



PT. SUMI INDO KABEL Tbk.

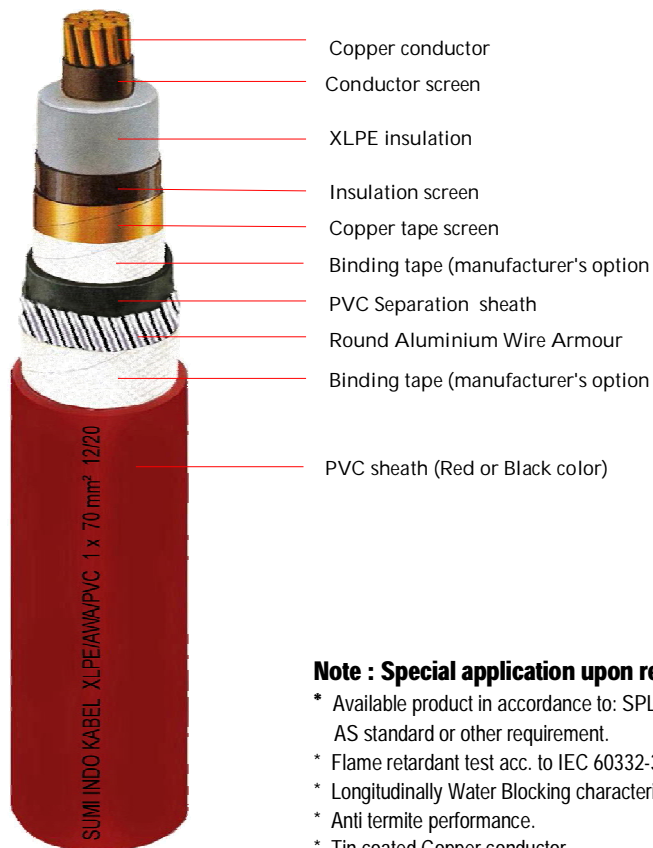
AFFILIATE OF
SUMITOMO ELECTRIC INDUSTRIES, LTD - JAPAN



XLPE Insulated, Copper Tape Shielded, Round Aluminium Wire Armoured and PVC Sheathed Cables

(3.6/6 kV ~ 18/30 kV) XLPE/AWA/PVC

According to : IEC 60502-2



Note : Special application upon request

- * Available product in accordance to: SPLN, ICEA/NEMA, AS standard or other requirement.
- * Flame retardant test acc. to IEC 60332-3 cat. A, B or C.
- * Longitudinally Water Blocking characteristic.
- * Anti termite performance.
- * Tin coated Copper conductor.
- * Copper wire screen.
- * Polyethylene/Low Smoke halogen Free sheath.

(C)

XLPE Insulated, Copper Tape Shielded, Round Aluminium Wire and PVC Sheathed Cables

3.6/6 (7.2) kV XLPE / AWA / PVC 1 x (25 - 800) mm²

CONSTRUCTION DATA

| | | | | | | | | | | | | | | | |
|---------------------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| No. of Core | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Nom. Cross-section area | mm ² | 25 | 35 | 50 | 70 | 95 | 120 | 150 | 185 | 240 | 300 | 400 | 500 | 630 | 800 |
| No. of Wire | - | 7 | 7 | 19 | 19 | 19 | 37 | 37 | 37 | 37 | 61 | 61 | 61 | 61 | 61 |
| Diameter of Conductor, approx. **) | mm | 5.9 | 7.1 | 8.1 | 9.7 | 11.6 | 12.9 | 14.3 | 16.0 | 18.3 | 20.7 | 23.4 | 26.5 | 30.3 | 34.3 |
| Nom. Thickness of Insulation | mm | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.6 | 2.8 | 3.0 | 3.2 | 3.2 | 3.2 |
| Nom. Thickness of Copper tape | mm | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Nom. Thickness of Separation Sheath | mm | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.4 | 1.4 |
| Nom. Diameter of Round Aluminium wire | mm | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 |
| Nom. Thickness of Outer sheath | mm | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 2.0 | 2.1 | 2.1 | 2.2 | 2.3 | 2.5 | 2.6 | 2.7 |
| Overall Diameter of cable | mm | 23.0 | 24.5 | 25.5 | 27.0 | 29.0 | 30.0 | 32.0 | 34.5 | 37.0 | 40.0 | 43.5 | 48.0 | 52.0 | 57.0 |
| Weight of cable, approximate | kg/km | 785 | 920 | 1060 | 1300 | 1605 | 1865 | 2185 | 2655 | 3265 | 3945 | 4835 | 6145 | 7650 | 9530 |

ELECTRICAL DATA

| | | | | | | | | | | | | | | | | |
|--|----------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--|
| AC Voltage test for 5 min. | kV | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | |
| Partial Discharge test at max. 10pC | kV | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | |
| DC Resistance at 20°C | | 0.727 | 0.524 | 0.387 | 0.268 | 0.193 | 0.153 | 0.124 | 0.0991 | 0.0754 | 0.0601 | 0.0470 | 0.0366 | 0.0283 | 0.0221 | |
| AC Resistance at 90°C | Ω / km | 0.927 | 0.668 | 0.494 | 0.342 | 0.247 | 0.196 | 0.159 | 0.127 | 0.0976 | 0.0785 | 0.0623 | 0.0498 | 0.0401 | 0.0332 | |
| Insulation Resistance at 20°C | M Ω . km | 2500 | 2000 | 2000 | 1500 | 1500 | 1500 | 1500 | 1500 | 1000 | 900 | 900 | 900 | 800 | 700 | |
| Capacitance | mF / km | 0.266 | 0.300 | 0.328 | 0.373 | 0.427 | 0.463 | 0.502 | 0.550 | 0.593 | 0.615 | 0.641 | 0.673 | 0.755 | 0.842 | |
| Inductance (Trefoil) | mH / km | 0.461 | 0.436 | 0.418 | 0.393 | 0.372 | 0.357 | 0.350 | 0.342 | 0.329 | 0.320 | 0.313 | 0.307 | 0.297 | 0.290 | |
| Reactance (Trefoil) | Ω / km | 0.145 | 0.137 | 0.131 | 0.124 | 0.117 | 0.112 | 0.110 | 0.108 | 0.103 | 0.101 | 0.0982 | 0.0965 | 0.0931 | 0.0911 | |
| Current Carrying Capacity : | | | | | | | | | | | | | | | | |
| - Buried direct in ground at 20°C ***) (Trefoil) | A | 140 | 166 | 196 | 239 | 285 | 323 | 361 | 406 | 469 | 526 | 590 | * 655 | * 740 | * 840 | |
| (Flat spaced) | A | 144 | 172 | 203 | 246 | 293 | 332 | 366 | 410 | 470 | 524 | 572 | * 650 | * 730 | * 820 | |
| - In Air at 30°C (Trefoil) | A | 163 | 198 | 238 | 296 | 361 | 417 | 473 | 543 | 641 | 735 | 845 | * 940 | * 1080 | * 1250 | |
| (Flat spaced) | A | 196 | 238 | 286 | 356 | 434 | 500 | 559 | 637 | 745 | 846 | 938 | * 1075 | * 1235 | * 1420 | |
| (Flat touching) | A | 167 | 203 | 243 | 303 | 369 | 426 | 481 | 550 | 647 | 739 | 837 | * 945 | * 1080 | * 1250 | |
| Short circuit current rating at 1 sec. (approx.) | kA | 3.58 | 5.01 | 7.15 | 10.01 | 13.59 | 17.16 | 21.45 | 26.46 | 34.32 | 42.90 | 57.20 | 71.50 | 90.09 | 114.40 | |

