www.koryocable.co.kr

Since 1964

KORYO

CABLE

KORYO CABLE

고려전선

## GREETING

### *Tradition of Trustworthy Koryo Cable leads the industry for customer satisfaction*

Since (the company was founded in) 1964, Koryo Cable Co., Ltd. has been steadily growing based on our customer-satisfaction based management philosophy. With over 50 years of successful history with our customers, Koryo Cable is about to make a new leap in the industry.

We believe that the best quality comes from our strict manufacturing process that sticks to principle, and those products with principle will play an important role in becoming a credible company.

As we has been for the last 50 years, we promise that we would do our utmost to deliver the best quality products with affordable price range to our customers.

Moreover, so as to jump into a global market, we have paid attention to Myanmar and have constructed our factory in the area in 2018. We are sure that it will be a cornerstone for our dream to approach closer to Global needs. Again, we greatly appreciate your kind supports and interest to Koryo Cable. We hope to better serve you in the near future.

Sincerely. Chief Executive officer of Koryo Cable Co., Ltd.

**Jung, Yong-Ho**

## Contents

# MILESTONES

We will do our best to satisfy customers, by establishing our solid credit and traditional business spirit which has continued for half a century.

## 1960s

1964. 4.
Established Koryo Electric Company

1967. 7.
Moved to the new factory in Buk-gu, Daegu and renamed Koryo Industry

1967. 10.
Obtained a license for insulated wire made of synthetic resin (the Commerce Industry Ministry)

1968. 11.
Became a member of Korea Electric Wire Industry Cooperative

## 1970s

1974. 5.
Obtained KS (Korean Industrial Standards) marks for annealed copper wire & hard drawn copper wire, and annealed copper stranded wire & hard-drawn copper stranded wire (the Industrial Advancement Administration)
Obtained KS marks for outdoor PVC insulated wire & PVC insulated drop service wire

1975. 10.
Changed name to Koryo Cable Co., Ltd

1977. 11.
Moved to Seodaegu Industrial Complex (Current Location)

## 1980s

1983. 4.
Passed CCP-AP-SS cable products (Korea Telecom)

1985. 11.
Jae-Chul Jung took office as president

1988. 5.
Designated as a Promising Small and Medium Enterprise by the Small & Medium Business Corporation(Current Location)

## 1990s

1991. 11.
Adopted medium voltage aluminum stranded conductors with steel reinforced (22,9kV ACSR-OC)

1992. 7.
Passed 6.6kV and 22.9kV ACSR/AW-OC development tests

1996. 3.
Passed the flame retardant control cable and flame retardant sheathed control cable with copper tape shield cable development tests

1998. 9.
Acquired certificate of non-toxic flame retardant poly-olefin cable(NFR-EO, NFR-CO)

1998. 11.
Won the ISO 9001 certification quality system(KETI)

## 2000s

2001. 7.
Acquired KS marks for UTP, VCT, KIV and vinyl cord

2002. 07.
Acquired electrical appliances safety certificate for tray flame-retardant cables

2004. 2.
Acquired KS mark for 6600V CV

2005.
05. Completed 2nd CCV Line
*CCV(Catenary Continuous Vulcanizing)
06. Started to produce 22.9kV-y CNCV-W

2006.
02. Passed 22.9kV-y FR CNCO-W development test
12. Passed 22.9kV-y ACSR /AW-TR/OC development test

2007.
07. Acquired KS mark for UTP Cat 5E
09. Acquired electrical appliances safety certificate for CVF
11. Approved Certificate of Information and Communication Equipment

2008.
10. Acquired electrical appliances safety certificate for 0.6/1kV HFCO
11. Passed 22.9kV-y TR CNCE-W development test

2009.
09. Acquired Japan PSE mark for 600V CVT
11. Yong-Ho Jung took office as president


## 2010s

2010.
03. Acquired electrical appliances safety certificate for 450/750V HFIX
09. Started exporting 600V CVT to Japan
10. Passed ACSR-AW/OC 35SQ development test
11. Passed 22.9kV-y TR CNCE-W development test

2011.
01. Passed 22.9kV-y TR CNCE-W/ ALdevelopment
03. Acquired electrical appliances safetycertificate for 0.6/1kV CV-W/AL

2012.
02. Received an award from Minister of Knowledge
Economy for over 10 billon in electric industrial export
04. Acquired KS mark for 450/750V HFIX
09. Received an award at 2012 Small Business Ceremony in Daegu
Acquired KS mark for 6/10kV HFCO
12. Acquired 450/750V HFIX ECO Mark
Acquired 6/10kV HFCO ECO Mark

2013.
01. Passed 22.9kV FR CNCO-W/AL development test
Passed 22.9kV ASC-W development test
02. Changed CI to

2014.
02. Acquired KS mark for 0.6/1kV HFCO
05. 50th Anniversary Ceremony
12. Acquired 0.6/1kV HFCO ECO Mark

2015.
02. Acquired electrical appliances certificate for 0.6/1kV NFR-8
10. Passed HSTACIR/AW development test
12. Passed FR CNCO-W 600SQ development test

2016.
04. Acquired UL 1072 certificate

2017.
05. Started the Construction of KORYO Myanmar

2018.
08. Operating KORYO Myanmar

2019.
06. KDB GLOBAL CHALLENGERS 2020

## 2020s

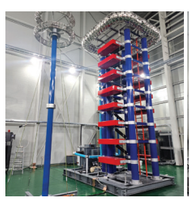
2020.
02. KORYO CABLE MYANMAR acquired ISO9001 Certificate
KORYO CABLE MYANMAR TUV TEST completed'
06. KEPCO signed an investment agreement with KEPCO KDN Gwangju Metropolitan City, Jeollanam-do, and Naju City

2021.
02. Daegu Metropolitan City Mayor's Commendation Award

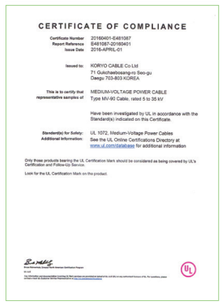
2022.
09. Selected as Daegu Star Company 100

2023.
05. New factory(Seongseo) for HV cable
07. Start the CCV (175mm) Line Operation

2025.
06. Completion HV Cable Test Lab.

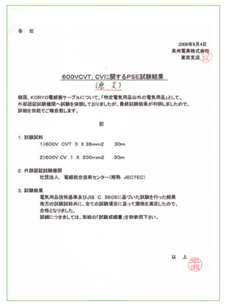


## CERTIFICATION



UL 1072 Certificate

ISO9001 Certificate


PSE Certificate(Japan)

Eco-Label Certificate

Certified Test Report

KS & IEC Certificate

Trusted Partner(KEPCO)

Small and Medium-Sized Enterprises

Best Quality Award(KEPCO)

Ministry of Knowledge Economy Award

Ministry of Trade Award

## EXPORT

| Country | Products |
|---|---|
| JAPAN | 0.6/1kV CU/XLPE/PVC cable(Triplex)<br>0.6/1kV CU/XLPE/PVC cable(Triplex) |
| GUAM(USA) | 0.6/1kV CU/PVC cable<br>35kV AL/XLPE/CTS/PVC cable<br>34.5kV CU/XLPE/CTS/HDPE |
| CHILE | 15kV CU/XLPE/TS/PVC cable<br>25kV CU/XLPE/TS/PVC cable |
| AUSTRALIA | 12.7kV AL/XLPE/CWS/PVC cable<br>0.6/1kV CU/XLPE/PVC cable |
| PHILIPPINES | 0.6/1kV CU/PVC cable<br>0.6/1kV CU/XLPE/PVC cable<br>22.9kV ACSR/AW-OC Cable |
| MYANMAR | 15kV SAC, 12/20kV ACSR/AW-OC Cable<br>0.6/1kV CU/XLPE/PVC cable<br>450/750V CU/PVC cable |
| VIETNAM | 0.6/1kV CU/PVC cable<br>0.6/1kV CU/XLPE/PVC cable |
| MONGOLIA | 0.6/1kV CU/XLPE/PVC cable<br>450/750V CU/PVC cable |

# Aerial Cable

**ACSR**

**HSTACIR/AW(High Capacity Conductor)**

**0.6/1(1.2)kV AL/XLPE Cable(ABC)**

**0.6/1(1.2)kV AL/XLPE/PVC Cable**

**AL/XLPE/XLPE Cable-For Voltages 12kV up to 36kV(SAC)**

**ACSR/AW-OC-For Voltages 12kV up to 36kV**

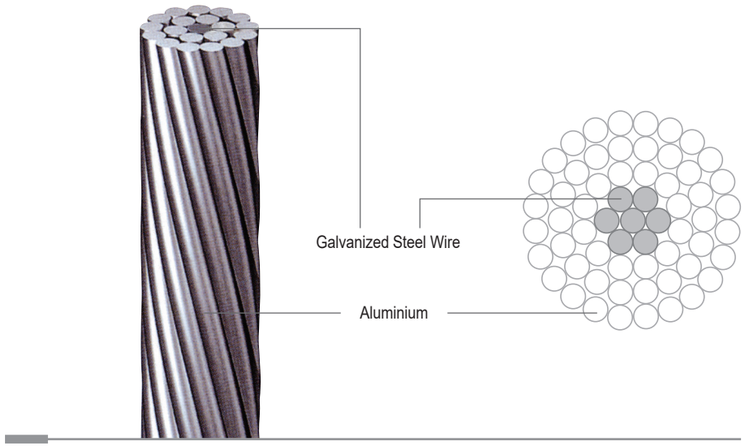
**ACSR AW/TR-OC-For Voltages 12kV up to 36kV**

# ACSR

**Application**
Used for voltage overhead transmission lines

**Construction**
Aluminium Wire / Galvanized steel wire

**Standard**
ES-6145-0005(KEPCO Std.), BS 215 : Part2




## Specification

ES-6145-0005(KEPCO Std.)

| Nominal Sectional Area ㎟ | Number & Diameter of Wire No./㎜ | | Approx Overall Diameter ㎜ | Tensile Load kgf | Current Carrying Capacity | | | Approx Weight kg/㎞ | Conductor Resistance Ω/㎞ |
|---|---|---|---|---|---|---|---|---|---|
| | Aluminium | Steel | | | 40℃ | 30℃ | 20℃ | | |
| 19 | 6/2.0 | 1/2.0 | 6.0 | 698 | 112 | 124 | 135 | 76.12 | 1.520 |
| 32 | 6/2.6 | 1/2.6 | 7.8 | 1,140 | 155 | 172 | 188 | 128.6 | 0.899 |
| 58 | 6/3.5 | 1/3.5 | 10.5 | 1,980 | 222 | 248 | 271 | 233.1 | 0.497 |
| 80 | 6/4.2 | 1/4.2 | 12.6 | 2,770 | - | - | - | 335.5 | 0.345 |
| 95 | 6/4.5 | 1/4.5 | 13.5 | 3,180 | 296 | 308 | 362 | 385.2 | 0.301 |
| 97 | 12/3.2 | 7/3.2 | 16.0 | 10,600 | 310 | 348 | 381 | 706.8 | 0.2981 |
| 120 | 12/3.5 | 7/3.5 | 17.5 | 9,590 | 355 | 398 | 436 | 845.6 | 0.2497 |
| 120 | 30/2.3 | 7/2.3 | 16.1 | 5,550 | 355 | 398 | 436 | 573.7 | 0.233 |
| 160 | 30/2.6 | 7/2.6 | 18.2 | 6,990 | 410 | 461 | 505 | 732.8 | 0.182 |
| 200 | 30/2.9 | 7/2.9 | 20.3 | 8,620 | 473 | 532 | 583 | 911.7 | 0.147 |
| 240 | 30/3.2 | 7/3.2 | 22.4 | 10,210 | 536 | 603 | 662 | 1,110 | 0.120 |
| 330 | 26/4.0 | 7/3.1 | 25.3 | 10,930 | 643 | 825 | 796 | 1,320 | 0.0888 |
| 410 | 26/4.5 | 7/3.5 | 28.5 | 13,890 | 749 | 845 | 929 | 1,673 | 0.0702 |
| 480(R) | 45/3.7 | 7/2.47 | 29.61 | 11,800 | 807 | 910 | 1,001 | 1,599 | 0.05994 |
| 480(C) | 54/3.38 | 7/3.38 | 30.42 | 15,340 | - | - | - | 1,836 | 0.0599 |
| 520 | 54/3.5 | 7/3.5 | 31.5 | 15,600 | 851 | 960 | 1,057 | 1,969 | 0.0559 |
| 610 | 54/3.8 | 7/3.8 | 34.2 | 18,150 | 947 | 1,070 | 1,177 | 2,320 | 0.0474 |

BS 215:Part2

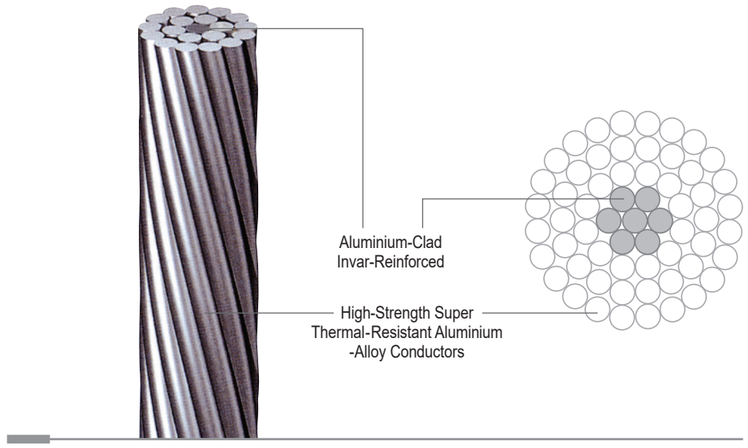
| Code Name | Nominal Aluminium Area ㎟ | Construction No./Wire Diameter No./ ㎜ | | Cross-Sectional Area ㎟ | | Approx Overall Diameter ㎜ | Approx Weight kg/㎞ | Calculated Breaking Load kN | Calculated DC Resistance at 20℃ Ω/㎞ |
|---|---|---|---|---|---|---|---|---|---|
| | | Aluminium | Steel | Aluminium | Total | | | | |
| Gopher | 25 | 6/2.36 | 1/2.36 | 26.25 | 30.62 | 7.08 | 106 | 9.61 | 1.093 |
| Weasel | 30 | 6/2.59 | 1/2.59 | 31.61 | 36.88 | 7.77 | 128 | 11.45 | 0.9077 |
| Ferret | 40 | 6/3.00 | 1/3.00 | 42.41 | 49.48 | 9.00 | 172 | 15.20 | 0.6766 |
| Rabbit | 50 | 6/3.35 | 1/3.35 | 52.88 | 61.70 | 10.05 | 214 | 18.35 | 0.5426 |
| Skunk | 60 | 12/2.59 | 7/2.59 | 63.22 | 100.1 | 12.95 | 464 | 52.94 | 0.4567 |
| Horse | 70 | 12/2.79 | 7/2.79 | 73.37 | 116.2 | 13.95 | 538 | 61.20 | 0.3936 |
| Dog | 100 | 6/4.72 | 7/1.57 | 105.0 | 118.6 | 14.15 | 394 | 32.70 | 0.2733 |
| Wolf | 150 | 30/2.59 | 7/2.59 | 158.1 | 194.9 | 18.13 | 726 | 69.20 | 0.1828 |
| Dingo | 150 | 18/3.35 | 1/3.35 | 158.7 | 167.5 | 16.75 | 506 | 35.70 | 0.1815 |
| Lynx | 175 | 30/2.79 | 7/2.79 | 183.4 | 226.2 | 19.53 | 842 | 79.80 | 0.1576 |
| Caracal | 175 | 18/3.61 | 1/3.61 | 184.3 | 194.5 | 18.05 | 587 | 41.10 | 0.1563 |
| Panther | 200 | 30/3.00 | 7/3.00 | 212.1 | 261.5 | 21.00 | 974 | 92.25 | 0.1363 |
| Jaguar | 200 | 18/3.86 | 1/3.86 | 210.6 | 222.3 | 19.30 | 671 | 46.55 | 0.1367 |
| Batang | 300 | 18/4.78 | 7/1.68 | 323.0 | 338.5 | 24.16 | 1,010 | 69.67 | 0.08914 |
| Zebra | 400 | 54/3.18 | 7/3.18 | 428.9 | 484.5 | 28.62 | 1,621 | 131.9 | 0.06740 |

