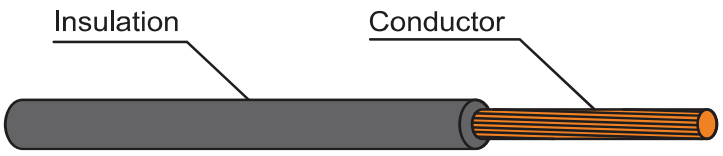
# 60227 IEC 01 THW

**450/750V 70°C SOILD AND STRANDED CONDUCTOR PVC INSULATED, SINGLE CORE**

TIS 11 Part 3-2553




## CABLE STRUCTURE

**Conductor** : Solid and stranded annealed copper wire
: Sizes 1.5 mm² up to 400 mm²

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** : Single-cores : Any color

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 3-2553, Table 1

## APPLICATION

Building wiring for installation on insulator or in raceway dry location.

| Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Overall diameter Minimum (mm) | Overall diameter Maximum (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Continuous currunt rating in free air maximum (40°C) (A) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|
| 1.5 | Solid | 0.7 | 2.6 | 3.2 | 12.1 | 0.011 | 21 | 21 | 100/C |
| 1.5 | Stranded | 0.7 | 2.7 | 3.3 | 12.1 | 0.010 | 21 | 22 | 100/C |
| 2.5 | Solid | 0.8 | 3.2 | 3.9 | 7.41 | 0.010 | 28 | 32 | 100/C |
| 2.5 | Stranded | 0.8 | 3.3 | 4.0 | 7.41 | 0.009 | 28 | 35 | 100/C |
| 4 | Solid | 0.8 | 3.6 | 4.4 | 4.61 | 0.0085 | 37 | 47 | 100/C |
| 4 | Stranded | 0.8 | 3.8 | 4.6 | 4.61 | 0.0077 | 37 | 50 | 100/C |
| 6 | Solid | 0.8 | 4.1 | 5.0 | 3.08 | 0.0070 | 49 | 65 | 100/C |
| 10 | Solid | 1.0 | 5.3 | 6.4 | 1.83 | 0.0070 | 68 | 110 | 100/C |
| 300 | Stranded | 2.4 | 24.5 | 29.6 | 0.0601 | 0.0030 | 628 | 3,100 | 500/D |
| 400 | Stranded | 2.6 | 27.5 | 33.2 | 0.0470 | 0.0028 | 736 | 3,900 | 500/D |

C : Packing in Coil
D : Packing in Drum

B

# 60227 IEC 01 THW

**450/750V 70°C SOILD AND STRANDED CONDUCTOR PVC INSULATED, SINGLE CORE**

TIS 11 Part 3-2553


## CABLE STRUCTURE

**Conductor** : Solid and stranded annealed copper wire
: Sizes 1.5 mm² up to 400 mm²

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** : Single-cores : Any color

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 3-2553, Table 1

## APPLICATION

Building wiring for installation on insulator or in raceway dry location.

B

| Nominal cross sectional area ($mm^2$) | Conductor type | A.C.Resistance R (Ω/km) | Inductance L (mH/km) | Reactance XL (Ω/km) | Impedance Z (Ω/km) |
|---|---|---|---|---|---|
| 1.5 | Solid | 14.4777 | 0.5259 | 0.1652 | 14.4786 |
| 1.5 | Stranded | 14.4777 | 0.5276 | 0.1657 | 14.4786 |
| 2.5 | Solid | 8.8661 | 0.5121 | 0.1609 | 8.8675 |
| 2.5 | Stranded | 8.8661 | 0.5202 | 0.1634 | 8.8676 |
| 4 | Solid | 5.5159 | 0.4917 | 0.1545 | 5.5180 |
| 4 | Stranded | 5.5159 | 0.4929 | 0.1548 | 5.5181 |
| 6 | Solid | 3.6852 | 0.4742 | 0.1490 | 3.6883 |
| 10 | Solid | 2.1896 | 0.4694 | 0.1475 | 2.1946 |
| 300 | Stranded | 0.0734 | 0.4177 | 0.1312 | 0.1503 |
| 400 | Stranded | 0.0581 | 0.4160 | 0.1307 | 0.1430 |

# YK 60227 IEC 01 THW

**450/750V 70°C STRANDED CONDUCTOR PVC INSULATED SUPER SOFT SINGLE CORE**

TIS 11 Part 3-2553

SUPER SOFT YK SERIES CABLE


## CABLE STRUCTURE

**Conductor** : Stranded annealed copper wire
: Sizes 6 $mm^2$ up to 185 $mm^2$

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** : Single-cores : Any color

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 3-2553, Table 1

## APPLICATION

Building wiring for installation on insulator or in raceway dry location.

B

| Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Overall diameter Minimum (mm) | Overall diameter Maximum (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Continuous currunt rating in free air maximum (40°C) (A) | Cable weight approx. (kg/km) | Standard Length (m) | Standard Length (m/D) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | Non-Compacted | 0.8 | 4.3 | 5.2 | 3.08 | 0.0065 | 49 | 70 | 100/C | 1000 | 2000 |
| 10 | Non-Compacted | 1.0 | 5.6 | 6.7 | 1.83 | 0.0065 | 68 | 120 | 100/C | 1000 | 2000 |
| 16 | Compacted | 1.0 | 6.4 | 7.8 | 1.15 | 0.0050 | 91 | 180 | 100/C | 1000 | 2000 |
| 25 | Compacted | 1.2 | 8.1 | 9.7 | 0.727 | 0.0050 | 122 | 280 | 100/C | 1000 | 2000 |
| 35 | Compacted | 1.2 | 9.0 | 10.9 | 0.524 | 0.0043 | 151 | 370 | 100/C | 1000 | 2000 |
| 50 | Compacted | 1.4 | 10.6 | 12.8 | 0.387 | 0.0043 | 184 | 500 | 500/D | 1000 | 2000 |
| 70 | Compacted | 1.4 | 12.1 | 14.6 | 0.263 | 0.0035 | 234 | 700 | 500/D | 1000 | 2000 |
| 95 | Compacted | 1.6 | 14.1 | 17.1 | 0.193 | 0.0035 | 292 | 1000 | 500/D | 1000 | 2000 |
| 120 | Compacted | 1.6 | 15.6 | 18.8 | 0.153 | 0.0032 | 341 | 1200 | 500/D | 1000 | 2000 |
| 150 | Compacted | 1.8 | 17.3 | 20.9 | 0.124 | 0.0032 | 391 | 1500 | 500/D | 1000 | 2000 |
| 185 | Compacted | 2.0 | 19.3 | 23.3 | 0.0991 | 0.0032 | 454 | 1900 | 500/D | 1000 | 2000 |
| 240 | Compacted | 2.2 | 22.0 | 26.6 | 0.0754 | 0.0032 | 543 | 2500 | 500/D | 1000 | 2000 |

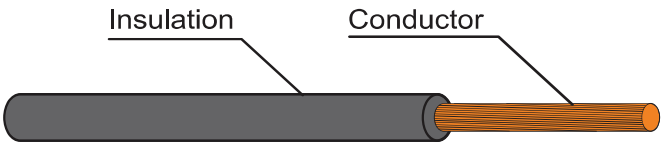
C : Packing in Coil

D : Packing in Drum

| Nominal cross sectional area ($mm^2$) | Conductor type | A.C.Resistance R (Ω/km) | Inductance L (mH/km) | Reactance XL (Ω/km) | Impedance Z (Ω/km) |
|---|---|---|---|---|---|
| 6 | Non-Compacted | 3.6852 | 0.5606 | 0.1761 | 3.6894 |
| 10 | Non-Compacted | 2.1896 | 0.5219 | 0.1639 | 2.1958 |
| 16 | Compacted | 1.3776 | 0.4642 | 0.1458 | 1.3838 |
| 25 | Compacted | 0.8700 | 0.4594 | 0.1443 | 0.8819 |
| 35 | Compacted | 0.6271 | 0.4496 | 0.1413 | 0.6428 |
| 50 | Compacted | 0.4633 | 0.4477 | 0.1407 | 0.4841 |
| 70 | Compacted | 0.3210 | 0.4354 | 0.1368 | 0.3489 |
| 95 | Compacted | 0.2314 | 0.4347 | 0.1366 | 0.2687 |
| 120 | Compacted | 0.1836 | 0.4295 | 0.1349 | 0.2279 |
| 150 | Compacted | 0.1491 | 0.4292 | 0.1348 | 0.2010 |
| 185 | Compacted | 0.1194 | 0.4281 | 0.1345 | 0.1799 |
| 240 | Compacted | 0.0914 | 0.4257 | 0.1337 | 0.1620 |

# 60227 IEC 02 THW (f)

**450/750V 70°C FLEXIBLE CONDUCTOR PVC INSULATED, SINGLE CORE**




TIS 11 Part 3-2553

## CABLE STRUCTURE

**Conductor** : Flexible annealed copper wire
: Sizes 1.5 mm² up to 240 mm²

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** : Single-cores : Any color

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 3-2553, Table 3

## APPLICATION

Building wiring for installation on insulator or in raceway dry location.

