# POWER CABLE FOR SOLAR

## AC Power Cable for Solar Project
## 太陽光発電システム用 AC 電力ケーブル

**Standards :**

0.6/1 KV XLPE insulated power cable is manufactured according to insulated power cable and accessories with rated voltage from lkV to 35kV"of GB/T12706-2008. Meanwhile, product can still be manufactured according to IEC, BS, DIN and American standard if client requests.

**製品標準：**

GB / T12706-2008 ( 1kVから35kVまで ) に従って、0.6/1kV XLPE 絶縁電力ケーブルが製造されています。IEC、BS、DINおよびアメリカの標準に従って、製品を製造することができます。そして、顧客が要求すれば製造できます。

**Applications :**

For laying indoors and outdoors. Able to bear certain traction during installation, but not external mechanical forces. Laying single core cable in magnetic ducts is not allowed.

**応用：**

屋内や屋外で敷設するためのものです。取り付け中に一定の牽引力に耐えることができますが、外部の機械的な力には耐えられません。単芯ケーブルを磁気ダクトに敷設することはできません。

**Operating Characteristics :**

Rated Voltage Uo/U : 0.6/1kV
The Test Voltage(AC) : 3.5KV/5min
Max admissible operating temperature of conductor : 90℃
Max. Short-circuit temperature of the conductor shall not exceeding 250℃ (Max. sustain period not exceeding 5S
The installation temperature should not be below 0℃
The bending radius of cable should not less than 15 times
Fire-Resistant Test : IEC 60332-1/EN50265-2-1
International Standard : IEC 60502, IEC 60228
Other standards such as BS, DIN and ICEA upon request

**使用特性：**

定格電圧：Uo/U：0.6/1kV
試験電圧：3.5KV/5min
導体最高工作温度：90℃
短路使用温度：+250℃ 5S
インストール最低温度：0℃
仕上がりケーブル曲げ半径
耐火試験：IEC 60332
国際標準：IEC
他の標準

## Cables and accessories for photovoltaic systems

1 SOLAR CABLE (Interconnection of panels and solar park)
2Low Voltage Cable (Direct current low voltage network)
3 Solar Connector (Alternating current low voltage network)
4 Medium voltage (Medium voltage network)
5 Cat5/CAT6 Cable + optical fiber (Communication network)

### Application of photovoltaic cable

### 1、The Standards of PV Cable

Common photovoltaic cable standards and differences are shown in the table 1.1. The userselects the corresponding product model according to the license issuing agency approved by your country and the voltage of photovoltaic power generation system.

| ITEM | 2 PfG 2642 | IEC62930 | En50618 | Ul4703 | 2 PfG 1169 |
|---|---|---|---|---|---|
| TYPE | PV1500DC-AL | IEC 131,132** | H1Z2Z2-K | PV Wire | PV1-F |
| Publisher | TUV Rheinland | IEC | CENELEC | UL | TUV Rheinland |
| Rated Voltage | 1500V | 1500V | 1500V | 1000/2000V | 1000V |
| Part. No | PVENER-V1/V2/V3 | PV-IEC62-** | PV-H1-** | PV-UL-** | PV-F1-** |

### 2、Main characteristics of photovoltaic cable.

2.1 Allow long term use in the sun.
2.2 Applicable ambient temperature -40 °C ~ +90 °C.
2.3 The service life should be more than 20 years.
2.4 Except 62930 IEC 133/134, other types of PV cables are made of low smoke halogen-free, flame retardant polyolefin.

### 3、Current carrying capacity of photovoltaic cable

The current carrying capacity of common photovoltaic cables shall meet the requirements of table A.3, and the actual current shall be less than the data in the third column in solar system.

| Nominal cross-sectional area mm² | Current carrying capacity according to method of installation: Single cable free in air A | Single cable on a surface A | Two loaded cables touching, on a surface A |
|---|---|---|---|
| 1,5 | 30 | 29 | 24 |
| 2,5 | 41 | 39 | 33 |
| 4 | 55 | 52 | 44 |
| 6 | 70 | 67 | 57 |
| 10 | 98 | 93 | 79 |
| 16 | 132 | 125 | 107 |
| 25 | 176 | 167 | 142 |
| 35 | 218 | 207 | 176 |
| 50 | 276 | 262 | 221 |
| 70 | 347 | 330 | 279 |
| 95 | 416 | 395 | 333 |
| 120 | 488 | 464 | 390 |
| 150 | 566 | 538 | 453 |
| 185 | 644 | 612 | 515 |
| 240 | 775 | 736 | 620 |

Ambient temperature 60°C(see Table A.4 for other ambient temperatures) max. conductor temperature: 120°C.

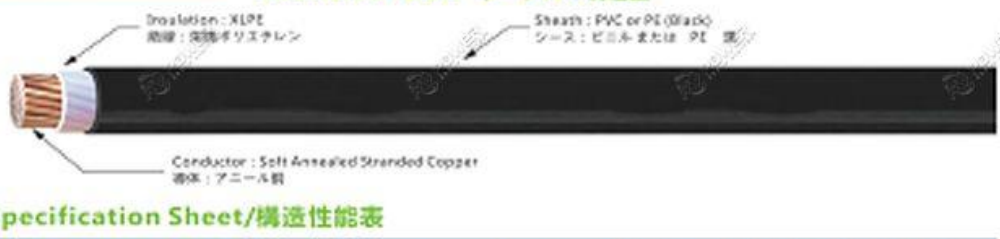
NOTE The expected period of use at a max.conductor temperature of 120 C and at a max. ambient temperature of 90°C is limited to 20 000 h.