# HSTACIR/AW

**Application**
Used for high voltage overhead transmission lines, High(Double) ampacity than normal ACSR

**Construction**
High-Strength Super Thermal-Resistant Aluminium-Alloy Conductors / Aluminium-Clad Invar-Reinforced

**Standard**
ES-6145-0095




## Specification

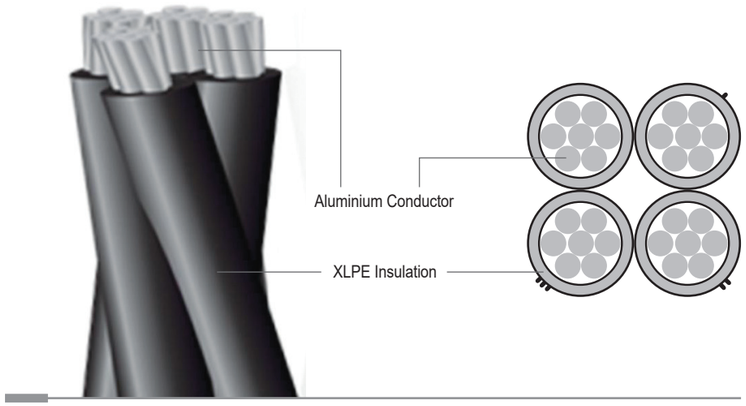
| Nominal Sectional Area ㎟ | Number & Diameter of Wire No./㎜ | | Approx Overall Diameter ㎜ | Tensile Load kgf | Current Carrying Capacity | Approx Weight kg/㎞ | Conductor Resistance Ω/㎞ |
|---|---|---|---|---|---|---|---|
| | Aluminium | Steel | | | | | |
| 240 | 30/3.2 | 7/3.2 | 22.4 | 9700 | 1213 | 1072 | 0.1159 |
| 330 | 26/4.0 | 7/3.1 | 25.3 | 10500 | 1459 | 1285 | 0.0869 |
| 410 | 26/4.5 | 7/3.5 | 28.5 | 13300 | 1708 | 1625 | 0.0686 |
| 480 | 45/3.7 | 7/2.47 | 29.61 | 11000 | 1806 | 1580 | 0.0600 |

## 0.6/1(1.2)kV AL/XLPE Cable(ABC)

**Application**
Aerial bundled cables are mainly used for secondary overhead on poles or as feeders to residential premises

**Construction**
Aluminium Stranded XLPE Insulated Wire

**Standard**
IEC 60502-1




### Specification

Single Core

| Nominal Sectional Area ㎟ | Conductor Diameter ㎜ | Insulation Thickness ㎜ | Approx Overall Diameter ㎜ | Standard Weight kg/㎞ | Conductor Resistance at 20℃ Ω/㎞ |
|---|---|---|---|---|---|
| 16 | 4.7 | 1.3 | 7.4 | 67 | 1.910 |
| 25 | 5.9 | 1.3 | 8.6 | 97 | 1.200 |
| 35 | 6.9 | 1.3 | 9.6 | 127 | 0.868 |
| 50 | 8.1 | 1.5 | 11.2 | 170 | 0.641 |
| 70 | 9.8 | 1.5 | 12.9 | 234 | 0.443 |
| 95 | 11.4 | 1.7 | 14.9 | 320 | 0.320 |
| 120 | 12.9 | 1.7 | 16.4 | 394 | 0.253 |
| 150 | 14.4 | 1.7 | 17.9 | 474 | 0.206 |
| 185 | 15.9 | 1.9 | 19.8 | 594 | 0.164 |
| 240 | 18.3 | 1.9 | 22.6 | 774 | 0.125 |

Four Cores

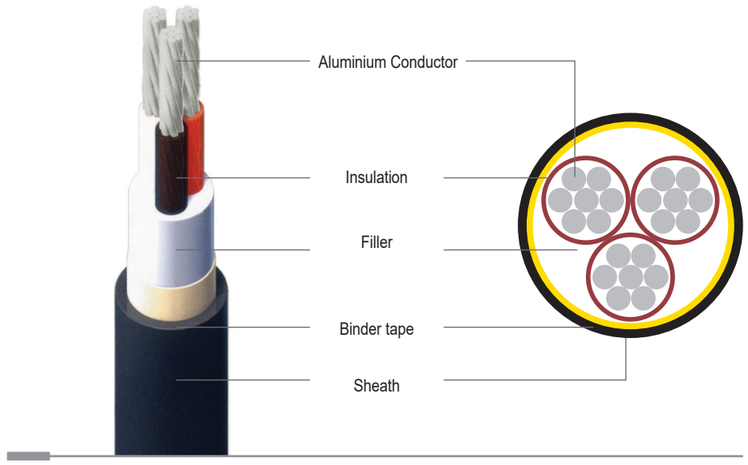
| Nominal Sectional Area ㎟ | Conductor Diameter ㎜ | Insulation Thickness ㎜ | Approx Overall Diameter ㎜ | Standard Weight kg/㎞ | Conductor Resistance at 20℃ Ω/㎞ |
|---|---|---|---|---|---|
| 16 | 4.7 | 1.3 | 17.9 | 270 | 1.910 |
| 25 | 5.9 | 1.3 | 20.8 | 390 | 1.200 |
| 35 | 6.9 | 1.3 | 23.2 | 510 | 0.868 |
| 50 | 8.1 | 1.5 | 27 | 687 | 0.641 |
| 70 | 9.8 | 1.5 | 31.1 | 945 | 0.443 |
| 95 | 11.4 | 1.7 | 36 | 1291 | 0.320 |
| 120 | 12.9 | 1.7 | 39.6 | 1592 | 0.253 |
| 150 | 14.4 | 1.7 | 43.2 | 1915 | 0.206 |
| 185 | 15.9 | 1.9 | 47.8 | 2398 | 0.164 |
| 240 | 18.3 | 2.1 | 54.6 | 3126 | 0.125 |

## 0.6/1(1.2)kV AL/XLPE/PVC Cable

**Application**
Designed primary for the distribution of electrical energy under normal condition of aerial installation and service outdoors.

**Construction**
Aluminium Stranded XLPE insulated PVC sheathed Wire

**Standard**
IEC 60502-1




### Specification

Single Core

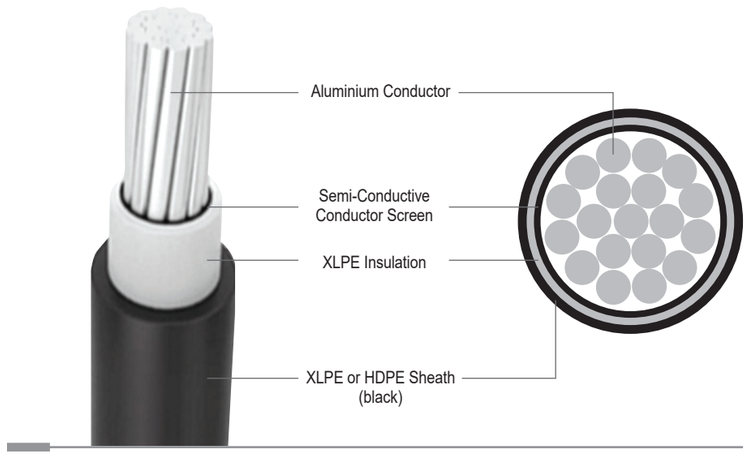
| Nominal Sectional Area ㎟ | Conductor Diameter ㎜ | Insulation Thickness ㎜ | Sheath Thickness ㎜ | Approx Overall Diameter ㎜ | Standard Weight kg/㎞ | Conductor Resistance at 20℃ Ω/㎞ |
|---|---|---|---|---|---|---|
| 16 | 4.7 | 0.7 | 1.4 | 8.9 | 109 | 1.91 |
| 25 | 5.9 | 0.9 | 1.4 | 10.5 | 153 | 1.2 |
| 35 | 6.9 | 0.9 | 1.4 | 11.5 | 189 | 0.868 |
| 50 | 8.1 | 1.0 | 1.4 | 12.9 | 238 | 0.641 |
| 70 | 9.8 | 1.1 | 1.4 | 14.8 | 319 | 0.443 |
| 95 | 11.4 | 1.1 | 1.5 | 16.6 | 411 | 0.32 |
| 120 | 12.9 | 1.2 | 1.5 | 18.3 | 506 | 0.253 |
| 150 | 14.4 | 1.4 | 1.6 | 20.4 | 617 | 0.206 |
| 185 | 15.9 | 1.6 | 1.7 | 22.5 | 759 | 0.164 |
| 240 | 18.3 | 1.7 | 1.75 | 25.2 | 966 | 0.125 |
| 300 | 20.5 | 1.8 | 1.85 | 27.8 | 1159 | 0.100 |
| 400 | 23.2 | 2.0 | 1.95 | 31.1 | 1462 | 0.0778 |
| 500 | 26.4 | 2.2 | 2.1 | 35.0 | 1850 | 0.0605 |
| 630 | 30.2 | 2.4 | 2.2 | 39.4 | 2350 | 0.0469 |

## AL/XLPE/XLPE-For Voltages 12kV up to 36kV(SAC)

**Application**
Used for high voltage aerial transmission lines

**Construction**
Aluminium Stranded / Semi conductive Inner Screen / XLPE Insulated / HDPE Sheathed

**Standard**
IEC 60502-2, ICEA S-66-524




### Specification

8.7/15(17.5)kV SAC

| Nominal Sectional Area ㎟ | Conductor Diameter ㎜ | Conductor Screen ㎜ | Insulation Thickness ㎜ | Sheath Thickness ㎜ | Approx Overall Diameter ㎜ | Standard Weight kg/㎞ | Max D.C. Resistance of Conductor at 20℃ Ω/㎞ | Min. Resistance of Insulation at 20℃ MΩ/㎞ | Voltage Test(5mins) kV |
|---|---|---|---|---|---|---|---|---|---|
| 95 | 11.4 | 0.6 | 1.91 | 1.91 | 20.3 | 457 | 0.32 | 1300 | 27 |
| 120 | 12.9 | 0.6 | 1.91 | 1.91 | 21.8 | 543 | 0.253 | 1200 | 27 |
| 150 | 14.4 | 0.6 | 1.91 | 1.91 | 23.8 | 635 | 0.206 | 1100 | 27 |
| 185 | 15.9 | 0.6 | 1.91 | 1.91 | 24.8 | 722 | 0.164 | 1000 | 27 |
| 240 | 18.3 | 0.6 | 1.91 | 1.91 | 27.2 | 899 | 0.125 | 900 | 27 |

12/20(24)kV SAC

| Nominal Sectional Area ㎟ | Conductor Diameter ㎜ | Conductor Screen ㎜ | Insulation Thickness ㎜ | Sheath Thickness ㎜ | Approx Overall Diameter ㎜ | Standard Weight kg/㎞ | Max D.C. Resistance of Conductor at 20℃ Ω/㎞ | Min. Resistance of Insulation at 20℃ MΩ/㎞ | Voltage Test(5mins) kV |
|---|---|---|---|---|---|---|---|---|---|
| 95 | 11.4 | 0.7 | 2.75 | 2.75 | 23.8 | 612 | 0.32 | 1850 | 38 |
| 120 | 12.9 | 0.7 | 2.75 | 2.75 | 25.3 | 709 | 0.253 | 1700 | 38 |
| 150 | 14.4 | 0.7 | 2.75 | 2.75 | 26.8 | 810 | 0.206 | 1600 | 38 |
| 185 | 15.9 | 0.7 | 2.75 | 2.75 | 28.3 | 939 | 0.164 | 1500 | 38 |
| 240 | 18.3 | 0.7 | 2.75 | 2.75 | 30.7 | 1137 | 0.125 | 1300 | 38 |

18/30(36)kV SAC

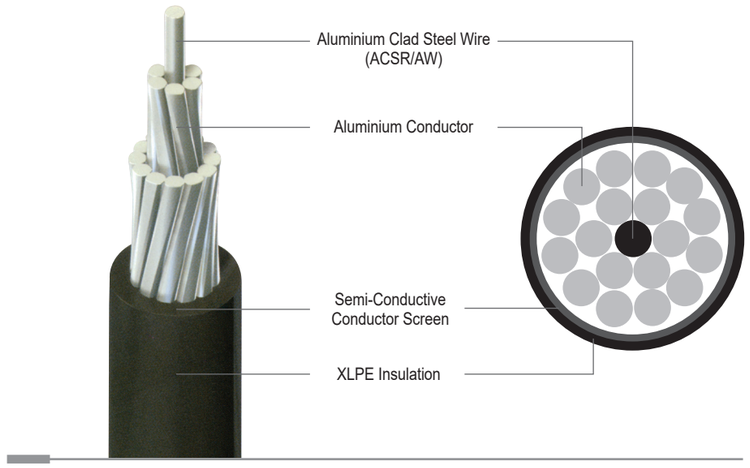
| Nominal Sectional Area ㎟ | Conductor Diameter ㎜ | Conductor Screen ㎜ | Insulation Thickness ㎜ | Sheath Thickness ㎜ | Approx Overall Diameter ㎜ | Standard Weight kg/㎞ | Max D.C. Resistance of Conductor at 20℃ Ω/㎞ | Min. Resistance of Insulation at 20℃ MΩ/㎞ | Voltage Test(5mins) kV |
|---|---|---|---|---|---|---|---|---|---|
| 95 | 11.4 | 0.7 | 4.8 | 3.2 | 28.8 | 818 | 0.32 | 2100 | 49 |
| 120 | 12.9 | 0.7 | 4.8 | 3.2 | 30.3 | 927 | 0.253 | 2000 | 49 |
| 150 | 14.4 | 0.7 | 4.8 | 3.2 | 31.8 | 1040 | 0.206 | 1800 | 49 |
| 185 | 15.9 | 0.7 | 4.8 | 3.2 | 33.3 | 1180 | 0.164 | 1700 | 49 |
| 240 | 18.3 | 0.7 | 4.8 | 3.2 | 35.7 | 1396 | 0.125 | 1500 | 49 |

