000	0.0176	0.0270	0.121	0.124	0.24	40	0.101	0.0675	0.121
1200	0.0151	0.0204	0.117	0.119	0.26	38	0.0905	0.0638	0.111
1400	0.0129	0.0178	0.114	0.115	0.28	36	0.0855	0.0615	0.105
1600	0.0113	0.0160	0.112	0.113	0.29	35	0.0817	0.0595	0.101
1800	0.0101	0.0146	0.110	0.111	0.30	34	0.0784	0.0579	0.0975
2000	0.0090	0.0134	0.108	0.109	0.32	33	0.0754	0.0562	0.094
2500	0.0072	0.0115	0.105	0.106	0.35	31	0.07	0.0531	0.0879

POLYCAB HV AL.COR IEC 60840 64/110 kV (123 kV)
HV Cable with Copper Conductor, Aluminium Corrugated Sheath

CURRENT RATING:

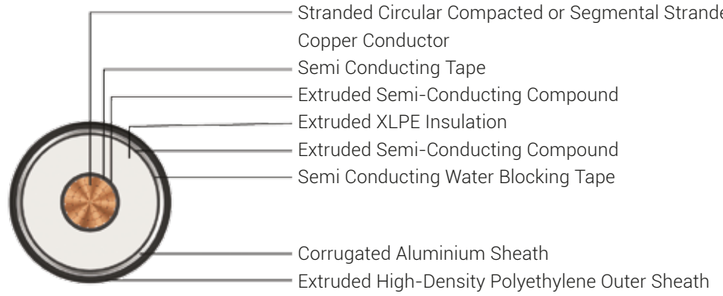
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
240	427	452	591	653	34.3
300	479	509	671	745	42.9
400	541	579	772	862	57.2
500	609	657	887	999	71.5
630	683	744	1015	1155	90.1
800	754	832	1144	1317	114.4
1000	819	918	1270	1480	143.0
1200	927	1042	1476	1721	171.6
1400	982	1120	1591	1876	200.2
1600	1027	1185	1689	2013	228.8
1800	1063	1237	1772	2133	257.4
2000	1098	1294	1856	2259	286.0
2500	1159	1400	2016	2510	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

POLYCAB HV AL.COR IEC 60840 76/132 kV (145 kV)
HV Cable with Copper Conductor, Aluminium Corrugated Sheath

POLYCAB
Connection Zindagi Ka



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

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.

Voltage Rating
Nominal Voltage: 76/132 kV (145 kV)

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

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
- Shield: Aluminium Corrugated Sheath
- Outer Sheath: Extruded High-density polyethylene (HDPE) (PVC, also available per request), 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
650kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

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.	mm²		mm	mm	mm	Kg/Km
EHIS26CXATPH001C300SAXXXX	1	300	Compact	18	3.8	81.0	9000
EHIS26CXATPH001C400SAXXXX	1	400	Compact	18	4	84.0	10000
EHIS26CXATPH001C500SAXXXX	1	500	Compact	18	4	88.0	11500
EHIS26CXATPH001C630SAXXXX	1	630	Compact	18	4	91.0	13000
EHIS26CXATPH001C800SAXXXX	1	800	Compact	18	4	95.0	14200
EHIS26CXATPH001C01KSAXXXX	1	1000	Compact	18	4	100.0	16500
EHIS26CXATPH001C1K2SAXXXX	1	1200	Milliken	18	4	107.0	19200
EHIS26CXATPH001C1K4SAXXXX	1	1400	Milliken	18	4	111.0	21300
EHIS26CXATPH001C1K6SAXXXX	1	1600	Milliken	18	4	114.0	23400
EHIS26CXATPH001C1K8SAXXXX	1	1800	Milliken	18	4	117.0	25500
EHIS26CXATPH001C02KSAXXXX	1	2000	Milliken	18	4	120.0	27400
EHIS26CXATPH001C2K5SAXXXX	1	2500	Milliken	18	4	126.0	32400

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
300	0.0601	0.0779	0.151	0.170	0.15	57	0.144	0.0969	0.174
400	0.0470	0.0616	0.145	0.158	0.16	54	0.131	0.0910	0.160
500	0.0366	0.0489	0.139	0.147	0.17	51	0.120	0.0850	0.147
630	0.0283	0.0390	0.133	0.139	0.19	47	0.111	0.0797	0.137
800	0.0221	0.0319	0.128	0.132	0.20	45	0.105	0.0751	0.129
1000	0.0176	0.0269	0.124	0.127	0.22	42	0.0963	0.0710	0.120
1200	0.0151	0.0204	0.119	0.121	0.24	40	0.0869	0.0669	0.110
1400	0.0129	0.0178	0.117	0.118	0.25	39	0.0821	0.0644	0.104
1600	0.0113	0.0159	0.114	0.115	0.27	37	0.0785	0.0623	0.100
1800	0.0101	0.0146	0.112	0.113	0.28	36	0.0755	0.0606	0.0968
2000	0.0090	0.0133	0.111	0.112	0.29	35	0.0726	0.0589	0.0935
2500	0.0072	0.0114	0.107	0.108	0.31	33	0.0675	0.0556	0.0875

POLYCAB HV AL.COR IEC 60840 76/132 kV (145 kV)
HV Cable with Copper Conductor, Aluminium Corrugated Sheath

POLYCAB
Connection Zindagi Ka

CURRENT RATING:

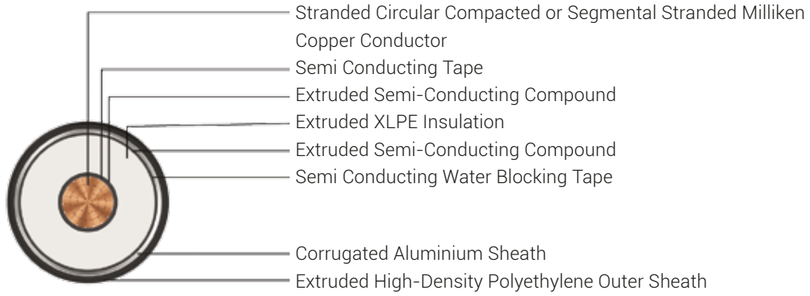
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
300	479	510	669	739	42.9
400	541	580	769	855	57.2
500	610	658	885	990	71.5
630	683	745	1012	1144	90.1
800	755	834	1141	1304	114.4
1000	819	917	1265	1464	143.0
1200	925	1042	1468	1704	171.6
1400	980	1117	1582	1857	200.2
1600	1024	1181	1680	1992	228.8
1800	1060	1237	1763	2111	257.4
2000	1095	1293	1847	2236	286.0
2500	1156	1396	2006	2484	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

OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

POLYCAB HV AL.COR IEC 62067 127/220 kV (245 kV)
HV Cable with Copper Conductor, Aluminium Corrugated Sheath



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

Application

POLYCAB 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.

Voltage Rating
Nominal Voltage: 127/220 kV (245 kV)

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

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
- Shield: Aluminium Corrugated Sheath
- Outer Sheath: Extruded High-density polyethylene (HDPE) (PVC, also available per request), Colour: Black
- Optional Semi-conductive layer

Bending Radius: 20D
: D is overall diameter of cable

Standard and References:
IEC 60228
IEC 62067
IS 7098-3
ICEA S-108-720

Impulse Test Voltage
1050kV

Compliance
• Conductor resistance IEC 60228

POLYCAB
Connection Zindagi Ka

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.	mm²		mm	mm	mm	Kg/Km
EHIS27CXATPH001C400SAXXXX	1	400	Compact	27	4	100.0	12400
EHIS27CXATPH001C500SAXXXX	1	500	Compact	27	4	104.0	14000
EHIS27CXATPH001C630SAXXXX	1	630	Compact	27	4	107.0	15600
EHIS27CXATPH001C800SAXXXX	1	800	Compact	27	4	111.0	16800
EHIS27CXATPH001C01KSAXXXX	1	1000	Compact	27	4	116.0	19100
EHIS27CXATPH001C1K2SAXXXX	1	1200	Milliken	27	4	123.0	22000
EHIS27CXATPH001C1K4SAXXXX	1	1400	Milliken	27	4	127.0	24200
EHIS27CXATPH001C1K6SAXXXX	1	1600	Milliken	27	4	130.0	26400
EHIS27CXATPH001C1K8SAXXXX	1	1800	Milliken	27	4	133.0	28500
EHIS27CXATPH001C02KSAXXXX	1	2000	Milliken	27	4	136.0	30600
EHIS27CXATPH001C2K5SAXXXX	1	2500	Milliken	27	4	142.0	35700

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
400	0.0470	0.0615	0.157	0.169	0.12	65	0.113	0.104	0.154
500	0.0366	0.0487	0.150	0.158	0.13	61	0.102	0.0977	0.141
630	0.0283	0.0388	0.144	0.149	0.14	57	0.0943	0.0919	0.132
800	0.0221	0.0316	0.139	0.143	0.15	54	0.0885	0.0868	0.124
1000	0.0176	0.0266	0.133	0.136	0.17	50	0.0841	0.0817	0.117
1200	0.0151	0.0203	0.129	0.131	0.18	48	0.0757	0.0772	0.108
1400	0.0129	0.0177	0.125	0.126	0.19	46	0.0719	0.0743	0.103
1600	0.0113	0.0158	0.123	0.124	0.20	44	0.0688	0.0719	0.0995
1800	0.0101	0.0144	0.121	0.122	0.21	43	0.0660	0.0703	0.0964
2000	0.0090	0.0132	0.119	0.120	0.21	42	0.0637	0.0683	0.0934
2500	0.0072	0.0112	0.115	0.116	0.23	40	0.0595	0.0646	0.0878

POLYCAB HV AL.COR IEC 62067 127/220 kV (245 kV)
HV Cable with Copper Conductor, Aluminium Corrugated Sheath

CURRENT RATING:

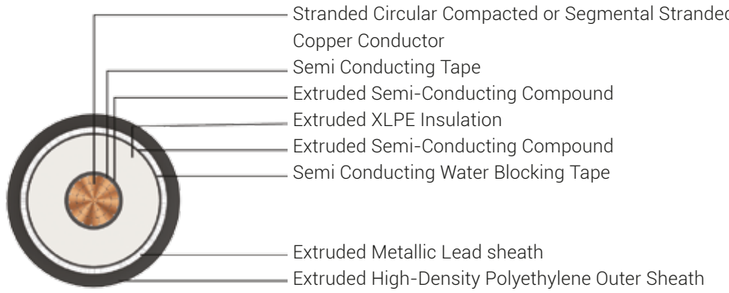
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	532	573	753	829	57.2
500	598	650	865	958	71.5
630	669	734	989	1104	90.1
800	739	820	1115	1257	114.4
1000	801	902	1238	1411	143.0
1200	899	1021	1430	1638	171.6
1400	951	1095	1542	1785	200.2
1600	993	1155	1638	1915	228.8
1800	1026	1208	1718	2027	257.4
2000	1059	1263	1801	2147	286.0
2500	1117	1363	1959	2385	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

POLYCAB HV PB IEC 60840 38/66 kV (72.5 kV)
HV Cable with Copper Conductor, Lead Sheath

POLYCAB
Connection Zindagi Ka



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

Application
POLYCAB HV 38/66 KV (72.5 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.