B

| Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Overall diameter Minimum (mm) | Overall diameter Maximum (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Continuous currunt rating in free air maximum (40°C) (A) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|
| 1.5 | Flexible | 0.7 | 2.8 | 3.4 | 13.3 | 0.010 | 16 | 24 | 100/C |
| 2.5 | Flexible | 0.8 | 3.4 | 4.1 | 7.98 | 0.009 | 25 | 37 | 100/C |
| 4 | Flexible | 0.8 | 3.9 | 4.8 | 4.95 | 0.0070 | 30 | 54 | 100/C |
| 6 | Flexible | 0.8 | 4.4 | 5.3 | 3.30 | 0.0060 | 39 | 75 | 100/C |
| 10 | Flexible | 1.0 | 5.7 | 6.8 | 1.91 | 0.0056 | 51 | 130 | 100/C |
| 16 | Flexible | 1.0 | 6.7 | 8.1 | 1.21 | 0.0046 | 73 | 185 | 100/C |
| 25 | Flexible | 1.2 | 8.4 | 10.2 | 0.780 | 0.0044 | 97 | 285 | 100/C |
| 35 | Flexible | 1.2 | 9.7 | 11.7 | 0.554 | 0.0038 | 140 | 400 | 100/C |
| 50 | Flexible | 1.4 | 11.5 | 13.9 | 0.386 | 0.0037 | 175 | 555 | 500/D |
| 70 | Flexible | 1.4 | 13.2 | 16.0 | 0.272 | 0.0032 | 216 | 765 | 500/D |
| 95 | Flexible | 1.6 | 15.1 | 18.2 | 0.206 | 0.0032 | 258 | 1,000 | 500/D |
| 120 | Flexible | 1.6 | 16.7 | 20.2 | 0.161 | 0.0029 | 302 | 1,300 | 500/D |
| 150 | Flexible | 1.8 | 18.6 | 22.5 | 0.129 | 0.0029 | 347 | 1,600 | 500/D |
| 185 | Flexible | 2.0 | 20.6 | 24.9 | 0.106 | 0.0029 | 394 | 1,900 | 500/D |
| 240 | Flexible | 2.2 | 23.5 | 28.4 | 0.0801 | 0.0028 | 471 | 2,500 | 500/D |

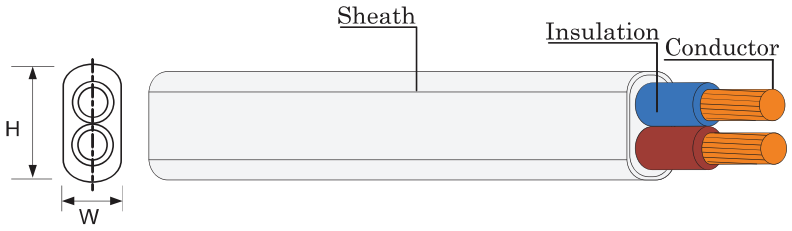
| Nominal cross sectional area ($mm^2$) | A.C.Resistance R (Ω/km) | Inductance L (mH/km) | Reactance XL (Ω/km) | Impedance Z (Ω/km) |
|---|---|---|---|---|
| 1.5 | 15.9135 | 0.5149 | 0.1618 | 15.9143 |
| 2.5 | 9.5481 | 0.5038 | 0.1583 | 9.5494 |
| 4 | 5.9227 | 0.4846 | 0.1522 | 5.9246 |
| 6 | 3.9485 | 0.4637 | 0.1457 | 3.9512 |
| 10 | 2.2854 | 0.4531 | 0.1423 | 2.2898 |
| 16 | 1.4478 | 0.4437 | 0.1394 | 1.4545 |
| 25 | 0.9334 | 0.4409 | 0.1385 | 0.9436 |
| 35 | 0.6630 | 0.4312 | 0.1355 | 0.6767 |
| 50 | 0.4621 | 0.4294 | 0.1349 | 0.4814 |
| 70 | 0.3258 | 0.4215 | 0.1324 | 0.3517 |
| 95 | 0.2469 | 0.4230 | 0.1329 | 0.2804 |
| 120 | 0.1932 | 0.4174 | 0.1311 | 0.2335 |
| 150 | 0.1550 | 0.4172 | 0.1311 | 0.2030 |
| 185 | 0.1277 | 0.4187 | 0.1315 | 0.1833 |
| 240 | 0.0969 | 0.4164 | 0.1308 | 0.1628 |

C : Packing in Coil
D : Packing in Drum

# VAF

## 300/500 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND SHEATH, FLAT TYPE

TIS 11 Part 101-2559




## CABLE STRUCTURE

**Conductor** : Solid and stranded annealed copper

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification**
2 Cores : Blue and Brown

**Sheath** : White polyvinyl chloride (PVC/ST4)

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/500 Volts

**Rated voltage** : 300 Volts between Line to Earth
: 500 Volts between Line to Line

**Testing voltage** : 2,000 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 1

## APPLICATION

Building wiring for surface or above ceiling wiring or direct embeded in plaster.

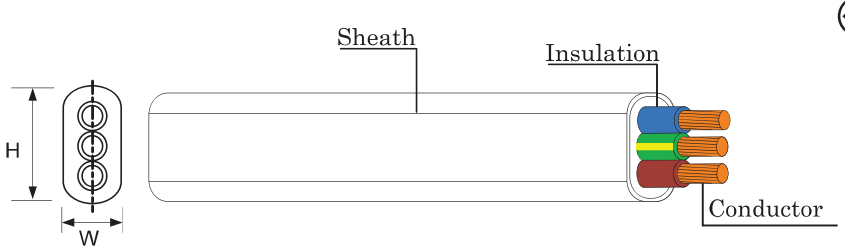
| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Outer sheath thickness nominal (mm) | Overall diameter W X H Minimum (mm) | Overall diameter W X H Maximum (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Continuous current rating in free air at 40°C maximum (A) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 1 | Solid | 0.6 | 0.9 | 4.0 x 6.2 | 4.7 x 7.4 | 18.1 | 0.0110 | 14 | 50 | 100/C |
| | 1.5 | Solid | 0.7 | 0.9 | 4.4 x 7.0 | 5.4 x 8.4 | 12.1 | 0.0110 | 17 | 70 | 100/C |
| | 2.5 | Solid | 0.8 | 1.0 | 5.2 x 8.4 | 6.2 x 9.8 | 7.41 | 0.0100 | 23 | 100 | 100/C |
| | 4 | Stranded | 0.8 | 1.1 | 5.6 x 9.6 | 7.2 x 11.5 | 4.61 | 0.0077 | 32 | 150 | 100/C |
| | 6 | Stranded | 0.8 | 1.1 | 6.4 x 10.5 | 8.0 x 13.0 | 3.08 | 0.0065 | 41 | 200 | 100/C |
| | 10 | Stranded | 1.0 | 1.2 | 7.8 x 13.0 | 9.6 x 16.0 | 1.83 | 0.0065 | 56 | 310 | 100/C |
| | 16 | Stranded | 1.0 | 1.3 | 9.0 x 15.5 | 11.0 x 18.5 | 1.15 | 0.0052 | 74 | 450 | 100/C |

B

# VAF-G

## 300/500 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND SHEATH WITH GROUND, FLAT TYPE

TIS 11 Part 101-2559




### CABLE STRUCTURE

**Conductor** : Solid and stranded annealed copper

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification**
2 Cores + Ground : Blue, Brown and Green/Yellow

**Sheath** : White polyvinyl chloride (PVC/ST4)

### TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 300/500 Volts

**Rated voltage** : 300 Volts between Line to Earth
: 500 Volts between Line to Line

**Testing voltage** : 2,000 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 1

B

### APPLICATION

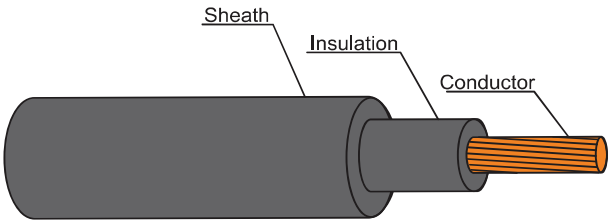
Building wiring for surface or above ceiling wiring or direct embeded in plaster.

| Number of cores | Nominal cross sectional area | | Conductor type | Insulation thickness nominal | Outer sheath thickness nominal | Overall diameter | | Conductor resistance at 20°C maximum | | Insulation resistance at 70°C minimum | Continuous current rating in free air at 40°C maximum | Cable weight approx. | Standard Length |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Phase ($mm^2$) | Ground ($mm^2$) | | (mm) | (mm) | W x H Minimum (mm) | W x H Maximum (mm) | Phase (Ω/km) | Ground (Ω/km) | (MΩ-km) | (A) | (kg/km) | (m) |
| 2 | 1 | 1 | Solid | 0.6 | 0.9 | 4.0 x 6.2 | 4.7 x 7.4 | 18.1 | 18.1 | 0.0110 | 14 | 75 | 100/C |
| | 1.5 | 1.5 | Solid | 0.7 | 0.9 | 4.4 x 7.0 | 5.4 x 8.4 | 12.1 | 12.1 | 0.0110 | 17 | 100 | 100/C |
| | 2.5 | 2.5 | Solid | 0.8 | 1.0 | 5.2 x 8.4 | 6.2 x 9.8 | 7.41 | 7.41 | 0.0100 | 23 | 150 | 100/C |
| | 4 | 4 | Stranded | 0.8 | 1.1 | 5.6 x 9.6 | 7.2 x 11.5 | 4.61 | 4.61 | 0.0077 | 32 | 220 | 100/C |
| | 6 | 6 | Stranded | 0.8 | 1.1 | 6.4 x 10.5 | 8.0 x 13.0 | 3.08 | 3.08 | 0.0065 | 41 | 290 | 100/C |
| | 10 | 10 | Stranded | 1.0 | 1.2 | 7.8 x 13.0 | 9.6 x 16.0 | 1.83 | 1.83 | 0.0065 | 56 | 460 | 100/C |
| | 16 | 16 | Stranded | 1.0 | 1.3 | 9.0 x 15.5 | 11.0 x 18.5 | 1.15 | 1.15 | 0.0052 | 74 | 650 | 500/D |