## ACSR/AW-OC-For Voltages 12kV up to 36kV

**Application**
Used for high voltage aerial transmission lines

**Construction**
Conductors-Aluminium Clad Steel Wire / Aluminium Stranded XLPE Insulated Wire

**Standard**
ES 6145-0006(KEPCO std.)




### Specification

6/10(12)kV ACSR/AW-OC

| Voltage | Nominal Sectional Area ㎟ | Conductor | | | Insulation Thickness ㎜ | Approx Overall Diameter ㎜ | Conductor Resistance at 20℃ Ω/㎞ | Test Voltage kV/1min | Min Insulation Resistance at 20℃ MΩ/㎞ | Conductor Tensile Load kgf | Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Aluminium No. | Steel No./㎜ | Outer Diameter ㎜ | | | | | | | Approx Weight kg/㎞ |
| 6/10㎸ | 32 | 6/SB | 1/2.6 | 7.2 | 2.0 | 11.2 | 0.877 | 12 | 1500 | 1090 | 180 |
| | 58 | 6/SB | 1/3.5 | 9.7 | 2.5 | 14.7 | 0.484 | 12 | 1500 | 1900 | 315 |
| | 95 | 6/SB | 1/3.5 | 12.0 | 2.5 | 17.0 | 0.302 | 12 | 1000 | 2360 | 445 |

12/20(24)kV ACSR/AW-OC

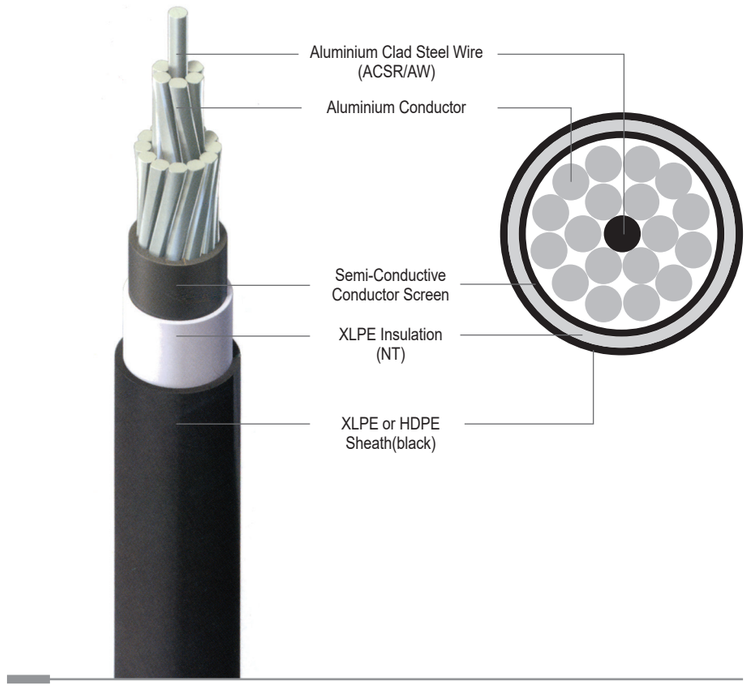
| Voltage | Nominal Sectional Area ㎟ | Conductor | | | Insulation Thickness ㎜ | Approx Overall Diameter ㎜ | Conductor Resistance at 20℃ Ω/㎞ | Test Voltage kV/1min | Min Insulation Resistance at 20℃ MΩ/㎞ | Conductor Tensile Load kgf | Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Aluminium No. | Steel No./㎜ | Outer Diameter ㎜ | | | | | | | Approx Weight kg/㎞ |
| 12/20㎸ | 58 | 6/SB | 1/3.5 | 9.7 | 3.0 | 15.7 | 0.484 | 25 | 1500 | 1900 | 330 |
| | 95 | 6/SB | 1/3.5 | 12.0 | 3.5 | 19.0 | 0.302 | 25 | 1500 | 2360 | 508 |
| | 120 | 6/SB | 1/4.0 | 13.6 | 3.5 | 20.6 | 0.253 | 25 | 1500 | 3060 | 605 |
| | 160 | 18/SB | 1/3.2 | 15.4 | 4.0 | 23.4 | 0.183 | 25 | 1500 | 3080 | 730 |
| | 240 | 18/SB | 1/4.0 | 18.9 | 4.0 | 27.0 | 0.123 | 25 | 1000 | 4500 | 1040 |

# ACSR AW/TR-OC-For Voltages 12kV up to 36kV

**Application**
Used for weather-resistant cable for the distribution lines on normal condition of overhead line service

**Construction**
Aluminium-Clad Steel Wire / Aluminium Stranded Conductor / Outdoor Tracking Retardant XLPE Insulation

**Standard**
ES 6145-0021(KEPCO std.)




## Specification

12/20(24)kV ACSR AW/TR-OC

| Voltage | Nominal Sectional Area ㎟ | Conductor | | | Conductor Screen ㎜ | Insulation Thickness ㎜ | Sheath Thickness ㎜ | Approx Overall Diameter ㎜ | Conductor Resistance at 20℃ Ω /㎞ | Test Voltage kV/1min | Conductor Tensile Load kgf | Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Aluminium No. | Steel No./㎜ | Outer Diameter ㎜ | | | | | | | | Approx Weight kg/㎞ |
| 12/20㎸ | 58 | 6/SB | 1/3.5 | 9.7 | 0.6 | 1.2 | 1.3 | 15.7 | 0.484 | 25 | 1900 | 330 |
| | 95 | 6/SB | 1/3.5 | 12.0 | 0.6 | 1.4 | 1.4 | 19.0 | 0.302 | 25 | 2360 | 530 |
| | 160 | 18/SB | 1/3.2 | 15.4 | 0.6 | 1.7 | 1.7 | 23.4 | 0.183 | 25 | 3080 | 730 |
| | 240 | 18/SB | 1/4.0 | 18.9 | 0.6 | 1.7 | 1.7 | 27.0 | 0.123 | 25 | 4500 | 1040 |

# Power Cable

## Low-Voltage Power Cable

**0.6/1(1.2)kV CU/XLPE/PVC Cable**

**0.6/1(1.2)kV CU/XLPE/PVC/AWA or SWA/PVC Cable**

**0.6/1kV FIRE-RETARDANT CABLE [830℃/120min]**

## Medium-Voltage Power Cable

**15-35kV URD (Underground Residential Distribution)**

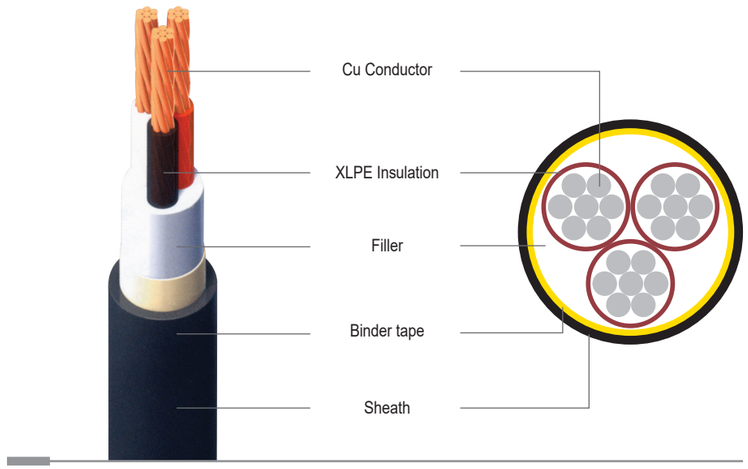
**Medium Voltage{6/10(12), 8.7/15(17.5), 12/20(24), 18/30(36)} Copper Conductors XLPE Insulated(Armoured)**

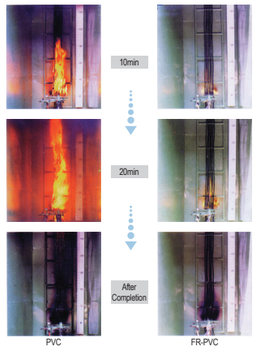
# 0.6/1(1.2)kV CU/XLPE/PVC Cable

**Application**
Designed for the purpose of using in power distribution line, having excellent flame retardant.

**Construction**
Conductors Annealed Copper Wire
Insulation XLPE
Sheath PVC, FR-PVC
Color identification
2 cores-red, black
3 cores-red, yellow, blue
4 cores-red, yellow, blue, black

**Standard**
IEC 60502-1




## Specification

Single Core

| Conductor | | | Insulation Thickness | Sheath Thickness | Approx Overall Diameter | Test Voltage | Max Conductor Resistance at 20℃ | Approx Weight |
|---|---|---|---|---|---|---|---|---|
| Nominal Sectional Area ㎟ | Number & Diameter of Wire No./㎜ | Outer Diameter ㎜ | ㎜ | ㎜ | ㎜ | V/1min | Ω /㎞ | kg/㎞ |
| 1.5 | 7/0.53 | 1.59 | 0.7 | 1.4 | 5.79 | 3500 | 12.1 | 53 |
| 2.5 | 7/0.67 | 2.01 | 0.7 | 1.4 | 6.21 | | 7.41 | 65 |
| 4 | 7/0.85 | 2.55 | 0.7 | 1.4 | 6.75 | | 4.61 | 81 |
| 6 | 7/1.04 | 3.12 | 0.7 | 1.4 | 7.32 | | 3.08 | 108 |
| 10 | 7/1.35 | 4.05 | 0.7 | 1.4 | 8.25 | | 1.83 | 155 |
| 16 | Circular Compacted | 4.7 | 0.7 | 1.4 | 8.9 | | 1.15 | 210 |
| 25 | | 5.9 | 0.9 | 1.4 | 10.5 | | 0.727 | 315 |
| 35 | | 6.9 | 0.9 | 1.4 | 11.5 | | 0.524 | 414 |
| 50 | | 8.1 | 1.0 | 1.4 | 12.9 | | 0.387 | 542 |
| 70 | | 9.8 | 1.1 | 1.4 | 14.8 | | 0.268 | 761 |
| 95 | | 11.4 | 1.1 | 1.5 | 16.6 | | 0.193 | 1026 |
| 120 | | 12.9 | 1.2 | 1.5 | 18.3 | | 0.153 | 1279 |
| 150 | | 14.4 | 1.4 | 1.6 | 20.4 | | 0.124 | 1524 |
| 185 | | 15.9 | 1.6 | 1.6 | 22.3 | | 0.0991 | 1872 |
| 240 | | 18.3 | 1.7 | 1.7 | 25.1 | | 0.0754 | 2391 |
| 300 | | 20.5 | 1.8 | 1.8 | 27.7 | | 0.0601 | 3023 |
| 400 | | 23.2 | 2.0 | 1.9 | 31.0 | | 0.047 | 3975 |
| 500 | | 26.4 | 2.2 | 2.0 | 34.8 | | 0.0366 | 4894 |
| 630 | | 30.2 | 2.4 | 2.2 | 39.4 | | 0.0283 | 6283 |

Two Cores

| Conductor | | | Insulation Thickness | Sheath Thickness | Approx Overall Diameter | Test Voltage | Max Conductor Resistance at 20℃ | Approx Weight |
|---|---|---|---|---|---|---|---|---|
| Nominal Sectional Area ㎟ | Number & Diameter of Wire No./㎜ | Outer Diameter ㎜ | ㎜ | ㎜ | ㎜ | V/1min | Ω /㎞ | kg/㎞ |
| 1.5 | 7/0.53 | 1.59 | 0.7 | 1.8 | 11.0 | 3500 | 12.1 | 127 |
| 2.5 | 7/0.67 | 2.01 | 0.7 | 1.8 | 12.0 | | 7.41 | 153 |
| 4 | 7/0.85 | 2.55 | 0.7 | 1.8 | 13.0 | | 4.61 | 197 |
| 6 | 7/1.04 | 3.12 | 0.7 | 1.8 | 14.0 | | 3.08 | 252 |
| 10 | 7/1.35 | 4.05 | 0.7 | 1.8 | 17.0 | | 1.83 | 357 |
| 16 | Circular Compacted | 4.7 | 0.7 | 1.8 | 18.5 | | 1.15 | 487 |
| 25 | | 5.9 | 0.9 | 1.8 | 22.0 | | 0.727 | 720 |
| 35 | | 6.9 | 0.9 | 1.8 | 24.0 | | 0.524 | 943 |
| 50 | | 8.1 | 1.0 | 1.8 | 27.0 | | 0.387 | 1229 |
| 70 | | 9.8 | 1.1 | 1.8 | 31.0 | | 0.268 | 1702 |
| 95 | | 11.4 | 1.1 | 1.9 | 35.0 | | 0.193 | 2285 |
| 120 | | 12.9 | 1.2 | 2.0 | 38.0 | | 0.153 | 2890 |
| 150 | | 14.4 | 1.4 | 2.2 | 43.0 | | 0.124 | 3475 |
| 185 | | 15.9 | 1.6 | 2.3 | 47.0 | | 0.0991 | 4282 |
| 240 | | 18.3 | 1.7 | 2.5 | 53.0 | | 0.0754 | 5469 |
| 300 | | 20.5 | 1.8 | 2.6 | 58.0 | | 0.0601 | 6876 |

Three Cores

| Conductor | | | Insulation Thickness | Sheath Thickness | Approx Overall Diameter | Test Voltage | Max Conductor Resistance at 20℃ | Approx Weight |
|---|---|---|---|---|---|---|---|---|
| Nominal Sectional Area ㎟ | Number & Diameter of Wire No./㎜ | Outer Diameter ㎜ | ㎜ | ㎜ | ㎜ | V/1min | Ω /㎞ | kg/㎞ |
| 1.5 | 7/0.53 | 1.59 | 0.7 | 1.8 | 11.5 | 3500 | 12.1 | 148 |
| 2.5 | 7/0.67 | 2.01 | 0.7 | 1.8 | 12.5 | | 7.41 | 189 |
| 4 | 7/0.85 | 2.55 | 0.7 | 1.8 | 13.5 | | 4.61 | 245 |
| 6 | 7/1.04 | 3.12 | 0.7 | 1.8 | 14.5 | | 3.08 | 321 |
| 10 | 7/1.35 | 4.05 | 0.7 | 1.8 | 18.0 | | 1.83 | 464 |
| 16 | Circular Compacted | 4.7 | 0.7 | 1.8 | 19.5 | | 1.15 | 649 |
| 25 | | 5.9 | 0.9 | 1.8 | 23.0 | | 0.727 | 975 |
| 35 | | 6.9 | 0.9 | 1.8 | 25.0 | | 0.524 | 1287 |
| 50 | | 8.1 | 1.0 | 1.8 | 29.0 | | 0.387 | 1693 |
| 70 | | 9.8 | 1.1 | 1.9 | 33.0 | | 0.268 | 2383 |
| 95 | | 11.4 | 1.1 | 2.0 | 37.0 | | 0.193 | 3224 |
| 120 | | 12.9 | 1.2 | 2.1 | 41.0 | | 0.153 | 4036 |
| 150 | | 14.4 | 1.4 | 2.3 | 46.0 | | 0.124 | 4840 |
| 185 | | 15.9 | 1.6 | 2.4 | 50.0 | | 0.0991 | 5975 |
| 240 | | 18.3 | 1.7 | 2.6 | 57.0 | | 0.0754 | 7641 |
| 300 | | 20.5 | 1.8 | 2.7 | 62.0 | | 0.0601 | 9638 |