Voltage Rating
Nominal Voltage: 38/66 kV (72.5 kV)

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

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
- 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
325kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

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.	mm²		mm	mm	mm	Kg/Km
EHIS24CXUAPH001C240SAXXXX	1	240	Compact	11	3	58.0	7800
EHIS24CXUAPH001C300SAXXXX	1	300	Compact	11	3	60.0	8600
EHIS24CXUAPH001C400SAXXXX	1	400	Compact	11	3.2	63.0	9900
EHIS24CXUAPH001C500SAXXXX	1	500	Compact	11	3.4	67.0	11600
EHIS24CXUAPH001C630SAXXXX	1	630	Compact	11	3.4	70.0	13300
EHIS24CXUAPH001C800SAXXXX	1	800	Compact	11	3.6	75.0	15600
EHIS24CXUAPH001C01KSAXXXX	1	1000	Compact	11	3.8	81.0	19100
EHIS24CXUAPH001C1K2SAXXXX	1	1200	Milliken	11	4	88.0	22300
EHIS24CXUAPH001C1K4SAXXXX	1	1400	Milliken	11	4	93.0	25100
EHIS24CXUAPH001C1K6SAXXXX	1	1600	Milliken	11	4	96.0	27400
EHIS24CXUAPH001C1K8SAXXXX	1	1800	Milliken	11	4	99.0	30100
EHIS24CXUAPH001C02KSAXXXX	1	2000	Milliken	11	4	102.0	32400
EHIS24CXUAPH001C2K5SAXXXX	1	2500	Milliken	11	4	108.0	38300

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
240	0.0754	0.0973	0.137	0.168	0.19	48	0.166	0.0809	0.185
300	0.0601	0.0781	0.132	0.153	0.21	45	0.152	0.0763	0.170
400	0.0470	0.0619	0.127	0.141	0.22	43	0.141	0.0716	0.158
500	0.0366	0.0493	0.121	0.131	0.25	39	0.132	0.0668	0.148
630	0.0283	0.0395	0.117	0.123	0.27	37	0.126	0.0625	0.141
800	0.0221	0.0325	0.113	0.118	0.29	35	0.122	0.0589	0.135
1000	0.0176	0.0277	0.109	0.112	0.32	33	0.121	0.0555	0.133
1200	0.0151	0.0206	0.105	0.107	0.35	31	0.117	0.0521	0.128
1400	0.0129	0.0180	0.103	0.105	0.38	29	0.118	0.0505	0.128
1600	0.0113	0.0162	0.101	0.102	0.40	28	0.119	0.0489	0.129
1800	0.0101	0.0148	0.0998	0.101	0.41	28	0.120	0.0477	0.129
2000	0.0090	0.0136	0.0982	0.0991	0.43	27	0.122	0.0464	0.131
2500	0.0072	0.0118	0.0954	0.0961	0.47	25	0.126	0.0440	0.133

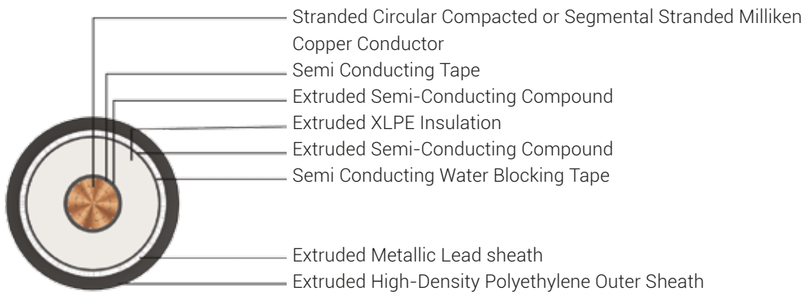
CURRENT RATING:

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	
					
mm²	Amps				KAmps
240	431	455	610	697	34.3
300	483	512	694	797	42.9
400	545	583	799	924	57.2
500	614	662	921	1074	71.5
630	688	750	1054	1243	90.1
800	760	839	1190	1419	114.4
1000	827	925	1322	1600	143.0
1200	950	1058	1558	1873	171.6
1400	1014	1140	1688	2045	200.2
1600	1068	1211	1802	2203	228.8
1800	1112	1272	1898	2339	257.4
2000	1158	1336	2002	2488	286.0
2500	1246	1462	2207	2791	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

POLYCAB HV PB IEC 60840 64/110 kV (123 kV)
HV Cable with Copper 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 copper 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 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
- 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

DIMENSIONS AND WEIGHT:

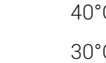
Product Code	No. of Cores	Core Cross sectional Area	Conductor type	Insulation thickness (Approx.)	Sheath thickness (Approx.)	Diameter Overall (Nominal)	Weight (Approx.)
	No.	mm²		mm	mm	mm	Kg/Km
EHIS25CXUAPH001C240SAXXXX	1	240	Compact	16	3.4	69.0	9900
EHIS25CXUAPH001C300SAXXXX	1	300	Compact	16	3.4	71.0	10800
EHIS25CXUAPH001C400SAXXXX	1	400	Compact	16	3.6	74.0	12200
EHIS25CXUAPH001C500SAXXXX	1	500	Compact	16	3.8	79.0	14000
EHIS25CXUAPH001C630SAXXXX	1	630	Compact	16	3.8	82.0	15700
EHIS25CXUAPH001C800SAXXXX	1	800	Compact	16	4	86.0	18200
EHIS25CXUAPH001C01KSAXXXX	1	1000	Compact	16	4	92.0	21900
EHIS25CXUAPH001C1K2SAXXXX	1	1200	Milliken	16	4	99.0	25200
EHIS25CXUAPH001C1K4SAXXXX	1	1400	Milliken	16	4	103.0	27800
EHIS25CXUAPH001C1K6SAXXXX	1	1600	Milliken	16	4	106.0	30200
EHIS25CXUAPH001C1K8SAXXXX	1	1800	Milliken	16	4	110.0	33000
EHIS25CXUAPH001C02KSAXXXX	1	2000	Milliken	16	4	112.0	35300
EHIS25CXUAPH001C2K5SAXXXX	1	2500	Milliken	16	4	118.0	41800

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
mm²	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 PB IEC 60840 64/110 kV (123 kV)
HV Cable with Copper Conductor, Lead Sheath

CURRENT RATING:

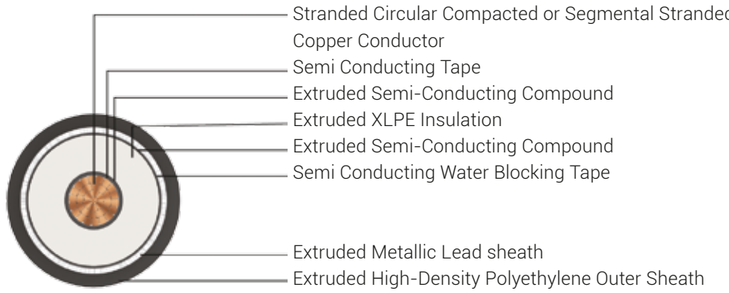
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
240	431	456	605	678	34.3
300	484	513	689	774	42.9
400	547	584	793	897	57.2
500	617	663	914	1042	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

POLYCAB HV PB IEC 60840 76/132 kV (145 kV)
HV Cable with Copper Conductor, Lead Sheath

POLYCAB
Connection Zindagi Ka



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

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.

Voltage Rating
Nominal Voltage: 76/132 kV (145 kV)

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

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
- 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
650kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

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.	mm²		mm	mm	mm	Kg/Km
EHIS26CXUAPH001C300SAXXXX	1	300	Compact	18	3.6	76.0	11800
EHIS26CXUAPH001C400SAXXXX	1	400	Compact	18	3.8	79.0	13200
EHIS26CXUAPH001C500SAXXXX	1	500	Compact	18	3.8	83.0	14800
EHIS26CXUAPH001C630SAXXXX	1	630	Compact	18	4	86.0	16900
EHIS26CXUAPH001C800SAXXXX	1	800	Compact	18	4	90.0	19300
EHIS26CXUAPH001C01KSAXXXX	1	1000	Compact	18	4	96.0	23200
EHIS26CXUAPH001C1K2SAXXXX	1	1200	Milliken	18	4	103.0	26200
EHIS26CXUAPH001C1K4SAXXXX	1	1400	Milliken	18	4	107.0	28800
EHIS26CXUAPH001C1K6SAXXXX	1	1600	Milliken	18	4	111.0	31600
EHIS26CXUAPH001C1K8SAXXXX	1	1800	Milliken	18	4	114.0	34400
EHIS26CXUAPH001C02KSAXXXX	1	2000	Milliken	18	4	116.0	36800
EHIS26CXUAPH001C2K5SAXXXX	1	2500	Milliken	18	4	122.0	43000

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
mm²	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

POLYCAB HV PB IEC 60840 76/132 kV (145 kV)
HV Cable with Copper Conductor, Lead Sheath

POLYCAB
Connection Zindagi Ka

CURRENT RATING:

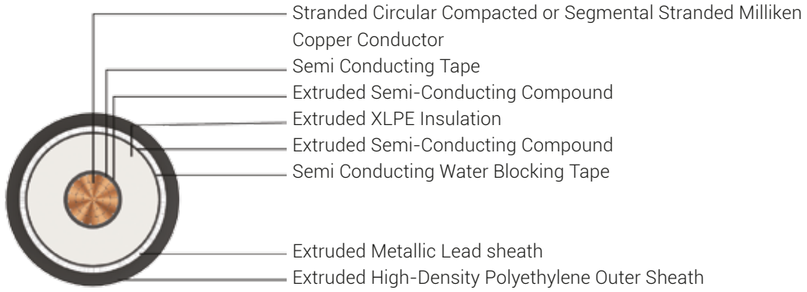
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
300	484	514	686	766	42.9
400	548	584	791	888	57.2
500	618	664	911	1030	71.5
630	695	754	1044	1191	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

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

POLYCAB HV PB IEC 62067 127/220 kV (245 kV)
HV Cable with Copper Conductor, Lead Sheath



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

Application

POLYCAB 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.

Voltage Rating
Nominal Voltage: 127/220 kV (245 kV)

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

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
- Inner Sheath: Extruded Metallic Lead
- 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 62067
IS 7098-3
ICEA S-108-720

Impulse Test Voltage
1050kV

Compliance
• Conductor resistance IEC 60228

POLYCAB HV PB IEC 62067 127/220 kV (245 kV)
HV Cable with Copper Conductor, Lead Sheath

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.	mm²		mm	mm	mm	Kg/Km
EHIS27CXUAPH001C400SAXXXX	1	400	Compact	27	4	96.0	17600
EHIS27CXUAPH001C500SAXXXX	1	500	Compact	27	4	100.0	19300
EHIS27CXUAPH001C630SAXXXX	1	630	Compact	27	4	103.0	21100
EHIS27CXUAPH001C800SAXXXX	1	800	Compact	27	4	107.0	23700
EHIS27CXUAPH001C01KSAXXXX	1	1000	Compact	27	4	113.0	28000
EHIS27CXUAPH001C1K2SAXXXX	1	1200	Milliken	27	4	120.0	31600
EHIS27CXUAPH001C1K4SAXXXX	1	1400	Milliken	27	4	124.0	34800
EHIS27CXUAPH001C1K6SAXXXX	1	1600	Milliken	27	4	127.0	37300
EHIS27CXUAPH001C1K8SAXXXX	1	1800	Milliken	27	4	131.0	40300
EHIS27CXUAPH001C02KSAXXXX	1	2000	Milliken	27	4	133.0	42700
EHIS27CXUAPH001C2K5SAXXXX	1	2500	Milliken	27	4	139.0	48700

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
mm²	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

POLYCAB HV PB IEC 62067 127/220 kV (245 kV)
HV Cable with Copper Conductor, Lead Sheath

CURRENT RATING:

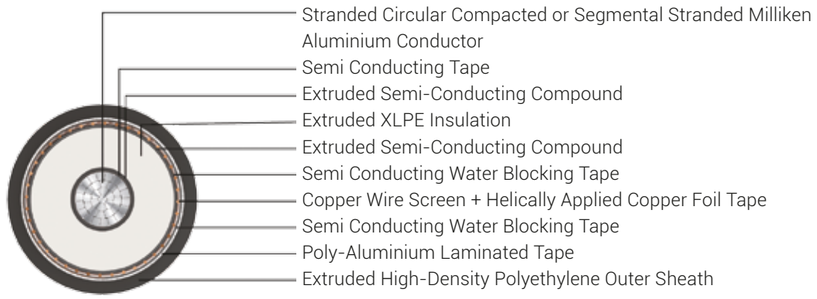
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	539	578	772	851	57.2
500	608	657	889	986	71.5
630	682	743	1018	1139	90.1
800	755	831	1151	1299	114.4
1000	823	917	1282	1463	143.0
1200	934	1045	1493	1705	171.6
1400	995	1122	1618	1863	200.2
1600	1049	1193	1729	2006	228.8
1800	1093	1253	1823	2127	257.4
2000	1140	1315	1926	2262	286.0
2500	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

POLYCAB HV CS+PAL IEC 60840 38/66 kV (72.5 kV)
HV Cable with Aluminium Conductor, Copper Screen and Poly Al. laminated

POLYCAB Connection Zindagi Ka



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

Application
POLYCAB HV 38/66 KV (72.5 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: 38/66 kV (72.5 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
- Metallic Insulation Screen: Copper Wires + Helically applied Copper Foil Tape
- Separator: Semi Conducting Water Blocking Tape
- Shield: Poly-Al. laminated Tape
- Outer Sheath: Extruded High-density polyethylene (HDPE), 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
325kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

REACH COMPLIANCE RoHS COMPLIANT OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001 NABL ABS IRS