C = Packing in coil
D = Packing in drum

# NYY

## 450/750 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED




TIS 11 Part 101-2559

### CABLE STRUCTURE

**Conductor** : Solid and stranded annealed copper

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** Single-cores : Black

**Sheath** : Black polyvinyl chloride (PVC/ST4)

### TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 3

### APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

| Number of core | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Sheath thickness nominal (mm) | Overall diameter maximum (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Continuous current rating in free air at 40°C maximum (A) | | | Continuous current rating in ground at 30°C maximum (A) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Spaced | Touching | Trefoil | | | |
| 1 | 1 | Solid | 1.5 | 1.8 | 8.6 | 18.1 | 0.0207 | 19 | 16 | 15 | 21 | 80 | 100/C |
| | 1 | Stranded | 1.5 | 1.8 | 8.8 | 18.1 | 0.0200 | 19 | 16 | 15 | 21 | 80 | 100/C |
| | 1.5 | Solid | 1.5 | 1.8 | 9.0 | 12.1 | 0.0184 | 24 | 19 | 19 | 26 | 85 | 100/C |
| | 1.5 | Stranded | 1.5 | 1.8 | 9.2 | 12.1 | 0.0175 | 24 | 19 | 19 | 26 | 90 | 100/C |
| | 2.5 | Solid | 1.5 | 1.8 | 9.4 | 7.41 | 0.0157 | 32 | 24 | 26 | 35 | 100 | 100/C |
| | 2.5 | Stranded | 1.5 | 1.8 | 9.8 | 7.41 | 0.0146 | 32 | 24 | 26 | 35 | 110 | 100/C |
| | 4 | Solid | 1.5 | 1.8 | 10.0 | 4.61 | 0.0135 | 42 | 33 | 34 | 45 | 120 | 100/C |
| | 4 | Stranded | 1.5 | 1.8 | 10.5 | 4.61 | 0.0124 | 42 | 33 | 34 | 45 | 130 | 100/C |
| | 300 | Stranded | 2.5 | 2.2 | 35.0 | 0.0601 | 0.0032 | 617 | 511 | 488 | 507 | 3,400 | 500/D |
| | 400 | Stranded | 2.7 | 2.2 | 38.5 | 0.0470 | 0.0030 | 741 | 599 | 571 | 577 | 4,300 | 500/D |
| | 500 | Stranded | 3.1 | 2.4 | 43.0 | 0.0366 | 0.0031 | 854 | 686 | 652 | 654 | 5,400 | 500/D |

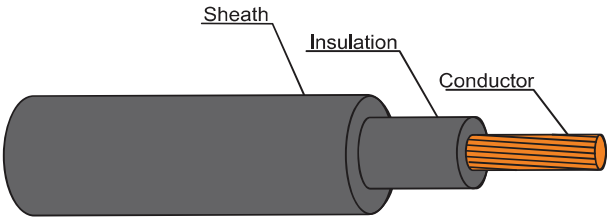
**Remark** : Thermal resistivity of soil 1.2 K.m/W or °C.m/W
Deep of laying (For cable laid direct in ground) 0.8 m

D : Packing in drum

B

# NYY

## 450/750 V 70°C SOLID AND STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATH




TIS 11 Part 101-2559

### CABLE STRUCTURE

**Conductor** : Solid and stranded annealed copper

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** Single-cores : Black,

**Sheath** : Black polyvinyl chloride (PVC/ST4)

### TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 3

B

### APPLICATION

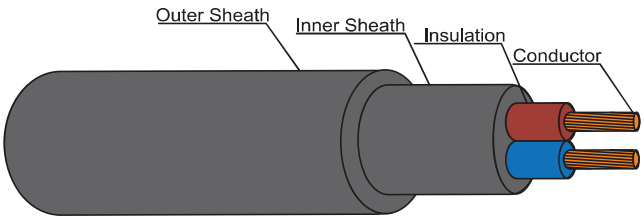
For installation exposed, or in raceway, wet or dry location, or direct burial in ground

| Number of core | Nominal cross sectional area ($mm^2$) | Conductor type | A.C.Resistance R (Ω/km) | | | Inductance L (mH/km) | | | Reactance XL (Ω/km) | | | Impedance Z (Ω/km) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Space | Touching | Trefoil | Space | Touching | Trefoil | Space | Touching | Trefoil | Space | Touching | Trefoil |
| 1 | 1 | Solid | 21.6567 | 21.6567 | 21.6567 | 0.7840 | 0.6454 | 0.5991 | 0.2463 | 0.2027 | 0.1882 | 21.6581 | 21.6576 | 21.6575 |
| | 1 | Stranded | 21.6567 | 21.6567 | 21.6567 | 0.7740 | 0.6353 | 0.5891 | 0.2431 | 0.1996 | 0.1851 | 21.6580 | 21.6576 | 21.6574 |
| | 1.5 | Solid | 14.4777 | 14.4777 | 14.4777 | 0.7485 | 0.6099 | 0.5637 | 0.2352 | 0.1916 | 0.1771 | 14.4796 | 14.4789 | 14.4787 |
| | 1.5 | Stranded | 14.4777 | 14.4777 | 14.4777 | 0.7388 | 0.6001 | 0.5539 | 0.2321 | 0.1885 | 0.1740 | 14.4795 | 14.4789 | 14.4787 |
| | 2.5 | Solid | 8.8661 | 8.8661 | 8.8661 | 0.7063 | 0.5677 | 0.5214 | 0.2219 | 0.1783 | 0.1638 | 8.8689 | 8.8679 | 8.8676 |
| | 2.5 | Stranded | 8.8661 | 8.8661 | 8.8661 | 0.7025 | 0.5639 | 0.5176 | 0.2207 | 0.1771 | 0.1626 | 8.8688 | 8.8678 | 8.8676 |
| | 4 | Solid | 5.5159 | 5.5159 | 5.5159 | 0.6698 | 0.5312 | 0.4850 | 0.2104 | 0.1669 | 0.1524 | 5.5199 | 5.5184 | 5.5180 |
| | 4 | Stranded | 5.5159 | 5.5159 | 5.5159 | 0.6649 | 0.5263 | 0.4801 | 0.2089 | 0.1653 | 0.1508 | 5.5198 | 5.5184 | 5.5179 |
| | 300 | Stranded | 0.0733 | 0.0740 | 0.0745 | 0.4517 | 0.3131 | 0.2668 | 0.1419 | 0.0984 | 0.0838 | 0.1597 | 0.1231 | 0.1122 |
| | 400 | Stranded | 0.0580 | 0.0589 | 0.0596 | 0.4465 | 0.3079 | 0.2617 | 0.1403 | 0.0967 | 0.0822 | 0.1518 | 0.1132 | 0.1015 |
| | 500 | Stranded | 0.0460 | 0.0471 | 0.0480 | 0.4460 | 0.3074 | 0.2612 | 0.1401 | 0.0966 | 0.0820 | 0.1475 | 0.1074 | 0.0951 |

# NYY

## 450/750 V 70° C STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

TIS 11 Part 101-2559




## CABLE STRUCTURE

**Conductor** : Solid and Stranded annealed copper wire

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** 2 Cores : Blue, Brown

**Inner sheath** : Black polyvinyl chloride (PVC)

**Sheath** : Black polyvinyl chloride

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 4

## APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

B

| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Inner Sheath thickness approx. (mm) | Outer Sheath thickness nominal (mm) | Overall diameter maximum (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Continuous currunt rating in free air at 40°C maximum (A) | Continuous currunt rating in ground at 30°C maximum (A) | Cable weight approx. (kg/km) | Standard length (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 1 | Solid | 0.8 | 0.8 | 1.8 | 12.0 | 18.1 | 0.0141 | 15 | 21 | 170 | 100/C |
| | 1 | Stranded | 0.8 | 0.8 | 1.8 | 12.5 | 18.1 | 0.0135 | 15 | 21 | 170 | 100/C |
| | 1.5 | Solid | 0.8 | 0.8 | 1.8 | 12.5 | 12.1 | 0.0123 | 19 | 27 | 180 | 100/C |
| | 1.5 | Stranded | 0.8 | 0.8 | 1.8 | 13.0 | 12.1 | 0.0116 | 19 | 27 | 200 | 100/C |
| | 2.5 | Solid | 0.8 | 0.8 | 1.8 | 13.5 | 7.41 | 0.0102 | 25 | 35 | 220 | 100/C |
| | 2.5 | Stranded | 0.8 | 0.8 | 1.8 | 14.0 | 7.41 | 0.0093 | 25 | 35 | 240 | 100/C |
| | 4 | Solid | 0.9 | 0.8 | 1.8 | 15.0 | 4.61 | 0.0094 | 33 | 47 | 290 | 100/C |
| | 4 | Stranded | 0.9 | 0.8 | 1.8 | 15.5 | 4.61 | 0.0085 | 33 | 47 | 310 | 100/C |
| | 95 | Stranded | 1.7 | 1.5 | 2.2 | 42.5 | 0.193 | 0.0038 | 245 | 288 | 3300 | 500/D |
| | 120 | Stranded | 1.7 | 1.5 | 2.4 | 46.5 | 0.153 | 0.0034 | 285 | 329 | 4000 | 500/D |
| | 150 | Stranded | 1.9 | 1.8 | 2.6 | 52.0 | 0.124 | 0.0034 | 325 | 368 | 4900 | 500/D |
| | 185 | Stranded | 2.1 | 1.8 | 2.8 | 57.0 | 0.0991 | 0.0034 | 374 | 417 | 6000 | 500/D |
| | 240 | Stranded | 2.3 | 2.0 | 3.0 | 64.0 | 0.0754 | 0.0033 | 440 | 481 | 8000 | 300/D |
| | 300 | Stranded | 2.5 | 2.0 | 3.2 | 70.5 | 0.0601 | 0.0032 | 505 | 541 | 9500 | 300/D |

