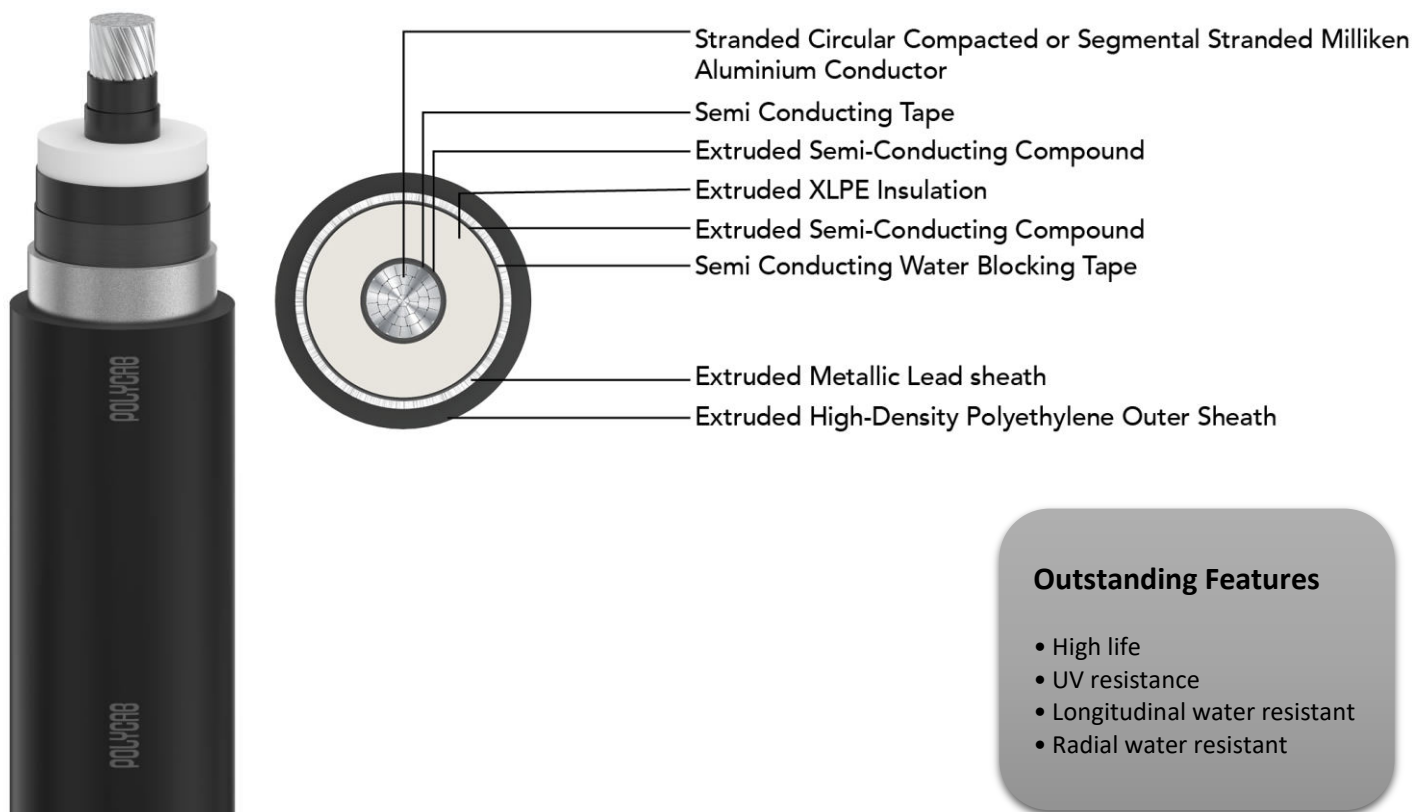


## POLYCAB HV PB IEC 60840 38/66 kV (72.5 kV)

### HV Cable with Aluminium Conductor, 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
- 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



#### OUR ACCREDITATION



## POLYCAB HV PB IEC 60840 38/66 kV (72.5 kV)

### HV Cable with Aluminium Conductor, Lead Sheath

#### DIMENSIONS AND WEIGHT:

| Product Code              | No. of Cores | Core Cross sectional Area mm <sup>2</sup> | Conductor type | Insulation thickness (Approx.) mm | Sheath thickness (Approx.) mm | Diameter Overall (Nominal) mm | Weight (Approx.) 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 mm <sup>2</sup> | Max. DC Resistance at 20°C Ω/km | Max. AC Resistance at 90°C Ω/km | Approx. Star Reactance Ω/km | Approx. Star Impedance Ω/km | Approx. Capacitance μF/km | Surge Impedance Ω | Cable Zero sequence Resistance Ω/km | Cable Zero sequence Reactance Ω/km | Cable Zero sequence Impedance Ω/km |
|---|---------------------------------|---------------------------------|-----------------------------|-----------------------------|---------------------------|-------------------|-------------------------------------|------------------------------------|------------------------------------|
| 400                                       | 0.0778                          | 0.101                           | 0.127                       | 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                              |





#### OUR ACREDITATION



## POLYCAB HV PB IEC 60840 38/66 kV (72.5 kV)

### HV Cable with Aluminium Conductor, Lead Sheath

#### CURRENT RATING:

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

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