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.	mm²		mm	mm	mm	Kg/Km
EHIS24AXUAPH001C400SAXXXX	1	400	Compact	11	3.2	62.0	4500
EHIS24AXUAPH001C500SAXXXX	1	500	Compact	11	3.2	65.0	5100
EHIS24AXUAPH001C630SAXXXX	1	630	Compact	11	3.4	69.0	5800
EHIS24AXUAPH001C800SAXXXX	1	800	Compact	11	3.6	73.0	6300
EHIS24AXUAPH001C01KSAXXXX	1	1000	Compact	11	3.8	79.0	7300
EHIS24AXUAPH001C1K2SAXXXX	1	1200	Milliken	11	3.8	82.0	8000
EHIS24AXUAPH001C1K4SAXXXX	1	1400	Milliken	11	4	86.0	8900
EHIS24AXUAPH001C1K6SAXXXX	1	1600	Milliken	11	4	89.0	9700
EHIS24AXUAPH001C1K8SAXXXX	1	1800	Milliken	11	4	93.0	10500
EHIS24AXUAPH001C02KSAXXXX	1	2000	Milliken	11	4	95.0	11200
EHIS24AXUAPH001C2K5SAXXXX	1	2500	Milliken	11	4	101.0	12900

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
400	0.0778	0.101	0.123	0.159	0.22	42	0.158	0.0687	0.172
500	0.0605	0.0793	0.118	0.142	0.25	39	0.141	0.0639	0.155
630	0.0469	0.0625	0.114	0.130	0.27	37	0.128	0.0602	0.141
800	0.0367	0.0501	0.110	0.121	0.29	35	0.118	0.0564	0.131
1000	0.0291	0.0412	0.106	0.114	0.32	32	0.111	0.0530	0.123
1200	0.0247	0.0322	0.102	0.107	0.35	30	0.104	0.0497	0.115
1400	0.0212	0.0278	0.100	0.104	0.38	29	0.101	0.0481	0.112
1600	0.0186	0.0245	0.0987	0.102	0.40	28	0.0980	0.0465	0.108
1800	0.0165	0.0219	0.0973	0.0997	0.41	27	0.0959	0.0454	0.106
2000	0.0149	0.0200	0.0957	0.0978	0.43	27	0.0944	0.0441	0.104
2500	0.0127	0.0174	0.0928	0.0944	0.47	25	0.0922	0.0417	0.101

POLYCAB HV CS+PAL IEC 60840 38/66 kV (72.5 kV)
HV Cable with Aluminium Conductor, Copper Screen and Poly Al. laminated

POLYCAB
Connection Zindagi Ka

CURRENT RATING:

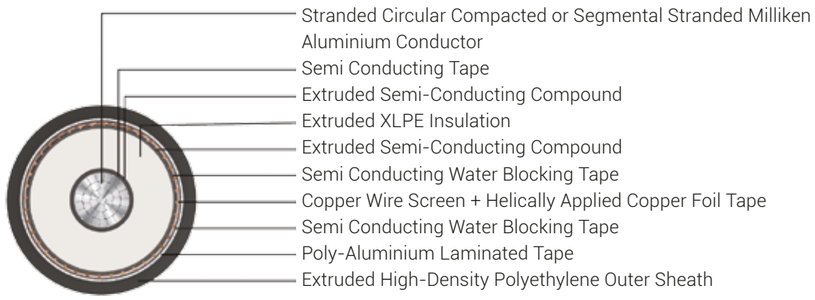
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	436	457	627	716	37.6
500	498	525	732	838	47.0
630	568	600	849	977	59.2
800	642	682	979	1133	75.2
1000	718	768	1117	1301	94.0
1200	823	872	1308	1509	112.8
1400	893	949	1437	1661	131.6
1600	957	1020	1558	1805	150.4
1800	1018	1089	1674	1946	169.2
2000	1073	1153	1784	2082	188.0
2500	1167	1262	1981	2330	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

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

POLYCAB HV CS+PAL IEC 60840 64/110 kV (123 kV)
HV Cable with Aluminium Conductor, Copper Screen and Poly Al. laminated



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
- Metallic Insulation Screen: Copper Wires + Helically applied Copper Foil Tape
- Separator: Semi Conducting Water Blocking Tape
- Shield: Poly-Al. laminated Tape
- Outer Sheath: Extruded High-density polyethylene (HDPE), 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

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.	mm²		mm	mm	mm	Kg/Km
EHIS25AXUAPH001C400SAXXXX	1	400	Compact	16	3.6	73.0	5500
EHIS25AXUAPH001C500SAXXXX	1	500	Compact	16	3.6	76.0	6200
EHIS25AXUAPH001C630SAXXXX	1	630	Compact	16	3.8	80.0	6900
EHIS25AXUAPH001C800SAXXXX	1	800	Compact	16	4	84.0	7700
EHIS25AXUAPH001C01KSAXXXX	1	1000	Compact	16	4	89.0	8700
EHIS25AXUAPH001C1K2SAXXXX	1	1200	Milliken	16	4	94.0	9500
EHIS25AXUAPH001C1K4SAXXXX	1	1400	Milliken	16	4	100.0	10400
EHIS25AXUAPH001C1K6SAXXXX	1	1600	Milliken	16	4	103.0	11200
EHIS25AXUAPH001C1K8SAXXXX	1	1800	Milliken	16	4	106.0	12100
EHIS25AXUAPH001C02KSAXXXX	1	2000	Milliken	16	4	109.0	12800
EHIS25AXUAPH001C2K5SAXXXX	1	2500	Milliken	16	4	116.0	14700

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
400	0.0778	0.101	0.133	0.167	0.17	50	0.158	0.0798	0.177
500	0.0605	0.0791	0.128	0.150	0.19	46	0.141	0.0744	0.159
630	0.0469	0.0622	0.123	0.138	0.20	44	0.128	0.0702	0.146
800	0.0367	0.0498	0.118	0.128	0.22	41	0.118	0.0658	0.135
1000	0.0291	0.0408	0.114	0.121	0.24	39	0.111	0.0617	0.127
1200	0.0247	0.0321	0.110	0.115	0.26	37	0.104	0.0582	0.119
1400	0.0212	0.0277	0.108	0.111	0.28	35	0.101	0.0560	0.115
1600	0.0186	0.0244	0.105	0.108	0.29	34	0.098	0.0541	0.112
1800	0.0165	0.0218	0.104	0.106	0.30	33	0.0959	0.0527	0.109
2000	0.0149	0.0199	0.102	0.104	0.32	32	0.0944	0.0512	0.107
2500	0.0127	0.0172	0.0987	0.100	0.35	30	0.0922	0.0483	0.104

POLYCAB HV CS+PAL IEC 60840 64/110 kV (123 kV)
HV Cable with Aluminium Conductor, Copper Screen and Poly Al. laminated

CURRENT RATING:

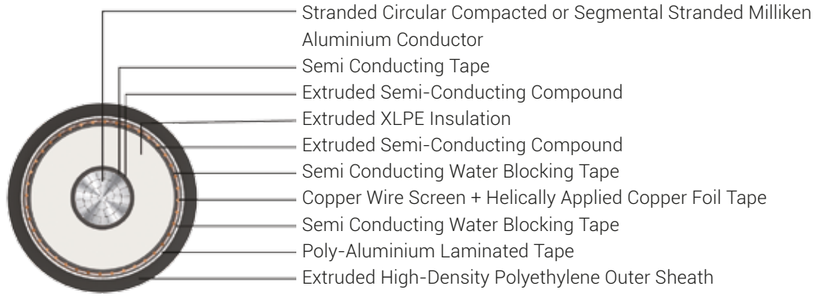
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	437	459	623	697	37.6
500	500	526	726	815	47.0
630	570	602	842	949	59.2
800	645	684	970	1099	75.2
1000	722	771	1107	1262	94.0
1200	825	874	1289	1458	112.8
1400	896	952	1417	1607	131.6
1600	961	1024	1536	1748	150.4
1800	1023	1093	1651	1884	169.2
2000	1079	1157	1759	2014	188.0
2500	1174	1265	1953	2252	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

POLYCAB HV CS+PAL IEC 60840 76/132 kV (145 kV)
HV Cable with Aluminium Conductor, Copper Screen and Poly Al. laminated

POLYCAB Connection Zindagi Ka



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

Application
POLYCAB HV 76/132 KV (145 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: 76/132 kV (145 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
- Metallic Insulation Screen: Copper Wires + Helically applied Copper Foil Tape
- Separator: Semi Conducting Water Blocking Tape
- Shield: Poly-Al. laminated Tape
- Outer Sheath: Extruded High-density polyethylene (HDPE), 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
650kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

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.	mm²		mm	mm	mm	Kg/Km
EHIS26AXUAPH001C400SAXXXX	1	400	Compact	18	3.6	77.0	6400
EHIS26AXUAPH001C500SAXXXX	1	500	Compact	18	3.8	80.0	6800
EHIS26AXUAPH001C630SAXXXX	1	630	Compact	18	4	84.0	7500
EHIS26AXUAPH001C800SAXXXX	1	800	Compact	18	4	88.0	8300
EHIS26AXUAPH001C01KSAXXXX	1	1000	Compact	18	4	93.0	9300
EHIS26AXUAPH001C1K2SAXXXX	1	1200	Milliken	18	4	100.0	10100
EHIS26AXUAPH001C1K4SAXXXX	1	1400	Milliken	18	4	104.0	11000
EHIS26AXUAPH001C1K6SAXXXX	1	1600	Milliken	18	4	107.0	11900
EHIS26AXUAPH001C1K8SAXXXX	1	1800	Milliken	18	4	110.0	12700
EHIS26AXUAPH001C02KSAXXXX	1	2000	Milliken	18	4	114.0	13500
EHIS26AXUAPH001C2K5SAXXXX	1	2500	Milliken	18	4	119.0	15400

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
400	0.0778	0.101	0.137	0.170	0.16	52	0.158	0.0841	0.179
500	0.0605	0.0791	0.131	0.153	0.17	50	0.141	0.0785	0.161
630	0.0469	0.0622	0.127	0.141	0.19	46	0.128	0.0741	0.148
800	0.0367	0.0498	0.122	0.132	0.20	44	0.118	0.0695	0.137
1000	0.0291	0.0408	0.117	0.124	0.22	41	0.111	0.0653	0.129
1200	0.0247	0.0321	0.113	0.117	0.24	39	0.104	0.0615	0.121
1400	0.0212	0.0277	0.110	0.113	0.25	37	0.101	0.0592	0.117
1600	0.0186	0.0244	0.108	0.111	0.27	36	0.098	0.0572	0.113
1800	0.0165	0.0218	0.106	0.108	0.28	35	0.0959	0.0557	0.111
2000	0.0149	0.0199	0.105	0.107	0.29	34	0.0944	0.0540	0.109
2500	0.0127	0.0172	0.101	0.102	0.31	32	0.0922	0.0510	0.105

POLYCAB HV CS+PAL IEC 60840 76/132 kV (145 kV)
HV Cable with Aluminium Conductor, Copper Screen and Poly Al. laminated

POLYCAB Connection Zindagi Ka

CURRENT RATING:

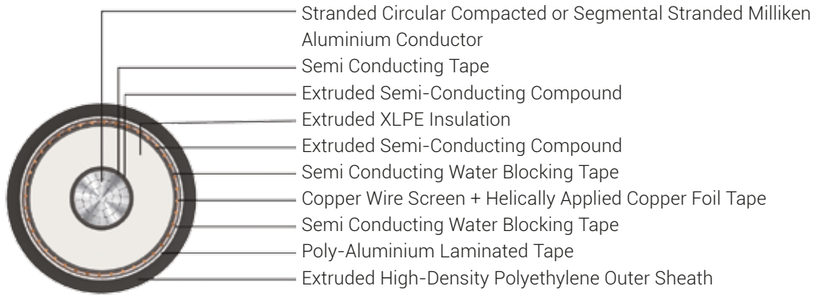
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	437	459	621	690	37.6
500	501	527	723	806	47.0
630	571	603	838	938	59.2
800	647	685	966	1086	75.2
1000	724	773	1103	1247	94.0
1200	826	875	1282	1441	112.8
1400	897	953	1409	1588	131.6
1600	962	1025	1527	1726	150.4
1800	1025	1092	1641	1860	169.2
2000	1081	1156	1749	1988	188.0
2500	1177	1268	1941	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

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

POLYCAB HV CS+PAL IEC 62067 127/220 kV (245 kV)
HV Cable with Aluminium Conductor, Copper Screen and Poly Al. laminated



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

Application

POLYCAB 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.