Four Cores

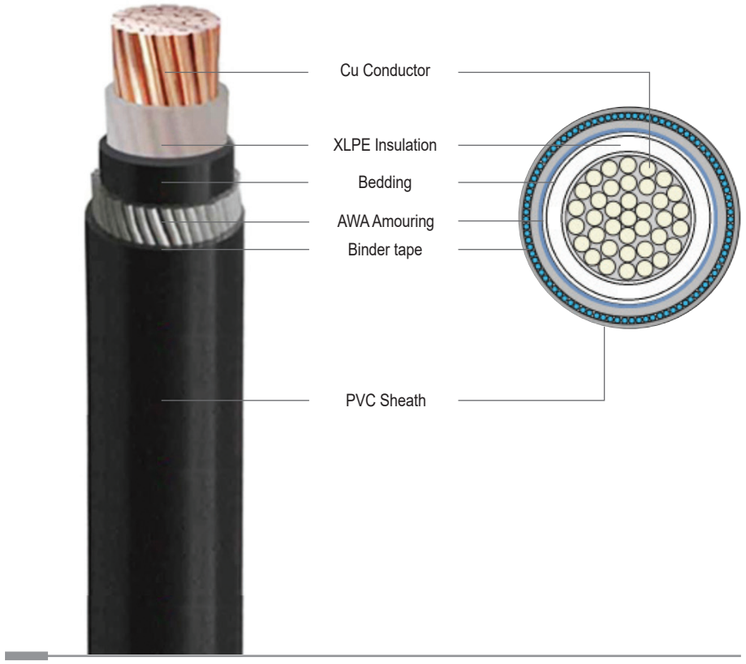
| Conductor | | | Insulation Thickness | Sheath Thickness | Approx Overall Diameter | Test Voltage | Max Conductor Resistance at 20℃ | Approx Weight |
|---|---|---|---|---|---|---|---|---|
| Nominal Sectional Area ㎟ | Number & Diameter of Wire No./㎜ | Outer Diameter ㎜ | ㎜ | ㎜ | ㎜ | V/1min | Ω /㎞ | kg/㎞ |
| 1.5 | 7/0.53 | 1.59 | 0.7 | 1.8 | 12.5 | 3500 | 12.1 | 179 |
| 2.5 | 7/0.67 | 2.01 | 0.7 | 1.8 | 13.5 | | 7.41 | 226 |
| 4 | 7/0.85 | 2.55 | 0.7 | 1.8 | 14.5 | | 4.61 | 305 |
| 6 | 7/1.04 | 3.12 | 0.7 | 1.8 | 16.0 | | 3.08 | 397 |
| 10 | 7/1.35 | 4.05 | 0.7 | 1.8 | 20.0 | | 1.83 | 585 |
| 16 | Circular Compacted | 4.7 | 0.7 | 1.8 | 22.0 | | 1.15 | 816 |
| 25 | | 5.9 | 0.9 | 1.8 | 26.0 | | 0.727 | 1242 |
| 35 | | 6.9 | 0.9 | 1.8 | 28.0 | | 0.524 | 1661 |
| 50 | | 8.1 | 1.0 | 1.9 | 32.0 | | 0.387 | 2215 |
| 70 | | 9.8 | 1.1 | 2.0 | 36.0 | | 0.268 | 3110 |
| 95 | | 11.4 | 1.1 | 2.1 | 42.0 | | 0.193 | 4084 |
| 120 | | 12.9 | 1.2 | 2.3 | 46.0 | | 0.153 | 5132 |
| 150 | | 14.4 | 1.4 | 2.4 | 51.0 | | 0.124 | 6327 |
| 185 | | 15.9 | 1.6 | 2.6 | 56.0 | | 0.0991 | 7846 |
| 240 | | 18.3 | 1.7 | 2.8 | 63.0 | | 0.0754 | 10038 |
| 300 | | 20.5 | 1.8 | 3.0 | 70.0 | | 0.0601 | 12609 |

# 0.6/1(1.2)kV CU/XLPE/PVC/AWA or SWA/PVC Cable

**Application**
Suitable for underground burial there is a risk of mechanical damage.

**Construction**
Cu Stranded XLPE insulated PVC bedding, Armoured and PVC sheathed Cable

**Standard**
IEC 60502-1




## Specification

Single Core

| Nominal Cross-Sectional Area mm² | Number & Diameter of Wire No./mm | Outer Diameter mm | Nominal Thickness of Insulation mm | Nominal diameter of Steel wire Armoured mm | Nominal Thickness of Sheath mm | Approximate Overall Diameter mm | Approximate weight of cable | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Copper kg/km | Aluminium kg/km |
| 16 | Circular Compacted | 4.7 | 0.7 | 0.9 | 1.8 | 13.6 | 357 | 255 |
| 25 | | 5.9 | 0.9 | 0.9 | 1.8 | 15.2 | 482 | 323 |
| 35 | | 6.9 | 0.9 | 0.9 | 1.8 | 16.4 | 597 | 375 |
| 50 | | 8.1 | 1.0 | 1.25 | 1.8 | 18.5 | 788 | 487 |
| 70 | | 9.8 | 1.1 | 1.25 | 1.8 | 20.4 | 1032 | 598 |
| 95 | | 11.4 | 1.1 | 1.25 | 1.8 | 22.1 | 1319 | 718 |
| 120 | | 12.9 | 1.2 | 1.6 | 1.8 | 25.1 | 1657 | 892 |
| 150 | | 14.4 | 1.4 | 1.6 | 1.8 | 26.9 | 1960 | 1048 |
| 185 | | 15.9 | 1.6 | 1.6 | 1.8 | 29.1 | 2375 | 1205 |
| 240 | | 18.3 | 1.7 | 1.6 | 1.9 | 31.9 | 3004 | 1467 |

Two Cores

| Nominal Cross-Sectional Area mm² | Number & Diameter of Wire No./mm | Outer Diameter mm | Nominal Thickness of Insulation mm | Nominal diameter of Steel wire Armoured mm | Nominal Thickness of Sheath mm | Approximate Overall Diameter mm | Approximate weight of cable | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Copper kg/km | Aluminium kg/km |
| 1.5 | 7/0.53 | 1.59 | 0.7 | 0.9 | 1.8 | 13.5 | 348 | - |
| 2.5 | 7/0.67 | 2.01 | 0.7 | 0.9 | 1.8 | 14.3 | 394 | - |
| 4 | 7/0.85 | 2.55 | 0.7 | 0.9 | 1.8 | 15.4 | 464 | - |
| 6 | 7/1.04 | 3.12 | 0.7 | 0.9 | 1.8 | 16.5 | 544 | 467 |
| 10 | 7/1.35 | 4.05 | 0.7 | 1.25 | 1.8 | 19.1 | 805 | 676 |
| 16 | Circular Compacted | 4.7 | 0.7 | 1.25 | 1.8 | 21.0 | 1000 | 773 |
| 25 | | 5.9 | 0.9 | 1.6 | 1.8 | 25.0 | 1489 | 1133 |
| 35 | | 6.9 | 0.9 | 1.6 | 1.8 | 27.3 | 1804 | 1322 |
| 50 | | 8.1 | 1.0 | 1.6 | 1.8 | 26.1 | 1910 | 1302 |
| 70 | | 9.8 | 1.1 | 1.6 | 2.0 | 29.5 | 2489 | 1609 |
| 95 | | 11.4 | 1.1 | 2.0 | 2.1 | 33.6 | 3410 | 2190 |
| 120 | | 12.9 | 1.2 | 2.0 | 2.2 | 36.5 | 4053 | 2503 |
| 150 | | 14.4 | 1.4 | 2.0 | 2.3 | 39.7 | 4789 | 2926 |
| 185 | | 15.9 | 1.6 | 2.5 | 2.5 | 46.0 | 6186 | 3809 |
| 240 | | 18.3 | 1.7 | 2.5 | 2.7 | 50.5 | 7645 | 4119 |

Three Cores

| Nominal Cross-Sectional Area mm² | Number & Diameter of Wire No./mm | Outer Diameter mm | Nominal Thickness of Insulation mm | Nominal diameter of Steel wire Armoured mm | Nominal Thickness of Sheath mm | Approximate Overall Diameter mm | Approximate weight of cable | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Copper kg/km | Aluminium kg/km |
| 1.5 | 7/0.53 | 1.59 | 0.7 | 0.9 | 1.8 | 13.6 | 379 | - |
| 2.5 | 7/0.67 | 2.01 | 0.7 | 0.9 | 1.8 | 14.8 | 437 | - |
| 4 | 7/0.85 | 2.55 | 0.7 | 0.9 | 1.8 | 16.0 | 525 | - |
| 6 | 7/1.04 | 3.12 | 0.7 | 0.9 | 1.8 | 17.2 | 628 | 512 |
| 10 | 7/1.35 | 4.05 | 0.7 | 1.25 | 1.8 | 19.9 | 937 | 743 |
| 16 | Circular Compacted | 4.7 | 0.7 | 1.25 | 1.8 | 21.9 | 1191 | 860 |
| 25 | | 5.9 | 0.9 | 1.6 | 1.8 | 26.2 | 1791 | 1273 |
| 35 | | 6.9 | 0.9 | 1.6 | 1.8 | 28.7 | 2201 | 1494 |
| 50 | | 8.1 | 1.0 | 1.6 | 1.9 | 29.5 | 2563 | 1650 |
| 70 | | 9.8 | 1.1 | 2.0 | 2.0 | 34.5 | 3637 | 2137 |
| 95 | | 11.4 | 1.1 | 2.0 | 2.2 | 38.2 | 4622 | 2791 |
| 120 | | 12.9 | 1.2 | 2.0 | 2.3 | 41.6 | 5557 | 3232 |
| 150 | | 14.4 | 1.4 | 2.5 | 2.5 | 48.0 | 7100 | 4305 |
| 185 | | 15.9 | 1.6 | 2.5 | 2.6 | 52.4 | 8493 | 4940 |
| 240 | | 18.3 | 1.7 | 2.5 | 2.8 | 58.2 | 10684 | 5995 |

Four Cores

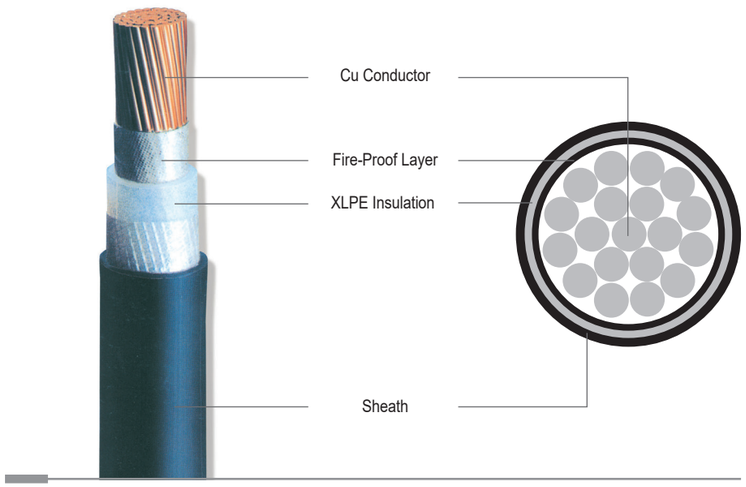
| Nominal Cross-Sectional Area mm² | Number & Diameter of Wire No./mm | Outer Diameter mm | Nominal Thickness of Insulation mm | Nominal diameter of Steel wire Armoured mm | Nominal Thickness of Sheath mm | Approximate Overall Diameter mm | Approximate weight of cable | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Copper kg/km | Aluminium kg/km |
| 1.5 | 7/0.53 | 1.59 | 0.7 | 0.9 | 1.8 | 14.7 | 423 | - |
| 2.5 | 7/0.67 | 2.01 | 0.7 | 0.9 | 1.8 | 15.7 | 496 | - |
| 4 | 7/0.85 | 2.55 | 0.7 | 0.9 | 1.8 | 17.0 | 402 | - |
| 6 | 7/1.04 | 3.12 | 0.7 | 1.25 | 1.8 | 19.1 | 845 | 691 |
| 10 | 7/1.35 | 4.05 | 0.7 | 1.25 | 1.8 | 21.4 | 1104 | 846 |
| 16 | Circular Compacted | 4.7 | 0.7 | 1.6 | 1.8 | 24.2 | 1566 | 1133 |
| 25 | | 5.9 | 0.9 | 1.6 | 1.8 | 28.2 | 2152 | 1473 |
| 35 | | 6.9 | 0.9 | 1.6 | 1.9 | 31.2 | 2692 | 1752 |
| 50 | | 8.1 | 1.0 | 1.6 | 2.0 | 32.7 | 3233 | 2015 |
| 70 | | 9.8 | 1.1 | 2.0 | 2.2 | 38.4 | 4605 | 2845 |
| 95 | | 11.4 | 1.1 | 2.0 | 2.3 | 42.5 | 5878 | 3436 |
| 120 | | 12.9 | 1.2 | 2.0 | 2.5 | 49.0 | 7621 | 4521 |
| 150 | | 14.4 | 1.4 | 2.5 | 2.6 | 53.5 | 8990 | 5201 |
| 185 | | 15.9 | 1.6 | 2.5 | 2.8 | 58.5 | 10910 | 6156 |
| 240 | | 18.3 | 1.7 | 2.5 | 3.0 | 65.0 | 13722 | 7470 |

# 0.6/1kV FIRE-RETARDANT CABLE [830℃/120min]

**Application**
Used for fire related equipment such as fire alarms, sprinkler system, emergency lighting circuits required fire - resistant properties.