## AC 0.6/1KV 1 Core Power Cable

**Approvals 製品認証**

AC 0.6/1KV DC 1.5KV CU(AL)/XLPE/PVC Power Cable
AC 0.6/1KV ,DC 1.5KV 銅(アルミ)XLPE 絶縁, PVC/PE シース パワーケーブル 電力ケーブル

**Structure of Cable ケーブルの構造図**


Insulation : XLPE
絶縁：架橋ポリエチレン
Sheath : PVC or PE (Black)
シース：ビニル または PE 黒
Conductor : Soft Annealed Stranded Copper
導体：アニール銅

**Specification Sheet/構造性能表**

| Size 規格 (n/mm²) | Diameter of Conductor 導体直径 (mm) | Insulation Thickness 絶縁厚さ (mm) | Sheath Thickness シース厚さ (mm) | Finished Cable 仕上がり品外径 OD. (mm) | Approx Weight 重量 (kg/km) CU | AL | Conductor Max DC Resistance 最大導体抵抗 at 20°C (Ω/KM) CU | AL | Current Carring Capacity at 60°C 許容電流(Amp) In Air CU | AL | Direct in Soil CU | AL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1×1.5 | 3.4 | 0.7 | 1.4 | 5.6 | 47 | 38 | 12.1 | | 21A | | 36A | |
| 1×2.5 | 1.8 | 0.7 | 1.4 | 6.0 | 59 | 46 | 7.41 | 12.1 | 31A | 24A | 46A | 36A |
| 1×4 | 2.3 | 0.7 | 1.4 | 6.5 | 77 | 58 | 4.61 | 7.41 | 41A | 32A | 59A | 47A |
| 1×6 | 2.8 | 0.7 | 1.4 | 7.0 | 100 | 63 | 3.08 | 4.61 | 52A | 42A | 74A | 60A |
| 1×10 | 4.1 | 0.7 | 1.4 | 8.5 | 157 | 94 | 1.83 | 3.08 | 71A | 55A | 98A | 75A |
| 1×16 | 5.1 | 0.7 | 1.4 | 9.3 | 221 | 121 | 1.15 | 1.91 | 92A | 71A | 125A | 97A |
| 1×25 | 6.4 | 0.9 | 1.4 | 11.0 | 334 | 175 | 0.727 | 1.20 | 120A | 94A | 160A | 125A |
| 1×35 | 7.0 | 0.9 | 1.4 | 11.6 | 435 | 215 | 0.524 | 0.868 | 150A | 115A | 190A | 150A |
| 1×50 | 8.3 | 1.0 | 1.4 | 13.1 | 576 | 278 | 0.387 | 0.641 | 180A | 140A | 230A | 175A |
| 1×70 | 9.8 | 1.1 | 1.4 | 14.8 | 793 | 362 | 0.268 | 0.443 | 230A | 180A | 280A | 215A |
| 1×95 | 11.5 | 1.1 | 1.5 | 16.7 | 1066 | 468 | 0.193 | 0.320 | 285A | 220A | 335A | 260A |
| 1×120 | 13.0 | 1.2 | 1.5 | 18.4 | 1321 | 539 | 0.153 | 0.253 | 335A | 260A | 385A | 295A |
| 1×150 | 14.5 | 1.4 | 1.6 | 20.5 | 1606 | 658 | 0.124 | 0.206 | 385A | 300A | 430A | 335A |
| 1×185 | 16.1 | 1.6 | 1.7 | 22.7 | 1868 | 763 | 0.0991 | 0.164 | 450A | 350A | 490A | 380A |
| 1×240 | 18.4 | 1.7 | 1.8 | 25.4 | 2399 | 952 | 0.0754 | 0.125 | 535A | 414A | 570A | 445A |
| 1×300 | 20.6 | 1.8 | 1.8 | 27.8 | 3028 | 1172 | 0.0601 | 0.100 | 620A | 485A | 645A | 505A |
| 1×400 | 23.5 | 2.0 | 2.0 | 31.5 | 3888 | 1478 | 0.0470 | 0.0778 | 720A | 570A | 735A | 665A |
| 1×500 | 26.5 | 2.2 | 2.1 | 35.1 | 4996 | 1861 | 0.0366 | 0.0606 | 835A | 670A | 840A | 757A |
| 1×630 | 30.0 | 2.4 | 2.2 | 39.2 | 6306 | 2372 | 0.0283 | 0.0469 | 950A | 760A | 960A | 790A |

**Marking/マーキング (1X4mm²)**

0.6/1KV CU XLPE Insulation PVC Sheath 1X4mm² Power Cable 0000m,0001m,0002m.........Meter

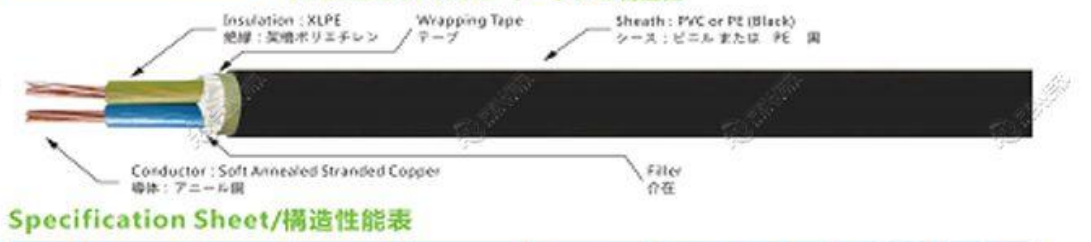
| Technical Specification : | | 技術データー | |
|---|---|---|---|
| Rated Voltage: | AC 600V/1000V,DC 1500V | 定格電圧： | AC 600V/1000V,DC 1500V |
| Test Voltage: | AC 3.5KV,5Min | 試験電圧： | 交流 3.5KV，5分 |
| Ambient Temperature: | -15℃ upto +90℃ | 環境温度： | -15℃ ~ +90℃ |
| Conductor: | Compact Stranded Copper (Aluminum)As Per IEC 60228 | 導体: | アニール銅 (AL アルミ) IEC 60228 |
| Insulation: | XLPE (Cross-Linked Polyethylene) Rated at 90℃ | 絶縁: | XLPE (架橋ポリエチレン) 90℃で |
| Sheath: | PVC or PE (Flame Resistant) | シース: | PVC または PE (難燃性) |
| Max.Permissible Operating Temperature of Conductor: | Under Normal (90℃), Emergency (130℃) | 導体最高温度: | 普通 (90℃), 緊急 (130℃) |
| The Installation Temperature Should Not Be Below | No More Than 5 Second (250℃) Conditions | 短路使用温度: | +250℃ 5S |
| Max.Conductor Temperature in short circuit: | +0℃ | インストール最低温度: | +0℃ |
| Bebding Radius: | 20 X Cable O.D for Single Core | 曲げ半径: | 20 X ケーブル 仕上がり外径 |
| Fire-Resistant Test: | IEC 60332-1/EN50265-2-1 | 耐火試験: | IEC 60332-1/EN50265-2-1 |
| Low-Temperature Test: | IEC 60811-1-4 | 低温試験: | IEC 60811-1-4 |
| Approvals: | IEC 60502, IEC 60228 | 執行標準: | IEC 60502, IEC 60228 |