*) typical data

**) Diameter compacted shape

***) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

(C-1)

XLPE Insulated, Copper Tape Shielded, Round Aluminium Wire and PVC Sheathed Cables

6/10 (12) kV XLPE / AWA / PVC 1 x (25 - 800) mm²

CONSTRUCTION DATA

| | | | | | | | | | | | | | | | |
|---------------------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| No. of Core | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Nom. Cross-section area | mm ² | 25 | 35 | 50 | 70 | 95 | 120 | 150 | 185 | 240 | 300 | 400 | 500 | 630 | 800 |
| No. of Wire | - | 7 | 7 | 19 | 19 | 19 | 37 | 37 | 37 | 37 | 61 | 61 | 61 | 61 | 61 |
| Diameter of Conductor, approx. **) | mm | 5.9 | 7.1 | 8.1 | 9.7 | 11.6 | 12.9 | 14.3 | 16.0 | 18.3 | 20.7 | 23.4 | 26.5 | 30.3 | 34.3 |
| Nom. Thickness of Insulation | mm | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 |
| Nom. Thickness of Copper tape | mm | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Nom. Thickness of Separation Sheath | mm | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 | 1.4 |
| Nom. Diameter of Round Aluminium wire | mm | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 |
| Nom. Thickness of Outer sheath | mm | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 2.0 | 2.1 | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 2.6 | 2.8 |
| Overall Diameter of cable | mm | 25.0 | 26.0 | 27.0 | 29.0 | 30.5 | 33.0 | 34.5 | 36.5 | 39.0 | 41.5 | 45.0 | 48.5 | 52.5 | 57.5 |
| Weight of cable, approximate | kg/km | 875 | 1005 | 1155 | 1395 | 1705 | 2055 | 2385 | 2775 | 3390 | 4045 | 5050 | 6185 | 7680 | 9590 |

ELECTRICAL DATA

| | | | | | | | | | | | | | | | |
|--|---------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| AC Voltage test for 5 min. | kV | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 |
| Partial Discharge test at max. 10pC | kV | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 |
| DC Resistance at 20°C | | 0.727 | 0.524 | 0.387 | 0.268 | 0.193 | 0.153 | 0.124 | 0.0991 | 0.0754 | 0.0601 | 0.0470 | 0.0366 | 0.0283 | 0.0221 |
| AC Resistance at 90°C | Ω / km | 0.927 | 0.668 | 0.494 | 0.342 | 0.247 | 0.196 | 0.159 | 0.127 | 0.0975 | 0.0784 | 0.0623 | 0.0497 | 0.0401 | 0.0332 |
| Insulation Resistance at 20°C | M Ω km | 3000 | 2500 | 2500 | 2000 | 2000 | 2000 | 1500 | 1500 | 1500 | 1500 | 1000 | 900 | 800 | 700 |
| Capacitance | mF / km | 0.211 | 0.236 | 0.257 | 0.291 | 0.330 | 0.357 | 0.386 | 0.421 | 0.468 | 0.518 | 0.573 | 0.637 | 0.715 | 0.797 |
| Inductance (Trefoil) | mH / km | 0.477 | 0.448 | 0.429 | 0.408 | 0.382 | 0.376 | 0.365 | 0.354 | 0.340 | 0.328 | 0.319 | 0.310 | 0.299 | 0.292 |
| Reactance (Trefoil) | Ω / km | 0.150 | 0.141 | 0.135 | 0.128 | 0.120 | 0.118 | 0.115 | 0.111 | 0.107 | 0.103 | 0.100 | 0.0973 | 0.0937 | 0.0917 |
| Current Carrying Capacity : | | | | | | | | | | | | | | | |
| - Buried direct in ground at 20°C ***) (Trefoil) | A | 140 | 166 | 196 | 239 | 285 | 323 | 361 | 406 | 469 | 526 | 590 | * 655 | * 740 | * 840 |
| (Flat spaced) | A | 144 | 172 | 203 | 246 | 293 | 332 | 366 | 410 | 470 | 524 | 572 | * 650 | * 730 | * 820 |
| - In Air at 30°C (Trefoil) | A | 163 | 198 | 238 | 296 | 361 | 417 | 473 | 543 | 641 | 735 | 845 | * 940 | * 1080 | * 1250 |
| (Flat spaced) | A | 196 | 238 | 286 | 356 | 434 | 500 | 559 | 637 | 745 | 846 | 938 | * 1075 | * 1235 | * 1420 |
| (Flat touching) | A | 167 | 203 | 243 | 303 | 369 | 426 | 481 | 550 | 647 | 739 | 837 | * 945 | * 1080 | * 1250 |
| Short circuit current rating at 1 sec. (approx.) | kA | 3.58 | 5.01 | 7.15 | 10.01 | 13.59 | 17.16 | 21.45 | 26.46 | 34.32 | 42.90 | 57.20 | 71.50 | 90.09 | 114.40 |

