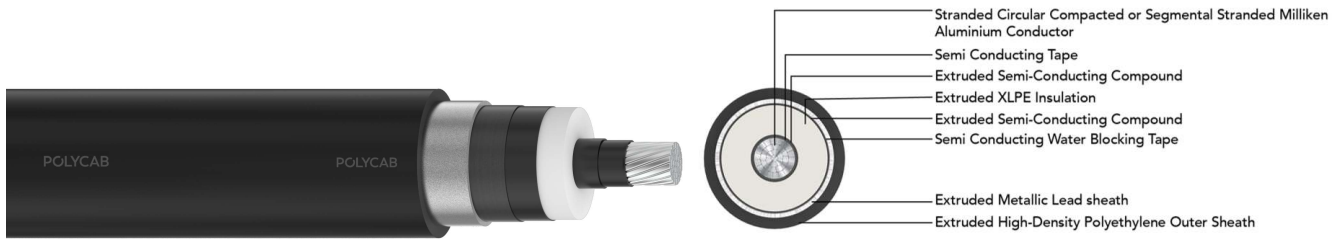


# POLYCAB HV. PB IEC 62067 127/220 KV (245 KV)

## HV Cable with Aluminium Conductor, Lead Sheath



Images not to scale. Follow table for dimensions

### 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.

### CHARACTERISTICS

#### Voltage Rating

Nominal Voltage: 127/220 kV (245 kV)

#### Operation Temperature

Max. operating temperature: +90°C

Max. Short Circuit Temperature: 250°C

#### Bending Radius: 20D

: D is overall diameter of cable

Impulse Test Voltage  
1050kV

### CONSTRUCTION

- Conductor: Circular Compacted or segmental stranded Milliken 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

### OUTSTANDING FEATURES

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

### STANDARD FOLLOWS

IEC 60228

IEC 62067

IS 7098-3

ICEA S-108-720

### COMPLIANCE

- Conductor resistance IEC 60228

### OUR ACCREDITATIONS



### APPROVAL



# POLYCAB HV. PB IEC 62067 127/220 KV (245 KV)

## HV Cable with Aluminium 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.          | mm <sup>2</sup>           |                | 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 |
|---------------------------|----------------------------|----------------------------|------------------------|------------------------|---------------------|-----------------|--------------------------------|-------------------------------|-------------------------------|
| mm <sup>2</sup>           | 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                         |

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### 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<br> | Flat<br> | Trefoil<br> | Flat<br> |                                 |
| mm <sup>2</sup>           | 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 |