C : Packing in coil
D : Packing in drum

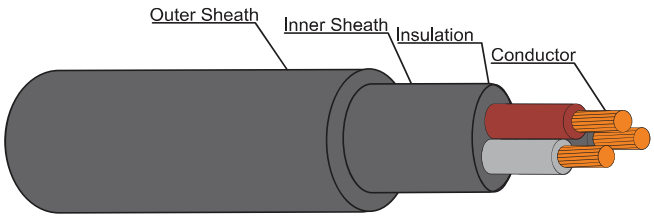
**Remark :** Thermal resistivity of soil 1.2 K.m./W or °C.m/W
Deep of laying (For cable laid direct in ground) 0.8 m

| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | A.C. Resistance R (Ω/km) | Inductance L (mH/km) | Reactance XL (Ω/km) | Impedance Z (Ω/km) |
|---|---|---|---|---|---|---|
| 2 | 1 | Solid | 21.7000 | 0.3771 | 0.1185 | 21.7000 |
| | 1 | Stranded | 21.7000 | 0.3651 | 0.1147 | 21.7000 |
| | 1.5 | Solid | 14.5000 | 0.3505 | 0.1101 | 14.5000 |
| | 1.5 | Stranded | 14.5000 | 0.3402 | 0.1069 | 14.5000 |
| | 2.5 | Solid | 8.8700 | 0.3238 | 0.1017 | 8.8710 |
| | 2.5 | Stranded | 8.8700 | 0.3160 | 0.0993 | 8.8710 |
| | 4 | Solid | 5.5200 | 0.3135 | 0.0985 | 5.5210 |
| | 4 | Stranded | 5.5200 | 0.3022 | 0.0950 | 5.5210 |
| | 95 | Stranded | 0.2317 | 0.2480 | 0.0779 | 0.2444 |
| | 120 | Stranded | 0.1840 | 0.2409 | 0.0757 | 0.1990 |
| | 150 | Stranded | 0.1495 | 0.2402 | 0.0755 | 0.1675 |
| | 185 | Stranded | 0.1201 | 0.2401 | 0.0754 | 0.1418 |
| | 240 | Stranded | 0.0922 | 0.2361 | 0.0742 | 0.1183 |
| | 300 | Stranded | 0.0744 | 0.2343 | 0.0736 | 0.1047 |

# NYY

## 450/750 V 70° C STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

TIS 11 Part 101-2559




## CABLE STRUCTURE

**Conductor** : Solid and Stranded annealed copper wire

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** 3 Cores : Brown,Black, Grey

**Inner sheath** : Black polyvinyl chloride (PVC)

**Sheath** : Black polyvinyl chloride (PVC/ST4)

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 4

## APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

B

| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Inner Sheath thickness approx. (mm) | Outer Sheath thickness nominal (mm) | Overall diameter maximum (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Continuous currunt rating in free air at 40°C maximum (A) | Continuous currunt rating in ground at 30°C maximum (A) | Cable weight approx. (kg/km) | Standard length (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 1 | Solid | 0.8 | 0.8 | 1.8 | 12.5 | 18.1 | 0.0141 | 13 | 18 | 180 | 100/C |
| | 1 | Stranded | 0.8 | 0.8 | 1.8 | 13.0 | 18.1 | 0.0135 | 13 | 18 | 190 | 100/C |
| | 1.5 | Solid | 0.8 | 0.8 | 1.8 | 13.0 | 12.1 | 0.0123 | 16 | 22 | 210 | 100/C |
| | 1.5 | Stranded | 0.8 | 0.8 | 1.8 | 13.5 | 12.1 | 0.0116 | 16 | 22 | 220 | 100/C |
| | 2.5 | Solid | 0.8 | 0.8 | 1.8 | 14.0 | 7.41 | 0.0102 | 22 | 30 | 260 | 100/C |
| | 2.5 | Stranded | 0.8 | 0.8 | 1.8 | 15.0 | 7.41 | 0.0093 | 22 | 30 | 270 | 100/C |
| | 4 | Solid | 0.9 | 0.8 | 1.8 | 15.5 | 4.61 | 0.0094 | 30 | 39 | 34 | 100/C |
| | 4 | Stranded | 0.9 | 0.8 | 1.8 | 16.5 | 4.61 | 0.0085 | 30 | 39 | 360 | 100/C |
| | 95 | Stranded | 1.7 | 1.5 | 2.4 | 46.0 | 0.193 | 0.0038 | 207 | 267 | 4200 | 500/D |
| | 120 | Stranded | 1.7 | 1.8 | 2.6 | 50.5 | 0.153 | 0.0034 | 240 | 304 | 5000 | 500/D |
| | 150 | Stranded | 1.9 | 1.8 | 2.8 | 56.0 | 0.124 | 0.0034 | 278 | 342 | 6500 | 500/D |
| | 185 | Stranded | 2.1 | 2.0 | 3.0 | 61.5 | 0.0991 | 0.0034 | 317 | 386 | 8000 | 300/D |
| | 240 | Stranded | 2.3 | 2.0 | 3.2 | 69.0 | 0.0754 | 0.0033 | 374 | 448 | 10000 | 300/D |
| | 300 | Stranded | 2.5 | 2.2 | 3.4 | 76.0 | 0.0601 | 0.0032 | 432 | 507 | 12500 | 200/D |

C : Packing in coil
D : Packing in drum

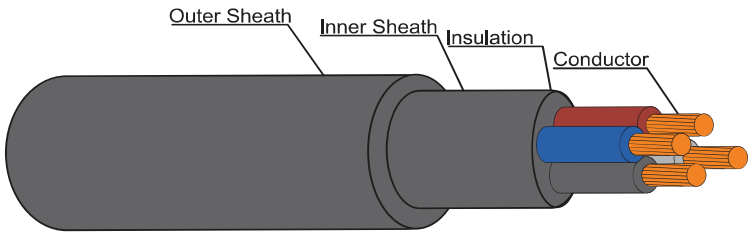
**Remark :** Thermal resistivity of soil 1.2 K.m./W or °C.m/W
Deep of laying (For cable laid direct in ground) 0.8 m

| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | A.C. Resistance R (Ω/km) | Inductance L (mH/km) | Reactance XL (Ω/km) | Impedance Z (Ω/km) |
|---|---|---|---|---|---|---|
| 3 | 1 | Solid | 21.7000 | 0.3771 | 0.1185 | 21.7000 |
| | 1 | Stranded | 21.7000 | 0.3651 | 0.1147 | 21.7000 |
| | 1.5 | Solid | 14.5000 | 0.3505 | 0.1101 | 14.5000 |
| | 1.5 | Stranded | 14.5000 | 0.3402 | 0.1069 | 14.5000 |
| | 2.5 | Solid | 8.8700 | 0.3238 | 0.1017 | 8.8710 |
| | 2.5 | Stranded | 8.8700 | 0.3160 | 0.0993 | 8.8710 |
| | 4 | Solid | 5.5200 | 0.3135 | 0.0985 | 5.5210 |
| | 4 | Stranded | 5.5200 | 0.3022 | 0.0950 | 5.5210 |
| | 95 | Stranded | 0.2319 | 0.2480 | 0.0779 | 0.2446 |
| | 120 | Stranded | 0.1843 | 0.2409 | 0.0757 | 0.1992 |
| | 150 | Stranded | 0.1499 | 0.2402 | 0.0755 | 0.1678 |
| | 185 | Stranded | 0.1205 | 0.2401 | 0.0754 | 0.1422 |
| | 240 | Stranded | 0.0928 | 0.2361 | 0.0742 | 0.1188 |
| | 300 | Stranded | 0.0751 | 0.2343 | 0.0736 | 0.1052 |

# NYY

## 450/750 V 70° C STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATHED

TIS 11 Part 101-2559




## CABLE STRUCTURE

**Conductor** : Solid and Stranded annealed copper wire
: Multi-core : Sizes 50 mm² up to 300 mm²

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** 4 Cores : Blue, Brown, Black, Grey