*) typical data

**) Diameter compacted shape

***) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

XLPE Insulated, Copper Tape Shielded, Round Aluminium Wire and PVC Sheathed Cables

8.7/15 (17.5) kV XLPE / AWA / PVC 1 x (25 - 630) mm²

CONSTRUCTION DATA

| | | | | | | | | | | | | | | |
|---------------------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| No. of Core | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Nom. Cross-section area | mm ² | 25 | 35 | 50 | 70 | 95 | 120 | 150 | 185 | 240 | 300 | 400 | 500 | 630 |
| No. of Wire | - | 7 | 7 | 19 | 19 | 19 | 37 | 37 | 37 | 37 | 61 | 61 | 61 | 61 |
| Diameter of Conductor, approx. **) | mm | 5.9 | 7.1 | 8.1 | 9.7 | 11.6 | 12.9 | 14.3 | 16.0 | 18.3 | 20.7 | 23.4 | 26.5 | 30.3 |
| Nom. Thickness of Insulation | mm | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Nom. Thickness of Copper tape | mm | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Nom. Thickness of Separation Sheath | mm | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.4 | 1.4 |
| Nom. Diameter of Round Aluminium wire | mm | 1.6 | 1.6 | 1.6 | 1.6 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 |
| Nom. Thickness of Outer sheath | mm | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | 2.3 | 2.3 | 2.5 | 2.6 | 2.7 |
| Overall Diameter of cable | mm | 27.0 | 28.5 | 29.5 | 31.0 | 34.0 | 35.5 | 37.0 | 38.5 | 41.0 | 43.5 | 47.5 | 51.0 | 55.0 |
| Weight of cable, approximate | kg/km | 985 | 1120 | 1265 | 1530 | 1920 | 2210 | 2525 | 2940 | 3565 | 4210 | 5260 | 6415 | 7920 |

ELECTRICAL DATA

| | | | | | | | | | | | | | | |
|-------------------------------------|---------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| AC Voltage test for 5 min. | kV | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 |
| Partial Discharge test at max. 10pC | kV | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 |
| DC Resistance at 20°C | | 0.727 | 0.524 | 0.387 | 0.268 | 0.193 | 0.153 | 0.124 | 0.0991 | 0.0754 | 0.0601 | 0.0470 | 0.0366 | 0.0283 |
| AC Resistance at 90°C | Ω / km | 0.927 | 0.668 | 0.494 | 0.342 | 0.247 | 0.196 | 0.159 | 0.127 | 0.0975 | 0.0784 | 0.0622 | 0.0496 | 0.0399 |
| Insulation Resistance at 20°C | M Ω km | 3500 | 3000 | 3000 | 2500 | 2500 | 2000 | 2000 | 2000 | 1500 | 1500 | 1500 | 1500 | 1000 |
| Capacitance | mF / km | 0.173 | 0.192 | 0.208 | 0.234 | 0.264 | 0.284 | 0.307 | 0.333 | 0.369 | 0.407 | 0.449 | 0.497 | 0.556 |
| Inductance (Trefoil) | mH / km | 0.493 | 0.467 | 0.447 | 0.421 | 0.404 | 0.391 | 0.379 | 0.364 | 0.350 | 0.337 | 0.330 | 0.320 | 0.308 |
| Reactance (Trefoil) | Ω / km | 0.155 | 0.147 | 0.140 | 0.132 | 0.127 | 0.123 | 0.119 | 0.114 | 0.110 | 0.106 | 0.104 | 0.100 | 0.0967 |

Current Carrying Capacity :

| | | | | | | | | | | | | | | |
|--|----|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| - Buried direct in ground at 20°C *** (Trefoil) | A | 140 | 166 | 196 | 239 | 285 | 323 | 361 | 406 | 469 | 526 | 590 | * 655 | * 740 |
| (Flat spaced) | A | 144 | 172 | 203 | 246 | 293 | 332 | 366 | 410 | 470 | 524 | 572 | * 650 | * 730 |
| - In Air at 30°C (Trefoil) | A | 163 | 198 | 238 | 296 | 361 | 417 | 473 | 543 | 641 | 735 | 845 | * 940 | * 1080 |
| (Flat spaced) | A | 196 | 238 | 286 | 356 | 434 | 500 | 559 | 637 | 745 | 846 | 938 | * 1075 | * 1235 |
| (Flat touching) | A | 167 | 203 | 243 | 303 | 369 | 426 | 481 | 550 | 647 | 739 | 837 | * 945 | * 1080 |
| Short circuit current rating at 1 sec. (approx.) | kA | 3.58 | 5.01 | 7.15 | 10.01 | 13.59 | 17.16 | 21.45 | 26.46 | 34.32 | 42.90 | 57.20 | 71.50 | 90.09 |

*) typical data

**) Diameter compacted shape

***) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

XLPE Insulated, Copper Tape Shielded, Round Aluminium Wire and PVC Sheathed Cables

12/20 (24) kV XLPE / AWA / PVC 1 x (35 - 630) mm²

CONSTRUCTION DATA

| | | | | | | | | | | | | | |
|---------------------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| No. of Core | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Nom. Cross-section area | mm ² | 35 | 50 | 70 | 95 | 120 | 150 | 185 | 240 | 300 | 400 | 500 | 630 |
| No. of Wire | - | 7 | 19 | 19 | 19 | 37 | 37 | 37 | 37 | 61 | 61 | 61 | 61 |
| Diameter of Conductor, approx. **) | mm | 7.1 | 8.1 | 9.7 | 11.6 | 12.9 | 14.3 | 16.0 | 18.3 | 20.7 | 23.4 | 26.5 | 30.3 |
| Nom. Thickness of Insulation | mm | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 |
| Nom. Thickness of Copper tape | mm | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Nom. Thickness of Separation Sheath | mm | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 | 1.5 |
| Nom. Diameter of Round Aluminium wire | mm | 1.6 | 1.6 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 |
| Nom. Thickness of Outer sheath | mm | 1.9 | 2.0 | 2.1 | 2.1 | 2.2 | 2.2 | 2.3 | 2.3 | 2.5 | 2.6 | 2.7 | 2.8 |
| Overall Diameter of cable | mm | 30.5 | 32.0 | 34.5 | 36.5 | 38.0 | 39.0 | 41.0 | 43.5 | 47.0 | 50.0 | 53.5 | 57.5 |
| Weight of cable, approximate | kg/km | 1240 | 1405 | 1755 | 2085 | 2370 | 2695 | 3115 | 3730 | 4565 | 5465 | 6650 | 8175 |