Voltage Rating
Nominal Voltage: 127/220 kV (245 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
- Metallic Insulation Screen: Copper Wires + Helically applied Copper Foil Tape
- Separator: Semi Conducting Water Blocking Tape
- Shield: Poly-Al. laminated Tape
- Outer Sheath: Extruded High-density polyethylene (HDPE) (PVC, also available per request), Colour: Black
- Optional Semi-conductive layer

Bending Radius: 20D
: D is overall diameter of cable

Standard and References:
IEC 60228
IEC 62067
IS 7098-3
ICEA S-108-720

Impulse Test Voltage
1050kV

Compliance
• Conductor resistance IEC 60228

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.	mm²		mm	mm	mm	Kg/Km
EHIS27AXUAPH001C400SAXXXX	1	400	Compact	27	4	94.0	8900
EHIS27AXUAPH001C500SAXXXX	1	500	Compact	27	4	97.0	9200
EHIS27AXUAPH001C630SAXXXX	1	630	Compact	27	4	101.0	9900
EHIS27AXUAPH001C800SAXXXX	1	800	Compact	27	4	105.0	10800
EHIS27AXUAPH001C01KSAXXXX	1	1000	Compact	27	4	109.0	12000
EHIS27AXUAPH001C1K2SAXXXX	1	1200	Milliken	27	4	115.0	12900
EHIS27AXUAPH001C1K4SAXXXX	1	1400	Milliken	27	4	120.0	13900
EHIS27AXUAPH001C1K6SAXXXX	1	1600	Milliken	27	4	123.0	14800
EHIS27AXUAPH001C1K8SAXXXX	1	1800	Milliken	27	4	127.0	15700
EHIS27AXUAPH001C02KSAXXXX	1	2000	Milliken	27	4	130.0	16500
EHIS27AXUAPH001C2K5SAXXXX	1	2500	Milliken	27	4	136.0	18600

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
400	0.0778	0.101	0.152	0.182	0.12	63	0.141	0.0999	0.173
500	0.0605	0.0789	0.145	0.165	0.13	60	0.124	0.0936	0.155
630	0.0469	0.0619	0.140	0.153	0.14	56	0.111	0.0886	0.142
800	0.0367	0.0494	0.134	0.143	0.15	53	0.101	0.0834	0.131
1000	0.0291	0.0403	0.129	0.135	0.17	49	0.0941	0.0783	0.122
1200	0.0247	0.0320	0.124	0.128	0.18	47	0.0872	0.0739	0.114
1400	0.0212	0.0275	0.121	0.124	0.19	45	0.0838	0.0711	0.110
1600	0.0186	0.0243	0.119	0.121	0.20	43	0.0812	0.0687	0.106
1800	0.0165	0.0216	0.117	0.119	0.21	42	0.0791	0.0672	0.104
2000	0.0149	0.0197	0.115	0.117	0.21	42	0.0775	0.0653	0.101
2500	0.0127	0.0170	0.111	0.112	0.23	39	0.0753	0.0616	0.0973

POLYCAB HV CS+PAL IEC 62067 127/220 kV (245 kV)
HV Cable with Aluminium Conductor, Copper Screen and Poly Al. laminated

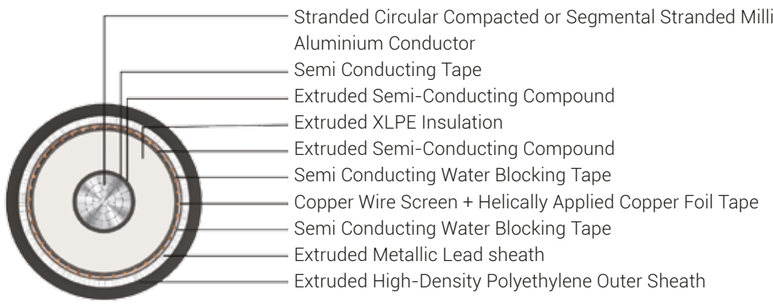
CURRENT RATING:

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	
					
mm²	Amps				KAmps
400	433	455	608	664	37.6
500	495	522	708	774	47.0
630	565	597	820	898	59.2
800	640	679	944	1039	75.2
1000	717	763	1078	1192	94.0
1200	815	863	1246	1373	112.8
1400	884	940	1368	1512	131.6
1600	948	1010	1483	1642	150.4
1800	1009	1079	1592	1766	169.2
2000	1065	1140	1696	1886	188.0
2500	1160	1247	1882	2105	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

POLYCAB HV CS+PB IEC 60840 38/66 kV (72.5 kV)
HV Cable with Aluminium Conductor, Copper Screen and Lead Sheath



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

Application
POLYCAB HV 38/66 KV (72.5 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: 38/66 kV (72.5 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
- 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

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
325kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

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.	mm²		mm	mm	mm	Kg/Km
EHIS24AXUAPH001C400SAXXXX	1	400	Compact	11	3.4	67.0	9400
EHIS24AXUAPH001C500SAXXXX	1	500	Compact	11	3.4	71.0	10300
EHIS24AXUAPH001C630SAXXXX	1	630	Compact	11	3.6	75.0	11500
EHIS24AXUAPH001C800SAXXXX	1	800	Compact	11	3.8	79.0	12900
EHIS24AXUAPH001C01KSAXXXX	1	1000	Compact	11	4	85.0	14700
EHIS24AXUAPH001C1K2SAXXXX	1	1200	Milliken	11	4	88.0	15800
EHIS24AXUAPH001C1K4SAXXXX	1	1400	Milliken	11	4	92.0	17400
EHIS24AXUAPH001C1K6SAXXXX	1	1600	Milliken	11	4	95.0	18800
EHIS24AXUAPH001C1K8SAXXXX	1	1800	Milliken	11	4	98.5	19900
EHIS24AXUAPH001C02KSAXXXX	1	2000	Milliken	11	4	101.0	21000
EHIS24AXUAPH001C2K5SAXXXX	1	2500	Milliken	11	4	107.0	23800

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
400	0.0778	0.101	0.127	0.162	0.22	43	0.171	0.0716	0.185
500	0.0605	0.0792	0.121	0.145	0.25	39	0.155	0.0668	0.169
630	0.0469	0.0624	0.117	0.133	0.27	37	0.143	0.0629	0.156
800	0.0367	0.0500	0.113	0.124	0.29	35	0.136	0.0591	0.148
1000	0.0291	0.0410	0.109	0.116	0.32	33	0.131	0.0555	0.142
1200	0.0247	0.0321	0.105	0.110	0.35	31	0.126	0.0521	0.136
1400	0.0212	0.0277	0.103	0.107	0.38	29	0.125	0.0505	0.135
1600	0.0186	0.0245	0.101	0.104	0.4	28	0.126	0.0489	0.135
1800	0.0165	0.0219	0.0998	0.102	0.41	28	0.125	0.0477	0.134
2000	0.0149	0.0199	0.0982	0.100	0.43	27	0.126	0.0464	0.134
2500	0.0127	0.0173	0.0954	0.0970	0.47	25	0.130	0.0440	0.137

POLYCAB HV CS+PB IEC 60840 38/66 kV (72.5 kV)
HV Cable with Aluminium Conductor, Copper Screen and Lead Sheath

POLYCAB
Connection Zindagi Ka

CURRENT RATING:

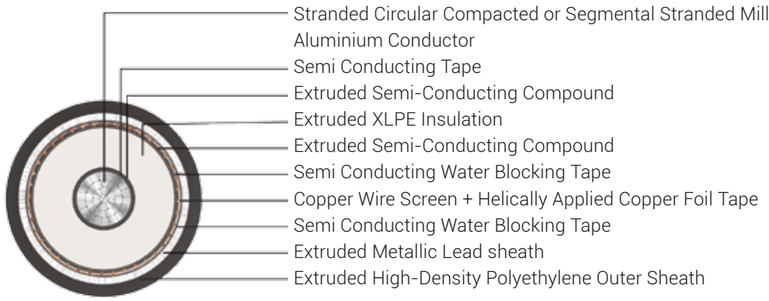
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	432	458	631	724	37.6
500	491	523	734	847	47.0
630	556	597	847	984	59.2
800	625	676	971	1139	75.2
1000	693	758	1102	1306	94.0
1200	783	855	1275	1505	112.8
1400	844	927	1393	1653	131.6
1600	898	993	1503	1794	150.40
1800	947	1055	1604	1928	169.2
2000	993	1113	1702	2058	188.0
2500	1069	1213	1877	2296	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

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

POLYCAB HV CS+PB IEC 60840 64/110 kV (123 kV)
HV Cable with Aluminium Conductor, Copper Screen and 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
- 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

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 CS+PB IEC 60840 64/110 kV (123 kV)
HV Cable with Aluminium Conductor, Copper Screen and Lead Sheath

POLYCAB
Connection Zindagi Ka

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.	mm²		mm	mm	mm	Kg/Km
EHIS25AXUAPH001C400SAXXXX	1	400	Compact	16	3.6	77.0	11500
EHIS25AXUAPH001C500SAXXXX	1	500	Compact	16	3.8	81.0	13000
EHIS25AXUAPH001C630SAXXXX	1	630	Compact	16	4	85.0	14000
EHIS25AXUAPH001C800SAXXXX	1	800	Compact	16	4	89.0	15500
EHIS25AXUAPH001C01KSAXXXX	1	1000	Compact	16	4	95.0	17500
EHIS25AXUAPH001C1K2SAXXXX	1	1200	Milliken	16	4	98.0	18500
EHIS25AXUAPH001C1K4SAXXXX	1	1400	Milliken	16	4	102.0	20000
EHIS25AXUAPH001C1K6SAXXXX	1	1600	Milliken	16	4	105.0	21500
EHIS25AXUAPH001C1K8SAXXXX	1	1800	Milliken	16	4	108.0	22500
EHIS25AXUAPH001C02KSAXXXX	1	2000	Milliken	16	4	111.0	24000
EHIS25AXUAPH001C2K5SAXXXX	1	2500	Milliken	16	4	117.0	27000

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	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 CS+PB IEC 60840 64/110 kV (123 kV)
HV Cable with Aluminium Conductor, Copper Screen and Lead Sheath

CURRENT RATING:

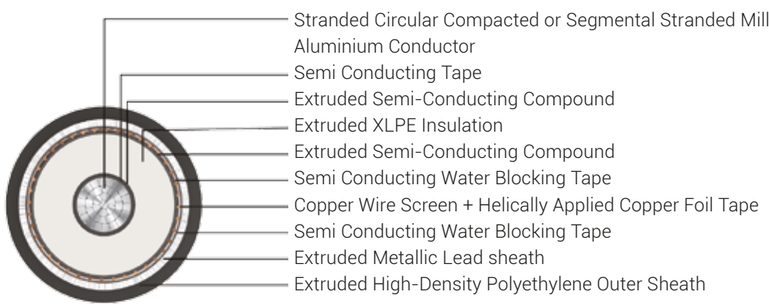
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	433	458	625	703	37.6
500	493	524	727	821	47.0
630	559	598	839	954	59.2
800	628	679	963	1104	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

POLYCAB HV CS+PB IEC 60840 76/132 kV (145 kV)
HV Cable with Aluminium Conductor, Copper Screen and Lead Sheath

POLYCAB Connection Zindagi Ka



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

Application
POLYCAB HV 76/132 KV (145 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: 76/132 kV (145 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
- 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

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
650kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

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.	mm²		mm	mm	mm	Kg/Km
EHIS26AXUAPH001C400SAXXXX	1	400	Compact	18	3.8	81.0	13000
EHIS26AXUAPH001C500SAXXXX	1	500	Compact	18	4	85.0	14500
EHIS26AXUAPH001C630SAXXXX	1	630	Compact	18	4	89.0	16000
EHIS26AXUAPH001C800SAXXXX	1	800	Compact	18	4	93.0	17000
EHIS26AXUAPH001C01KSAXXXX	1	1000	Compact	18	4	98.0	19000
EHIS26AXUAPH001C1K2SAXXXX	1	1200	Milliken	18	4	101.0	20500
EHIS26AXUAPH001C1K4SAXXXX	1	1400	Milliken	18	4	106.0	22000
EHIS26AXUAPH001C1K6SAXXXX	1	1600	Milliken	18	4	109.0	23000
EHIS26AXUAPH001C1K8SAXXXX	1	1800	Milliken	18	4	112.0	25000
EHIS26AXUAPH001C02KSAXXXX	1	2000	Milliken	18	4	115.0	26500
EHIS26AXUAPH001C2K5SAXXXX	1	2500	Milliken	18	4	120.0	29500

