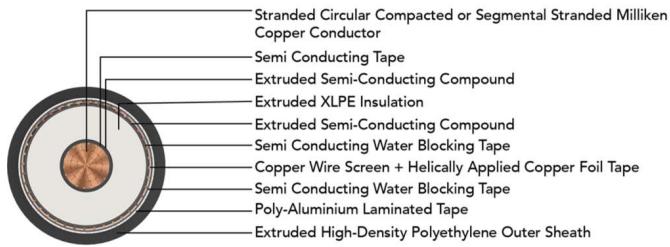


POLYCAT HV CS+PAL IEC 60840 64/110 KV (123 KV) HV Cable with Cu Conductor, Cu Screen and Poly Al. laminated

POLYCAT
IDEAS. CONNECTED.



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAT HV 64/110 KV (123 KV) XLPE insulated cable with copper conductor is suitable to use in high voltage transmission for external and direct burial applications in power network system.

CHARACTERISTICS

Voltage Rating

Nominal Voltage: 64/110 KV (123 KV)

Operation Temperature

Max. operating temperature: +90°C

Max. Short Circuit Temperature: 250°C

Bending Radius: 20D

: D is overall diameter of cable

Impulse Test Voltage

550kV

CONSTRUCTION

- Conductor: Circular Compacted or segmental stranded Milliken Copper conductor as per IEC 60228, class 2
- Separator: Semi Conducting Tape
- Conductor Screen: Extruded Semi-conductive compound
- Insulation: Crosslinked polyethylene
- Non-Metallic Insulation Screen: Extruded Semi-conductive compound
- Separator: Semi Conducting Water Blocking Tape
- Metallic Insulation Screen: Copper Wires + Helically applied Copper Foil Tape
- Separator: Semi Conducting Water Blocking Tape
- Shield: Poly-Al. laminated Tape
- Outer Sheath: Extruded High-density polyethylene (HDPE), Colour: Black
- Optional Semi-conductive layer

OUTSTANDING FEATURES

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

STANDARD FOLLOWS

IEC 60228

IEC 60840

IS 7098-3

ICEA S-108-720

COMPLIANCE

- Conductor resistance IEC 60228

OUR ACCREDITATIONS



APPROVAL



POLY CAB HV CS+PAL IEC 60840 64/110 KV (123 KV)

HV Cable with Cu Conductor, Cu Screen and Poly Al.

laminated

POLY CAB

IDEAS. CONNECTED.

DIMENSIONS AND WEIGHT:

| Product Code | No. of Cores | Core Cross sectional Area | Conductor type | Insulation thickness (Approx.) | Sheath thickness (Approx.) | Diameter Overall (Nominal) | Weight (Approx.) |
|---------------------------|--------------|---------------------------|----------------|--------------------------------|----------------------------|----------------------------|------------------|
| | No. | mm ² | | 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 |
|---------------------------|----------------------------|----------------------------|------------------------|------------------------|---------------------|-----------------|--------------------------------|-------------------------------|-------------------------------|
| mm ² | 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 |

**POLYCAP HV CS+PAL IEC 60840 64/110 KV (123 KV)
HV Cable with Cu Conductor, Cu Screen and Poly Al.
laminated**

POLYCAP
IDEAS. CONNECTED.

CURRENT RATING:

| Core Cross sectional Area | Continuous current ratings for 3 single core cables, single ended bonded | | | | Short Circuit Rating for 1 Sec. | |
|------------------------------|--|---|--|---|---------------------------------------|--|
| | In ground | | In air | | | |
| | Trefoil  | Flat  | Trefoil  | Flat  | | |
| mm ² | Amps | | | | KAmps | |
| 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 |