**Inner sheath** : Black polyvinyl chloride (PVC)

**Sheath** : Black polyvinyl chloride (PVC/ST4)

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 4

## APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

B

| Number of cores | Nominal cross sectional area (mm²) | Conductor type | Insulation thickness nominal (mm) | Inner Sheath thickness approx. (mm) | Outer Sheath thickness nominal (mm) | Overall diameter maximum (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Continuous currunt rating in free air at 40°C maximum (A) | Continuous currunt rating in ground at 30°C maximum (A) | Cable weight approx. (kg/km) | Standard length (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 1 | Solid | 0.8 | 0.8 | 1.8 | 13.5 | 18.1 | 0.0141 | 13 | 18 | 210 | 100/C |
| | 1 | Stranded | 0.8 | 0.8 | 1.8 | 14.0 | 18.1 | 0.0135 | 13 | 18 | 220 | 100/C |
| | 1.5 | Solid | 0.8 | 0.8 | 1.8 | 14.0 | 12.1 | 0.0123 | 16 | 22 | 240 | 100/C |
| | 1.5 | Stranded | 0.8 | 0.8 | 1.8 | 14.5 | 12.1 | 0.0116 | 16 | 22 | 260 | 100/C |
| | 2.5 | Solid | 0.8 | 0.8 | 1.8 | 15.0 | 7.41 | 0.0102 | 22 | 30 | 300 | 100/C |
| | 2.5 | Stranded | 0.8 | 0.8 | 1.8 | 16.0 | 7.41 | 0.0093 | 22 | 30 | 320 | 100/C |
| | 4 | Solid | 0.9 | 0.8 | 1.8 | 17.0 | 4.61 | 0.0094 | 30 | 39 | 400 | 100/C |
| | 4 | Stranded | 0.9 | 0.8 | 1.8 | 17.5 | 4.61 | 0.0085 | 30 | 39 | 430 | 100/C |
| | 95 | Stranded | 1.7 | 1.8 | 2.6 | 51.5 | 0.193 | 0.0038 | 207 | 267 | 5500 | 500/D |
| | 120 | Stranded | 1.7 | 1.8 | 2.8 | 56.0 | 0.153 | 0.0034 | 240 | 304 | 6500 | 500/D |
| | 150 | Stranded | 1.9 | 2.0 | 3.0 | 62.0 | 0.124 | 0.0034 | 278 | 342 | 8000 | 300/D |
| | 185 | Stranded | 2.1 | 2.0 | 3.2 | 68.0 | 0.0991 | 0.0034 | 317 | 386 | 10000 | 300/D |
| | 240 | Stranded | 2.3 | 2.2 | 3.4 | 76.5 | 0.0754 | 0.0033 | 374 | 448 | 13000 | 200/D |
| | 300 | Stranded | 2.5 | 2.2 | 3.8 | 85.0 | 0.0601 | 0.0032 | 432 | 507 | 16000 | 200/D |

**Remark :** Thermal resistivity of soil 1.2 K.m./W or °C.m/W
Deep of laying (For cable laid direct in ground) 0.8 m

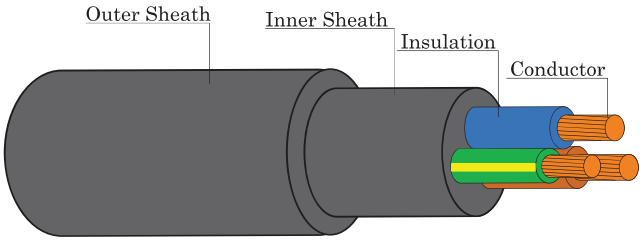
C : Packing in coil
D : Packing in drum

| Number of cores | Nominal cross sectional area (mm²) | Conductor type | A.C. Resistance R (Ω/km) | Inductance L (mH/km) | Reactance XL (Ω/km) | Impedance Z (Ω/km) |
|---|---|---|---|---|---|---|
| 4 | 1 | Solid | 21.7000 | 0.3771 | 0.1185 | 21.7000 |
| | 1 | Stranded | 21.7000 | 0.3651 | 0.1147 | 21.7000 |
| | 1.5 | Solid | 14.5000 | 0.3505 | 0.1101 | 14.5000 |
| | 1.5 | Stranded | 14.5000 | 0.3402 | 0.1069 | 14.5000 |
| | 2.5 | Solid | 8.8700 | 0.3238 | 0.1017 | 8.8710 |
| | 2.5 | Stranded | 8.8700 | 0.3160 | 0.0993 | 8.8710 |
| | 4 | Solid | 5.5200 | 0.3135 | 0.0985 | 5.5210 |
| | 4 | Stranded | 5.5200 | 0.3022 | 0.0950 | 5.5210 |
| | 95 | Stranded | 0.2319 | 0.2480 | 0.0779 | 0.2446 |
| | 120 | Stranded | 0.1843 | 0.2409 | 0.0757 | 0.1992 |
| | 150 | Stranded | 0.1499 | 0.2402 | 0.0755 | 0.1678 |
| | 185 | Stranded | 0.1205 | 0.2401 | 0.0754 | 0.1422 |
| | 240 | Stranded | 0.0928 | 0.2361 | 0.0742 | 0.1188 |
| | 300 | Stranded | 0.0751 | 0.2343 | 0.0736 | 0.1052 |

# NYY-G

## 450/750 V 70°C STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATH WITH GROUND

TIS 11 Part 101-2559




## CABLE STRUCTURE

**Conductor** : Solid and Stranded annealed copper wire

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** : 2 Cores + Ground : Blue, Brown, + Green/Yellow

**Inner Sheath** : Black polyvinyl chloride (PVC)

**Sheath** : Black polyvinyl choride (PVC/ST4)

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 5

## APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

B

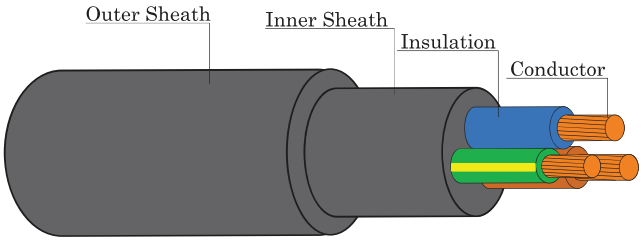
| Number of cores | Conductor | | | | Insulation thickness nominal | Inner Sheath thickness approx. | Outer Sheath thickness nominal | Overall diameter maximum | Conductor resistance maximum at 20°C | | Insulation resistance at 70°C minimum | Continuous currunt rating maximum | | Cable weight approx. | Standard length per drum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Nominal cross section area | | Type of Conductor | | | | | | | | | on cable Ladder at 40°C | direct burial in ground at 30°C | | |
| | Phase | Ground | Phase | Ground | | | | | Phase | Ground | | | | | |
| | ($mm^2$) | ($mm^2$) | | | (mm) | (mm) | (mm) | (mm) | (Ω/km) | (Ω/km) | (MΩ-km) | (A) | (A) | (kg/km) | (m) |
| 2+G | 1 | 1 | Solid | | 0.8 | 0.8 | 1.8 | 13.0 | 18.1 | 18.1 | 0.0141 | 15 | 21 | 180 | 500 |
| | 1 | 1 | Stranded | | 0.8 | 0.8 | 1.8 | 13.5 | 18.1 | 18.1 | 0.0135 | 15 | 21 | 190 | 500 |
| | 1.5 | 1.5 | Solid | | 0.8 | 0.8 | 1.8 | 13.5 | 12.1 | 12.1 | 0.0123 | 19 | 27 | 210 | 500 |
| | 1.5 | 1.5 | Stranded | | 0.8 | 0.8 | 1.8 | 14.0 | 12.1 | 12.1 | 0.0116 | 19 | 27 | 220 | 500 |
| | 2.5 | 2.5 | Solid | | 0.8 | 0.8 | 1.8 | 14.5 | 7.41 | 7.41 | 0.0102 | 25 | 35 | 260 | 500 |
| | 2.5 | 2.5 | Stranded | | 0.8 | 0.8 | 1.8 | 15.0 | 7.41 | 7.41 | 0.0093 | 25 | 35 | 270 | 500 |
| | 4 | 4 | Solid | | 0.9 | 0.8 | 1.8 | 16.0 | 4.61 | 4.61 | 0.0094 | 33 | 47 | 340 | 500 |
| | 4 | 4 | Stranded | | 0.9 | 0.8 | 1.8 | 16.5 | 4.61 | 4.61 | 0.0085 | 33 | 47 | 360 | 500 |
| | 6 | 6 | Stranded | | 0.9 | 0.8 | 1.8 | 18.0 | 3.08 | 3.08 | 0.0073 | 43 | 60 | 450 | 500 |
| | 10 | 10 | Stranded | | 1.1 | 0.8 | 1.8 | 21.0 | 1.83 | 1.83 | 0.0069 | 60 | 81 | 650 | 500 |
| | 16 | 16 | Stranded | | 1.1 | 0.8 | 2.0 | 23.5 | 1.15 | 1.15 | 0.0057 | 80 | 105 | 900 | 500 |
| | 25 | 16 | Stranded | | 1.3 | 1.2 | 2.0 | 28.0 | 0.727 | 0.727 | 0.0054 | 108 | 136 | 1200 | 500 |
| | 35 | 16 | Stranded | | 1.3 | 1.2 | 2.0 | 30.0 | 0.524 | 0.524 | 0.0047 | 132 | 165 | 1500 | 500 |
| | 50 | 25 | Stranded | | 1.5 | 1.2 | 2.2 | 34.0 | 0.387 | 0.387 | 0.0046 | 160 | 195 | 2000 | 500 |
| | 70 | 35 | Stranded | | 1.5 | 1.5 | 2.2 | 38.5 | 0.268 | 0.268 | 0.0039 | 200 | 239 | 2700 | 500 |
| | 95 | 50 | Stranded | | 1.7 | 1.5 | 2.2 | 43.5 | 0.193 | 0.193 | 0.0038 | 245 | 288 | 3600 | 500 |
| | 120 | 70 | Stranded | | 1.7 | 1.5 | 2.4 | 47.5 | 0.153 | 0.153 | 0.0034 | 285 | 329 | 4500 | 500 |
| | 150 | 95 | Stranded | | 1.9 | 1.8 | 2.6 | 53.0 | 0.124 | 0.124 | 0.0034 | 325 | 368 | 5500 | 500 |
| | 185 | 95 | Stranded | | 2.1 | 1.8 | 2.8 | 57.5 | 0.0991 | 0.0991 | 0.0034 | 374 | 417 | 6500 | 500 |
| | 240 | 120 | Stranded | | 2.3 | 2.0 | 3.0 | 64.5 | 0.0754 | 0.0754 | 0.0033 | 440 | 481 | 8500 | 500 |
| | 300 | 150 | Stranded | | 2.5 | 2.0 | 3.2 | 71.0 | 0.0601 | 0.0601 | 0.0032 | 505 | 541 | 10500 | 300 |

