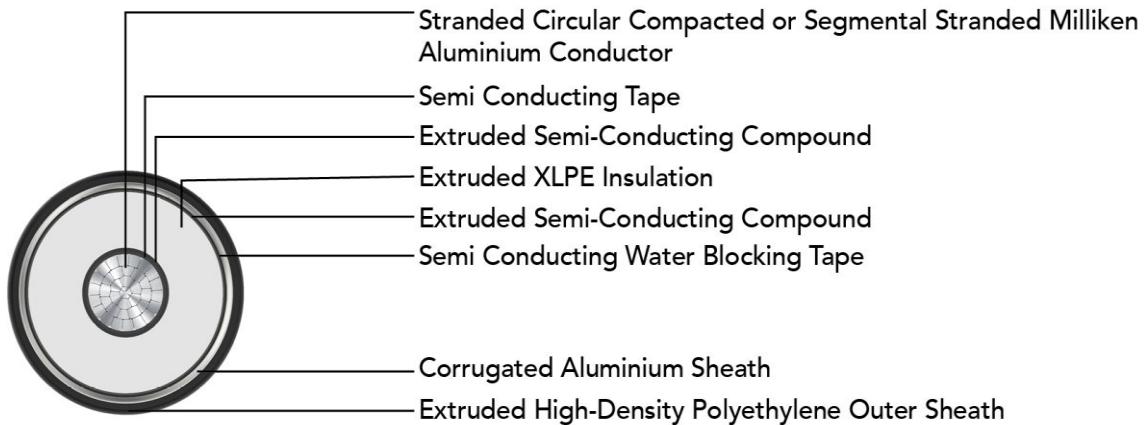


## POLY CAB HV AL.COR IEC 60840 38/66 kV (72.5 kV)

### HV Cable with Aluminium Conductor, Aluminium Corrugated Sheath



#### Outstanding Features

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

#### Application

POLY CAB 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)

**Bending Radius:** 20D

: D is overall diameter of cable

#### Operation Temperature

Max. operating temperature: +90°C

Max. Short Circuit Temperature: 250°C

#### Standard and References:

IEC 60228

IEC 60840

IS 7098-3

ICEA S-108-720

#### 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

#### Impulse Test Voltage

325kV

#### Compliance

- Conductor resistance IEC 60228



#### OUR ACCREDITATION



## POLY CAB HV AL.COR IEC 60840 38/66 kV (72.5 kV)

### HV Cable with Aluminium Conductor, Aluminium Corrugated 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            |
| 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 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                           | 0.134                       | 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                             |

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## POLY CAB HV AL.COR IEC 60840 38/66 kV (72.5 kV)

### HV Cable with Aluminium Conductor, Aluminium Corrugated Sheath

#### CURRENT RATING:

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



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