## AC 0.6/1KV 2 Core Power Cable

**Approvals 製品認証**

AC 0.6/1KV DC 1.5KV CU(AL)/XLPE/PVC Power Cable
AC 0.6/1KV ,DC 1.5KV 銅(アルミ)XLPE 絶縁, PVC/PE シース パワーケーブル 電力ケーブル

**Structure of Cable ケーブルの構造図**


Insulation : XLPE
絶縁：架橋ポリエチレン
Wrapping Tape
テープ
Sheath : PVC or PE (Black)
シース：ビニル または PE 黒
Conductor : Soft Annealed Stranded Copper
導体：アニール銅
Filler
介在

**Specification Sheet/構造性能表**

| Size 規格 (n/mm²) | Diameter of Conductor 導体直径 (mm) | Insulation Thickness 絶縁厚さ (mm) | Sheath Thickness シース厚さ (mm) | Finished Cable 仕上がり品外径 OD. (mm) | Approx Weight 重量 (kg/km) CU | AL | Conductor Max DC Resistance 最大導体抵抗 at 20°C (Ω/KM) CU | AL | Current Carring Capacity at 60°C 許容電流(Amp) In Air CU | AL | Direct in Soil CU | AL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2×1.5 | 1.4 | 0.7 | 1.8 | 10.4 | 116 | 97 | 12.1 | | 21A | | 36A | |
| 2×2.5 | 1.8 | 0.7 | 1.8 | 11.2 | 145 | 113 | 7.41 | 12.1 | 31A | 24A | 46A | 36A |
| 2×4 | 2.3 | 0.7 | 1.8 | 12.2 | 185 | 135 | 4.61 | 7.41 | 41A | 32A | 59A | 47A |
| 2×6 | 2.8 | 0.7 | 1.8 | 13.2 | 236 | 161 | 3.08 | 4.61 | 52A | 42A | 74A | 60A |
| 2×10 | 4.1 | 0.7 | 1.8 | 15.8 | 348 | 221 | 1.83 | 3.08 | 71A | 55A | 98A | 75A |
| 2×16 | 5.1 | 0.7 | 1.8 | 17.8 | 487 | 286 | 1.15 | 1.91 | 92A | 71A | 125A | 97A |
| 2×25 | 6.4 | 0.9 | 1.8 | 21.2 | 718 | 402 | 0.727 | 1.20 | 120A | 94A | 160A | 125A |
| 2×35 | 7.0 | 0.9 | 1.8 | 22.4 | 907 | 480 | 0.524 | 0.868 | 150A | 115A | 190A | 150A |
| 2×50 | 8.3 | 1.0 | 1.8 | 25.4 | 1189 | 605 | 0.387 | 0.641 | 180A | 140A | 230A | 175A |
| 2×70 | 9.8 | 1.1 | 1.8 | 28.8 | 1642 | 796 | 0.268 | 0.443 | 230A | 180A | 280A | 215A |
| 2×95 | 11.5 | 1.1 | 2.0 | 32.6 | 2220 | 1041 | 0.193 | 0.320 | 285A | 220A | 335A | 260A |
| 2×120 | 13.0 | 1.2 | 2.1 | 36.2 | 2769 | 1282 | 0.153 | 0.253 | 335A | 260A | 385A | 295A |
| 2×150 | 14.5 | 1.4 | 2.2 | 40.2 | 3398 | 1570 | 0.124 | 0.206 | 385A | 300A | 430A | 335A |
| 2×185 | 16.1 | 1.6 | 2.3 | 44.4 | 4142 | 1926 | 0.0991 | 0.164 | 450A | 350A | 490A | 380A |
| 2×240 | 18.4 | 1.7 | 2.5 | 49.8 | 5478 | 2455 | 0.0754 | 0.125 | 535A | 414A | 570A | 445A |
| 2×300 | 20.6 | 1.8 | 2.7 | 55.0 | 6804 | 3076 | 0.0601 | 0.100 | 620A | 485A | 645A | 505A |
| 2×400 | 23.5 | 2.0 | 2.9 | 62.0 | 8654 | 3814 | 0.0470 | 0.0778 | 720A | 570A | 735A | 665A |

**Marking/マーキング (2X4mm²)**

0.6/1KV CU XLPE Insulation PVC Sheath 2X4mm² Power Cable 0000m,0001m,0002m.........Meter

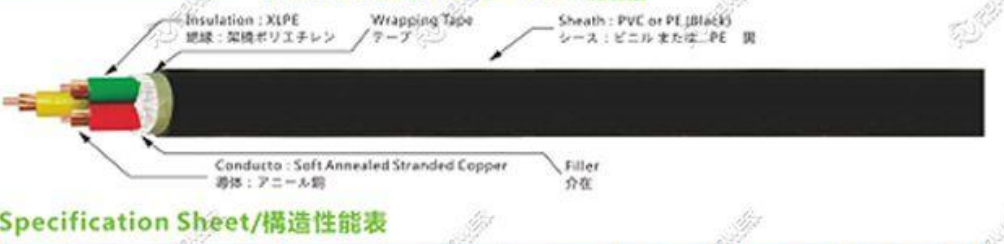
| Technical Specification : | | 技術データー | |
|---|---|---|---|
| Rated Voltage: | AC 600V/1000V,DC 1500V | 定格電圧： | AC 600V/1000V,DC 1500V |
| Test Voltage: | AC 3.5KV,5Min | 試験電圧： | 交流 3.5KV，5分 |
| Ambient Temperature: | -15℃ upto +90℃ | 環境温度： | -15℃ ~ +90℃ |
| Conductor: | Compact Stranded Copper (Aluminum)As Per IEC 60228 | 導体: | アニール銅 (AL アルミ) IEC 60228 |
| Insulation: | XLPE (Cross-Linked Polyethylene) Rated at 90℃ | 絶縁: | XLPE (架橋ポリエチレン) 90℃で |
| Sheath: | PVC or PE (Flame Resistant) | シース: | PVC または PE (難燃性) |
| Max.Permissible Operating Temperature of Conductor: | Under Normal (90℃), Emergency (130℃) | 導体最高温度: | 普通 (90℃), 緊急 (130℃) |
| The Installation Temperature Should Not Be Below | No More Than 5 Second (250℃) Conditions | 短路使用温度: | +250℃ 5S |
| Max.Conductor Temperature in short circuit: | +0℃ | インストール最低温度: | +0℃ |
| Bebding Radius: | 15 X Cable O.D for Single Core | 曲げ半径: | 15 X ケーブル 仕上がり外径 |
| Fire-Resistant Test: | IEC 60332-1/EN50265-2-1 | 耐火試験: | IEC 60332-1/EN50265-2-1 |
| Low-Temperature Test: | IEC 60811-1-4 | 低温試験: | IEC 60811-1-4 |
| Approvals: | IEC 60502, IEC 60228 | 執行標準: | IEC 60502, IEC 60228 |