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
400	0.0778	0.101	0.140	0.173	0.16	53	0.178	0.0867	0.198
500	0.0605	0.0790	0.134	0.156	0.17	50	0.162	0.0810	0.181
630	0.0469	0.0621	0.130	0.144	0.19	47	0.152	0.0766	0.170
800	0.0367	0.0496	0.125	0.134	0.20	45	0.145	0.0719	0.162
1000	0.0291	0.0406	0.120	0.127	0.22	42	0.140	0.0675	0.155
1200	0.0247	0.0320	0.115	0.119	0.24	39	0.137	0.0637	0.151
1400	0.0212	0.0276	0.113	0.116	0.25	38	0.138	0.0615	0.151
1600	0.0186	0.0244	0.111	0.114	0.27	36	0.137	0.0595	0.149
1800	0.0165	0.0217	0.109	0.111	0.28	35	0.137	0.0579	0.149
2000	0.0149	0.0198	0.107	0.109	0.29	34	0.137	0.0562	0.148
2500	0.0127	0.0171	0.103	0.104	0.31	33	0.145	0.0531	0.154

POLYCAB HV CS+PB IEC 60840 76/132 kV (145 kV)
HV Cable with Aluminium Conductor, Copper Screen and Lead Sheath

POLYCAB Connection Zindagi Ka

CURRENT RATING:

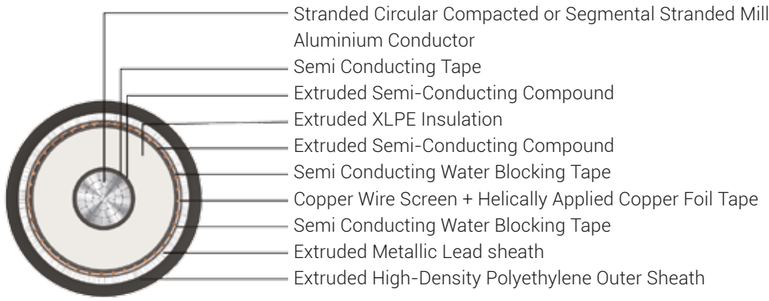
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	433	459	623	695	37.6
500	493	525	723	811	47.0
630	560	599	835	942	59.2
800	630	679	958	1090	75.2
1000	700	762	1088	1249	94.0
1200	789	860	1254	1438	112.8
1400	852	932	1374	1583	131.6
1600	906	998	1481	1717	150.4
1800	958	1062	1584	1846	169.2
2000	1004	1121	1679	1969	188.0
2500	1085	1221	1854	2195	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

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

POLYCAB HV CS+PB IEC 62067 127/220 kV (245 kV)
HV Cable with Aluminium Conductor, Copper Screen and Lead Sheath



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

Application

POLYCAB 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.

Voltage Rating
Nominal Voltage: 127/220 kV (245 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
- 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

Bending Radius: 20D
: D is overall diameter of cable

Standard and References:
IEC 60228
IEC 62067
IS 7098-3
ICEA S-108-720

Impulse Test Voltage
1050kV

Compliance
• Conductor resistance IEC 60228

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.	mm²		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 Reactance	Cable Zero sequence Impedance
mm²	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

POLYCAB HV CS+PB IEC 62067 127/220 kV (245 kV)
HV Cable with Aluminium Conductor, Copper Screen and Lead Sheath

CURRENT RATING:

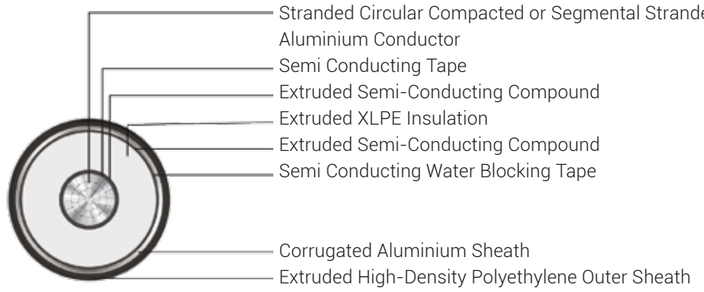
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	427	454	608	667	37.6
500	486	519	705	777	47.0
630	550	592	813	900	59.2
800	618	669	932	1039	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

POLYCAB HV AL.COR IEC 60840 38/66 kV (72.5 kV)
HV Cable with Aluminium Conductor, Aluminium Corrugated Sheath

POLYCAB
Connection Zindagi Ka



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

Application
POLYCAB HV 38/66 KV (72.5 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: 38/66 kV (72.5 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
- Shield: Aluminium Corrugated Sheath
- Outer Sheath: Extruded High-density polyethylene (HDPE) (PVC, also available per request), 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
325kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

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.	mm²		mm	mm	mm	Kg/Km
EHIS24AXATPH001C400SAXXXX	1	400	Compact	11	3.4	69.0	5700
EHIS24AXATPH001C500SAXXXX	1	500	Compact	11	3.6	73.0	6400
EHIS24AXATPH001C630SAXXXX	1	630	Compact	11	3.6	76.0	7000
EHIS24AXATPH001C800SAXXXX	1	800	Compact	11	3.8	80.0	7400
EHIS24AXATPH001C01KSAXXXX	1	1000	Compact	11	4	86.0	8400
EHIS24AXATPH001C1K2SAXXXX	1	1200	Milliken	11	4	93.0	9700
EHIS24AXATPH001C1K4SAXXXX	1	1400	Milliken	11	4	97.0	10600
EHIS24AXATPH001C1K6SAXXXX	1	1600	Milliken	11	4	100.0	11400
EHIS24AXATPH001C1K8SAXXXX	1	1800	Milliken	11	4	103.0	12200
EHIS24AXATPH001C02KSAXXXX	1	2000	Milliken	11	4	106.0	12900
EHIS24AXATPH001C2K5SAXXXX	1	2500	Milliken	11	4	112.0	14700

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
400	0.0778	0.101	0.134	0.168	0.22	44	0.165	0.0782	0.183
500	0.0605	0.0791	0.128	0.150	0.25	40	0.148	0.0726	0.165
630	0.0469	0.0622	0.123	0.138	0.27	38	0.133	0.0684	0.150
800	0.0367	0.0498	0.118	0.128	0.29	36	0.121	0.0640	0.137
1000	0.0291	0.0408	0.114	0.121	0.32	34	0.113	0.0598	0.128
1200	0.0247	0.0321	0.110	0.115	0.35	32	0.107	0.0560	0.121
1400	0.0212	0.0277	0.107	0.111	0.38	30	0.102	0.0540	0.115
1600	0.0186	0.0244	0.105	0.108	0.40	29	0.0966	0.0522	0.110
1800	0.0165	0.0218	0.104	0.106	0.41	28	0.0916	0.0511	0.105
2000	0.0149	0.0199	0.102	0.104	0.43	28	0.0875	0.0496	0.101
2500	0.0127	0.0172	0.0992	0.101	0.47	26	0.0805	0.0469	0.0932

POLYCAB HV AL.COR IEC 60840 38/66 kV (72.5 kV)
HV Cable with Aluminium Conductor, Aluminium Corrugated Sheath

POLYCAB Connection Zindagi Ka

CURRENT RATING:

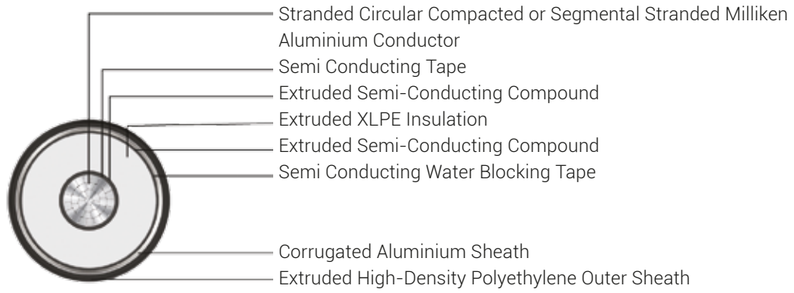
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	428	455	613	690	37.6
500	486	520	712	805	47.0
630	550	592	820	935	59.2
800	617	671	939	1080	75.2
1000	683	751	1063	1237	94.0
1200	769	846	1224	1423	112.8
1400	825	914	1334	1562	131.6
1600	874	977	1432	1689	150.4
1800	918	1036	1523	1811	169.2
2000	956	1089	1606	1925	188.0
2500	1015	1176	1749	2131	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

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

POLYCAB HV AL.COR IEC 60840 64/110 kV (123 kV)
HV Cable with Aluminium Conductor, Aluminium Corrugated 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
- Shield: Aluminium Corrugated Sheath
- Outer Sheath: Extruded High-density polyethylene (HDPE) (PVC, also available per request), 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

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.	mm²		mm	mm	mm	Kg/Km
EHIS25AXATPH001C400SAXXXX	1	400	Compact	16	3.8	80.0	7000
EHIS25AXATPH001C500SAXXXX	1	500	Compact	16	4	84.0	7800
EHIS25AXATPH001C630SAXXXX	1	630	Compact	16	4	87.0	8400
EHIS25AXATPH001C800SAXXXX	1	800	Compact	16	4	91.0	8800
EHIS25AXATPH001C01KSAXXXX	1	1000	Compact	16	4	96.0	9800
EHIS25AXATPH001C1K2SAXXXX	1	1200	Milliken	16	4	103.0	11200
EHIS25AXATPH001C1K4SAXXXX	1	1400	Milliken	16	4	107.0	12100
EHIS25AXATPH001C1K6SAXXXX	1	1600	Milliken	16	4	110.0	13000
EHIS25AXATPH001C1K8SAXXXX	1	1800	Milliken	16	4	113.0	13900
EHIS25AXATPH001C02KSAXXXX	1	2000	Milliken	16	4	116.0	14600
EHIS25AXATPH001C2K5SAXXXX	1	2500	Milliken	16	4	122.0	16500

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
400	0.0778	0.101	0.142	0.174	0.17	52	0.161	0.0874	0.183
500	0.0605	0.0790	0.136	0.157	0.19	48	0.143	0.0816	0.165
630	0.0469	0.0620	0.130	0.144	0.20	46	0.131	0.0768	0.152
800	0.0367	0.0496	0.125	0.134	0.22	43	0.120	0.0720	0.140
1000	0.0291	0.0405	0.121	0.128	0.24	40	0.111	0.0675	0.130
1200	0.0247	0.0320	0.117	0.121	0.26	38	0.0993	0.0638	0.118
1400	0.0212	0.0276	0.114	0.117	0.28	36	0.0928	0.0615	0.111
1600	0.0186	0.0243	0.112	0.115	0.29	35	0.0879	0.0595	0.106
1800	0.0165	0.0217	0.110	0.112	0.30	34	0.0836	0.0579	0.102
2000	0.0149	0.0197	0.108	0.110	0.32	33	0.0800	0.0562	0.0978
2500	0.0127	0.0171	0.105	0.106	0.35	31	0.0740	0.0531	0.0911

POLYCAB HV AL.COR IEC 60840 64/110 kV (123 kV)
HV Cable with Aluminium Conductor, Aluminium Corrugated Sheath

CURRENT RATING:

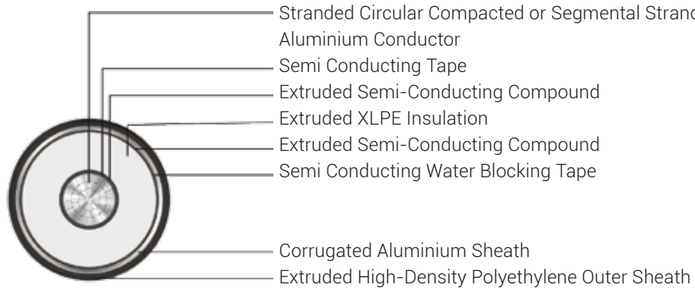
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	428	455	608	675	37.6
500	487	520	705	787	47.0
630	551	593	813	914	59.2
800	619	671	931	1055	75.2
1000	686	753	1054	1207	94.0
1200	768	845	1208	1383	112.8
1400	822	914	1314	1517	131.6
1600	870	976	1411	1642	150.4
1800	913	1033	1501	1761	169.2
2000	951	1086	1584	1873	188.0
2500	1009	1174	1725	2074	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

POLYCAB HV AL.COR IEC 60840 76/132 kV (145 kV)
HV Cable with Aluminium Conductor, Aluminium Corrugated Sheath