ELECTRICAL DATA

| | | | | | | | | | | | | | |
|-------------------------------------|----------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| AC Voltage test for 5 min. | kV | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 |
| Partial Discharge test at max. 10pC | kV | 20.76 | 20.76 | 20.76 | 20.76 | 20.76 | 20.76 | 20.76 | 20.76 | 20.76 | 20.76 | 20.76 | 20.76 |
| DC Resistance at 20°C | | 0.524 | 0.387 | 0.268 | 0.193 | 0.153 | 0.124 | 0.0991 | 0.0754 | 0.0601 | 0.0470 | 0.0366 | 0.0283 |
| AC Resistance at 90°C | Ω / km | 0.668 | 0.494 | 0.342 | 0.247 | 0.196 | 0.159 | 0.127 | 0.0974 | 0.0783 | 0.0621 | 0.0495 | 0.0398 |
| Insulation Resistance at 20°C | M.Ω / km | 3500 | 3500 | 3000 | 2500 | 2500 | 2500 | 2000 | 2000 | 2000 | 1500 | 1500 | 1500 |
| Capacitance | mF / km | 0.165 | 0.178 | 0.199 | 0.224 | 0.240 | 0.258 | 0.279 | 0.309 | 0.339 | 0.373 | 0.412 | 0.459 |
| Inductance (Trefoil) | mH / km | 0.480 | 0.463 | 0.442 | 0.418 | 0.405 | 0.389 | 0.377 | 0.362 | 0.353 | 0.340 | 0.329 | 0.317 |
| Reactance (Trefoil) | Ω / km | 0.151 | 0.146 | 0.139 | 0.131 | 0.127 | 0.122 | 0.118 | 0.114 | 0.111 | 0.107 | 0.103 | 0.100 |

Current Carrying Capacity :

| | | | | | | | | | | | | | |
|--|----|------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| - Buried direct in ground at 20°C ***) (Trefoil) | A | 166 | 196 | 239 | 285 | 323 | 361 | 406 | 469 | 526 | 590 | * 655 | * 740 |
| (Flat spaced) | A | 172 | 203 | 246 | 293 | 332 | 366 | 410 | 470 | 524 | 572 | * 650 | * 730 |
| - In Air at 30°C (Trefoil) | A | 198 | 238 | 296 | 361 | 417 | 473 | 543 | 641 | 735 | 845 | * 940 | * 1080 |
| (Flat spaced) | A | 238 | 286 | 356 | 434 | 500 | 559 | 637 | 745 | 846 | 938 | * 1075 | * 1235 |
| (Flat touching) | A | 203 | 243 | 303 | 369 | 426 | 481 | 550 | 647 | 739 | 837 | * 945 | * 1080 |
| Short circuit current rating at 1 sec. (approx.) | kA | 5.01 | 7.15 | 10.01 | 13.59 | 17.16 | 21.45 | 26.46 | 34.32 | 42.90 | 57.20 | 71.50 | 90.09 |

*) typical data

**) Diameter compacted shape

***) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

XLPE Insulated, Copper Tape Shielded, Round Aluminium Wire and PVC Sheathed Cables

18/30 (36) kV XLPE / AWA / PVC 1x (50 - 630) mm²

CONSTRUCTION DATA

| | | | | | | | | | | | | |
|---------------------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|
| No. of Core | - | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Nom. Cross-section area | mm ² | 50 | 70 | 95 | 120 | 150 | 185 | 240 | 300 | 400 | 500 | 630 |
| No. of Wire | - | 19 | 19 | 19 | 37 | 37 | 37 | 37 | 61 | 61 | 61 | 61 |
| Diameter of Conductor, approx. **) | mm | 8.1 | 9.7 | 11.6 | 12.9 | 14.3 | 16.0 | 18.3 | 20.7 | 23.4 | 26.5 | 30.3 |
| Nom. Thickness of Insulation | mm | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| Nom. Thickness of Copper tape | mm | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Nom. Thickness of Separation Sheath | mm | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 | 1.5 | 1.6 |
| Nom. Diameter of Round Aluminium wire | mm | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Nom. Thickness of Outer sheath | mm | 2.2 | 2.2 | 2.3 | 2.3 | 2.4 | 2.5 | 2.6 | 2.6 | 2.7 | 2.8 | 3.0 |
| Overall Diameter of cable | mm | 38.0 | 40.0 | 42.0 | 43.0 | 45.5 | 47.5 | 50.0 | 52.5 | 55.5 | 59.0 | 63.5 |
| Weight of cable, approximate | kg/km | 1850 | 2120 | 2480 | 2770 | 3260 | 3700 | 4360 | 5070 | 5995 | 7210 | 8815 |