**Construction**
Conductors
Circular Stranded Annealed Copper or Circular Compacted Annealed Copper
Insulation
The Fire-proof Layer Shall be Applied Between Conductor and Insulation
Assembly Cross-Linked Polyethylene (XLPE)
Sheath FR PVC
Color identification
1core - Natural
2cores - red, black
3cores - red, yellow, blue
4cores - red, yellow, blue, black

**Standard**
IEC 60502-1, IEC 60331-1




## Specification

Single Core

| Conductor | | | Insulation Thickness | Sheath Thickness | Approx Overall Diameter | Test Voltage | Max Conductor Resistance at 20℃ | Approx Weight |
|---|---|---|---|---|---|---|---|---|
| Nominal Sectional Area ㎟ | Number & Diameter of Wire No./㎜ | Outer Diameter ㎜ | ㎜ | ㎜ | ㎜ | V/1min | Ω /㎞ | kg/㎞ |
| 2.5 | 7/0.67 | 2.01 | 0.7 | 1.4 | 8.0 | 3500 | 7.41 | 81 |
| 4 | 7/0.85 | 2.55 | 0.7 | 1.4 | 8.5 | | 4.61 | 101 |
| 6 | 7/1.04 | 3.12 | 0.7 | 1.4 | 9.0 | | 3.08 | 125 |
| 10 | 7/1.35 | 4.05 | 0.7 | 1.4 | 10.0 | | 1.83 | 174 |
| 16 | Circular Compacted | 4.7 | 0.7 | 1.4 | 10.5 | | 1.15 | 230 |
| 25 | | 5.9 | 0.9 | 1.4 | 12.0 | | 0.727 | 335 |
| 35 | | 6.9 | 0.9 | 1.4 | 13.0 | | 0.524 | 437 |
| 50 | | 8.1 | 1.0 | 1.4 | 14.5 | | 0.387 | 569 |
| 70 | | 9.8 | 1.1 | 1.5 | 16.5 | | 0.268 | 785 |
| 95 | | 11.4 | 1.1 | 1.5 | 18.5 | | 0.193 | 1053 |
| 120 | | 12.9 | 1.2 | 1.6 | 21.0 | | 0.153 | 1307 |
| 150 | | 14.4 | 1.4 | 1.7 | 23.0 | | 0.124 | 1555 |
| 185 | | 15.9 | 1.6 | 1.7 | 25.0 | | 0.0991 | 1904 |
| 240 | | 18.3 | 1.7 | 1.8 | 27.0 | | 0.0754 | 2427 |
| 300 | | 20.5 | 1.8 | 1.9 | 30.0 | | 0.0601 | 3062 |
| 400 | | 23.2 | 2.0 | 2.0 | 33.0 | | 0.0470 | 4028 |
| 500 | | 26.4 | 2.2 | 2.1 | 37.0 | | 0.0366 | 4953 |
| 630 | | 30.2 | 2.4 | 2.3 | 42.0 | | 0.0283 | 6311 |

Two Cores

| Conductor | | | Insulation Thickness | Sheath Thickness | Approx Overall Diameter | Test Voltage | Max Conductor Resistance at 20℃ | Approx Weight |
|---|---|---|---|---|---|---|---|---|
| Nominal Sectional Area ㎟ | Number & Diameter of Wire No./㎜ | Outer Diameter ㎜ | ㎜ | ㎜ | ㎜ | V/1min | Ω /㎞ | kg/㎞ |
| 2.5 | 7/0.67 | 2.01 | 0.7 | 1.8 | 14.0 | 3500 | 7.41 | 203 |
| 4 | 7/0.85 | 2.55 | 0.7 | 1.8 | 15.0 | | 4.61 | 249 |
| 6 | 7/1.04 | 3.12 | 0.7 | 1.8 | 16.0 | | 3.08 | 308 |
| 10 | 7/1.35 | 4.05 | 0.7 | 1.8 | 18.0 | | 1.83 | 418 |
| 16 | Circular Compacted | 4.7 | 0.7 | 1.8 | 19.0 | | 1.15 | 548 |
| 25 | | 5.9 | 0.9 | 1.8 | 22.0 | | 0.727 | 789 |
| 35 | | 6.9 | 0.9 | 1.8 | 25.0 | | 0.524 | 1019 |
| 50 | | 8.1 | 1.0 | 1.8 | 27.0 | | 0.387 | 1315 |
| 70 | | 9.8 | 1.1 | 1.9 | 31.0 | | 0.268 | 1803 |
| 95 | | 11.4 | 1.1 | 2.0 | 35.0 | | 0.193 | 2390 |
| 120 | | 12.9 | 1.2 | 2.2 | 38.0 | | 0.153 | 2992 |
| 150 | | 14.4 | 1.4 | 2.3 | 42.0 | | 0.124 | 3585 |
| 185 | | 15.9 | 1.6 | 2.4 | 47.0 | | 0.0991 | 4407 |
| 240 | | 18.3 | 1.7 | 2.6 | 52.0 | | 0.0754 | 5596 |
| 300 | | 20.5 | 1.8 | 2.8 | 57.0 | | 0.0601 | 7018 |

Three Cores

| Conductor | | | Insulation Thickness | Sheath Thickness | Approx Overall Diameter | Test Voltage | Max Conductor Resistance at 20℃ | Approx Weight |
|---|---|---|---|---|---|---|---|---|
| Nominal Sectional Area ㎟ | Number & Diameter of Wire No./㎜ | Outer Diameter ㎜ | ㎜ | ㎜ | ㎜ | V/1min | Ω /㎞ | kg/㎞ |
| 2.5 | 7/0.67 | 2.01 | 0.7 | 1.8 | 14.5 | 3500 | 7.41 | 243 |
| 4 | 7/0.85 | 2.55 | 0.7 | 1.8 | 15.5 | | 4.61 | 307 |
| 6 | 7/1.04 | 3.12 | 0.7 | 1.8 | 17.0 | | 3.08 | 387 |
| 10 | 7/1.35 | 4.05 | 0.7 | 1.8 | 19.0 | | 1.83 | 535 |
| 16 | Circular Compacted | 4.7 | 0.7 | 1.8 | 20.0 | | 1.15 | 707 |
| 25 | | 5.9 | 0.9 | 1.8 | 24.0 | | 0.727 | 1056 |
| 35 | | 6.9 | 0.9 | 1.8 | 26.0 | | 0.524 | 1377 |
| 50 | | 8.1 | 1.0 | 1.9 | 29.0 | | 0.387 | 1781 |
| 70 | | 9.8 | 1.1 | 2.0 | 33.0 | | 0.268 | 2482 |
| 95 | | 11.4 | 1.1 | 2.1 | 37.0 | | 0.193 | 3328 |
| 120 | | 12.9 | 1.2 | 2.3 | 41.0 | | 0.153 | 4150 |
| 150 | | 14.4 | 1.4 | 2.4 | 45.0 | | 0.124 | 4975 |
| 185 | | 15.9 | 1.6 | 2.6 | 50.0 | | 0.0991 | 6121 |
| 240 | | 18.3 | 1.7 | 2.8 | 56.0 | | 0.0754 | 7800 |
| 300 | | 20.5 | 1.8 | 2.9 | 61.0 | | 0.0601 | 9806 |

Four Cores

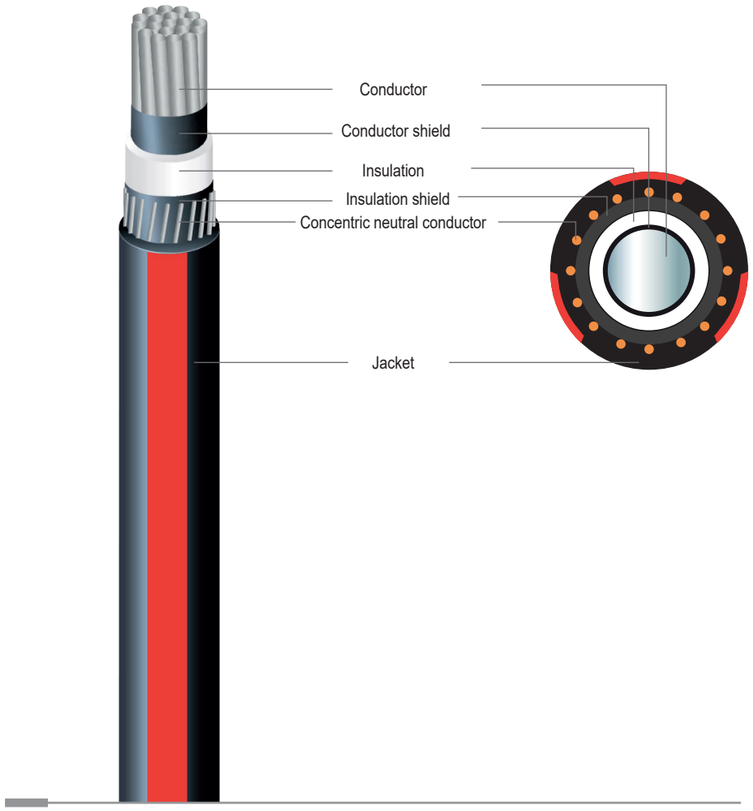
| Conductor | | | Insulation Thickness | Sheath Thickness | Approx Overall Diameter | Test Voltage | Max Conductor Resistance at 20℃ | Approx Weight |
|---|---|---|---|---|---|---|---|---|
| Nominal Sectional Area ㎟ | Number & Diameter of Wire No./㎜ | Outer Diameter ㎜ | ㎜ | ㎜ | ㎜ | V/1min | Ω /㎞ | kg/㎞ |
| 2.5 | 7/0.67 | 2.01 | 0.7 | 1.8 | 16.0 | 3500 | 7.41 | 292 |
| 4 | 7/0.85 | 2.55 | 0.7 | 1.8 | 17.0 | | 4.61 | 377 |
| 6 | 7/1.04 | 3.12 | 0.7 | 1.8 | 18.5 | | 3.08 | 475 |
| 10 | 7/1.35 | 4.05 | 0.7 | 1.8 | 21.0 | | 1.83 | 676 |
| 16 | Circular Compacted | 4.7 | 0.7 | 1.8 | 22.0 | | 1.15 | 919 |
| 25 | | 5.9 | 0.9 | 1.8 | 26.0 | | 0.727 | 1353 |
| 35 | | 6.9 | 0.9 | 1.8 | 29.0 | | 0.524 | 1755 |
| 50 | | 8.1 | 1.0 | 2.0 | 32.0 | | 0.387 | 2313 |
| 70 | | 9.8 | 1.1 | 2.1 | 37.0 | | 0.268 | 3237 |
| 95 | | 11.4 | 1.1 | 2.3 | 41.0 | | 0.193 | 4345 |
| 120 | | 12.9 | 1.2 | 2.4 | 46.0 | | 0.153 | 5357 |
| 150 | | 14.4 | 1.4 | 2.6 | 50.0 | | 0.124 | 6489 |
| 185 | | 15.9 | 1.6 | 2.7 | 56.0 | | 0.0991 | 8018 |
| 240 | | 18.3 | 1.7 | 3.0 | 62.0 | | 0.0754 | 10228 |
| 300 | | 20.5 | 1.8 | 3.2 | 69.0 | | 0.0601 | 12895 |

# 15-35kV URD(Underground Residential Distribution)

**Application**
For use on single phase and three phase primary underground distribution systems operating at 35 kV phase to phase at 100 % insulation level. Suitable for either direct burial or installation in ducts.

**Construction**
Conductors
Compact or compress stranded aluminium wires as per ICEA S-94-649
Conductor shield
Semi-conducting thermosetting
Insulation
TR-XLPE (Tree retardant crosslinked polyethylene)
Insulation shield
Semi-conducting thermosetting
Concentric neutral conductor
Red, yellow, blue
Jaket
LLDPE (Linear low density polyethylene

**Standard**
ICEA S-94-649




## Specification

35kV URD Cable(100% insulation level) / 35kV TR-XLPE insulated, LLDPE sheathed power cable

| Conductor | | | Insulation Thickness | | Jacket Thickness | Neutral Conductor | | Overall Diameter (Approx) □ | Ampacity A | Conductor Resistance at 20℃ MΩ/□ | Test Voltage □ | Approx Weight □/□ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Area AWG/kcmil | Shape | Approx Dia □ | Max □ | Min □ | Min □ | Size AWG | No. of wires EA | | | | | |
| 1/0 | Compact | 8.53 | 9.53 | 8.38 | 1.14 | 14 | 6 | 35.3 | 191 | 0.562 | 69 | 1,145 |
| | Compress | 9.19 | | | | | | 35.9 | | | | 1,170 |
| 2/0 | Compact | 9.55 | | | | | 7 | 36.3 | 217 | 0.444 | | 1,245 |
| | Compress | 10.30 | | | | | | 37.0 | | | | 1,275 |
| 3/0 | Compact | 10.70 | | | | | 9 | 37.4 | 246 | 0.350 | | 1,375 |
| | 4/0 | 11.60 | | | | | | 38.3 | | | | 1,415 |
| 4/0 | Compact | 12.10 | | | | | 11 | 38.8 | 279 | 0.279 | | 1,530 |
| | Compress | 13.00 | | | | | | 39.7 | | | | 1,570 |
| 250 | Compact | 13.20 | | | | | 13 | 40.1 | 303 | 0.236 | | 1,675 |
| | Compress | 14.20 | | | | | | 41.1 | | | | 1,720 |
| 350 | Compact | 15.60 | | | | | 18 | 42.5 | 361 | 0.169 | | 2,010 |
| | Compress | 16.80 | | | | | | 45.2 | | | | 2,150 |
| 500 | Compact | 18.70 | | | | 12 | 16 | 48.1 | 433 | 0.118 | | 2,655 |
| | Compress | 20.00 | | | | | | 49.4 | | | | 2,710 |
| 750 | Compact | 23.10 | | | | | 24 | 53.4 | 522 | 0.079 | | 3,510 |
| | Compress | 24.60 | | | | | | 54.9 | | | | 3,575 |
| 1000 | Compact | 26.90 | | | 1.78 | 10 | 20 | 58.2 | 613 | 0.059 | | 4,355 |
| | Compress | 28.40 | | | | | | 59.7 | | | | 4,425 |
| 1250 | Compress | 31.80 | | | | 9 | | 64.0 | 670 | 0.047 | | 5,255 |

1)Neutral conductor - Other construction may be applied - Full neutral construction is optional
2)Ampacity - 100% load factor, Direct burial, 25℃ earth ambient temperature, 90℃ conductor temperature, earth RHO 90

35kV URD Cable(133% insulation level) / 35kV TR-XLPE insulated, LLDPE sheathed power cable

| Conductor | | | Insulation Thickness | | Jacket Thickness | Neutral Conductor | | Overall Diameter (Approx) mm | Ampacity A | Conductor Resistance at 20℃ MΩ /km | Test Voltage kV | Approx Weight kg/km |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Area AWG/kcmil | Shape | Approx Dia mm | Max mm | Min mm | Min mm | Size AWG | No. of wires EA | | | | | |
| 1/0 | Compact | 8.53 | 11.7 | 10.2 | 1.14 | 14 | 6 | 39.1 | 191 | 0.562 | 84 | 1,355 |
| | Compress | 9.19 | | | | | | 39.7 | | | | 1,385 |
| 2/0 | Compact | 9.55 | | | | | 7 | 40.1 | 217 | 0.444 | | 1,460 |
| | Compress | 10.30 | | | | | | 40.8 | | | | 1,495 |
| 3/0 | Compact | 10.70 | | | | | 9 | 41.2 | 246 | 0.350 | | 1,600 |
| | Compress | 11.60 | | | | | | 42.1 | | | | 1,640 |
| 4/0 | Compact | 12.10 | | | | | 11 | 42.6 | 279 | 0.279 | | 1,760 |
| | Compress | 13.00 | | | | | | 43.5 | | | | 1,800 |
| 250 | Compact | 13.20 | | | 1.78 | | 13 | 45.4 | 303 | 0.236 | | 2,010 |
| | Compress | 14.20 | | | | | | 46.4 | | | | 2,055 |
| 350 | Compact | 15.60 | | | | | 18 | 47.8 | 361 | 0.169 | | 2,360 |
| | Compress | 16.80 | | | | | | 49.0 | | | | 2,415 |
| 500 | Compact | 18.70 | | | | 12 | 16 | 52.8 | 433 | 0.118 | | 3,010 |
| | Compress | 20.00 | | | | | | 54.1 | | | | 3,075 |
| 750 | Compact | 23.10 | | | | | 24 | 57.2 | 522 | 0.079 | | 3,820 |
| | Compress | 24.60 | | | | | | 58.7 | | | | 3,895 |
| 1000 | Compact | 26.90 | | | | 10 | 20 | 62.0 | 613 | 0.059 | | 4,690 |
| | Compress | 28.40 | | | | | | 63.5 | | | | 4,770 |
| 1250 | Compress | 31.80 | | | | 9 | | 67.8 | 670 | 0.047 | | 5,625 |