POLYCAB
Connection Zindagi Ka



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

Application
POLYCAB HV 76/132 KV (145 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: 76/132 kV (145 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
- Shield: Aluminium Corrugated Sheath
- Outer Sheath: Extruded High-density polyethylene (HDPE) (PVC, also available per request), 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
650kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

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.	mm²		mm	mm	mm	Kg/Km
EHIS26AXATPH001C300SAXXXX	1	300	Compact	18	3.8	81.0	7100
EHIS26AXATPH001C400SAXXXX	1	400	Compact	18	4	84.0	7600
EHIS26AXATPH001C500SAXXXX	1	500	Compact	18	4	88.0	8300
EHIS26AXATPH001C630SAXXXX	1	630	Compact	18	4	91.0	9000
EHIS26AXATPH001C800SAXXXX	1	800	Compact	18	4	95.0	9400
EHIS26AXATPH001C01KSAXXXX	1	1000	Compact	18	4	100.0	10400
EHIS26AXATPH001C1K2SAXXXX	1	1200	Milliken	18	4	107.0	11900
EHIS26AXATPH001C1K4SAXXXX	1	1400	Milliken	18	4	111.0	12800
EHIS26AXATPH001C1K6SAXXXX	1	1600	Milliken	18	4	114.0	13700
EHIS26AXATPH001C1K8SAXXXX	1	1800	Milliken	18	4	117.0	14600
EHIS26AXATPH001C02KSAXXXX	1	2000	Milliken	18	4	120.0	15300
EHIS26AXATPH001C2K5SAXXXX	1	2500	Milliken	18	4	126.0	17300

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
300	0.100	0.129	0.151	0.199	0.15	57	0.184	0.0967	0.208
400	0.0778	0.101	0.145	0.177	0.16	54	0.161	0.0910	0.185
500	0.0605	0.0790	0.139	0.160	0.17	51	0.143	0.0850	0.166
630	0.0469	0.0620	0.134	0.148	0.19	47	0.129	0.0802	0.152
800	0.0367	0.0495	0.129	0.138	0.20	45	0.118	0.0753	0.140
1000	0.0291	0.0404	0.124	0.130	0.22	42	0.107	0.0710	0.128
1200	0.0247	0.0320	0.119	0.123	0.24	40	0.0956	0.0669	0.117
1400	0.0212	0.0276	0.117	0.120	0.25	39	0.0894	0.0644	0.110
1600	0.0186	0.0243	0.114	0.117	0.27	37	0.0847	0.0623	0.105
1800	0.0165	0.0217	0.112	0.114	0.28	36	0.0807	0.0606	0.101
2000	0.0149	0.0197	0.111	0.113	0.29	35	0.0772	0.0589	0.0971
2500	0.0127	0.0170	0.107	0.108	0.31	33	0.0715	0.0556	0.0906

POLYCAB HV AL.COR IEC 60840 76/132 kV (145 kV)
HV Cable with Aluminium Conductor, Aluminium Corrugated Sheath

POLYCAB Connection Zindagi Ka

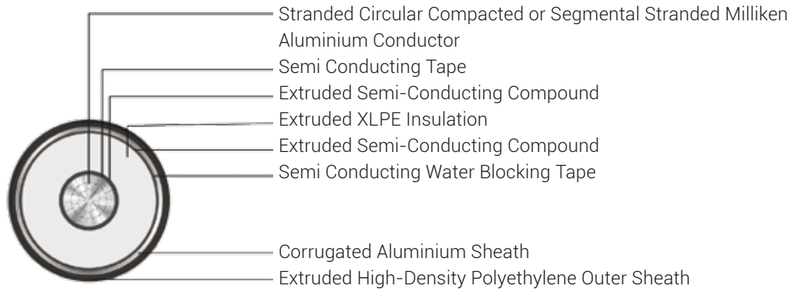
CURRENT RATING:

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	
					
mm²	Amps				KAmps
300	376	398	524	576	28.2
400	428	455	606	669	37.6
500	487	520	703	780	47.0
630	552	594	810	905	59.2
800	619	671	927	1045	75.2
1000	686	753	1049	1193	94.0
1200	766	845	1201	1369	112.8
1400	821	912	1307	1501	131.6
1600	868	974	1402	1624	150.4
1800	911	1033	1492	1742	169.2
2000	949	1086	1574	1853	188.0
2500	1007	1171	1715	2051	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

POLYCAB HV AL.COR IEC 62067 127/220 kV (245 kV)
HV Cable with Aluminium Conductor, Aluminium Corrugated Sheath



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

Application

POLYCAB HV 127/220 KV (145 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: 127/220 kV (145 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
- Shield: Aluminium Corrugated Sheath
- Outer Sheath: Extruded High-density polyethylene (HDPE) (PVC, also available per request), Colour: Black
- Optional Semi-conductive layer

Bending Radius: 20D
: D is overall diameter of cable

Standard and References:
IEC 60228
IEC 62067
IS 7098-3
ICEA S-108-720

Impulse Test Voltage
1050kV

Compliance
• Conductor resistance IEC 60228

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.	mm²		mm	mm	mm	Kg/Km
EHIS27AXATPH001C400SAXXXX	1	400	Compact	27	4	100.0	10000
EHIS27AXATPH001C500SAXXXX	1	500	Compact	27	4	104.0	10800
EHIS27AXATPH001C630SAXXXX	1	630	Compact	27	4	107.0	11600
EHIS27AXATPH001C800SAXXXX	1	800	Compact	27	4	111.0	11900
EHIS27AXATPH001C01KSAXXXX	1	1000	Compact	27	4	116.0	13100
EHIS27AXATPH001C1K2SAXXXX	1	1200	Milliken	27	4	123.0	14700
EHIS27AXATPH001C1K4SAXXXX	1	1400	Milliken	27	4	127.0	15700
EHIS27AXATPH001C1K6SAXXXX	1	1600	Milliken	27	4	130.0	16700
EHIS27AXATPH001C1K8SAXXXX	1	1800	Milliken	27	4	133.0	17600
EHIS27AXATPH001C02KSAXXXX	1	2000	Milliken	27	4	136.0	18400
EHIS27AXATPH001C2K5SAXXXX	1	2500	Milliken	27	4	142.0	20500

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
400	0.0778	0.101	0.157	0.187	0.12	65	0.143	0.104	0.177
500	0.0605	0.0789	0.150	0.169	0.13	61	0.125	0.0977	0.159
630	0.0469	0.0618	0.145	0.158	0.14	57	0.112	0.0925	0.145
800	0.0367	0.0493	0.139	0.147	0.15	54	0.102	0.0870	0.134
1000	0.0291	0.0401	0.133	0.139	0.17	50	0.0944	0.0817	0.125
1200	0.0247	0.0319	0.129	0.133	0.18	48	0.0845	0.0772	0.114
1400	0.0212	0.0275	0.125	0.128	0.19	46	0.0792	0.0743	0.109
1600	0.0186	0.0242	0.123	0.125	0.20	44	0.0750	0.0719	0.104
1800	0.0165	0.0216	0.121	0.123	0.21	43	0.0712	0.0703	0.100
2000	0.0149	0.0196	0.119	0.121	0.21	42	0.0683	0.0683	0.0966
2500	0.0127	0.0169	0.115	0.116	0.23	40	0.0635	0.0646	0.0906

POLYCAB HV AL.COR IEC 62067 127/220 kV (245 kV)
HV Cable with Aluminium Conductor, Aluminium Corrugated Sheath

CURRENT RATING:

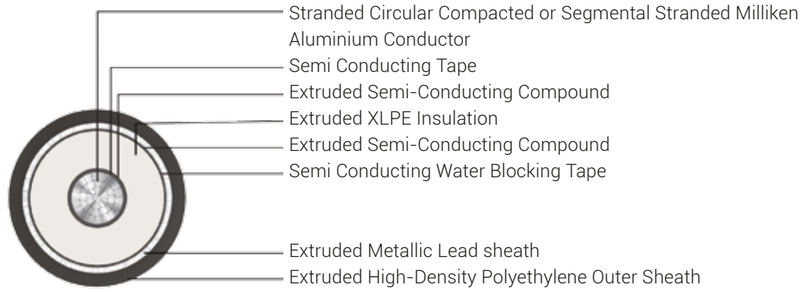
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	422	450	593	649	37.6
500	479	514	687	755	47.0
630	542	586	791	874	59.2
800	607	662	905	1007	75.2
1000	672	740	1025	1150	94.0
1200	747	830	1169	1316	112.8
1400	799	896	1272	1443	131.6
1600	844	954	1365	1560	150.4
1800	885	1011	1451	1671	169.2
2000	920	1062	1531	1777	188.0
2500	975	1146	1669	1966	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

POLYCAB HV PB IEC 60840 38/66 kV (72.5 kV)
HV Cable with Aluminium Conductor, Lead Sheath

POLYCAB
Connection Zindagi Ka



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

Application
POLYCAB HV 38/66 KV (72.5 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: 38/66 kV (72.5 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
325kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

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.	mm²		mm	mm	mm	Kg/Km
EHIS24AXUAPH001C400SAXXXX	1	400	Compact	11	3.2	63.0	7600
EHIS24AXUAPH001C500SAXXXX	1	500	Compact	11	3.4	67.0	8500
EHIS24AXUAPH001C630SAXXXX	1	630	Compact	11	3.4	70.0	9400
EHIS24AXUAPH001C800SAXXXX	1	800	Compact	11	3.6	75.0	10600
EHIS24AXUAPH001C01KSAXXXX	1	1000	Compact	11	3.8	81.0	12700
EHIS24AXUAPH001C1K2SAXXXX	1	1200	Milliken	11	4	88.0	14600
EHIS24AXUAPH001C1K4SAXXXX	1	1400	Milliken	11	4	93.0	16100
EHIS24AXUAPH001C1K6SAXXXX	1	1600	Milliken	11	4	96.0	17200
EHIS24AXUAPH001C1K8SAXXXX	1	1800	Milliken	11	4	99.0	18600
EHIS24AXUAPH001C02KSAXXXX	1	2000	Milliken	11	4	102.0	19600
EHIS24AXUAPH001C2K5SAXXXX	1	2500	Milliken	11	4	108.0	22400

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
400	0.0778	0.101	0.127	0.162	0.22	43	0.171	0.0716	0.185
500	0.0605	0.0792	0.121	0.145	0.25	39	0.155	0.0668	0.169
630	0.0469	0.0624	0.117	0.133	0.27	37	0.143	0.0629	0.156
800	0.0367	0.0500	0.113	0.124	0.29	35	0.136	0.0591	0.148
1000	0.0291	0.0410	0.109	0.116	0.32	33	0.131	0.0555	0.142
1200	0.0247	0.0321	0.105	0.110	0.35	31	0.126	0.0521	0.136
1400	0.0212	0.0277	0.103	0.107	0.38	29	0.125	0.0505	0.135
1600	0.0186	0.0245	0.101	0.104	0.4	28	0.126	0.0489	0.135
1800	0.0165	0.0219	0.0998	0.102	0.41	28	0.125	0.0477	0.134
2000	0.0149	0.0199	0.0982	0.100	0.43	27	0.126	0.0464	0.134
2500	0.0127	0.0173	0.0954	0.0970	0.47	25	0.130	0.0440	0.137

POLYCAB HV PB IEC 60840 38/66 kV (72.5 kV)
HV Cable with Aluminium Conductor, Lead Sheath

POLYCAB
Connection Zindagi Ka

CURRENT RATING:

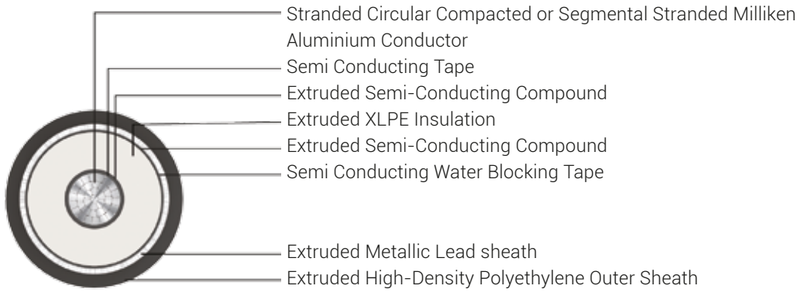
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	432	458	631	724	37.6
500	491	523	734	847	47.0
630	556	597	847	984	59.2
800	625	676	971	1139	75.2
1000	693	758	1102	1306	94.0
1200	783	855	1275	1505	112.8
1400	844	927	1393	1653	131.6
1600	898	993	1503	1794	150.4
1800	947	1055	1604	1928	169.2
2000	993	1113	1702	2058	188.0
2500	1069	1213	1877	2296	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