ELECTRICAL DATA

| | | | | | | | | | | | | |
|--|----------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| AC Voltage test for 5 min. | kV | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 |
| Partial Discharge test at max. 10pC | kV | 31.1 | 31.1 | 31.1 | 31.1 | 31.1 | 31.1 | 31.1 | 31.1 | 31.1 | 31.1 | 31.1 |
| DC Resistance at 20°C | | 0.387 | 0.268 | 0.193 | 0.153 | 0.124 | 0.0991 | 0.0754 | 0.0601 | 0.0470 | 0.0366 | 0.0283 |
| AC Resistance at 90°C | Ω / km | 0.494 | 0.342 | 0.247 | 0.196 | 0.159 | 0.127 | 0.0973 | 0.0782 | 0.0619 | 0.0493 | 0.0395 |
| Insulation Resistance at 20°C | M.Ω / km | 4000 | 4000 | 3500 | 3500 | 3000 | 3000 | 2500 | 2500 | 2500 | 2000 | 2000 |
| Capacitance | mF / km | 0.138 | 0.153 | 0.170 | 0.182 | 0.194 | 0.209 | 0.229 | 0.250 | 0.274 | 0.300 | 0.333 |
| Inductance (Trefoil) | mH / km | 0.498 | 0.472 | 0.446 | 0.429 | 0.420 | 0.406 | 0.390 | 0.375 | 0.361 | 0.349 | 0.337 |
| Reactance (Trefoil) | Ω / km | 0.156 | 0.148 | 0.140 | 0.135 | 0.132 | 0.128 | 0.122 | 0.118 | 0.114 | 0.110 | 0.106 |
| Current Carrying Capacity : | | | | | | | | | | | | |
| - Buried direct in ground at 20°C *** (Trefoil) | A | 196 | 239 | 285 | 323 | 361 | 406 | 469 | 526 | 590 | * 655 | * 740 |
| (Flat spaced) | A | 203 | 246 | 293 | 332 | 366 | 410 | 470 | 524 | 572 | * 650 | * 730 |
| - In Air at 30°C (Trefoil) | A | 238 | 296 | 361 | 417 | 473 | 543 | 641 | 735 | 845 | * 940 | * 1080 |
| (Flat spaced) | A | 286 | 356 | 434 | 500 | 559 | 637 | 745 | 846 | 938 | * 1075 | * 1235 |
| (Flat touching) | A | 243 | 303 | 369 | 426 | 481 | 550 | 647 | 739 | 837 | * 945 | * 1080 |
| Short circuit current rating at 1 sec. (approx.) | kA | 7.15 | 10.01 | 13.59 | 17.16 | 21.45 | 26.46 | 34.32 | 42.90 | 57.20 | 71.50 | 90.09 |

*) typical data

**) Diameter compacted shape

***) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m



PT. SUMI INDO KABEL Tbk.

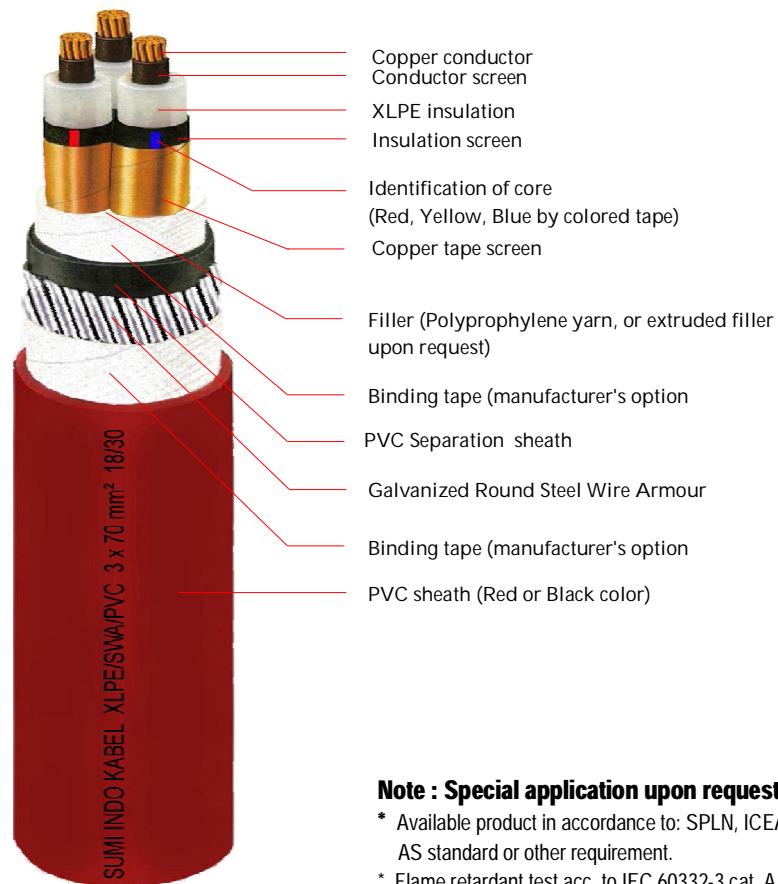
AFFILIATE OF
SUMITOMO ELECTRIC INDUSTRIES, LTD - JAPAN



XLPE Insulated, Copper Tape Shielded, Galvanized Round Steel Wire Armoured and PVC Sheathed Cables

(3.6/6 kV ~ 18/30 kV) XLPE/SWA/PVC

According to : IEC 60502-2



Note : Special application upon request

- * Available product in accordance to: SPLN, ICEA/NEMA, AS standard or other requirement.
- * Flame retardant test acc. to IEC 60332-3 cat. A, B or C.
- * Longitudinally Water Blocking characteristic.
- * Anti termite performance.
- * Tin coated Copper conductor.
- * Copper wire screen.
- * Polyethylene/Low Smoke halogen Free sheath.

(D)

XLPE Insulated, Copper Tape Shielded, Galvanized Round Steel Wire and PVC Sheathed Cables

3.6/6 (7.2) kV XLPE / SWA / PVC 3 x (25 - 300) mm²

CONSTRUCTION DATA

| | | | | | | | | | | | |
|-------------------------------------|-----------------|------|------|------|------|------|------|------|------|-------|-------|
| No. of Core | - | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Nom. Cross-section area | mm ² | 25 | 35 | 50 | 70 | 95 | 120 | 150 | 185 | 240 | 300 |
| No. of Wire | - | 7 | 7 | 19 | 19 | 19 | 37 | 37 | 37 | 37 | 61 |
| Diameter of Conductor, approx. *) | mm | 5.9 | 7.1 | 8.1 | 9.7 | 11.6 | 12.9 | 14.3 | 16.0 | 18.3 | 20.7 |
| Nom. Thickness of Insulation | mm | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.6 | 2.8 |
| Nom. Thickness of Copper tape | mm | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Nom. Thickness of Separation Sheath | mm | 1.2 | 1.3 | 1.3 | 1.4 | 1.4 | 1.5 | 1.6 | 1.6 | 1.7 | 1.8 |
| Nom. Diameter of Round Steel Wire | mm | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 3.15 | 3.15 |
| Nom. Thickness of Outer sheath | mm | 2.3 | 2.4 | 2.5 | 2.6 | 2.7 | 2.9 | 3.0 | 3.1 | 3.3 | 3.5 |
| Overall Diameter of cable | mm | 41.0 | 44.5 | 47.0 | 50.5 | 55.0 | 58.5 | 62.0 | 65.5 | 71.0 | 79.0 |
| Weight of cable, approximate | kg/km | 2970 | 3810 | 4360 | 5265 | 6385 | 7360 | 8485 | 9775 | 11905 | 15090 |