**Remark :** Thermal resistivity of soil 1.2 K.m./W or °C.m/W
Deep of laying (For cable laid direct in ground) 0.8 m

# NYY-G

## 450/750 V 70°C STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATH WITH GROUND

TIS 11 Part 101-2559




## CABLE STRUCTURE

**Conductor** : Solid and Stranded annealed copper wire

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** 2 Cores + Ground : Blue, Brown + Green/Yellow

**Inner Sheath** : Black polyvinyl chloride (PVC)

**Sheath** : Black polyvinyl choride (PVC/ST4)

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 5

## APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

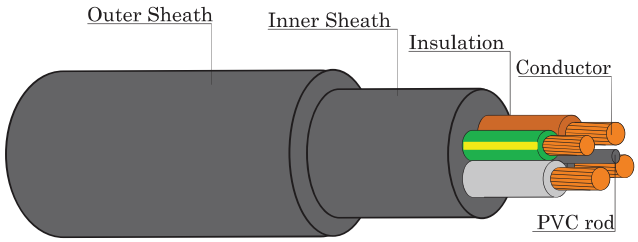
B

| Number of cores | Nominal cross section area | | A.C. Resistance | Inductance | Reactance | Impedance |
|---|---|---|---|---|---|---|
| | Phase ($mm^2$) | Ground ($mm^2$) | R (Ω/km) | L (mH/km) | XL (Ω/km) | Z (Ω/km) |
| 2+G | 1 | 1 | 21.7000 | 0.3771 | 0.1185 | 21.7000 |
| | 1 | 1 | 21.7000 | 0.3651 | 0.1147 | 21.7000 |
| | 1.5 | 1.5 | 14.5000 | 0.3505 | 0.1101 | 14.5000 |
| | 1.5 | 1.5 | 14.5000 | 0.3402 | 0.1069 | 14.5000 |
| | 2.5 | 2.5 | 8.8700 | 0.3238 | 0.1017 | 8.8710 |
| | 2.5 | 2.5 | 8.8700 | 0.3160 | 0.0993 | 8.8710 |
| | 4 | 4 | 5.5200 | 0.3135 | 0.0985 | 5.5210 |
| | 4 | 4 | 5.5200 | 0.3022 | 0.0950 | 5.5210 |
| | 6 | 6 | 3.6900 | 0.2869 | 0.0901 | 3.6910 |
| | 10 | 10 | 2.1900 | 0.2801 | 0.0880 | 2.1920 |
| | 16 | 16 | 1.3800 | 0.2791 | 0.0877 | 1.3828 |
| | 25 | 16 | 0.8700 | 0.2631 | 0.0827 | 0.8739 |
| | 35 | 16 | 0.6272 | 0.2593 | 0.0814 | 0.6325 |
| | 50 | 25 | 0.4634 | 0.2604 | 0.0818 | 0.4706 |
| | 70 | 35 | 0.3212 | 0.2506 | 0.0787 | 0.3307 |
| | 95 | 50 | 0.2317 | 0.2480 | 0.0779 | 0.2444 |
| | 120 | 70 | 0.1840 | 0.2409 | 0.0757 | 0.1990 |
| | 150 | 95 | 0.1495 | 0.2402 | 0.0755 | 0.1675 |
| | 185 | 95 | 0.2101 | 0.2401 | 0.0754 | 0.1418 |
| | 240 | 120 | 0.0922 | 0.2361 | 0.0742 | 0.1183 |
| | 300 | 150 | 0.0744 | 0.2343 | 0.0736 | 0.1047 |

# NYY-G

## 450/750 V 70 °C STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATH WITH GROUND

TIS 11 Part 101-2559




## CABLE STRUCTURE

**Conductor** : Solid and Stranded annealed copper wire

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** 3 Cores + Ground : Brown, Black, Grey + Green/Yellow

**Inner Sheath** : Black polyvinyl chloride (PVC)

**Sheath** : Black polyvinyl choride (PVC/ST4)

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 5

B

## APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

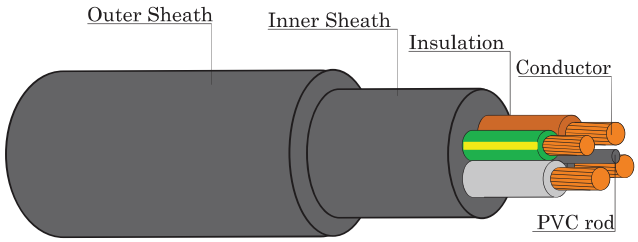
| Number of cores | Conductor | | | | Insulation thickness nominal | Inner Sheath thickness approx. | Outer Sheath thickness nominal | Overall diameter maximum | Conductor resistance maximum at 20°C | | Insulation resistance at 70°C minimum | Continuous currunt rating maximum | | Cable weight approx. | Standard length per drum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Nominal cross section area | | Type of Conductor | | | | | | | | | on cable Ladder at 40°C | direct burial in ground at 30°C | | |
| | Phase | Ground | Phase | Ground | | | | | Phase | Ground | | | | | |
| | ($mm^2$) | ($mm^2$) | | | (mm) | (mm) | (mm) | (mm) | (Ω/km) | (Ω/km) | (MΩ-km) | (A) | (A) | (kg/km) | (m) |
| 3+G | 1 | 1 | Solid | | 0.8 | 0.8 | 1.8 | 13.5 | 18.1 | 18.1 | 0.0141 | 13 | 18 | 210 | 500 |
| | 1 | 1 | Stranded | | 0.8 | 0.8 | 1.8 | 14.0 | 18.1 | 18.1 | 0.0135 | 13 | 18 | 220 | 500 |
| | 1.5 | 1.5 | Solid | | 0.8 | 0.8 | 1.8 | 14.0 | 12.1 | 12.1 | 0.0123 | 16 | 22 | 240 | 500 |
| | 1.5 | 1.5 | Stranded | | 0.8 | 0.8 | 1.8 | 15.0 | 12.1 | 12.1 | 0.0116 | 16 | 22 | 260 | 500 |
| | 2.5 | 2.5 | Solid | | 0.8 | 0.8 | 1.8 | 15.5 | 7.41 | 7.41 | 0.0102 | 22 | 30 | 300 | 500 |
| | 2.5 | 2.5 | Stranded | | 0.8 | 0.8 | 1.8 | 16.0 | 7.41 | 7.41 | 0.0093 | 22 | 30 | 320 | 500 |
| | 4 | 4 | Solid | | 0.9 | 0.8 | 1.8 | 17.0 | 4.61 | 4.61 | 0.0094 | 30 | 39 | 400 | 500 |
| | 4 | 4 | Stranded | | 0.9 | 0.8 | 1.8 | 18.0 | 4.61 | 4.61 | 0.0085 | 30 | 39 | 430 | 500 |
| | 6 | 6 | Stranded | | 0.9 | 0.8 | 1.8 | 19.0 | 3.08 | 3.08 | 0.0073 | 37 | 50 | 550 | 500 |
| | 10 | 10 | Stranded | | 1.1 | 0.8 | 1.8 | 22.5 | 1.83 | 1.83 | 0.0069 | 52 | 68 | 800 | 500 |
| | 16 | 16 | Stranded | | 1.1 | 1.2 | 2.0 | 26.5 | 1.15 | 1.15 | 0.0057 | 70 | 87 | 1200 | 500 |
| | 25 | 16 | Stranded | | 1.3 | 1.2 | 2.0 | 30.5 | 0.727 | 0.727 | 0.0054 | 88 | 128 | 1600 | 500 |
| | 35 | 16 | Stranded | | 1.3 | 1.2 | 2.0 | 33.0 | 0.524 | 0.524 | 0.0047 | 110 | 154 | 1900 | 500 |
| | 50 | 25 | Stranded | | 1.5 | 1.5 | 2.2 | 38.5 | 0.387 | 0.387 | 0.0046 | 133 | 181 | 2600 | 500 |
| | 70 | 35 | Stranded | | 1.5 | 1.5 | 2.2 | 42.5 | 0.268 | 0.268 | 0.0039 | 171 | 223 | 3500 | 500 |
| | 95 | 50 | Stranded | | 1.7 | 1.5 | 2.4 | 48.5 | 0.193 | 0.193 | 0.0038 | 207 | 267 | 4700 | 500 |
| | 120 | 70 | Stranded | | 1.7 | 1.8 | 2.6 | 53.5 | 0.153 | 0.153 | 0.0034 | 240 | 304 | 6000 | 500 |
| | 150 | 95 | Stranded | | 1.9 | 1.8 | 2.8 | 59.0 | 0.124 | 0.124 | 0.0034 | 278 | 342 | 7500 | 500 |
| | 185 | 95 | Stranded | | 2.1 | 2.0 | 3.0 | 64.5 | 0.0991 | 0.0991 | 0.0034 | 317 | 386 | 9000 | 500 |
| | 240 | 120 | Stranded | | 2.3 | 2.0 | 3.2 | 72.0 | 0.0754 | 0.0754 | 0.0033 | 374 | 448 | 11500 | 300 |
| | 300 | 150 | Stranded | | 2.5 | 2.2 | 3.4 | 79.5 | 0.0601 | 0.0601 | 0.0032 | 432 | 507 | 14000 | 300 |