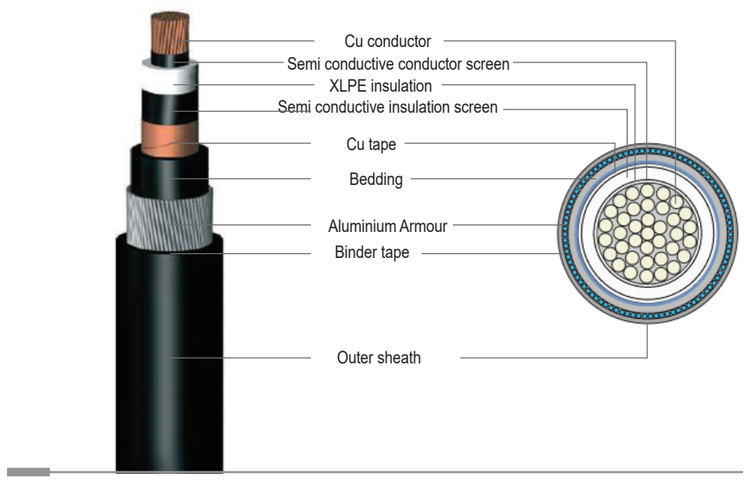
1)Neutral conductor - Other construction may be applied - Full neutral construction is optional
2)Ampacit - 100% load factor, Direct burial, 25℃ earth ambient temperature, 90℃ conductor temperature, earth RHO 90

# Medium Voltage{6/10(12), 8.7/15(17.5), 12/20(24), 18/30(36)} Copper Conductors XLPE Insulated(Armoured)

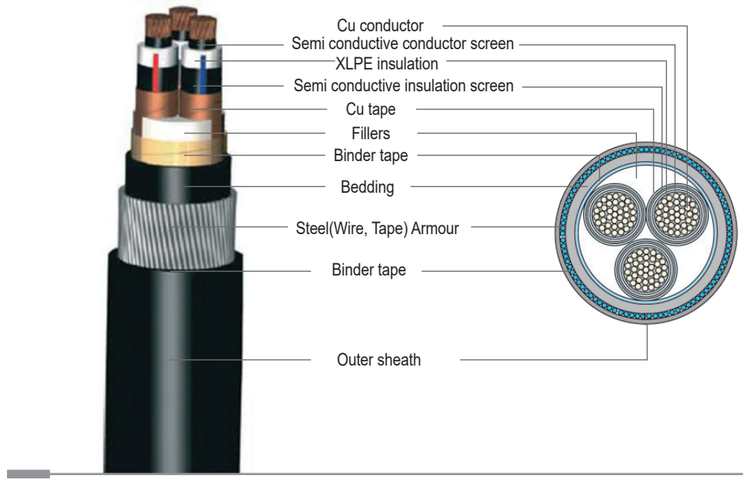
**Application**
Used for power distribution circuits in industrial and commercial installation.

**Construction**
Conductors
Circular Compacted Stranded with Annealed Copper
Insulation
Extruded Cross-linked Polyethylene with Semi-conductive Inner and Outer Screen
Copper tape screen
Bedding PVC
Armouring
Aluminium Wire Amour(1 core), Galvanised steel wire/tape Amour(3 core)

**Standard**
ES 6145-0006(KEPCO std.)




**Single Core**




**Three Cores**

## Specification

6/10(12)kV Single Core Copper Conductors XLPE Insulated(Aluminium wire Armoured)

| Nominal Area of Conductor ㎟ | Conductor Diameter (Max) ㎜ | Insulation Thickness (Nominal) ㎜ | Separation Sheath Thickness ㎜ | Armour Wire Diameter (Nominal) ㎜ | Outer sheath Thickness (Nominal) ㎜ | Approx Overall Diameter ㎜ | Maximum DC resistance of Conductor at 20℃ Ω/㎞ |
|---|---|---|---|---|---|---|---|
| 50 | 8.1 | 3.4 | 1.2 | 1.6 | 1.8 | 28.0 | 0.387 |
| 70 | 9.8 | 3.4 | 1.2 | 1.6 | 1.8 | 29.5 | 0.268 |
| 95 | 11.4 | 3.4 | 1.2 | 1.6 | 1.9 | 31.5 | 0.193 |
| 120 | 12.9 | 3.4 | 1.2 | 1.6 | 1.9 | 33.0 | 0.153 |
| 150 | 14.4 | 3.4 | 1.2 | 1.6 | 2.0 | 35.5 | 0.124 |
| 185 | 15.9 | 3.4 | 1.2 | 2.0 | 2.0 | 37.0 | 0.0991 |
| 240 | 18.3 | 3.4 | 1.2 | 2.0 | 2.1 | 39.5 | 0.0754 |
| 300 | 20.5 | 3.4 | 1.2 | 2.0 | 2.2 | 41.5 | 0.0601 |
| 400 | 23.2 | 3.4 | 1.2 | 2.0 | 2.3 | 46.5 | 0.047 |
| 500 | 26.4 | 3.4 | 1.3 | 2.5 | 2.5 | 49.5 | 0.0366 |
| 630 | 30.2 | 3.4 | 1.4 | 2.5 | 2.6 | 53.5 | 0.0283 |

6/10(12)kV Three Core Copper Conductors XLPE Insulated(Steel Wire Armoured)

| Nominal Area of Conductor ㎟ | Conductor Diameter (Max) ㎜ | Insulation Thickness (Nominal) ㎜ | Separation Sheath Thickness ㎜ | Armour Wire Diameter (Nominal) ㎜ | Outer sheath Thickness (Nominal) ㎜ | Approx Overall Diameter ㎜ | Maximum DC resistance of Conductor at 20℃ Ω/㎞ |
|---|---|---|---|---|---|---|---|
| 50 | 8.1 | 3.4 | 1.4 | 2.5 | 2.6 | 53.0 | 0.387 |
| 70 | 9.8 | 3.4 | 1.4 | 2.5 | 2.7 | 56.5 | 0.268 |
| 95 | 11.4 | 3.4 | 1.5 | 2.5 | 2.9 | 61.0 | 0.193 |
| 120 | 12.9 | 3.4 | 1.6 | 2.5 | 3.0 | 64.0 | 0.153 |
| 150 | 14.4 | 3.4 | 1.6 | 2.5 | 3.1 | 67.5 | 0.124 |
| 185 | 15.9 | 3.4 | 1.7 | 2.5 | 3.2 | 71.5 | 0.0991 |
| 240 | 18.3 | 3.4 | 1.8 | 3.15 | 3.4 | 79.0 | 0.0754 |
| 300 | 20.5 | 3.4 | 1.9 | 3.15 | 3.6 | 83.5 | 0.0601 |
| 400 | 23.2 | 3.4 | 2.0 | 3.15 | 3.8 | 91.0 | 0.047 |

8.7/15(17.5)kV Single Core Copper Conductors XLPE Insulated(Aluminium Wire Amoured)

| Nominal Area of Conductor ㎟ | Conductor Diameter (Max) ㎜ | Insulation Thickness (Nominal) ㎜ | Separation Sheath Thickness ㎜ | Armour Wire Diameter (Nominal) ㎜ | Outer sheath Thickness (Nominal) ㎜ | Approx Overall Diameter ㎜ | Maximum DC resistance of Conductor at 20℃ Ω/㎞ |
|---|---|---|---|---|---|---|---|
| 50 | 8.1 | 4.5 | 1.2 | 1.6 | 1.9 | 30.5 | 0.387 |
| 70 | 9.8 | 4.5 | 1.2 | 1.6 | 2.0 | 32.0 | 0.268 |
| 95 | 11.4 | 4.5 | 1.2 | 2.0 | 2.0 | 34.5 | 0.193 |
| 120 | 12.9 | 4.5 | 1.2 | 2.0 | 2.1 | 36.0 | 0.153 |
| 150 | 14.4 | 4.5 | 1.2 | 2.0 | 2.1 | 37.5 | 0.124 |
| 185 | 15.9 | 4.5 | 1.2 | 2.0 | 2.2 | 39.5 | 0.0991 |
| 240 | 18.3 | 4.5 | 1.2 | 2.0 | 2.3 | 42.0 | 0.0754 |
| 300 | 20.5 | 4.5 | 1.2 | 2.0 | 2.3 | 44.0 | 0.0601 |
| 400 | 23.2 | 4.5 | 1.3 | 2.5 | 2.5 | 48.5 | 0.047 |
| 500 | 26.4 | 4.5 | 1.3 | 2.5 | 2.6 | 52.0 | 0.0366 |
| 630 | 30.2 | 4.5 | 1.4 | 2.5 | 2.7 | 56.0 | 0.0283 |

8.7 / 15(17.5)kV Three Core Copper Conductors XLPE Insulated(Steel Wire Amoured)

| Nominal Area of Conductor ㎟ | Conductor Diameter (Max) ㎜ | Insulation Thickness (Nominal) ㎜ | Separation Sheath Thickness ㎜ | Armour Wire Diameter (Nominal) ㎜ | Outer sheath Thickness (Nominal) ㎜ | Approx Overall Diameter ㎜ | Maximum DC resistance of Conductor at 20℃ Ω/㎞ |
|---|---|---|---|---|---|---|---|
| 50 | 8.1 | 4.5 | 1.5 | 2.5 | 2.8 | 58.5 | 0.387 |
| 70 | 9.8 | 4.5 | 1.5 | 2.5 | 2.9 | 62.0 | 0.268 |
| 95 | 11.4 | 4.5 | 1.6 | 2.5 | 3.0 | 66.0 | 0.193 |
| 120 | 12.9 | 4.5 | 1.7 | 2.5 | 3.2 | 69.5 | 0.153 |
| 150 | 14.4 | 4.5 | 1.7 | 2.5 | 3.3 | 73.0 | 0.124 |
| 185 | 15.9 | 4.5 | 1.8 | 3.15 | 3.4 | 78.0 | 0.0991 |
| 240 | 18.3 | 4.5 | 1.9 | 3.15 | 3.6 | 84.0 | 0.0754 |
| 300 | 20.5 | 4.5 | 2.0 | 3.15 | 3.8 | 89.0 | 0.0601 |
| 400 | 23.2 | 4.5 | 2.1 | 3.15 | 4.0 | 97.0 | 0.047 |

## Specification

12 / 20(24)kV Single Core Copper Conductors XLPE Insulated(Aluminium Wire Amoured)

| Nominal Area of Conductor ㎟ | Conductor Diameter (Max) ㎜ | Insulation Thickness (Nominal) ㎜ | Separation Sheath Thickness ㎜ | Armour Wire Diameter (Nominal) ㎜ | Outer sheath Thickness (Nominal) ㎜ | Approx Overall Diameter ㎜ | Maximum DC resistance of Conductor at 20℃ Ω/㎞ |
|---|---|---|---|---|---|---|---|
| 50 | 8.1 | 5.5 | 1.2 | 1.6 | 2.0 | 32.5 | 0.387 |
| 70 | 9.8 | 5.5 | 1.2 | 2.0 | 2.1 | 35.0 | 0.268 |
| 95 | 11.4 | 5.5 | 1.2 | 2.0 | 2.1 | 36.5 | 0.193 |
| 120 | 12.9 | 5.5 | 1.2 | 2.0 | 2.2 | 38.0 | 0.153 |
| 150 | 14.4 | 5.5 | 1.2 | 2.0 | 2.2 | 39.5 | 0.124 |
| 185 | 15.9 | 5.5 | 1.2 | 2.0 | 2.3 | 41.5 | 0.0991 |
| 240 | 18.3 | 5.5 | 1.2 | 2.0 | 2.3 | 44.0 | 0.0754 |
| 300 | 20.5 | 5.5 | 1.2 | 2.5 | 2.4 | 47.5 | 0.0601 |
| 400 | 23.2 | 5.5 | 1.3 | 2.5 | 2.6 | 51.0 | 0.047 |
| 500 | 26.4 | 5.5 | 1.4 | 2.5 | 2.7 | 54.0 | 0.0366 |
| 630 | 30.2 | 5.5 | 1.5 | 2.5 | 2.8 | 58.0 | 0.0283 |

12/20(24)kV Three Core Copper Conductors XLPE Insulated(Steel Wire Amoured)

| Nominal Area of Conductor ㎟ | Conductor Diameter (Max) ㎜ | Insulation Thickness (Nominal) ㎜ | Separation Sheath Thickness ㎜ | Armour Wire Diameter (Nominal) ㎜ | Outer sheath Thickness (Nominal) ㎜ | Approx Overall Diameter ㎜ | Maximum DC resistance of Conductor at 20℃ Ω/㎞ |
|---|---|---|---|---|---|---|---|
| 50 | 8.1 | 5.5 | 1.6 | 2.5 | 3.0 | 63.5 | 0.387 |
| 70 | 9.8 | 5.5 | 1.6 | 2.5 | 3.1 | 67.0 | 0.268 |
| 95 | 11.4 | 5.5 | 1.7 | 2.5 | 3.2 | 71.0 | 0.193 |
| 120 | 12.9 | 5.5 | 1.7 | 3.15 | 3.4 | 75.5 | 0.153 |
| 150 | 14.4 | 5.5 | 1.8 | 3.15 | 3.5 | 79.0 | 0.124 |
| 185 | 15.9 | 5.5 | 1.9 | 3.15 | 3.6 | 83.0 | 0.0991 |
| 240 | 18.3 | 5.5 | 2.0 | 3.15 | 3.8 | 88.5 | 0.0754 |
| 300 | 20.5 | 5.5 | 2.1 | 3.15 | 3.9 | 94.0 | 0.0601 |
| 400 | 23.2 | 5.5 | 2.2 | 3.15 | 4.2 | 101.5 | 0.047 |

18/30(36)kV Single Core Copper Conductors XLPE Insulated(Aluminium Wire Amoured)

| Nominal Area of Conductor ㎟ | Conductor Diameter (Max) ㎜ | Insulation Thickness (Nominal) ㎜ | Separation Sheath Thickness ㎜ | Armour Wire Diameter (Nominal) ㎜ | Outer sheath Thickness (Nominal) ㎜ | Approx Overall Diameter ㎜ | Maximum DCresistance of Conductor at 20℃ Ω/㎞ |
|---|---|---|---|---|---|---|---|
| 50 | 8.1 | 8 | 1.2 | 2.0 | 2.2 | 38.5 | 0.387 |
| 70 | 9.8 | 8 | 1.2 | 2.0 | 2.2 | 40.0 | 0.268 |
| 95 | 11.4 | 8 | 1.2 | 2.0 | 2.3 | 42.0 | 0.193 |
| 120 | 12.9 | 8 | 1.2 | 2.0 | 2.3 | 44.0 | 0.153 |
| 150 | 14.4 | 8 | 1.3 | 2.5 | 2.4 | 46.5 | 0.124 |
| 185 | 15.9 | 8 | 1.3 | 2.5 | 2.5 | 48.0 | 0.0991 |
| 240 | 18.3 | 8 | 1.3 | 2.5 | 2.6 | 50.5 | 0.0754 |
| 300 | 20.5 | 8 | 1.4 | 2.5 | 2.6 | 53.0 | 0.0601 |
| 400 | 23.2 | 8 | 1.4 | 2.5 | 2.7 | 56.5 | 0.047 |
| 500 | 26.4 | 8 | 1.5 | 2.5 | 2.85 | 59.5 | 0.0366 |
| 630 | 30.2 | 8 | 1.6 | 2.5 | 2.9 | 63.5 | 0.0283 |