ELECTRICAL DATA

| | | | | | | | | | | | |
|--|----------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| AC Voltage test for 5 min. | kV | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 |
| Partial Discharge test at max. 10pC | kV | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 |
| DC Resistance at 20°C | Ω / km | 0.727 | 0.524 | 0.387 | 0.268 | 0.193 | 0.153 | 0.124 | 0.0991 | 0.0754 | 0.0601 |
| AC Resistance at 90°C | Ω / km | 0.927 | 0.668 | 0.494 | 0.342 | 0.247 | 0.196 | 0.159 | 0.128 | 0.0981 | 0.0792 |
| Insulation Resistance at 20°C | M Ω . km | 2500 | 2000 | 2000 | 1500 | 1500 | 1500 | 1500 | 1500 | 1000 | 900 |
| Capacitance | mF / km | 0.266 | 0.300 | 0.328 | 0.373 | 0.427 | 0.463 | 0.502 | 0.550 | 0.593 | 0.615 |
| Inductance | mH / km | 0.360 | 0.340 | 0.326 | 0.309 | 0.294 | 0.285 | 0.277 | 0.270 | 0.263 | 0.258 |
| Reactance | Ω / km | 0.113 | 0.107 | 0.102 | 0.0970 | 0.0922 | 0.0895 | 0.0871 | 0.0847 | 0.0825 | 0.0810 |
| Current Carrying Capacity **): | | | | | | | | | | | |
| - Buried direct in ground at 20°C | A | 129 | 154 | 181 | 220 | 263 | 298 | 332 | 374 | 431 | 482 |
| - In a Buried duct at 20°C | A | 112 | 134 | 158 | 194 | 232 | 264 | 296 | 335 | 387 | 435 |
| - In Air at 30°C | A | 143 | 172 | 205 | 253 | 307 | 352 | 397 | 453 | 529 | 599 |
| Short circuit current rating at 1 sec. (approx.) | kA | 3.58 | 5.01 | 7.15 | 10.01 | 13.59 | 17.16 | 21.45 | 26.46 | 34.32 | 42.90 |

*) Diameter compacted shape

**) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

Thermal Resistivity of earthenware ducts : 1.2 K.m/W

XLPE Insulated, Copper Tape Shielded, Galvanized Round Steel Wire and PVC Sheathed Cables

6/10 (12) kV XLPE /SWA /PVC 3 x (25 - 300) mm²

CONSTRUCTION DATA

| | | | | | | | | | | | |
|-------------------------------------|-----------------|------|------|------|------|------|------|------|-------|-------|-------|
| No. of Core | - | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Nom. Cross-section area | mm ² | 25 | 35 | 50 | 70 | 95 | 120 | 150 | 185 | 240 | 300 |
| No. of Wire | - | 7 | 7 | 19 | 19 | 19 | 37 | 37 | 37 | 37 | 61 |
| Diameter of Conductor, approx. *) | mm | 5.9 | 7.1 | 8.1 | 9.7 | 11.6 | 12.9 | 14.3 | 16.0 | 18.3 | 20.7 |
| Nom. Thickness of Insulation | mm | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 |
| Nom. Thickness of Copper tape | mm | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Nom. Thickness of Separation Sheath | mm | 1.3 | 1.3 | 1.4 | 1.5 | 1.5 | 1.6 | 1.6 | 1.7 | 1.8 | 1.9 |
| Nom. Diameter of Round Steel Wire | mm | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 3.15 | 3.15 |
| Nom. Thickness of Outer sheath | mm | 2.5 | 2.6 | 2.7 | 2.8 | 2.9 | 3.0 | 3.1 | 3.2 | 3.4 | 3.6 |
| Overall Diameter of cable | mm | 46.0 | 48.5 | 51.5 | 55.0 | 59.5 | 62.5 | 65.5 | 69.5 | 76.5 | 82.0 |
| Weight of cable, approximate | kg/km | 3755 | 4280 | 4870 | 5800 | 6905 | 7915 | 8965 | 10305 | 13260 | 15615 |

ELECTRICAL DATA

| | | | | | | | | | | | |
|--|----------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| AC Voltage test for 5 min. | kV | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 |
| Partial Discharge test at max. 10pC | kV | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 | 10.38 |
| DC Resistance at 20°C | Ω / km | 0.727 | 0.524 | 0.387 | 0.268 | 0.193 | 0.153 | 0.124 | 0.0991 | 0.0754 | 0.0601 |
| AC Resistance at 90°C | Ω / km | 0.927 | 0.668 | 0.494 | 0.342 | 0.247 | 0.196 | 0.159 | 0.128 | 0.0980 | 0.0791 |
| Insulation Resistance at 20°C | M Ω . km | 3000 | 2500 | 2500 | 2000 | 2000 | 2000 | 1500 | 1500 | 1500 | 1500 |
| Capacitance | mF / km | 0.211 | 0.236 | 0.257 | 0.291 | 0.330 | 0.357 | 0.386 | 0.421 | 0.468 | 0.518 |
| Inductance | mH / km | 0.384 | 0.632 | 0.347 | 0.328 | 0.311 | 0.302 | 0.293 | 0.284 | 0.274 | 0.266 |
| Reactance | Ω / km | 0.121 | 0.114 | 0.109 | 0.103 | 0.0977 | 0.0947 | 0.0920 | 0.0892 | 0.0862 | 0.0836 |
| Current Carrying Capacity **): | | | | | | | | | | | |
| - Buried direct in ground at 20°C | A | 129 | 154 | 181 | 220 | 263 | 298 | 332 | 374 | 431 | 482 |
| - In a Buried duct at 20°C | A | 112 | 134 | 158 | 194 | 232 | 264 | 296 | 335 | 387 | 435 |
| - In Air at 30°C | A | 143 | 172 | 205 | 253 | 307 | 352 | 397 | 453 | 529 | 599 |
| Short circuit current rating at 1 sec. (approx.) | kA | 3.58 | 5.01 | 7.15 | 10.01 | 13.59 | 17.16 | 21.45 | 26.46 | 34.32 | 42.90 |