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

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

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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.	mm²		mm	mm	mm	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:

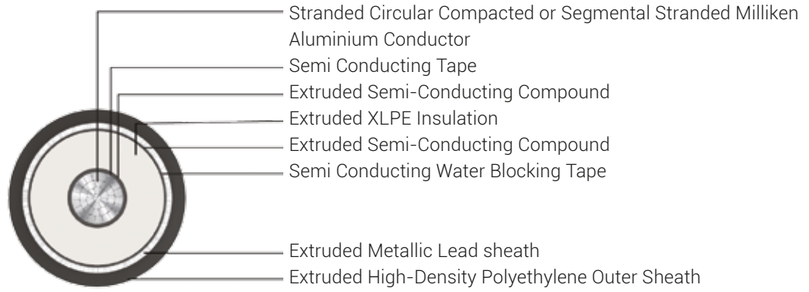
Core Cross sectional Area	Max. DC Resistance at 20˚C	Max. AC Resistance at 90˚C	Approx. Star Reactance	Approx. Star Impedance	Approx. Capacitance	Surge Impedance	Cable Zero sequence Resistance	Cable Zero sequence Reactance	Cable Zero sequence Impedance
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
400	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

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	
					
mm²	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



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

Application
POLYCAB HV 76/132 KV (145 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: 76/132 kV (145 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
650kV

Compliance
• Conductor resistance IEC 60228

FQC FIRST QUALITY CERTIFICATION CE CPRI APPROVED

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.	mm²		mm	mm	mm	Kg/Km
EHIS26AXUAPH001C400SAXXXX	1	400	Compact	18	3.8	79.0	10900
EHIS26AXUAPH001C500SAXXXX	1	500	Compact	18	3.8	83.0	11700
EHIS26AXUAPH001C630SAXXXX	1	630	Compact	18	4	86.0	13000
EHIS26AXUAPH001C800SAXXXX	1	800	Compact	18	4	90.0	14400
EHIS26AXUAPH001C01KSAXXXX	1	1000	Compact	18	4	96.0	16800
EHIS26AXUAPH001C1K2SAXXXX	1	1200	Milliken	18	4	103.0	18500
EHIS26AXUAPH001C1K4SAXXXX	1	1400	Milliken	18	4	107.0	19900
EHIS26AXUAPH001C1K6SAXXXX	1	1600	Milliken	18	4	111.0	21400
EHIS26AXUAPH001C1K8SAXXXX	1	1800	Milliken	18	4	114.0	22900
EHIS26AXUAPH001C02KSAXXXX	1	2000	Milliken	18	4	116.0	24000
EHIS26AXUAPH001C2K5SAXXXX	1	2500	Milliken	18	4	122.0	27000

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
mm²	Ω/km	Ω/km	Ω/km	Ω/km	µF/km	Ω	Ω/km	Ω/km	Ω/km
400	0.0778	0.101	0.140	0.173	0.16	53	0.178	0.0867	0.198
500	0.0605	0.0790	0.134	0.156	0.17	50	0.162	0.0810	0.181
630	0.0469	0.0621	0.130	0.144	0.19	47	0.152	0.0766	0.170
800	0.0367	0.0496	0.125	0.134	0.20	45	0.145	0.0719	0.162
1000	0.0291	0.0406	0.120	0.127	0.22	42	0.140	0.0675	0.155
1200	0.0247	0.0320	0.115	0.119	0.24	39	0.137	0.0637	0.151
1400	0.0212	0.0276	0.113	0.116	0.25	38	0.138	0.0615	0.151
1600	0.0186	0.0244	0.111	0.114	0.27	36	0.137	0.0595	0.149
1800	0.0165	0.0217	0.109	0.111	0.28	35	0.137	0.0579	0.149
2000	0.0149	0.0198	0.107	0.109	0.29	34	0.137	0.0562	0.148
2500	0.0127	0.0171	0.103	0.104	0.31	33	0.145	0.0531	0.154

POLYCAB HV PB IEC 60840 76/132 kV (145 kV)
HV Cable with Aluminium Conductor, Lead Sheath

POLYCAB Connection Zindagi Ka

CURRENT RATING:

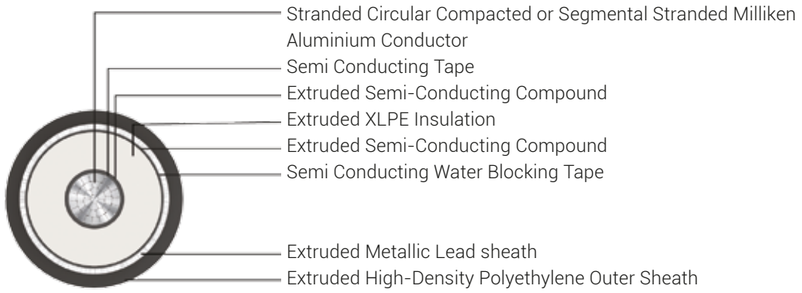
Core Cross sectional Area	Continuous current ratings for 3 single core cables, single ended bonded				Short Circuit Rating for 1 Sec.
	In ground		In air		
	Trefoil	Flat	Trefoil	Flat	
					
mm²	Amps				KAmps
400	433	459	623	695	37.6
500	493	525	723	811	47.0
630	560	599	835	942	59.2
800	630	679	958	1090	75.2
1000	700	762	1088	1249	94.0
1200	789	860	1254	1438	112.8
1400	852	932	1374	1583	131.6
1600	906	998	1481	1717	150.4
1800	958	1062	1584	1846	169.2
2000	1004	1121	1679	1969	188.0
2500	1085	1221	1854	2195	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

REACH COMPLIANCE RoHS COMPLIANT
OUR ACCREDITATION ISO 9001 | ISO 14001 | ISO 45001
NABL ABS IRS

POLYCAB HV PB IEC 62067 127/220 kV (245 kV)
HV Cable with Aluminium Conductor, Lead Sheath



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

Application

POLYCAB 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.

Voltage Rating
Nominal Voltage: 127/220 kV (245 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 62067
IS 7098-3
ICEA S-108-720

Impulse Test Voltage
1050kV

Compliance
• Conductor resistance IEC 60228

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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.	mm²		mm	mm	mm	Kg/Km
EHIS27AXUAPH001C400SAXXXX	1	400	Compact	27	4	96.0	15300
EHIS27AXUAPH001C500SAXXXX	1	500	Compact	27	4	100.0	16200
EHIS27AXUAPH001C630SAXXXX	1	630	Compact	27	4	103.0	17200
EHIS27AXUAPH001C800SAXXXX	1	800	Compact	27	4	107.0	18800
EHIS27AXUAPH001C01KSAXXXX	1	1000	Compact	27	4	113.0	21600
EHIS27AXUAPH001C1K2SAXXXX	1	1200	Milliken	27	4	120.0	23900
EHIS27AXUAPH001C1K4SAXXXX	1	1400	Milliken	27	4	124.0	25800
EHIS27AXUAPH001C1K6SAXXXX	1	1600	Milliken	27	4	127.0	27100
EHIS27AXUAPH001C1K8SAXXXX	1	1800	Milliken	27	4	131.0	28800
EHIS27AXUAPH001C02KSAXXXX	1	2000	Milliken	27	4	133.0	30000
EHIS27AXUAPH001C2K5SAXXXX	1	2500	Milliken	27	4	139.0	32800

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
mm²	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	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	
					
mm²	Amps				KAmps
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

Technical Information – Voltage Designations / Electrical Parameters / Current Rating Factors

Technical Information – Voltage Designations

U_0	:	Is the rated power frequency voltage between conductor and earth or metallic screen for which the cable is designed
U	:	Is the rated power frequency voltage between conductors for which the cable is designed
U_m	:	Is the maximum value of the "highest system voltage" for which the equipment may be used

Following table shows the relation between U_0, U and U_m

Rated voltage of cables (U_0)	Nominal system voltage (U)		Highest voltage for equipment (U_m)
38.0	66.0	69.0	72.5
64.0	110.0	115.0	123.0
76.0	132.0	138.0	145.0
127.0	220.0	230.0	245.0

1. CAPACITANCE

$$C = \frac{\varepsilon_r}{18\log_e(D/d)} \quad \mu F/km$$

Where,

f	:	Frequency	Hz
C	:	The Capacitance	Ω/km
D	:	Dimeter over the insulation	mm
d	:	Diameter over the conductor screen	mm
ε_r	:	Relative permittivity	

2. INDUCTANCE

$$L = K + 0.2\log_e(2S/d) \quad mH/km$$

Where,

L	:	The inductance	Ω/km
K	:	Constant for different stranded conductors	
d	:	Conductor diameter	mm
S	:	Axial spacing between conductors	mm

3. DIELECTRIC LOSS

$$W_d = 2\pi fCU_0^2 \tan\delta \times 10^{-6} \quad Watt/km/Ph$$

Where,

C	:	The capacitance to neutral	µF/km
f	:	Frequency	Hz
U0	:	Power frequency voltage between conductor & earth	V
tanδ	:	Dielectric power factor 0.004 for XLPE	
W_d	:	Dielectric losses	

4. INDUCTIVE REACTANCE

$$X = 2\pi fL \times 10^{-3} \quad Ω/km$$

Where,

L	:	The inductance	Ω/km
f	:	Frequency	Hz

5. DIELECTRIC STRESS

$$E = \frac{U_0}{X_{In}(D_{INS}/D_{ISC})} \quad kV/mm$$

Where,

E	:	Electric stress	kV/mm
U_0	:	Rated voltage, phase-neutral	V
D_{INS}	:	Diameter over the insulation	mm
D_{ISC}	:	Diameter after inner semi-conductor	mm
X	:	Substituting X with D_{INS} and D_{ISC} will give dielectric stress	

6. VOLTAGE DROP

$$V_d = \frac{b(R\cos\theta + X\sin\theta)I_b \times L \times 100}{U_0 \times 1000}$$

Where,

V_d	:	Cable voltage drop	%
U_0	:	Rated voltage, line-neutral	V
R	:	Cable resistance	Ω/km
X	:	Cable reactance	Ω/km
I_b	:	Cable design current	A
L	:	Length of the cable	Km
b	:	Circuit factor (2: for d.c. & 1 phase, √3: for 3 phase)	

7. CABLE LOSS

i) Ohmic Conductor Loss

$$IR_t^2 \quad Ω/km$$

Where,

R_t	:	The conductor DC resistance at t°C = R_{20} [1+α_{20}(t-20)]	Ω/km
R_{20}	:	The conductor DC resistance at 20°C	Ω/km
t	:	Conductor Operating temperature	°C
α_{20}	:	Temperature coefficient at 20°C = 0.00393 for Copper = 0.00403 for Aluminium	1/°C
I	:	Conductor Current	Amps.

ii) Sheath Eddy Current Loss

$$S_c = \frac{I^2 \times 3(2\pi f)^2}{R_s} \times \frac{(d_m/2)^2 \times 10^{-18}}{S_2} \quad Watts/cm/Ph$$

Where,

	:	Conductor Current	Amps.
	:	Sheath resistance	Ω/km
	:	Mean diameter of sheath	mm
	:	Spacing between cables centre	mm

ii) Sheath Circuit Loss

$$I_s^2R_S = \frac{I^2X_m^2R_S}{R_s^2 + X_m^2} \quad Watt/Km$$

Where,

I	:	Conductor Current	Amps.
R_s	:	Sheath resistance	Ω/km
X_m	:	Mutual reactance (between cables)	Ω/km

8. INDUCED VOLTAGE IN SHEATH

$$E = I X_m$$

Where,

I	:	Conductor Current	Amps
S	:	Distance between cable centres	mm

9. MAX. SHORT CIRCUIT CURRENT

$$I^2 = \frac{K^2S^2}{T}\log_e\left(\frac{\theta_1 + \beta}{\theta_0 + \beta}\right) \quad kA$$

Where,

I	:	Short circuit (R.M.S over duration)	Amps
T	:	Duration of Short circuit	Sec
K	:	Constant – 226 for Copper, 148 for Aluminium, 78 for Steel	
S	:	Area of Conductor	Sq.mm
θ_1	:	Final temperature of conductor or armour	
θ_0	:	Initial temperature of conductor or armour	
β	:	Reciprocal of the temperature coefficient of resistance of the conductor per °C at 0°C (228 for Aluminium, 202 for Steel, & 234.5 for Copper)	

10. MAX. ALLOWABLE SHORT-CIRCUIT CURRENT FOR CONDUCTORS:

Nominal Cross-Sectional area of conductor (Sq.mm)	Short Circuit Rating for 1 Sec.	
	Aluminium (kA)	Copper (kA)
185	17.4	26.4
240	22.6	34.3
300	28.2	42.9
400	37.6	57.2
500	47.0	71.5
630	59.2	90.1
800	75.2	114.4
1000	94.0	143.0
1200	112.8	171.6
1400	131.6	200.2
1600	150.4	228.8
1800	169.2	257.4
2000	188.0	286.0
2500	235.0	357.5

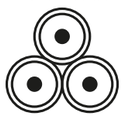
Technical Information – Current Rating Factors

CONTINUOUS CURRENT RATINGS

The continuous current carrying capacity mentioned in respective product data sheets are calculated in accordance with IEC 60287.

