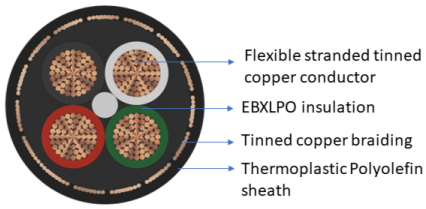
# POLYCAB HYDRO, Type LSXLPO, Multicore POWER CABLE, IEEE 1580 0.6/1KV or 2KV


Images not to scale. Follow table for dimensions

## APPLICATION

POLYCAB HYDRO cables are designed to use in corrosive environments like Off-Shore & On-Shore oil rigs, Petrochemicals etc up to voltage 2 kV. These cables can be used in wet and dry area either indoor or Outdoor location in cable trays or in raceways supported by a messenger wire. These cables can be installed in direct burial as well as in hazardous location.

## CHARACTERISTICS

**Voltage Rating**
0.6/1 kV or 2kV

**Operation Temperature**
From -40°C to 90° C

## CONSTRUCTION

- Flexible stranded tinned copper conductor
- Insulated with Low Smoke Halogen Free XLPO (Type LSX), as per IEEE 1580
- Sheathed with Thermoplastic Polyolefin (Type TPO) Colour: Black
- Annealed Tinned Copper wire braiding (Optional) as per IEEE 1580
- Sheathed with Thermoplastic Polyolefin (Type TPO) (Optional) Colour: Black

**Core Identification**
As per IEEE 1580 (Table 23)

**Bending Radius**
Fixed installation 12 x Overall diameter
Occasional 8 x Overall diameter

## OUTSTANDING FEATURES

- Heat resistant
- Flame retardant
- Low temperature resistant

## STANDARD FOLLOWS

IEEE 1580
ASTM B33
IEEE 45
UL 1309

## COMPLIANCE

| | |
|---|---|
| Conductor resistance | IEEE 1580 |
| Insulation resistance | IEEE 1580 |
| Flame Reterdant | IEEE 1202 |
| Halogen Content | IEC 60754-1 |
| Cold bend/Impact | CSA 22.2 |
| Fire resistant (Optional) | IEC 60331-1/2/21 |

**Test Voltage**

| | |
|---|---|
| 14 – 9 AWG | 5.5 kV |
| 8 – 2 AWG | 7 kV |
| 1 - 4/0 AWG | 8 kV |
| 250 – 525 kcmil | 9.5 kV |
| 525 kcmil above | 11.5 kV |

## OUR ACCREDITATIONS

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## Dimensional and Electrical Characteristics:

### For two core conductor:

| Conductor | | UNARMOURED | | | | ARMOURED AND SHEATHED | | | | Ampacity |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Nominal OD | | Weight | | Nominal OD | | Weight | | |
| No. of Core | Size (AWG) | Inches | mm | Lbs/Mft | kg/km | Inches | mm | Lbs/Mft | kg/km | Ampere |
| 2 | 14 | 0.410 | 10.4 | 92 | 137 | 0.598 | 15.2 | 248 | 369 | 27 |
| 2 | 12 | 0.445 | 11.3 | 116 | 173 | 0.633 | 16.1 | 285 | 425 | 36 |
| 2 | 10 | 0.506 | 12.8 | 160 | 238 | 0.694 | 17.6 | 349 | 520 | 46 |
| 2 | 8 | 0.633 | 16.1 | 249 | 370 | 0.861 | 21.8 | 518 | 771 | 60 |
| 2 | 6 | 0.752 | 19.1 | 352 | 524 | 0.980 | 24.9 | 667 | 993 | 79 |
| 2 | 4 | 0.890 | 22.6 | 525 | 781 | 1.118 | 28.4 | 891 | 1326 | 101 |
| 2 | 2 | 1.024 | 26.0 | 737 | 1096 | 1.253 | 31.8 | 1154 | 1717 | 137 |
| 2 | 1 | 1.142 | 29.0 | 921 | 1371 | 1.370 | 34.8 | 1383 | 2058 | 161 |
| 2 | 1/0 | 1.234 | 31.3 | 1113 | 1656 | 1.462 | 37.1 | 1609 | 2394 | 183 |
| 2 | 2/0 | 1.319 | 33.5 | 1327 | 1975 | 1.547 | 39.3 | 1835 | 2731 | 233 |
| 2 | 3/0 | 1.439 | 36.5 | 1608 | 2393 | 1.727 | 43.8 | 2296 | 3416 | 245 |
| 2 | 4/0 | 1.608 | 40.8 | 2016 | 3000 | 1.896 | 48.1 | 2778 | 4135 | 284 |
| 2 | 262 | 1.860 | 47.2 | 2561 | 3812 | 2.148 | 54.5 | 3436 | 5114 | 333 |