*) Diameter compacted shape

**) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

Thermal Resistivity of earthenware ducts : 1.2 K.m/W

XLPE Insulated, Copper Tape Shielded, Galvanized Round Steel Wire and PVC Sheathed Cables

8.7 / 15 (17.5) kV XLPE / SWA / PVC 3 x (25 - 300) mm²

CONSTRUCTION DATA

| | | | | | | | | | | | |
|-------------------------------------|-----------------|------|------|------|------|------|------|-------|-------|-------|-------|
| No. of Core | - | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Nom. Cross-section area | mm ² | 25 | 35 | 50 | 70 | 95 | 120 | 150 | 185 | 240 | 300 |
| No. of Wire | - | 7 | 7 | 19 | 19 | 19 | 37 | 37 | 37 | 37 | 61 |
| Diameter of Conductor, approx. *) | mm | 5.9 | 7.1 | 8.1 | 9.7 | 11.6 | 12.9 | 14.3 | 16.0 | 18.3 | 20.7 |
| Nom. Thickness of Insulation | mm | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Nom. Thickness of Copper tape | mm | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Nom. Thickness of Separation Sheath | mm | 1.4 | 1.4 | 1.5 | 1.5 | 1.6 | 1.7 | 1.7 | 1.8 | 1.9 | 2.0 |
| Nom. Diameter of Round Steel Wire | mm | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 3.15 | 3.15 | 3.15 | 3.15 |
| Nom. Thickness of Outer sheath | mm | 2.6 | 2.7 | 2.8 | 2.9 | 3.1 | 3.2 | 3.3 | 3.4 | 3.6 | 3.8 |
| Overall Diameter of cable | mm | 51.0 | 54.0 | 56.5 | 60.0 | 64.5 | 67.5 | 72.0 | 76.0 | 81.5 | 87.5 |
| Weight of cable, approximate | kg/km | 4335 | 4840 | 5440 | 6380 | 7575 | 8540 | 10455 | 11885 | 14150 | 16450 |

ELECTRICAL DATA

| | | | | | | | | | | | |
|--|----------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| AC Voltage test for 5 min. | kV | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 |
| Partial Discharge test at max. 10pC | kV | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 | 15.1 |
| DC Resistance at 20°C | Ω / km | 0.727 | 0.524 | 0.387 | 0.268 | 0.193 | 0.153 | 0.124 | 0.0991 | 0.0754 | 0.0601 |
| AC Resistance at 90°C | Ω / km | 0.927 | 0.668 | 0.494 | 0.342 | 0.247 | 0.196 | 0.159 | 0.128 | 0.0979 | 0.0789 |
| Insulation Resistance at 20°C | M Ω . km | 3500 | 3000 | 3000 | 2500 | 2500 | 2000 | 2000 | 2000 | 1500 | 1500 |
| Capacitance | mF / km | 0.173 | 0.192 | 0.208 | 0.234 | 0.264 | 0.284 | 0.307 | 0.333 | 0.369 | 0.407 |
| Inductance | mH / km | 0.411 | 0.387 | 0.370 | 0.350 | 0.331 | 0.320 | 0.310 | 0.301 | 0.289 | 0.280 |
| Reactance | Ω / km | 0.129 | 0.121 | 0.116 | 0.110 | 0.104 | 0.101 | 0.0975 | 0.0944 | 0.0909 | 0.0879 |
| Current Carrying Capacity **): | | | | | | | | | | | |
| - Buried direct in ground at 20°C | A | 129 | 154 | 181 | 220 | 263 | 298 | 332 | 374 | 431 | 482 |
| - In a Buried duct at 20°C | A | 112 | 134 | 158 | 194 | 232 | 264 | 296 | 335 | 387 | 435 |
| - In Air at 30°C | A | 143 | 172 | 205 | 253 | 307 | 352 | 397 | 453 | 529 | 599 |
| Short circuit current rating at 1 sec. (approx.) | kA | 3.58 | 5.01 | 7.15 | 10.01 | 13.59 | 17.16 | 21.45 | 26.46 | 34.32 | 42.90 |

*) Diameter compacted shape

***) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

Thermal Resistivity of earthenware ducts : 1.2 K.m/W

XLPE Insulated, Copper Tape Shielded, Galvanized Round Steel Wire and PVC Sheathed Cables

12 / 20 (24) kV XLPE / SWA / PVC 3 x (35 - 300) mm²

CONSTRUCTION DATA

| | | | | | | | | | | |
|-------------------------------------|-----------------|------|------|------|------|-------|-------|-------|-------|-------|
| No. of Core | - | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Nom. Cross-section area | mm ² | 35 | 50 | 70 | 95 | 120 | 150 | 185 | 240 | 300 |
| No. of Wire | - | 7 | 19 | 19 | 19 | 37 | 37 | 37 | 37 | 61 |
| Diameter of Conductor, approx. *) | mm | 7.1 | 8.1 | 9.7 | 11.6 | 12.9 | 14.3 | 16.0 | 18.3 | 20.7 |
| Nom. Thickness of Insulation | mm | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 |
| Nom. Thickness of Copper tape | mm | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Nom. Thickness of Separation Sheath | mm | 1.5 | 1.6 | 1.6 | 1.7 | 1.8 | 1.8 | 1.9 | 2.0 | 2.1 |
| Nom. Diameter of Round Steel Wire | mm | 2.5 | 2.5 | 2.5 | 2.5 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| Nom. Thickness of Outer sheath | mm | 2.9 | 3.0 | 3.1 | 3.2 | 3.4 | 3.5 | 3.6 | 3.8 | 3.9 |
| Overall Diameter of cable | mm | 59.0 | 62.0 | 65.0 | 69.5 | 74.0 | 77.5 | 81.5 | 87.0 | 92.0 |
| Weight of cable, approximate | kg/km | 5495 | 6120 | 7055 | 8215 | 10030 | 11255 | 12715 | 14985 | 17345 |