**Remark :** Thermal resistivity of soil 1.2 K.m./W or °C.m/W
Deep of laying (For cable laid direct in ground) 0.8 m

# NYY-G

## 450/750 V 70°C STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATH WITH GROUND

TIS 11 Part 101-2559




## CABLE STRUCTURE

**Conductor** : Solid and Stranded annealed copper wire

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** 3 Cores + Ground : Brown, Black, Grey + Green/Yellow

**Inner Sheath** : Black polyvinyl chloride (PVC)

**Sheath** : Black polyvinyl choride (PVC/ST4)

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 5

## APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

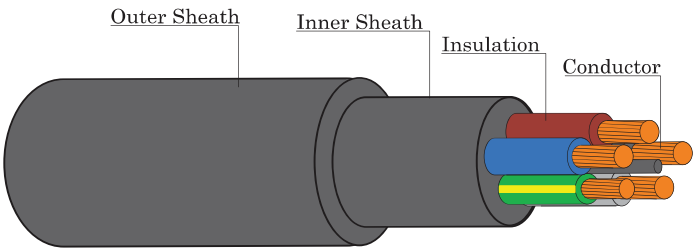
| Number of cores | Nominal cross section area | | A.C. Resistance | Inductance | Reactance | Impedance |
|---|---|---|---|---|---|---|
| | Phase ($mm^2$) | Ground ($mm^2$) | R (Ω/km) | L (mH/km) | XL (Ω/km) | Z (Ω/km) |
| 3+G | 1 | 1 | 21.7000 | 0.3771 | 0.1185 | 21.7000 |
| | 1 | 1 | 21.7000 | 0.3651 | 0.1147 | 21.7000 |
| | 1.5 | 1.5 | 14.5000 | 0.3505 | 0.1101 | 14.5000 |
| | 1.5 | 1.5 | 14.5000 | 0.3402 | 0.1069 | 14.5000 |
| | 2.5 | 2.5 | 8.8700 | 0.3238 | 0.1017 | 8.8710 |
| | 2.5 | 2.5 | 8.8700 | 0.3160 | 0.0993 | 8.8710 |
| | 4 | 4 | 5.5200 | 0.3135 | 0.0985 | 5.5210 |
| | 4 | 4 | 5.5200 | 0.3022 | 0.0950 | 5.5210 |
| | 6 | 6 | 3.6900 | 0.2869 | 0.0901 | 3.6910 |
| | 10 | 10 | 2.1900 | 0.2801 | 0.0880 | 2.1920 |
| | 16 | 16 | 1.3800 | 0.2791 | 0.0877 | 1.3828 |
| | 25 | 16 | 0.8700 | 0.2631 | 0.0827 | 0.8739 |
| | 35 | 16 | 0.6273 | 0.2593 | 0.0814 | 0.6326 |
| | 50 | 25 | 0.4635 | 0.2604 | 0.0818 | 0.4707 |
| | 70 | 35 | 0.3213 | 0.2506 | 0.0787 | 0.3308 |
| | 95 | 50 | 0.2319 | 0.2480 | 0.0779 | 0.2446 |
| | 120 | 70 | 0.1843 | 0.2409 | 0.0757 | 0.1992 |
| | 150 | 95 | 0.1499 | 0.2402 | 0.0755 | 0.1678 |
| | 185 | 95 | 0.1205 | 0.2401 | 0.0754 | 0.1422 |
| | 240 | 120 | 0.0928 | 0.2361 | 0.0742 | 0.1188 |
| | 300 | 150 | 0.0751 | 0.2343 | 0.0736 | 0.1052 |

B

# NYY-G

## 450/750 V 70°C STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATH WITH GROUND

TIS 11 Part 101-2559




## CABLE STRUCTURE

**Conductor** : Solid and Stranded annealed copper wire

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** 4 Cores + Ground : Blue, Brown, Black, Grey + Green/Yellow

**Inner Sheath** : Black polyvinyl chloride (PVC)

**Sheath** : Black polyvinyl choride (PVC/ST4)

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 5

## APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

| Number of cores | Conductor | | | | Insulation thickness nominal | Inner Sheath thickness approx. | Outer Sheath thickness nominal | Overall diameter maximum | Conductor resistance maximum at 20°C | | Insulation resistance at 70°C minimum | Continuous currunt rating maximum | | Cable weight approx. | Standard length per drum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Nominal cross section area | | Type of Conductor | | | | | | | | | on cable Ladder at 40°C | direct burial in ground at 30°C | | |
| | Phase | Ground | Phase | Ground | | | | | Phase | Ground | | | | | |
| | ($mm^2$) | ($mm^2$) | | | (mm) | (mm) | (mm) | (mm) | (Ω/km) | (Ω/km) | (MΩ-km) | (A) | (A) | (kg/km) | (m) |
| 4+G | 1 | 1 | Solid | | 0.8 | 0.8 | 1.8 | 14.5 | 18.1 | 18.1 | 0.0141 | 13 | 18 | 250 | 500 |
| | 1 | 1 | Stranded | | 0.8 | 0.8 | 1.8 | 15.0 | 18.1 | 18.1 | 0.0135 | 13 | 18 | 260 | 500 |
| | 1.5 | 1.5 | Solid | | 0.8 | 0.8 | 1.8 | 15.0 | 12.1 | 12.1 | 0.0123 | 16 | 22 | 280 | 500 |
| | 1.5 | 1.5 | Stranded | | 0.8 | 0.8 | 1.8 | 16.0 | 12.1 | 12.1 | 0.0116 | 16 | 22 | 300 | 500 |
| | 2.5 | 2.5 | Solid | | 0.8 | 0.8 | 1.8 | 16.5 | 7.41 | 7.41 | 0.0102 | 22 | 30 | 360 | 500 |
| | 2.5 | 2.5 | Stranded | | 0.8 | 0.8 | 1.8 | 17.0 | 7.41 | 7.41 | 0.0093 | 22 | 30 | 390 | 500 |
| | 4 | 4 | Solid | | 0.9 | 0.8 | 1.8 | 18.0 | 4.61 | 4.61 | 0.0094 | 30 | 39 | 480 | 500 |
| | 4 | 4 | Stranded | | 0.9 | 0.8 | 1.8 | 19.0 | 4.61 | 4.61 | 0.0085 | 30 | 39 | 500 | 500 |
| | 6 | 6 | Stranded | | 0.9 | 0.8 | 1.8 | 20.5 | 3.08 | 3.08 | 0.0073 | 37 | 50 | 650 | 500 |
| | 10 | 10 | Stranded | | 1.1 | 0.8 | 2.0 | 25.0 | 1.83 | 1.83 | 0.0069 | 52 | 68 | 1000 | 500 |
| | 16 | 16 | Stranded | | 1.1 | 1.2 | 2.0 | 28.5 | 1.15 | 1.15 | 0.0057 | 70 | 87 | 1400 | 500 |
| | 25 | 16 | Stranded | | 1.3 | 1.2 | 2.0 | 34.0 | 0.727 | 0.727 | 0.0054 | 88 | 128 | 1900 | 500 |
| | 35 | 16 | Stranded | | 1.3 | 1.5 | 2.2 | 39.0 | 0.524 | 0.524 | 0.0047 | 110 | 154 | 2500 | 500 |
| | 50 | 25 | Stranded | | 1.5 | 1.5 | 2.2 | 43.5 | 0.387 | 0.387 | 0.0046 | 133 | 181 | 3300 | 500 |
| | 70 | 35 | Stranded | | 1.5 | 1.5 | 2.4 | 49.0 | 0.268 | 0.268 | 0.0039 | 171 | 223 | 4500 | 500 |
| | 95 | 50 | Stranded | | 1.7 | 1.8 | 2.6 | 56.5 | 0.193 | 0.193 | 0.0038 | 207 | 267 | 6000 | 500 |
| | 120 | 70 | Stranded | | 1.7 | 1.8 | 2.8 | 61.5 | 0.153 | 0.153 | 0.0034 | 240 | 304 | 7500 | 500 |
| | 150 | 95 | Stranded | | 1.9 | 2.0 | 3.0 | 68.0 | 0.124 | 0.124 | 0.0034 | 278 | 342 | 9500 | 300 |
| | 185 | 95 | Stranded | | 2.1 | 2.0 | 3.2 | 75.0 | 0.0991 | 0.0991 | 0.0034 | 317 | 386 | 11500 | 300 |
| | 240 | 120 | Stranded | | 2.3 | 2.2 | 3.4 | 84.5 | 0.0754 | 0.0754 | 0.0033 | 374 | 448 | 14500 | 300 |
| | 300 | 150 | Stranded | | 2.5 | 2.2 | 3.8 | 93.5 | 0.0601 | 0.0601 | 0.0032 | 432 | 507 | 18000 | 200 |