18/30(36)kV Three Core Copper Conductors XLPE Insulated(Steel Wire Amoured)

| Nominal Area of Conductor ㎟ | Conductor Diameter (Max) ㎜ | Insulation Thickness (Nominal) ㎜ | Separation Sheath Thickness ㎜ | Armour Wire Diameter (Nominal) ㎜ | Outer sheath Thickness (Nominal) ㎜ | Approx Overall Diameter ㎜ | Maximum DCresistance of Conductor at 20℃ Ω/㎞ |
|---|---|---|---|---|---|---|---|
| 50 | 8.1 | 8 | 1.8 | 3.15 | 3.4 | 76.5 | 0.387 |
| 70 | 9.8 | 8 | 1.8 | 3.15 | 3.5 | 80.0 | 0.268 |
| 95 | 11.4 | 8 | 1.9 | 3.15 | 3.6 | 84.5 | 0.193 |
| 120 | 12.9 | 8 | 2.0 | 3.15 | 3.7 | 87.5 | 0.153 |
| 150 | 14.4 | 8 | 2.0 | 3.15 | 3.9 | 91.5 | 0.124 |
| 185 | 15.9 | 8 | 2.1 | 3.15 | 4.0 | 95.0 | 0.0991 |
| 240 | 18.3 | 8 | 2.2 | 3.15 | 4.1 | 100.5 | 0.0754 |
| 300 | 20.5 | 8 | 2.3 | 3.15 | 4.3 | 106.0 | 0.0601 |
| 400 | 23.2 | 8 | 2.4 | 3.15 | 4.5 | 113.5 | 0.047 |

# Insulated Wire(Building Wire)

**450/750V Halogen-Free Flame Retardant Poly-Olefin Insulated Wire**

**300/500V Single-core PVC insulated Non-sheathed Cable with Solid Conductor for Internal Wiring(90˚C)**

**450/750V CU/PVC Cable**

**0.6/1kV Grounding Wire**

**High-Voltage Drop Wire for Pole Transformer**

**Ordinary Polyvinyl Chloride Sheathed Cord**

# Control Cable

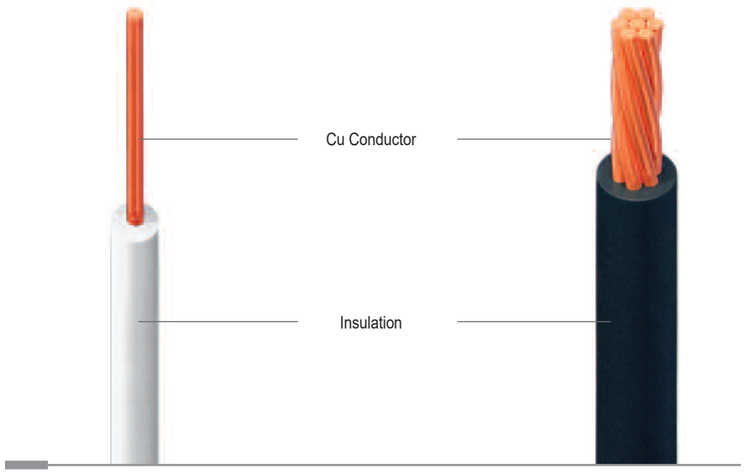
**0.6/1kV CU/PVC/PVC**

# 450/750V Halogen-Free Flame Retardant Poly-Olefin Insulated Wire(HFIX)

**Application**
Used for inside of house building wiring at max. conductor temperature 90℃ and insulated with halogen-free flame retardant poly-olefin.

**Construction**
Conductors
Plain(or Metal-Coated) Annealed Copper Wire (Tinned annealed Stranded Copper Wire up to 6㎟ are available)
Insulation Halogen-Free Flame Retardant Poly-Olefin
Color of the Insulation
Black(If necessary black, white, red, green, yellow, blue or brown, black, gray, blue, green/yellow, By customer's preferences)
Maximum permissible temperature
90℃

**Standard**
KS C 3341




## Specification

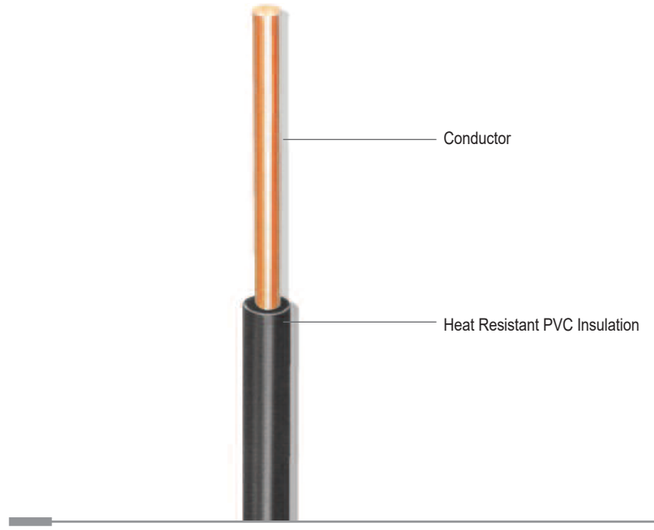
| Conductor | | Insulation Thickness ㎜ | Approx Overall Diameter | | Max Conductor Resistance at 20℃ Ω/㎞ | Test Voltage V/1min | Standard Length m |
|---|---|---|---|---|---|---|---|
| Nominal Sectional Area ㎟ | KS C IEC 60228 | | Min ㎜ | Max ㎜ | | | |
| 1.5 | 1 | 0.7 | 2.6 | 3.3 | 12.1 | 2500 | 300 |
| | 2 | | 2.7 | 3.4 | 12.1 | | |
| 2.5 | 1 | 0.8 | 3.2 | 4.0 | 7.41 | | |
| | 2 | | 3.3 | 4.1 | 7.41 | | |
| 4 | 1 | 0.8 | 3.6 | 4.6 | 4.61 | | |
| | 2 | | 3.8 | 4.7 | 4.61 | | |
| 6 | 1 | 0.8 | 4.1 | 5.2 | 3.08 | | |
| | 2 | | 4.3 | 5.4 | 3.08 | | |
| 10 | 1 | 1.0 | 5.3 | 6.6 | 1.83 | | |
| | Circular Compacted | | 5.6 | 7.0 | 1.83 | | |
| 16 | | 1.0 | 6.4 | 8.0 | 1.15 | | - |
| 25 | | 1.2 | 8.1 | 10.1 | 0.727 | | |
| 35 | | 1.2 | 9.0 | 11.3 | 0.524 | | |
| 50 | | 1.4 | 10.6 | 13.2 | 0.387 | | |
| 70 | | 1.4 | 12.1 | 15.1 | 0.268 | | |
| 95 | | 1.6 | 14.1 | 17.6 | 0.193 | | |
| 120 | | 1.6 | 15.6 | 19.4 | 0.153 | | |
| 150 | | 1.8 | 17.3 | 21.6 | 0.124 | | |
| 185 | | 2.0 | 19.3 | 24.1 | 0.0991 | | |
| 240 | | 2.2 | 22.0 | 27.5 | 0.0754 | | |
| 300 | | 2.4 | 24.5 | 30.6 | 0.0601 | | |

# 300/500V Single-core PVC insulated Non-sheathed Cable with Solid Conductor for Internal Wiring(90°C) (HIV)(60227 IEC 07)

**Application**
Used for chiefly in wiring of electric apparatus and equipment under 300/500V grade, and insulated with compound mainly composed of PVC resin including heat-resistant plasticizer.

**Construction**
Conductors
Plain or Metal-Coated Annealed Copper Wire(Tinned Annealed Stranded Copper Wire up to 6㎟ are Available)
Insulation Heat-Resistant PVC
Color of the Insulation
Black(If necessary black, white, red, green, yellow, blue or brown, black, gray, blue, green/yellow)
Maximum permissible temperature
90℃

**Standard**
KS C IEC 60227-3(01)




## Specification

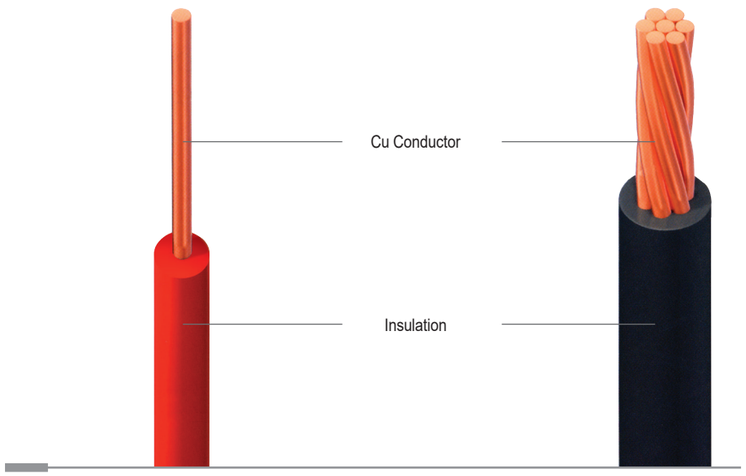
| Conductor | | | Insulation Thickness ㎜ | Approx Overall Diameter ㎜ | Max Conductor Resistance at 20℃ Ω/㎞ | Test Voltage V/1min | Min Insulation Resistance at 90℃ MΩ · ㎞ | Approx Weight kg/㎞ | Standard Length m |
|---|---|---|---|---|---|---|---|---|---|
| Nominal Sectional Area ㎟ | Number & Diameter of Wire No./㎜ | Outer Diameter ㎜ | | | | | | | |
| 1.5 | 1/1.38 | 1.38 | 0.7 | 3.2 | 12.1 | 2000 | 0.011 | 21 | 300 |
| 2.5 | 1/1.78 | 1.78 | 0.8 | 3.9 | 7.41 | 2000 | 0.009 | 32 | |

# 450/750V CU/PVC Cable(Building Wire)

**Application**
Used for inside of house building at max. conductor temperature 70℃

**Construction**
Conductors Annealed Copper Wire
Insulation PVC
Color of the Insulation
Black (If necessary black, white, red, green, yellow, blue, brown, gray, green/yellow)
Maximum permissible temperature
70℃

**Standard**
IEC 60502-1




## Specification

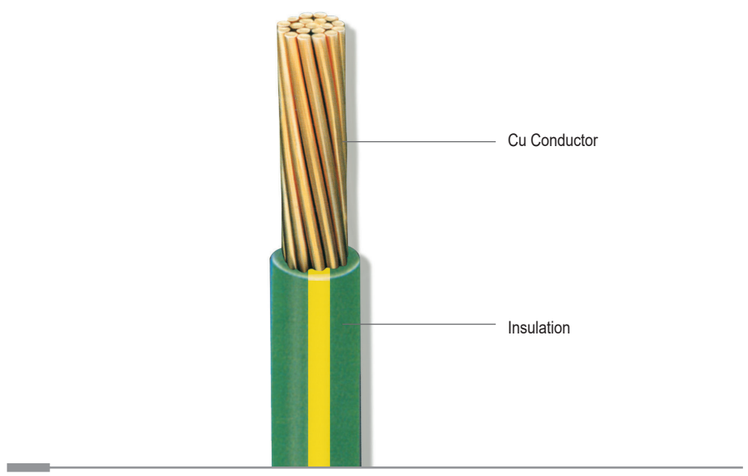
| Conductor | | | Insulation Thickness mm | Approx Overall Diameter mm | Max Conductor Resistance at 20℃ Ω /km | Test Voltage V/1min | Min Insulation Resistance at 70℃ MΩ · km | Approx Weight kg/km |
|---|---|---|---|---|---|---|---|---|
| Nominal Sectional Area mm² | Number & Diameter of Wire No./mm | Outer Diameter | | | | | | |
| 1.5 | 1/1.38 | 1.38 | 0.7 | 3.2 | 12.1 | 2500 | 0.011 | 24 |
| | 7/0.53 | 1.59 | | 3.3 | 12.1 | | 0.010 | 25 |
| 2.5 | 1/1.78 | 1.78 | 0.8 | 3.9 | 7.41 | | 0.010 | 34 |
| | 7/0.67 | 2.01 | | 4.0 | 7.41 | | 0.009 | 35 |
| 4 | 1/2.25 | 2.25 | | 4.4 | 4.61 | | 0.0085 | 50 |
| | 7/0.82 | 2.55 | | 4.6 | 4.61 | | 0.0077 | 55 |
| 6 | 1/2.76 | 2.76 | | 5.0 | 3.08 | | 0.0070 | 70 |
| | 7/1.04 | 3.12 | | 5.2 | 3.08 | | 0.0065 | 75 |
| 10 | 1/3.57 | 3.57 | 1.0 | 6.4 | 1.83 | | 0.0070 | 115 |
| | 7/1.35 | 4.05 | | 6.7 | 1.83 | | 0.0065 | 120 |
| 16 | Circular Compacted | 4.7 | | 7.8 | 1.15 | | 0.0050 | 170 |
| 25 | | 5.9 | 1.2 | 9.7 | 0.727 | | 0.0050 | 270 |
| 35 | | 6.9 | | 10.9 | 0.524 | | 0.0043 | 370 |
| 50 | | 8.1 | 1.4 | 12.8 | 0.387 | | 0.0043 | 510 |
| 70 | | 9.8 | | 14.6 | 0.268 | | 0.0035 | 685 |
| 95 | | 11.4 | 1.6 | 17.1 | 0.193 | | 0.0035 | 935 |
| 120 | | 12.9 | | 18.8 | 0.153 | | 0.0032 | 1170 |
| 150 | | 14.4 | 1.8 | 20.9 | 0.124 | | 0.0032 | 1450 |
| 185 | | 15.9 | 2.0 | 23.3 | 0.0991 | | 0.0032 | 1820 |
| 240 | | 18.3 | 2.2 | 26.6 | 0.0754 | | 0.0032 | 2305 |
| 300 | | 20.5 | 2.4 | 29.6 | 0.0601 | | 0.0030 | 2925 |
| 400 | | 23.2 | 2.6 | 33.2 | 0.047 | | 0.0028 | 3820 |

# 0.6/1kV Grounding Wire

**Application**
Used for grounding of electric apparatus.

**Construction**
Conductors
Annealed Copper Wire(Concentric Circular, Compact Circular)
Insulation Flame Retardant PVC
Color of the Insulation
Green or green/yellow
Maximum permissible temperature
70℃