ELECTRICAL DATA

| | | | | | | | | | | |
|--|----------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| AC Voltage test for 5 min. | kV | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 |
| Partial Discharge test at max. 10pC | kV | 20.76 | 20.76 | 20.76 | 20.76 | 20.76 | 20.76 | 20.76 | 20.76 | 20.76 |
| DC Resistance at 20°C | Ω / km | 0.524 | 0.387 | 0.268 | 0.193 | 0.153 | 0.124 | 0.0991 | 0.0754 | 0.0601 |
| AC Resistance at 90°C | Ω / km | 0.668 | 0.494 | 0.342 | 0.247 | 0.196 | 0.159 | 0.128 | 0.0978 | 0.0788 |
| Insulation Resistance at 20°C | M Ω . km | 3500 | 3500 | 3000 | 2500 | 2500 | 2500 | 2000 | 2000 | 2000 |
| Capacitance | mF / km | 0.165 | 0.178 | 0.199 | 0.224 | 0.240 | 0.258 | 0.279 | 0.309 | 0.339 |
| Inductance | mH / km | 0.408 | 0.391 | 0.369 | 0.349 | 0.337 | 0.327 | 0.316 | 0.303 | 0.293 |
| Reactance | Ω / km | 0.128 | 0.123 | 0.116 | 0.109 | 0.106 | 0.103 | 0.0991 | 0.0953 | 0.0920 |
| Current Carrying Capacity **): | | | | | | | | | | |
| - Buried direct in ground at 20°C | A | 154 | 181 | 220 | 263 | 298 | 332 | 374 | 431 | 482 |
| - In a Buried duct at 20°C | A | 134 | 158 | 194 | 232 | 264 | 296 | 335 | 387 | 435 |
| - In Air at 30°C | A | 172 | 205 | 253 | 307 | 352 | 397 | 453 | 529 | 599 |
| Short circuit current rating at 1 sec. (approx.) | kA | 5.01 | 7.15 | 10.01 | 13.59 | 17.16 | 21.45 | 26.46 | 34.32 | 42.90 |

*) Diameter compacted shape

**) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

Thermal Resistivity of earthenware ducts : 1.2 K.m/W

XLPE Insulated, Copper Tape Shielded, Galvanized Round Steel Wire and PVC Sheathed Cables

18 / 30 (36) kV XLPE / SWA / PVC 3 x (50 - 240) mm²

CONSTRUCTION DATA

| | | | | | | | | | |
|-------------------------------------|-----------------|------|------|-------|-------|-------|-------|-------|-------|
| No. of Core | - | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Nom. Cross-section area | mm ² | 50 | 70 | 95 | 120 | 150 | 185 | 240 | 300 |
| No. of Wire | - | 19 | 19 | 19 | 37 | 37 | 37 | 37 | 61 |
| Diameter of Conductor, approx. *) | mm | 8.1 | 9.7 | 11.6 | 12.9 | 14.3 | 16.0 | 18.3 | 20.7 |
| Nom. Thickness of Insulation | mm | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| Nom. Thickness of Copper tape | mm | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Nom. Thickness of Separation Sheath | mm | 1.8 | 1.8 | 1.9 | 2.0 | 2.0 | 2.1 | 2.2 | 2.3 |
| Nom. Diameter of Round Steel Wire | mm | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| Nom. Thickness of Outer sheath | mm | 3.4 | 3.5 | 3.7 | 3.8 | 3.9 | 4.0 | 4.2 | 4.3 |
| Overall Diameter of cable | mm | 75.0 | 78.5 | 83.0 | 86.5 | 89.5 | 93.5 | 99.0 | 105.0 |
| Weight of cable, approximate | kg/km | 8520 | 9570 | 10930 | 12070 | 13255 | 14845 | 17185 | 19685 |

ELECTRICAL DATA

| | | | | | | | | | |
|--|----------|-------|-------|-------|-------|-------|--------|--------|--------|
| AC Voltage test for 5 min. | kV | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 |
| Partial Discharge test at max. 10pC | kV | 31.1 | 31.1 | 31.1 | 31.1 | 31.1 | 31.1 | 31.1 | 31.1 |
| DC Resistance at 20°C | Ω / km | 0.387 | 0.268 | 0.193 | 0.153 | 0.124 | 0.0991 | 0.0754 | 0.0601 |
| AC Resistance at 90°C | Ω / km | 0.494 | 0.342 | 0.247 | 0.196 | 0.159 | 0.127 | 0.0976 | 0.0785 |
| Insulation Resistance at 20°C | M Ω . km | 4000 | 4000 | 3500 | 3500 | 3000 | 3000 | 2500 | 2500 |
| Capacitance | mF / km | 0.138 | 0.153 | 0.170 | 0.182 | 0.194 | 0.209 | 0.229 | 0.250 |
| Inductance | mH / km | 0.433 | 0.408 | 0.385 | 0.372 | 0.360 | 0.347 | 0.333 | 0.318 |
| Reactance | Ω / km | 0.136 | 0.128 | 0.121 | 0.117 | 0.113 | 0.109 | 0.105 | 0.100 |
| Current Carrying Capacity **): | | | | | | | | | |
| - Buried direct in ground at 20°C | A | 181 | 220 | 263 | 298 | 332 | 374 | 431 | 482 |
| - In a Buried duct at 20°C | A | 158 | 194 | 232 | 264 | 296 | 335 | 387 | 435 |
| - In Air at 30°C | A | 205 | 253 | 307 | 352 | 397 | 453 | 529 | 599 |
| Short circuit current rating at 1 sec. (approx.) | kA | 7.15 | 10.01 | 13.59 | 17.16 | 21.45 | 26.46 | 34.32 | 42.90 |

*) Diameter compacted shape

**) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

Thermal Resistivity of earthenware ducts : 1.2 K.m/W