### Three core conductor:

| Conductor | | UNARMOURED | | | | ARMOURED AND SHEATHED | | | | Ampacity |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Nominal OD | | Weight | | Nominal OD | | Weight | | |
| No. of Core | Size (AWG) | Inches | mm | Lbs/Mft | kg/km | Inches | mm | Lbs/Mft | kg/km | Ampere |
| 3 | 16 | 0.414 | 10.5 | 85 | 126 | 0.602 | 15.3 | 244 | 363 | 15 |
| 3 | 14 | 0.436 | 11.1 | 105 | 156 | 0.624 | 15.8 | 271 | 403 | 24 |
| 3 | 12 | 0.473 | 12.0 | 135 | 201 | 0.661 | 16.8 | 314 | 467 | 29 |
| 3 | 10 | 0.569 | 14.4 | 208 | 310 | 0.757 | 19.2 | 419 | 623 | 38 |
| 3 | 8 | 0.674 | 17.1 | 295 | 439 | 0.902 | 22.9 | 580 | 863 | 48 |
| 3 | 6 | 0.803 | 20.4 | 420 | 625 | 1.031 | 26.2 | 754 | 1121 | 65 |
| 3 | 4 | 0.948 | 24.1 | 633 | 942 | 1.176 | 29.9 | 1022 | 1520 | 83 |
| 3 | 2 | 1.093 | 27.8 | 904 | 1345 | 1.322 | 33.5 | 1347 | 2005 | 111 |
| 3 | 1 | 1.220 | 31.0 | 1135 | 1689 | 1.449 | 36.8 | 1626 | 2420 | 131 |
| 3 | 1/0 | 1.320 | 33.5 | 1382 | 2057 | 1.548 | 39.3 | 1911 | 2844 | 150 |
| 3 | 2/0 | 1.412 | 35.8 | 1668 | 2483 | 1.640 | 41.6 | 2232 | 3321 | 173 |
| 3 | 3/0 | 1.541 | 39.1 | 2027 | 3017 | 1.829 | 46.4 | 2760 | 4108 | 201 |

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| Conductor | | UNARMOURED | | | | ARMOURED AND SHEATHED | | | | Ampacity |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Nominal OD | | Weight | | Nominal OD | | Weight | | |
| No. of Core | Size (AWG) | Inches | mm | Lbs/Mft | kg/km | Inches | mm | Lbs/Mft | kg/km | Ampere |
| 3 | 4/0 | 1.783 | 45.3 | 2664 | 3965 | 2.072 | 52.6 | 3505 | 5217 | 232 |
| 3 | 262 | 1.991 | 50.5 | 3196 | 4756 | 2.279 | 57.8 | 4129 | 6145 | 273 |
| 3 | 313 | 2.111 | 53.6 | 3717 | 5531 | 2.400 | 60.9 | 4703 | 6999 | 298 |
| 3 | 373 | 2.256 | 57.3 | 4341 | 6460 | 2.544 | 64.6 | 5392 | 8024 | 332 |
| 3 | 444 | 2.425 | 61.5 | 5070 | 7545 | 2.713 | 68.9 | 6196 | 9220 | 382 |
| 3 | 535 | 2.690 | 68.3 | 6107 | 9088 | 3.039 | 77.1 | 7555 | 11243 | 407 |
| 3 | 646 | 2.955 | 75.0 | 7433 | 11061 | 3.304 | 83.9 | 9017 | 13419 | 474 |
| 3 | 777 | 3.100 | 78.7 | 8728 | 12989 | 3.449 | 87.5 | 10387 | 15458 | 516 |