## AC 0.6/1KV 3 Core Power Cable

**Approvals 製品認証**

AC 0.6/1KV DC 1.5KV CU(AL)/XLPE/PVC Power Cable
AC 0.6/1KV ,DC 1.5KV 銅(アルミ)XLPE 絶縁, PVC/PE シース パワーケーブル 電力ケーブル

**Structure of Cable ケーブルの構造図**


Insulation : XLPE
絶縁：架橋ポリエチレン
Wrapping Tape
テープ
Sheath : PVC or PE (Black)
シース：ビニル または PE 黒
Conducto : Soft Annealed Stranded Copper
導体：アニール銅
Filler
介在

**Specification Sheet/構造性能表**

| Size 規格 (n/mm²) | Diameter of Conductor 導体直径 (mm) | Insulation Thickness 絶縁厚さ (mm) | Sheath Thickness シース厚さ (mm) | Finished Cable 仕上がり品外径 OD. (mm) | Approx Weight 重量 (kg/km) CU | AL | Conductor Max DC Resistance 最大導体抵抗 at 20°C (Ω/KM) CU | AL | Current Carring Capacity at 60°C 許容電流(Amp) In Air CU | AL | Direct in Soil CU | AL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3×1.5 | 1.4 | 0.7 | 1.8 | 10.8 | 137 | 109 | 12.1 | | 21A | | 36A | |
| 3×2.5 | 1.8 | 0.7 | 1.8 | 11.7 | 176 | 129 | 7.41 | 12.1 | 31A | 24A | 46A | 36A |
| 3×4 | 2.3 | 0.7 | 1.8 | 12.8 | 232 | 157 | 4.61 | 7.41 | 41A | 32A | 59A | 47A |
| 3×6 | 2.8 | 0.7 | 1.8 | 13.9 | 303 | 190 | 3.08 | 4.61 | 52A | 42A | 74A | 60A |
| 3×10 | 4.1 | 0.7 | 1.8 | 16.7 | 454 | 265 | 1.83 | 3.08 | 71A | 55A | 98A | 75A |
| 3×16 | 5.1 | 0.7 | 1.8 | 18.8 | 687 | 346 | 1.15 | 1.91 | 92A | 71A | 125A | 97A |
| 3×25 | 6.4 | 0.9 | 1.8 | 22.5 | 970 | 494 | 0.727 | 1.20 | 120A | 94A | 160A | 125A |
| 3×35 | 7.0 | 0.9 | 1.8 | 23.8 | 1246 | 593 | 0.524 | 0.868 | 150A | 115A | 190A | 150A |
| 3×50 | 8.3 | 1.0 | 1.8 | 27.0 | 1640 | 760 | 0.387 | 0.641 | 180A | 140A | 230A | 175A |
| 3×70 | 9.8 | 1.1 | 1.9 | 30.9 | 2306 | 1028 | 0.268 | 0.443 | 230A | 180A | 280A | 215A |
| 3×95 | 11.5 | 1.1 | 2.0 | 34.8 | 3107 | 1340 | 0.193 | 0.320 | 285A | 220A | 335A | 260A |
| 3×120 | 13.0 | 1.2 | 2.1 | 38.7 | 3886 | 1656 | 0.153 | 0.253 | 335A | 260A | 385A | 295A |
| 3×150 | 14.5 | 1.4 | 2.3 | 43.2 | 4802 | 2050 | 0.124 | 0.206 | 385A | 300A | 430A | 335A |
| 3×185 | 16.1 | 1.6 | 2.4 | 47.7 | 5965 | 2522 | 0.0991 | 0.164 | 450A | 350A | 490A | 380A |
| 3×240 | 18.4 | 1.7 | 2.6 | 53.5 | 7748 | 3222 | 0.0754 | 0.125 | 535A | 414A | 570A | 445A |
| 3×300 | 20.6 | 1.8 | 2.8 | 59.1 | 9646 | 3969 | 0.0601 | 0.100 | 620A | 485A | 645A | 505A |
| 3×400 | 23.5 | 2.0 | 3.1 | 66.8 | 12306 | 5046 | 0.0470 | 0.0778 | 720A | 570A | 735A | 665A |

**Marking/マーキング (3X4mm²)**

0.6/1KV CU XLPE Insulation PVC Sheath 3X4mm² Power Cable 0000m,0001m,0002m.........Meter

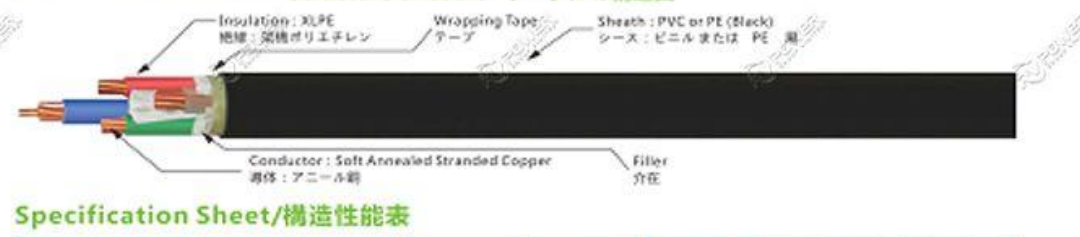
| Technical Specification : | | 技術データー | |
|---|---|---|---|
| Rated Voltage: | AC 600V/1000V,DC 1500V | 定格電圧： | AC 600V/1000V,DC 1500V |
| Test Voltage: | AC 3.5KV,5Min | 試験電圧： | 交流 3.5KV，5分 |
| Ambient Temperature: | -15℃ upto +90℃ | 環境温度： | -15℃ ~ +90℃ |
| Conductor: | Compact Stranded Copper (Aluminum)As Per IEC 60228 | 導体: | アニール銅 (AL アルミ) IEC 60228 |
| Insulation: | XLPE (Cross-Linked Polyethylene) Rated at 90℃ | 絶縁: | XLPE (架橋ポリエチレン) 90℃で |
| Sheath: | PVC or PE (Flame Resistant) | シース: | PVC または PE (難燃性) |
| Max.Permissible Operating Temperature of Conductor: | Under Normal (90℃), Emergency (130℃) | 導体最高温度: | 普通 (90℃), 緊急 (130℃) |
| The Installation Temperature Should Not Be Below | No More Than 5 Second (250℃) Conditions | 短路使用温度: | +250℃ 5S |
| Max.Conductor Temperature in short circuit: | +0℃ | インストール最低温度: | +0℃ |
| Bebding Radius: | 15X Cable O.D for Single Core | 曲げ半径: | 15 X ケーブル 仕上がり外径 |
| Fire-Resistant Test: | IEC 60332-1/EN50265-2-1 | 耐火試験: | IEC 60332-1/EN50265-2-1 |
| Low-Temperature Test: | IEC 60811-1-4 | 低温試験: | IEC 60811-1-4 |
| Approvals: | IEC 60502, IEC 60228 | 執行標準: | IEC 60502, IEC 60228 |