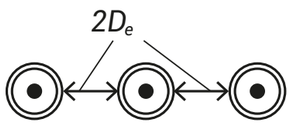
Standard laying conditions for current rating are as follows:

1) Ground Temperature : 30ºC
2) Depth of Laying : 1.0 m
3) Soil Thermal Resistivity : 1.5Km/W
4) Ambient Air Temperature : 40ºC
5) Max. Conductor Temperature : 90ºC
6) Type of Bonding : Single point or Cross Bonding
7) Cable installation : Trefoil touching formation



OR

Flat formation with 2D Spaced (Centre to Centre)



8) Frequency : 50Hz
9) Load factor : 100%

MAXIMUM PERMISSIBLE CONDUCTOR TEMPERATURE

Normal Operation : 90ºC
Emergency Operation : 105ºC
Short Circuit Condition : 250ºC (Max duration 5 Second)

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CURRENT DE-RATING FACTORS

A. Rating factors for variation in ambient air temperature (Max. Conductor Temperature 90ºC)

Air temperature (ºC)	15	20	25	30	35	40
Rating factor	1.22	1.18	1.14	1.10	1.05	1.00

B. Rating factors for variation in ground temperature (Max. Conductor Temperature 90ºC)

Ground temperature (ºC)	15	20	25	30	35	40
Rating factor	1.12	1.08	1.04	1.00	0.96	0.91

C. Rating factors for variation in thermal resistivity of soil

Soil thermal resistivity (K.m/W)	1.0	1.2	1.5	2	2.5	3
Rating factor	1.17	1.09	1.00	0.89	0.81	0.74

D. Rating factors for variation in depth of laying

Depth of laying (m)	0.7	0.9	1.0	1.2	1.5	1.8
Rating factor	1.05	1.02	1.00	0.98	0.96	0.94

E. Group Rating factors for grouping of single core cable laid direct in ground in horizontal formation

Distance between centres of circuits	Number of circuits in group					
mm	1	2	3	4	5	6
100	1	0.76	0.67	0.59	0.55	0.51
200	1	0.81	0.71	0.65	0.61	0.58
400	1	0.85	0.77	0.72	0.69	0.66
600	1	0.88	0.81	0.77	0.74	0.72
800	1	0.90	0.84	0.81	0.79	0.77
2000	1	0.96	0.93	0.92	0.91	0.91

Cable Handling (Pre-installation)

OVERVIEW

To ensure safety during cable installation and reliability once the cable is installed, user should confirm the following prior to installation.

- The cable selected is proper for designed application.
- The cable has not been damaged in transit or storage.
- Review all applicable state and national codes to verify that the cable chosen is appropriate for the job. Also, consult your local electricity authority / consultant.
- Next, you must identify any existing cable damage and prevent any further damage from occurring. This is done through proper cable inspection, handling and storage.

CABLE INSPECTION

Inspect every cable reel for damage before accepting the shipment. Be particularly alert for cable damage if:

- A reel is lying flat on its side
- Several reels are stacked
- Other freight is stacked on a reel
- Nails have been driven into reel flanges to secure shipping blocks
- A reel flange is damaged
- A cable covering is removed, stained or damaged
- A cable end seal is removed or damaged A reel has been dropped (hidden damage likely).

CABLE HANDLING

Remove all nails and staples from the reel flanges before moving a reel, and avoid all objects that could crush, damage or impact the cable when moving. NEVER use the cable as a means to move a reel.

When unreeling, observe recommended bending radii, use swivels to prevent twisting and avoid overruns.

STORAGE

In general, the requirements for cable storage are quite straight forward. Maintain the cable dry, at a temperature that will not cause degradation, and protect the cable from damage.

Following are the mandatory steps to maintain cable dryness:

- Maintain cable and end cap moisture seal integrity
- Do not store in locations where water clogging is likely
- Keep cable ends fixed to reel flanges without puncturing jackets of end caps.

In order to keep the cable from degrading and ready for use, it is necessary to:

- Maintain, as far as possible, a covering over the cable on the reel.
- Maintain storage temperatures above 5°C. Storing below 5°C for long period can cause damage to the Sheath. Consult cable manufacturer in such an event.
- Avoid storing cables in direct sunlight when ambient temperatures are in the excess of 122°F or 55°C. Some jackets will soften and this may lead to physical damage during installation.
- When cable is stored at temperatures below 0°C, it is necessary to move the reel(s) into a heated area before installation, maintained at a minimum temperature above 5ºC. The cable must be kept in this heated area for at least 8 hours before installation.

In order to protect the cable from damage, it is necessary to:

- Store cable, especially long-term storage, in relatively inactive areas
- Maintain a covering on the cable reels to avoid cable Sheath damage
- In areas of extreme rodent infestation, cables should be protected with full lagging, steel plates over flange penetrations or other suitable means.

Store cable reels standing on flange rims. DO NOT, except in special circumstances, store cable reels on their sides; i.e., lying on the flange.

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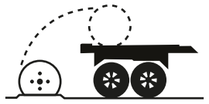
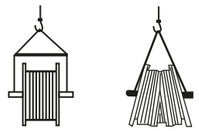
RECOMMENDED CABLE HANDLING PROCEDURES

Cable Reel Handling and Storage



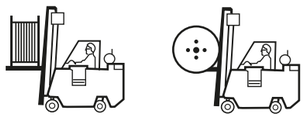
DON'T

When off-loading reels from a truck, lower reels carefully using a hydraulic gate, hoist or forklift truck. Never drop reels. If reels must be rolled, roll in opposite direction of the cable wraps to keep cable from loosening on the reel.



DO *DON'T*

When using a hoist, install a mandrel through the reel arbor holes and attach a sling. Use a spreader bar approximately 6 inches longer than the overall reel width placed between the sling ends just above the reel flanges. This will prevent bending the reel flanges and mashing the cable.

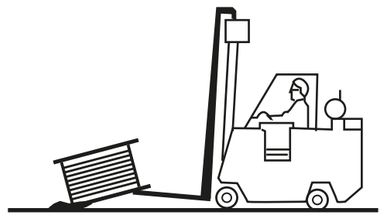


DO *DON'T*

If a fork lift is used, approach the reel from the flange side. Position the forks such that the reel is lifted by both reel flanges. Do not allow the lift forks to contact the cable. Care must be taken by the fork lift operator not to make sudden turns or stops.

When selecting a storage site, consideration should be given to:

- Traffic patterns during off-loading
- Grade and condition of the soil or pavement
- Protection from vehicle damage during the time in storage
- Environmental conditions such as exposure to heat, corrosive chemicals, etc.



DON'T

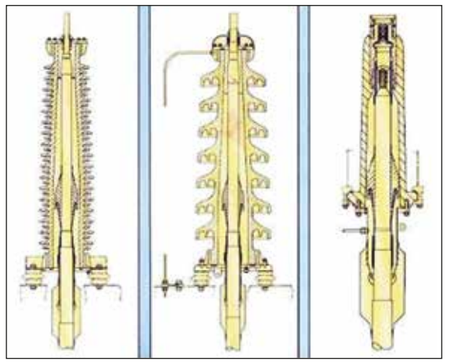
Cable reels should be stored on hard surfaces resting on the flanges edge (flanges vertical). Align reels flange to flange and, if possible, arrange so that first in is first out. Multiple reels stacked on top of each other (“Pancake” storage), or storing reels flat (flanges horizontal) is not recommended for bare conductor or medium voltage cable. The weight of the stack can total thousands of kgs. creating an enormous load on the bottom reel. In addition, damage to the reel and/or cable is likely to occur when the reel is flipped for transit. A concentration of stress on the reel flange may cause it to break and subsequently damage the cable.

66, 132 & 220 kV XLPE Cables Accessories, Jointing, Terminations and Installation

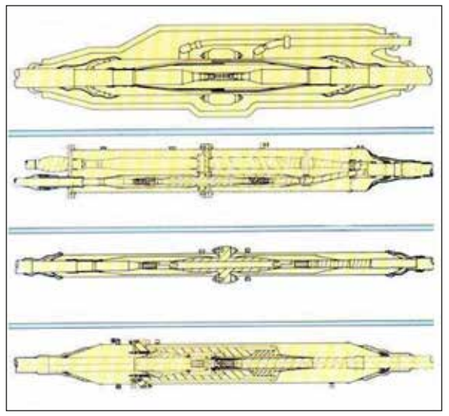
Accessories are an integral part of power transmissions through cables. The design concept of XLPE cable must take into consideration the demands of such applications.

Polycab can source a full range of accessories to cover all types of jointing requirements and terminations. These accessories meet all international standards and have proven reliability for many years of operation.

JOINTING

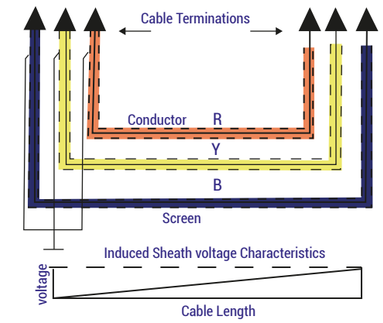


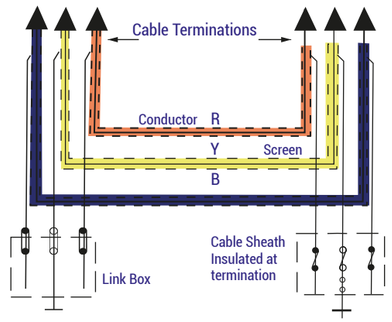
TERMINATION



STRAIGHT

Electric potential is induced in cable Sheath by electromagnetic induction. The permissible voltage rise has to be restricted to 60 volts are per P&T regulation to avoid interference with communication lines. Methods are available to reduce Sheath voltages and current. Polycab's recommendation for this system is given below:





METHODS:

Single Point Bonding

This is applicable for short cable circuit, such as interconnection with sub-stations or termination of an overhead line into a sub-station. In this system, the three Sheaths are bonded and earthed at one of the cable route. Hence,

- A voltage will appear from Sheath to earth which will be maximum at the farthest point from the earth bond at the other end.
- No induced current hence, no Sheath losses result.

The effects of Design Variation:

The tabulated data has been carefully calculated after considering standard site conditions. However, the design changes can affect the cable characteristics, hence, the declared data is for guidance only and shall not be considered as guaranteed.

Midpoint Bonding:

This is a modification of the single point bonding method whereby the circuit is effectively split up into two elementary sections. By Midpoint Bonding, the length of the cable circuit can be increased to almost twice that of Single Point Bonded system. In this system, the three Sheaths are bonded and earthed at the center of the cable route. As a result:

- Voltage will appear from Sheath to earth which will be maximum at both ends of the cable route.
- No induced current hence, no Sheath losses result.

Both Ends Bonded:

This is applicable for long circuit lengths. In this system, the Sheaths are bonded and earthed at both the ends of the cable. The flow of Sheath Current results in Sheath losses, which slightly derates the current rating. This system has the following distinct advantages:

- There is no Sheath voltage to earth hence, ensures safety.
- Installation is simple, and no maintenance or monitoring of the installation is necessary.

Cross Bonding:

This is applicable for longer circuit. In this system, the Sheaths of the adjoining cables are connected such that the Sheaths are electrically 120o apart.

Cross-bonding essentially consists of sectionalizing the Sheath*s into minor sections which are cross bonded. The minor sections together make a major section.

For cables in trefoil formation, their Sheath voltage under the cross bonded system will be equal across a major section and have a phase displacement of 120º (by ensuring the minor sections have identical lengths). The vector sum of the voltage will be zero. Hence, eliminating circulating current and Sheath losses.

This system however has the following disadvantages:

- Complexity of the system
- Maintenance of the link boxes (prevention of water seepage to be ensured).
- Higher capital cost.