Four core conductor:

| Conductor | | UNARMOURED | | | | ARMOURED AND SHEATHED | | | | Ampacity |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Nominal OD | | Weight | | Nominal OD | | Weight | | |
| No. of Core | Size (AWG) | Inches | mm | Lbs/Mft | kg/km | Inches | mm | Lbs/Mft | kg/km | Ampere |
| 4 | 14 | 0.477 | 12.1 | 131 | 194 | 0.665 | 16.9 | 311 | 462 | 24 |
| 4 | 12 | 0.549 | 13.9 | 191 | 284 | 0.738 | 18.7 | 395 | 588 | 29 |
| 4 | 10 | 0.623 | 15.8 | 266 | 396 | 0.811 | 20.6 | 494 | 736 | 38 |
| 4 | 8 | 0.740 | 18.8 | 380 | 566 | 0.969 | 24.6 | 690 | 1027 | 48 |
| 4 | 6 | 0.925 | 23.5 | 586 | 873 | 1.153 | 29.3 | 966 | 1438 | 65 |
| 4 | 4 | 1.043 | 26.5 | 820 | 1220 | 1.271 | 32.3 | 1244 | 1851 | 83 |
| 4 | 2 | 1.206 | 30.6 | 1180 | 1756 | 1.434 | 36.4 | 1666 | 2479 | 111 |
| 4 | 1 | 1.348 | 34.2 | 1487 | 2213 | 1.577 | 40.0 | 2027 | 3016 | 131 |
| 4 | 1/0 | 1.459 | 37.0 | 1817 | 2704 | 1.747 | 44.4 | 2514 | 3741 | 150 |
| 4 | 2/0 | 1.562 | 39.6 | 2154 | 3205 | 1.850 | 47.0 | 2896 | 4310 | 173 |
| 4 | 3/0 | 1.767 | 44.8 | 2795 | 4159 | 2.055 | 52.2 | 3628 | 5400 | 201 |
| 4 | 4/0 | 1.972 | 50.0 | 3504 | 5214 | 2.260 | 57.4 | 4428 | 6590 | 232 |
| 4 | 262 | 2.204 | 55.9 | 4214 | 6271 | 2.492 | 63.3 | 5242 | 7801 | 273 |
| 4 | 313 | 2.339 | 59.4 | 4909 | 7306 | 2.627 | 66.7 | 5997 | 8924 | 298 |
| 4 | 373 | 2.501 | 63.5 | 5744 | 8548 | 2.850 | 72.3 | 7096 | 10560 | 332 |
| 4 | 444 | 2.690 | 68.3 | 6719 | 9999 | 3.039 | 77.1 | 8168 | 12155 | 382 |
| 4 | 535 | 3.048 | 77.4 | 8315 | 12374 | 3.397 | 86.2 | 9947 | 14802 | 407 |
| 4 | 646 | 3.277 | 83.2 | 9840 | 14644 | 3.626 | 92.0 | 11590 | 17248 | 474 |

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## Five core conductor:

| Conductor | | UNARMOURED | | | | ARMOURED AND SHEATHED | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Nominal OD | | Weight | | Nominal OD | | Weight | |
| No. of Core | Size (AWG) | Inches | mm | Lbs/Mft | kg/km | Inches | mm | Lbs/Mft | kg/km |
| 5 | 14 | 0.552 | 14.0 | 181 | 270 | 0.740 | 18.8 | 386 | 575 |
| 5 | 12 | 0.599 | 15.2 | 233 | 347 | 0.787 | 20.0 | 454 | 675 |
| 5 | 10 | 0.681 | 17.3 | 328 | 487 | 0.909 | 23.1 | 615 | 916 |
| 5 | 8 | 0.812 | 20.6 | 471 | 702 | 1.040 | 26.4 | 809 | 1203 |
| 5 | 6 | 1.014 | 25.7 | 726 | 1080 | 1.242 | 31.5 | 1139 | 1695 |
| 5 | 4 | 1.145 | 29.1 | 1019 | 1517 | 1.373 | 34.9 | 1482 | 2206 |
| 5 | 2 | 1.327 | 33.7 | 1473 | 2193 | 1.555 | 39.5 | 2005 | 2983 |
| 5 | 1 | 1.486 | 37.7 | 1862 | 2772 | 1.774 | 45.0 | 2571 | 3826 |
| 5 | 1/0 | 1.609 | 40.9 | 2279 | 3391 | 1.898 | 48.2 | 3042 | 4528 |
| 5 | 2/0 | 1.784 | 45.3 | 2822 | 4200 | 2.073 | 52.6 | 3663 | 5452 |
| 5 | 3/0 | 1.946 | 49.4 | 3496 | 5202 | 2.234 | 56.7 | 4409 | 6561 |
| 5 | 4/0 | 2.174 | 55.2 | 4392 | 6536 | 2.463 | 62.5 | 5407 | 8046 |

Above values are approximate and subject to standard manufacturing tolerance
*Ampacity based on ambient temperature 45°C as per IEEE 45