## AC 0.6/1KV 4 Core Power Cable

**Approvals 製品認証**

AC 0.6/1KV DC 1.5KV CU(AL)/XLPE/PVC Power Cable
AC 0.6/1KV ,DC 1.5KV 銅(アルミ)XLPE 絶縁, PVC/PE シース パワーケーブル 電力ケーブル

**Structure of Cable ケーブルの構造図**


Insulation : XLPE
絶縁：架橋ポリエチレン
Wrapping Tape
テープ
Sheath : PVC or PE (Black)
シース：ビニル または PE 黒
Conductor : Soft Annealed Stranded Copper
導体：アニール銅
Filler
介在

**Specification Sheet/構造性能表**

| Size 規格 (n/mm²) | Diameter of Conductor 導体直径 (mm) | Insulation Thickness 絶縁厚さ (mm) | Sheath Thickness シース厚さ (mm) | Finished Cable 仕上がり品外径 OD. (mm) | Approx Weight 重量 (kg/km) CU | AL | Conductor Max DC Resistance 最大導体抵抗 at 20°C (Ω/KM) CU | AL | Current Carring Capacity at 60°C 許容電流(Amp) In Air CU | AL | Direct in Soil CU | AL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4×1.5 | 1.4 | 0.7 | 1.8 | 11.6 | 164 | 126 | 12.1 | | 21A | | 36A | |
| 4×2.5 | 1.8 | 0.7 | 1.8 | 12.5 | 212 | 150 | 7.41 | 12.1 | 31A | 24A | 46A | 36A |
| 4×4 | 2.3 | 0.7 | 1.8 | 13.8 | 285 | 185 | 4.61 | 7.41 | 41A | 32A | 59A | 47A |
| 4×6 | 2.8 | 0.7 | 1.8 | 15.0 | 377 | 225 | 3.08 | 4.61 | 52A | 42A | 74A | 60A |
| 4×10 | 4.1 | 0.7 | 1.8 | 18.1 | 571 | 318 | 1.83 | 3.08 | 71A | 55A | 98A | 75A |
| 4×16 | 5.1 | 0.7 | 1.8 | 20.5 | 824 | 422 | 1.15 | 1.91 | 92A | 71A | 125A | 97A |
| 4×25 | 6.4 | 0.9 | 1.8 | 24.6 | 1241 | 607 | 0.727 | 1.20 | 128A | 94A | 160A | 125A |
| 4×35 | 7.0 | 0.9 | 1.8 | 26.1 | 1603 | 737 | 0.524 | 0.868 | 150A | 115A | 190A | 150A |
| 4×50 | 8.3 | 1.0 | 1.9 | 29.9 | 2136 | 964 | 0.387 | 0.641 | 180A | 140A | 230A | 175A |
| 4×70 | 9.8 | 1.1 | 2.0 | 34.2 | 3003 | 1305 | 0.268 | 0.443 | 230A | 180A | 280A | 215A |
| 4×95 | 11.5 | 1.1 | 2.1 | 38.6 | 4065 | 1707 | 0.193 | 0.320 | 285A | 220A | 335A | 260A |
| 4×120 | 13.0 | 1.2 | 2.3 | 43.1 | 5106 | 2130 | 0.153 | 0.253 | 335A | 260A | 385A | 295A |
| 4×150 | 14.5 | 1.4 | 2.4 | 47.9 | 6282 | 2613 | 0.124 | 0.206 | 385A | 300A | 430A | 335A |
| 4×185 | 16.1 | 1.6 | 2.6 | 53.1 | 7832 | 3241 | 0.0991 | 0.164 | 450A | 350A | 490A | 380A |
| 4×240 | 18.4 | 1.7 | 2.8 | 59.6 | 10180 | 4145 | 0.0754 | 0.125 | 535A | 414A | 570A | 445A |
| 4×300 | 20.6 | 1.8 | 3.0 | 65.8 | 12673 | 5103 | 0.0601 | 0.100 | 620A | 485A | 645A | 505A |
| 4×400 | 23.5 | 2.0 | 3.3 | 74.4 | 16166 | 6486 | 0.0470 | 0.0778 | 720A | 570A | 735A | 665A |

**Marking/マーキング (4X4mm²)**

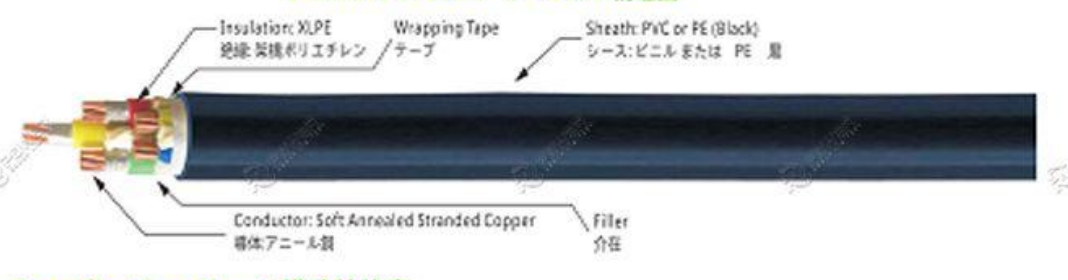
0.6/1KV CU XLPE Insulation PVC Sheath 4X4mm² Power Cable 0000m,0001m,0002m.........Meter