**Standard**
IEC 60502-1




## Specification

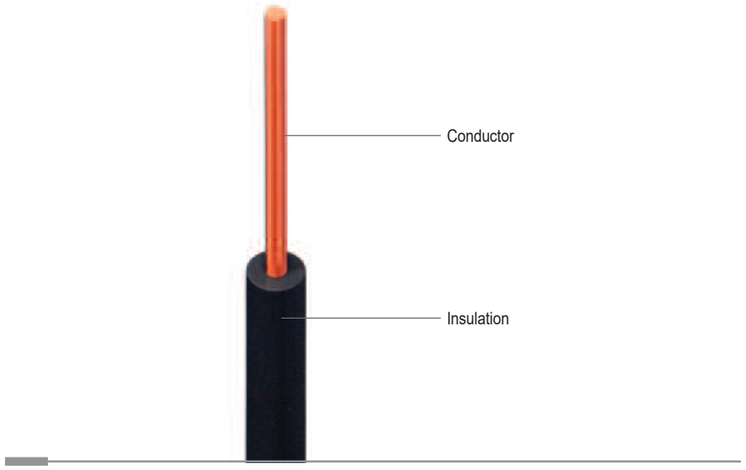
| Conductor | | | Insulation Thickness mm | Approx Overall Diameter mm | Max Conductor Resistance at 20℃ Ω /km | Test Voltage V/1min | Approx Weight kg/km |
|---|---|---|---|---|---|---|---|
| Nominal Sectional Area mm² | Number & Diameter of Wire No./mm | Outer Diameter mm | | | | | |
| 1.5 | 7/0.53 | 1.59 | 2.2 | 6.5 | 12.1 | 3500 | 65 |
| 2.5 | 7/0.67 | 2.01 | | 7.0 | 7.41 | | 80 |
| 4 | 7/0.85 | 2.55 | 2.4 | 8.0 | 4.61 | | 105 |
| 6 | 7/1.04 | 3.12 | | 8.5 | 3.07 | | 135 |
| 10 | 7/1.35 | 4.05 | | 9.5 | 1.83 | | 185 |
| 16 | Circular Compacted | 4.7 | | 10.0 | 1.15 | | 240 |
| 25 | | 5.9 | 2.6 | 12.0 | 0.727 | | 350 |
| 35 | | 6.9 | | 13.0 | 0.524 | | 440 |
| 50 | | 8.1 | 2.8 | 14.5 | 0.387 | | 615 |
| 70 | | 9.8 | | 16.0 | 0.268 | | 800 |
| 95 | | 11.4 | 3.1 | 18.5 | 0.193 | | 1080 |
| 120 | | 12.9 | | 20.0 | 0.153 | | 1330 |
| 150 | | 14.4 | 3.4 | 22.0 | 0.124 | | 1640 |
| 185 | | 15.9 | 3.7 | 25.0 | 0.0991 | | 2040 |
| 240 | | 18.3 | 4.0 | 28.0 | 0.0754 | | 2595 |
| 300 | | 20.5 | 4.3 | 30.0 | 0.0601 | | 3235 |
| 400 | | 23.2 | 4.6 | 34.0 | 0.0470 | | 4200 |
| 500 | | 26.4 | 4.9 | 38.0 | 0.0366 | | 5060 |
| 630 | | 30.2 | 5.0 | 42.0 | 0.0283 | | 6740 |

# High-Voltage Drop Wire for Pole Transformer (SOL-P.D.C)

**Application**
Used for drop-in from high voltage overhead line to the primary of the pole transformer.

**Construction**
Conductors Hard-Drawn Copper Wire or Annealed Copper Wire
Insulation XLPE
Color of the Insulation Black

**Standard**
ES 6145-0017(KEPCO std.)




## Specification

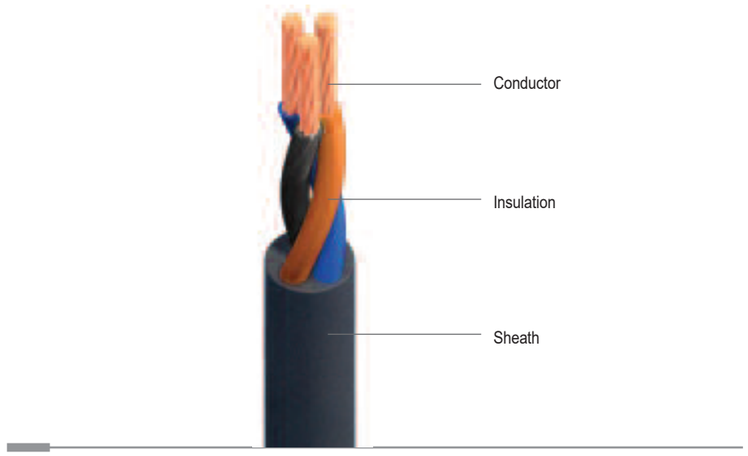
| Conductor | | | Insulation Thickness mm | Sheath Thickness mm | Approx Overall Diameter mm | Max Conductor Resistance at 20℃ Ω/km | Test Voltage V/1min | Min Insulation Resistance at 70℃ MΩ · km | Standard Length m | Symbol |
|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Sectional Area mm² | Number & Diameter of Wire No./mm | Outer Diameter mm | | | | | | | | |
| Solid condustor | 2.0 | 2.0 | 3.0 | - | 8.0 | 5.65 | 12000 | 2500 | 300 | PDC |
| | 2.6 | 2.6 | 3.0 | - | 8.6 | 3.35 | 12000 | 2500 | 300 | PDC |
| | 3.2 | 3.2 | 3.0 | - | 9.2 | 2.21 | 12000 | 2500 | 300 | PDC |
| | 5.0 | 5.0 | 4.0 | - | 13.0 | 0.905 | 12000 | 4000 | 300 | PDC |
| Stranded conductor | 7/1.0 | 3.0 | 3.0 | - | 9.0 | 3.33 | 12000 | 4000 | 300 | PDC |
| | 7/1.2 | 3.6 | 3.0 | - | 9.6 | 2.31 | 12000 | 2500 | 300 | PDC |
| | 7/1.6 | 4.8 | 3.0 | - | 11.0 | 1.30 | 12000 | 2500 | 300 | PDC |
| | 7/2.0 | 6.0 | 3.0 | - | 12.0 | 0.824 | 12000 | 2500 | 300 | PDC |
| | 7/2.3 | 6.9 | 3.0 | - | 13.0 | 0.623 | 12000 | 2500 | 300 | PDC |

# Ordinary Polyvinyl Chloride Sheathed Cord

**Application**
- Mainly used in home apparatus under 300/500V
- 300/500V 70℃ Flexible Conductor PVC Insulated and Sheathed

**Construction**
Conductors
Class 5(Bunch-stranded Copper Wire)
Insulation PVC
Color Identification
2 cores-light blue, black or brown, black
3 cores-light blue, black, brown or brown, black, gray
4 cores-light blue, black, brown, brown or blue, brown, black, gray
5 cores-light blue, black, brown, brown, brown or green/yellow, blue, brown, black, gray
Sheath PVC

**Standard**
IEC 60227-5(53)




## Specification

| Nominal Sectional Area mm² | Insulation Thickness mm | Sheath Thickness mm | Approx Overall Diameter | | Max Conductor Resistance at 70℃ Ω/km |
|---|---|---|---|---|---|
| | | | Min mm | Max mm | |
| 2×0.75 | 0.6 | 0.8 | 5.7 또는 3.7×6.0 | 7.2 또는 4.5×7.2 | 0.011 |
| 2×1 | 0.6 | 0.8 | 5.9 | 7.5 | 0.010 |
| 2×1.5 | 0.7 | 0.8 | 6.8 | 8.6 | 0.010 |
| 2×2.5 | 0.8 | 1.0 | 8.4 | 10.6 | 0.009 |
| 2×0.75 | 0.6 | 0.8 | 6.0 | 7.6 | 0.011 |
| 3×1 | 0.6 | 0.8 | 6.3 | 8.0 | 0.010 |
| 3×1.5 | 0.7 | 0.9 | 7.4 | 9.4 | 0.010 |
| 3×2.5 | 0.8 | 1.1 | 9.2 | 11.4 | 0.009 |
| 4×0.75 | 0.6 | 0.8 | 6.6 | 8.3 | 0.011 |
| 4×1 | 0.6 | 0.9 | 7.1 | 9.0 | 0.010 |
| 4×1.5 | 0.7 | 1.0 | 8.4 | 10.5 | 0.010 |
| 4×2.5 | 0.8 | 1.1 | 10.1 | 12.5 | 0.009 |
| 5×0.75 | 0.6 | 0.9 | 7.4 | 9.3 | 0.011 |
| 5×1 | 0.6 | 0.9 | 7.8 | 9.8 | 0.010 |
| 5×1.5 | 0.7 | 1.1 | 9.3 | 11.6 | 0.010 |
| 5×2.5 | 0.8 | 1.2 | 11.2 | 13.9 | 0.009 |

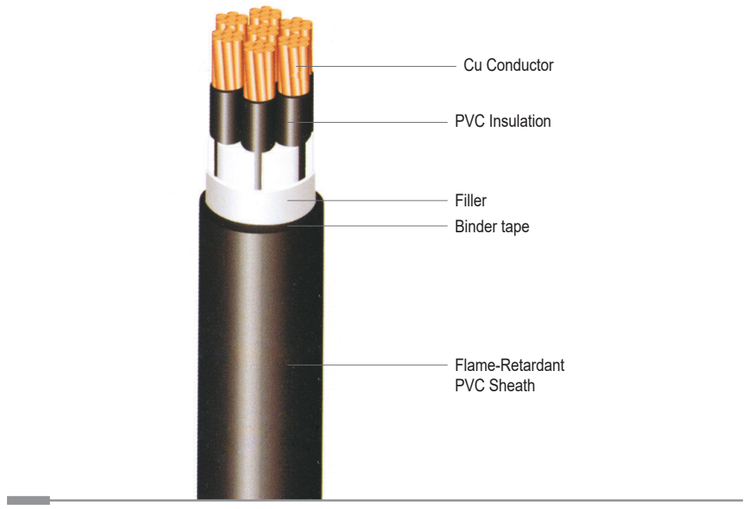
## 0.6/1kV CU/PVC/PVC

**Application**
Used in remote control system in power plant and substation.
It is lighter and more flexible than conventional rubber insulated lead sheathed control cable, also excellent in fire proof and anti-abrasion quality.

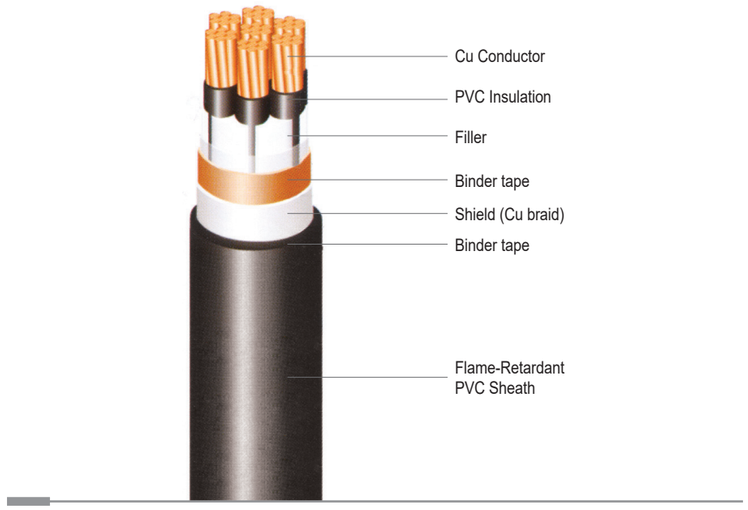
**Construction**
Conductors Annealed Copper Wire
Insulation PVC
Sheath PVC
Color identification
- Coloring Method
  below 4 cores :
  2 cores - brown, black
  3 cores - brown, black, gray
  4 cores - brown, black, gray, blue
- Numbering Method
  Above 5 cores

**Class and Symbols**
- PVC Insulated PVC Sheathed Control Cable **CVV**
- PVC Insulated PVC Sheathed Control Cable (Shield Type) **CVS**
- PVC Insulated PVC Sheathed Control Cable (Shield Type) **CVV-S, CVV-SB**
- Flame-Retardant PVC Insulated PVC Sheathed Control Cable **FR-CVV**
- Flame-Retardant PVC Insulated PVC Sheathed Control Cable (Shield Type) **FR-CVVS, FR-CVVSB**

**Standard**
IEC 60502-1




**CVV**




**CVVS**

# Appendix – Current Rating

**Standard** IEC 60364-5-52(2004)
**Heat resistivity of soil** 2.5 Km/W
**Ambient temperature** In Air 30°C, Direct Burial 20°C
**Cable arrangement** Flat formation

Product : CU/XLPE/PVC, FR-8, FR-3, HFCO

Unit(A)

| Nominal Cross-Sectional Area ㎟ | Installation Method | | | | |
|---|---|---|---|---|---|
| | In Air | | | Direct Burial or Ground | |
| | Single Core | 2 Core | 3 or 4 Core | 1 Core | 3 Core |
| | Touching | Two loaded | Three or Four loaded | Flat spaced | Trefoil |
| 1.5 | 22 | 26 | 23 | 26 | 22 |
| 2.5 | 30 | 36 | 32 | 34 | 29 |
| 4 | 42 | 49 | 42 | 44 | 37 |
| 6 | 55 | 63 | 54 | 56 | 46 |
| 10 | 77 | 86 | 75 | 73 | 61 |
| 16 | 105 | 115 | 100 | 95 | 79 |
| 25 | 141 | 149 | 127 | 121 | 101 |
| 35 | 176 | 185 | 158 | 146 | 122 |
| 50 | 216 | 225 | 192 | 173 | 144 |
| 70 | 279 | 289 | 246 | 213 | 178 |
| 95 | 342 | 352 | 298 | 252 | 211 |
| 120 | 400 | 410 | 346 | 287 | 240 |
| 150 | 464 | 473 | 399 | 324 | 271 |
| 185 | 533 | 542 | 456 | 363 | 304 |
| 240 | 634 | 641 | 538 | 419 | 351 |
| 300 | 736 | 741 | 621 | 474 | 396 |
| 400 | 868 | 892 | 745 | - | - |
| 500 | 998 | - | - | - | - |
| 630 | 1151 | - | - | - | - |

Product : 0.6/1kV ABCable

Unit(A)

| Nominal Cross-Sectional Area ㎟ | Installation Method | | | |
|---|---|---|---|---|
| | In Air | | | |
| | Single Core | | 2 Core | 3 or 4 Core |
| | Touching | Flat Spaced(d) | Two loaded | Three or Four loaded |
| 10 | - | - | 67 | 58 |
| 16 | - | - | 91 | 77 |
| 25 | 107 | 138 | 108 | 97 |
| 35 | 135 | 172 | 135 | 120 |
| 50 | 165 | 210 | 164 | 146 |
| 70 | 215 | 271 | 211 | 187 |
| 95 | 264 | 332 | 257 | 227 |
| 120 | 308 | 387 | 300 | 263 |
| 150 | 358 | 448 | 346 | 304 |
| 185 | 413 | 515 | 397 | 347 |
| 240 | 492 | 611 | 470 | 409 |
| 300 | 571 | 708 | 543 | 471 |
| 400 | 694 | 856 | - | - |
| 500 | 806 | 991 | - | - |
| 630 | 942 | 1154 | - | - |

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