| Technical Specification : | | 技術データー | |
|---|---|---|---|
| Rated Voltage: | AC 600V/1000V,DC 1500V | 定格電圧： | AC 600V/1000V,DC 1500V |
| Test Voltage: | AC 3.5KV,5Min | 試験電圧： | 交流 3.5KV，5分 |
| Ambient Temperature: | -15℃ upto +90℃ | 環境温度： | -15℃ ~ +90℃ |
| Conductor: | Compact Stranded Copper (Aluminum)As Per IEC 60228 | 導体: | アニール銅 (AL アルミ) IEC 60228 |
| Insulation: | XLPE (Cross-Linked Polyethylene) Rated at 90℃ | 絶縁: | XLPE (架橋ポリエチレン) 90℃で |
| Sheath: | PVC or PE (Flame Resistant) | シース: | PVC または PE (難燃性) |
| Max.Permissible Operating Temperature of Conductor: | Under Normal (90℃), Emergency (130℃) | 導体最高温度: | 普通 (90℃), 緊急 (130℃) |
| The Installation Temperature Should Not Be Below | No More Than 5 Second (250℃) Conditions | 短路使用温度: | +250℃ 5S |
| Max.Conductor Temperature in short circuit: | +0℃ | インストール最低温度: | +0℃ |
| Bebding Radius: | 20 X Cable O.D for Single Core | 曲げ半径: | 15 X ケーブル 仕上がり外径 |
| Fire-Resistant Test: | IEC 60332-1/EN50265-2-1 | 耐火試験: | IEC 60332-1/EN50265-2-1 |
| Low-Temperature Test: | IEC 60811-1-4 | 低温試験: | IEC 60811-1-4 |
| Approvals: | IEC 60502, IEC 60228 | 執行標準: | IEC 60502, IEC 60228 |

## AC 0.6/1KV 5 Core Power Cable

AC 0.6/1KV DC 1.5KV CU(AL)/XLPE/PVC Power Cable
AC 0.6/1KV ,DC 1.5KV 銅(アルミ)XLPE 絶縁,PVC/PE シース パワーケーブル 電力ケーブル

**Structure of Cable ケーブルの構造図**


Insulation: XLPE
絶縁: 架橋ポリエチレン
Wrapping Tape
テープ
Sheath: PVC or PE (Black)
シース: ビニル または PE 黒
Conductor: Soft Annealed Stranded Copper
導体:アニール銅
Filler
介在

**Specification Sheet/構造性能表**

| Size 規格 (n/mm²) | Diameter of Conductor 導体直径 (mm) | Insulation Thickness 絶縁厚さ (mm) | Sheath Thickness シース厚さ (mm) | Finished Cable 仕上がり品外径 OD. (mm) | Approx Weight 重量 (kg/km) CU | AL | Conductor Max DC Resistance 最大導体抵抗 at 20°C (Ω/KM) CU | AL | Current Carring Capacity at 60°C 許容電流(Amp) In Air CU | AL | Direct in Soil CU | AL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5×1.5 | 1.4 | 0.7 | 1.8 | 12.4 | 191 | 144 | 12.1 | | 21A | | 36A | |
| 5×2.5 | 1.8 | 0.7 | 1.8 | 13.4 | 250 | 172 | 7.41 | 12.1 | 31A | 24A | 46A | 36A |
| 5×4 | 2.3 | 0.7 | 1.8 | 14.8 | 339 | 214 | 4.61 | 7.41 | 41A | 32A | 59A | 47A |
| 5×6 | 2.8 | 0.7 | 1.8 | 16.1 | 451 | 262 | 3.08 | 4.61 | 52A | 42A | 74A | 60A |
| 5×10 | 4.1 | 0.7 | 1.8 | 19.7 | 693 | 377 | 1.83 | 3.08 | 71A | 55A | 98A | 75A |
| 5×16 | 5.1 | 0.7 | 1.8 | 22.4 | 1007 | 504 | 1.15 | 1.91 | 92A | 71A | 125A | 97A |
| 5×25 | 6.4 | 0.9 | 1.8 | 26.9 | 1522 | 730 | 0.727 | 1.20 | 120A | 94A | 160A | 125A |
| 5×35 | 7.0 | 0.9 | 1.8 | 28.6 | 1973 | 891 | 0.524 | 0.868 | 150A | 115A | 190A | 150A |
| 5×50 | 8.3 | 1.0 | 2.0 | 33.0 | 2646 | 1180 | 0.387 | 0.641 | 180A | 140A | 230A | 175A |
| 5×70 | 9.8 | 1.1 | 2.1 | 37.8 | 3725 | 1603 | 0.268 | 0.443 | 230A | 180A | 280A | 215A |
| 5×95 | 11.5 | 1.1 | 2.3 | 42.8 | 5062 | 2115 | 0.193 | 0.320 | 285A | 220A | 335A | 260A |
| 5×120 | 13.0 | 1.2 | 2.4 | 47.6 | 6333 | 2616 | 0.153 | 0.253 | 335A | 260A | 385A | 295A |
| 5×150 | 14.5 | 1.4 | 2.6 | 53.1 | 7820 | 3233 | 0.124 | 0.206 | 385A | 300A | 430A | 335A |
| 5×185 | 16.1 | 1.6 | 2.8 | 58.9 | 9749 | 4011 | 0.0991 | 0.164 | 450A | 350A | 490A | 380A |
| 5×240 | 18.4 | 1.7 | 3.0 | 66.1 | 12670 | 5128 | 0.0754 | 0.125 | 535A | 414A | 570A | 445A |
| 5×300 | 20.6 | 1.8 | 3.2 | 73.0 | 15776 | 6313 | 0.0601 | 0.100 | 620A | 485A | 645A | 505A |
| 5×400 | 23.5 | 2.0 | 3.6 | 82.7 | 20154 | 8054 | 0.0470 | 0.0778 | 720A | 570A | 735A | 665A |

**Marking/マーキング (5X4mm²)**

0.6/1KV CU XLPE Insulation PVC Sheath 5X4mm² Power Cable 0000m,0001m,0002m.........Meter

| Technical Specification : | | 技術データー | |
|---|---|---|---|
| Rated Voltage: | AC 600V/1000V,DC 1500V | 定格電圧： | AC 600V/1000V,DC 1500V |
| Test Voltage: | AC 3.5KV,5Min | 試験電圧： | 交流 3.5KV，5分 |
| Ambient Temperature: | -15℃ upto +90℃ | 環境温度： | -15℃ ~ +90℃ |
| Conductor: | Compact Stranded Copper (Aluminum)As Per IEC 60228 | 導体: | アニール銅 (AL アルミ) IEC 60228 |
| Insulation: | XLPE (Cross-Linked Polyethylene) Rated at 90℃ | 絶縁: | XLPE (架橋ポリエチレン) 90℃で |
| Sheath: | PVC or PE (Flame Resistant) | シース: | PVC または PE (耐火) |
| Max.Permissible Operating Temperature of Conductor: | Under Normal (90℃), Emergency (130℃) | 導体最高温度: | 普通 (90℃), 緊急 (130℃) |
| The Installation Temperature Should Not Be Below | No More Than 5 Second (250℃) Conditions | 短路使用温度: | +250℃ 5S |
| Max.Conductor Temperature in short circuit: | +0℃ | インストール最低温度: | +0℃ |
| Bebding Radius: | 15X Cable O.D for Single Core | 曲げ半径: | 15 X ケーブル 仕上がり外径 |
| Fire-Resistant Test: | IEC 60332-1/EN50265-2-1 | 耐火試験: | IEC 60332-1/EN50265-2-1 |
| Low-Temperature Test: | IEC 60811-1-4 | 低温試験: | IEC 60811-1-4 |
| Approvals: | IEC 60502, IEC 60228 | 執行標準: | IEC 60502, IEC 60228 |

## POWERFLEX RV-K

### APPLICATION

Powerflex RV-K cable is suitable for all types of low voltage industrial-type connections, in urban grids, building installations, etc. Its high flexibility makes the installation process substantially easier and, as a result, is particularly suitable for use in difficult layouts. It can be buried or installed in a tube as well as outdoors without requiring additional protection.

**CONSTRUCTION**

Conductor
Electrolytic annealed copper conductor, class 5 (flexible) according to EN 60228 and IEC 60228.
Insulation
Cross linked polyethylene insulation and type XLPE according to IEC 60502-1.
The standard identification of insulated conductors
1 x Natural
2 x Blue + Brown
3 G Blue + Brown + Green/Yellow
3 x Brown + Black + Grey
3 x + 1 x Brown + Black + Grey + Blue (reduced cross-section)
4 G Brown + Black + Grey + Green/Yellow
4 x Brown + Black + Grey + Blue
5 G Brown + Black + Grey + Blue + Green/Yellow
6 or more Black numbered + Green/Yellow
Outer sheath
Flexible PVC outer sheath, type DMV-18 according to HD 603-1 and type ST2 according to IEC 60502-1. Black colour.

**According to** IEC 60502-1

CHARACTERISTICS
Electrical performance
Low voltage: 0,6/1 kV.
Thermal performance
Maximum service temperature: 90ºC.
Maximum short-circuit temperature: 250ºC (max. 5 s).
Minimum service temperature: -40ºC (fixed and protected installations).
Minimum installation and handling temperature: 0ºC (on cable surface).
Fire performance
Flame non-propagation according to EN 60332-1/IEC 60332-1.
Reaction to fire CPR: Eca according to EN 50575.
Reduced halogen emission. Chlorine <15%.
Mechanical performance
Minimum bending radius: 5x cable diameter.
Impact resistance: AG2 Medium severity.
Environmental performance
Chemical & Oil resistance: Good.
UV Resistant according to UNE 211605.
Water resistance: AD7 immersion.
Installation conditions
Open Air.
Buried.
In conduit.
In tray.

## RZ1-K XLPE LSZH Flexible Cable

### APPLICATION

For installation where fire, smoke emission and toxic fumes create a potential threat to life and equipment. A flexible power and control cable designed for fixed applications. Manufactured with flexible conductors in order to facilitate installations with sinuous courses.

1. Conductor
Electrolytic annealed copper conductor, class 5 (flexible), according to EN 60228 and IEC 60228.
2. Insulation
Cross-linked polyethylene type XLPE according to IEC 60502-1 and type DIX-3 according to HD 603. The standard identification of insulated conductors according to HD 308 is the following:
1 x Natural
2 x Blue + Brown
3 G Blue + Brown + Green/yellow
3 x Brown + Black + Grey
3 x + 1 x Brown + Black + Grey + Blue (reduced cross-section)
4 G Brown + Black + Grey + Green/yellow
4 x Brown + Black + Grey + Blue
5 G Brown + Black + Grey + Blue + Green/yellow
6 G or more Black numbered + Green/yellow.
3. Outer sheath
Low Smoke Halogen Free (LSHF) polyolefin outer sheath. Green colour.

**According to** IEC 60502-1

Electrical performance
LOW VOLTAGE 0,6/1kV
Standard
IEC 60502-1
Thermal performance
Maximum service temperature: 90ºC.
Maximum short-circuit temperature: 250ºC (max. 5 s).
Minimum service temperature: -40ºC (fixed and protected installations).
Fire performance
Flame non-propagation based on UNE-EN 60332-1 and IEC 60332-1.
Fire non-propagation based on UNE-EN 60332-3 and IEC 60332-3.
LSZH (Low Smoke Zero Halogen) based on UNE-EN 60754-1 and IEC 60754-1.
Low smoke emission based on UNE-EN 61034 and IEC 61034: Light transmittance > 60%
Low corrosive gases emission based on UNE-EN 60754-2 and IEC 60754-2.
Mechanical performance
Minimum bending radius: x5 cable diameter.
Impact resistance: AG2 Medium severity.
Chemical performance
Chemical & Oil resistance: Acceptable.
UV Resistant: UNE 211605.
Water performance
Water resistance: AD5 Jets.

## Medium and high voltage cables

### X-VOLT RHZ1-OL, AL - 18/30 kV

X-VOLT RHZ1-OL, AL is used for medium voltage installations or distribution networks both indoors and outdoors.

Ex. for the supply of transformer stations, infrastructure, wind turbines, solar parks, factory plants, data centers along with others.

**Construction:**

Conductor:
Electrolytic compressed aluminium, class 2
Insulation:
XLPE. Semiconducting layer around the isolation. Easy strippable
Screen:
Screen of Cu threads and Cu tape
Outer sheath:
Halogen free polyolefifine type DMZ1 acc. to 620-1 and type ST7 acc. to IEC 60502-2, red
Comments:
Optional: Hygroscopic tape is made to achieve longitudinal watertightness on the conductor, type X-VOLT RHZ1-2OL

Technical data:

| | |
|---|---|
| Working temperature: | -15° C to +90° C |
| Rated voltage: | 18/30 (36) kV |
| Bend radius: | 15 x cable diameter |
| Technical comments: | Short circuit temp.: max 250° C / 5 sec. |

## Medium and high voltage cables

### X-VOLT RHZ1-OL, AL - 12/20 kV

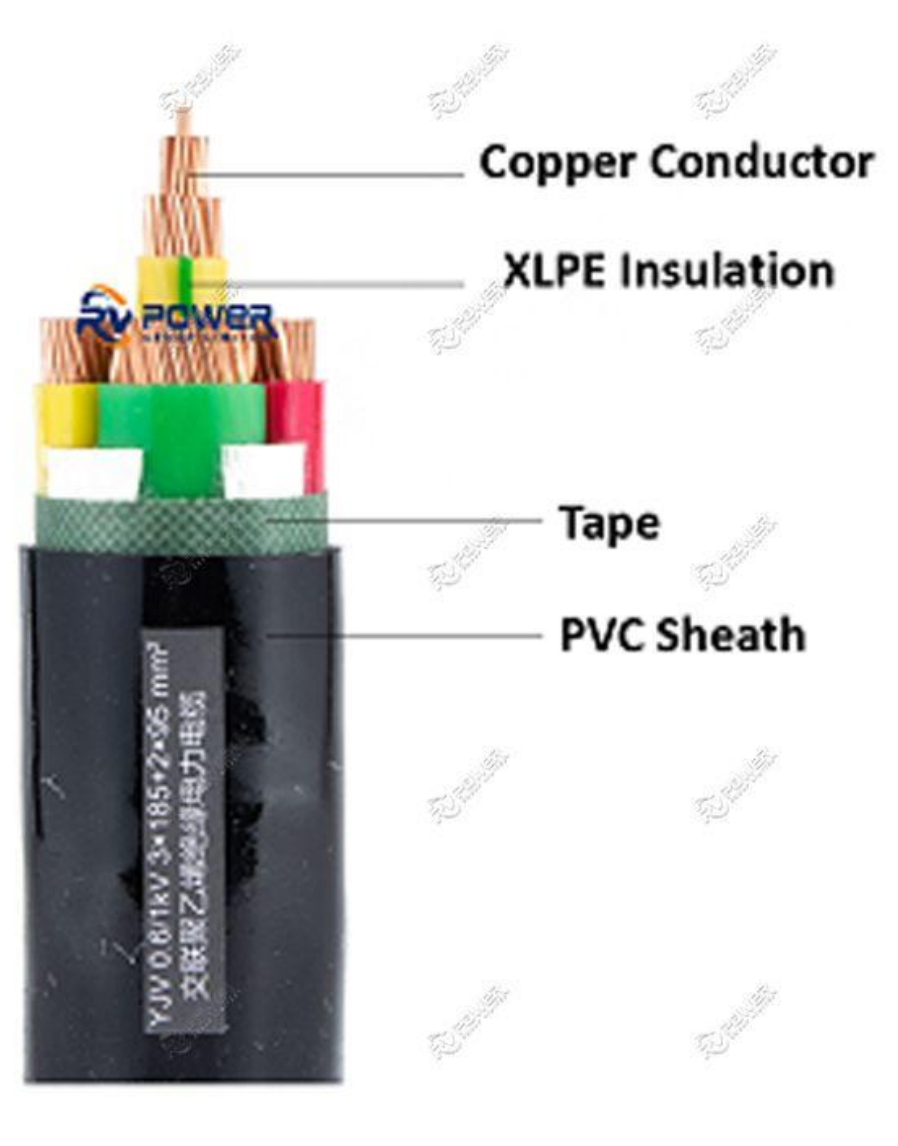
X-VOLT RHZ1-OL, AL is used for medium voltage installations or distribution networks both indoors and outdoors.Ex. for the supply of transformer stations, infrastructure, wind turbines, solar parks, factory plants, data centers along with others.

**Construction:**

Conductor:
Electrolytic compressed aluminium, class 2 acc. to EN 60228/IEC 60228
Semiconducting layer around the conductor
Insulation:
XLPE. Semiconducting layer around the isolation. Easy strippable
Screen:
Screen of Cu threads and hygroscopic tape
Outer sheath:
Halogen free polyolefifine type DMZ1 acc. to 620-1 and type ST7 acc. to IEC 60502-2, red
Comments:
Optional: Hygroscopic tape is made to achieve longitudinal watertightness on the conductor, type X-VOLT RHZ1-2OL

Technical data:

| | |
|---|---|
| Working temperature: | -15° C to +90° C |
| Rated voltage: | 12/20 (24) kV |
| Bend radius: | 15 x cable diameter |
| Technical comments: | Short circuit temp.: max 250° C / 5 sec. |



RZ1-K
Cable
Power
3x25mmQ
CU/XLPE/LSZH

1x95mm2
RZ1-K
Power
Cable
Flexible
CU/XLPE/LSZH
0.6/1KV
0981M
0967M

Products:
0.6/1KV Flexible CU/XLPE/LSZH Power
Cable RZ1-K 1X95mm2
Packing Length: 500m

## Packaging & Shipping
## 包装と配送

All Cables are supplied in wooden reels, corrugated boxes and coils. All pallets and cable rolls are set under IPPC standard ISPM15.Applicable for sea, air and land freight Able to be piled into double-deck.Cable ends are sealed with BOPP self adhesive tape andnon-hygroscopic sealing caps to protect the cable ends from moisture. The required marking shall be printed with a weather-proof material on the outsides of drum according to customer's requirement.

すべてのケーブルは木製リール、段ボール箱および空巻で供給されます。パレット、ケーブルロールはすべてIPPC規格ISPM15に準拠しています。海上、空路、陸上貨物に適用可能、そして、ダブルデッキに積み重ね可能です。。ケーブル端はBOPP粘着テープと非吸湿性シールキャップで密封され、湿気から保護されます。要求されるマーキングは顧客の要求に従ってドラムの外側に耐候性材料で印刷されなければなりません。