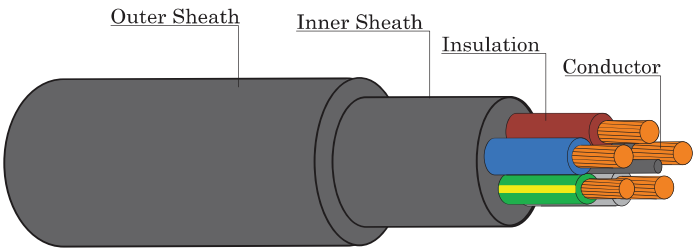
**Remark :** Thermal resistivity of soil 1.2 K.m./W or °C.m/W
Deep of laying (For cable laid direct in ground) 0.8 m

B

# NYY-G

**450/750 V 70°C STRANDED CONDUCTOR PVC INSULATED AND DOUBLE SHEATH WITH GROUND**

TIS 11 Part 101-2559




## CABLE STRUCTURE

**Conductor** : Solid and Stranded annealed copper wire

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification** 4 Cores + Ground : Blue, Brown, Black, Grey + Green/Yellow

**Inner Sheath** : Black polyvinyl chloride (PVC)

**Sheath** : Black polyvinyl choride (PVC/ST4)

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 5

## APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

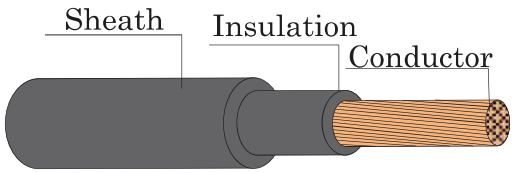
| Number of cores | Nominal cross section area | | A.C. Resistance | Inductance | Reactance | Impedance |
|---|---|---|---|---|---|---|
| | Phase ($mm^2$) | Ground ($mm^2$) | R (Ω/km) | L (mH/km) | XL (Ω/km) | Z (Ω/km) |
| 4+G | 1 | 1 | 21.7000 | 0.3771 | 0.1185 | 21.7000 |
| | 1 | 1 | 21.7000 | 0.3651 | 0.1147 | 21.7000 |
| | 1.5 | 1.5 | 14.5000 | 0.3505 | 0.1101 | 14.5000 |
| | 1.5 | 1.5 | 14.5000 | 0.3402 | 0.1069 | 14.5000 |
| | 2.5 | 2.5 | 8.8700 | 0.3238 | 0.1017 | 8.8710 |
| | 2.5 | 2.5 | 8.8700 | 0.3160 | 0.0993 | 8.8710 |
| | 4 | 4 | 5.5200 | 0.3135 | 0.0985 | 5.5210 |
| | 4 | 4 | 5.5200 | 0.3022 | 0.0950 | 5.5210 |
| | 6 | 6 | 3.6900 | 0.2869 | 0.0901 | 3.6910 |
| | 10 | 10 | 2.1900 | 0.2801 | 0.0880 | 2.1920 |
| | 16 | 16 | 1.3800 | 0.2791 | 0.0877 | 1.3828 |
| | 25 | 16 | 0.8700 | 0.2631 | 0.0827 | 0.8739 |
| | 35 | 16 | 0.6273 | 0.2593 | 0.0814 | 0.6326 |
| | 50 | 25 | 0.4635 | 0.2604 | 0.0818 | 0.4707 |
| | 70 | 35 | 0.3213 | 0.2506 | 0.0787 | 0.3308 |
| | 95 | 50 | 0.2319 | 0.2480 | 0.0779 | 0.2446 |
| | 120 | 70 | 0.1843 | 0.2409 | 0.0757 | 0.1992 |
| | 150 | 95 | 0.1499 | 0.2402 | 0.0755 | 0.1678 |
| | 185 | 95 | 0.1205 | 0.2401 | 0.0754 | 0.1422 |
| | 240 | 120 | 0.0928 | 0.2361 | 0.0742 | 0.1188 |
| | 300 | 150 | 0.0751 | 0.2343 | 0.0736 | 0.1052 |

B

# VCT

## 450/750 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, ROUND TYPE

TIS 11 Part 101-2559




### CABLE STRUCTURE

**Conductor** : Flexible annealed copper wire

**Insulation** : Polyvinyl chloride (PVC/D)

**Core identification** 1 Cores : Black

**Sheath** : Black polyvinyl chloride (PVC/ST5)

### TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 7

B

### APPLICATION

For mobile-electrical equipment used in mines, factories, farm or household appliances. This cable is suitable for use in places where cables come in contact with oils.

| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Sheath thickness approx. (mm) | Overall diameter maximum (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Continuous currunt rating in free air at 40°C maximum (A) | Cable weight approx. (kg/km) | Standard length (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | Flexible | 0.8 | 1.2 | 6.2 | 19.5 | 0.0127 | 14 | 40 | 100/C |
| | 1.5 | Flexible | 0.8 | 1.2 | 6.6 | 13.3 | 0.0111 | 16 | 50 | 100/C |
| | 2.5 | Flexible | 0.8 | 1.2 | 7.4 | 7.98 | 0.0092 | 25 | 65 | 100/C |
| | 4 | Flexible | 0.9 | 1.4 | 8.6 | 4.95 | 0.0084 | 30 | 90 | 100/C |
| | 6 | Flexible | 0.9 | 1.4 | 9.4 | 3.30 | 0.0071 | 39 | 120 | 100/C |
| | 10 | Flexible | 1.1 | 1.8 | 12.0 | 1.91 | 0.0068 | 51 | 210 | 100/C |
| | 16 | Flexible | 1.1 | 1.8 | 13.5 | 1.21 | 0.0050 | 73 | 270 | 100/C |
| | 25 | Flexible | 1.3 | 2.2 | 16.0 | 0.780 | 0.0048 | 97 | 410 | 100/C |
| | 35 | Flexible | 1.3 | 2.2 | 17.5 | 0.554 | 0.0041 | 140 | 550 | 500/D |

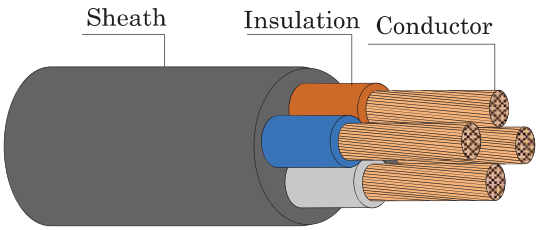
C : Packing in coil
D : Packing in drum

| Number of cores | Nominal cross sectional area ($mm^2$) | A.C. Resistance R (Ω/km) | Inductance L (mH/km) | Reactance XL (Ω/km) | Impedance Z (Ω/km) |
|---|---|---|---|---|---|
| 1 | 1 | 23.3000 | 0.6620 | 0.2079 | 23.3000 |
| | 1.5 | 15.9000 | 0.6310 | 0.1983 | 15.9000 |
| | 2.5 | 9.5500 | 0.5930 | 0.1864 | 9.5520 |
| | 4 | 5.9227 | 0.5946 | 0.1868 | 5.9256 |
| | 6 | 3.9485 | 0.5605 | 0.1761 | 3.9524 |
| | 10 | 2.2854 | 0.5529 | 0.1737 | 2.2919 |
| | 16 | 1.4478 | 0.5306 | 0.1667 | 1.4574 |
| | 25 | 0.9334 | 0.5275 | 0.1657 | 0.9480 |
| | 35 | 0.6630 | 0.5086 | 0.1598 | 0.6820 |

# VCT

## 450/750 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, ROUND TYPE

TIS 11 Part 101-2559




### CABLE STRUCTURE

**Conductor** : Flexible annealed copper wire

**Insulation** : Polyvinyl chloride (PVC/D)

**Core identification**
2 Cores : Blue, Brown
3 Cores : Brown, Black, Grey
4 Cores : Blue, Brown, Black, Grey

**Sheath** : Black polyvinyl chloride (PVC/ST5)

### TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 7

B

### APPLICATION

For mobile-electrical equipment used in mines, factories, farm or household appliances. This cable is suitable for use in places where cables come in contact with oils.

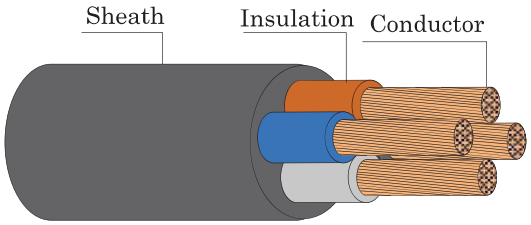
| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Sheath thickness approx. (mm) | Overall diameter maximum (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Continuous currunt rating in free air at 40°C maximum (A) | Cable weight approx. (kg/km) | Standard length (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 1 | Flexible | 0.8 | 1.2 | 9.6 | 19.5 | 0.0127 | 14 | 100 | 100/C |
| | 1.5 | Flexible | 0.8 | 1.4 | 11.0 | 13.3 | 0.0111 | 16 | 130 | 100/C |
| | 2.5 | Flexible | 0.8 | 1.4 | 12.5 | 7.98 | 0.0092 | 25 | 170 | 100/C |
| | 4 | Flexible | 0.9 | 1.6 | 14.5 | 4.95 | 0.0084 | 30 | 230 | 100/C |
| | 6 | Flexible | 0.9 | 1.6 | 16.0 | 3.30 | 0.0071 | 39 | 320 | 100/C |
| | 10 | Flexible | 1.1 | 1.8 | 20.0 | 1.91 | 0.0068 | 51 | 500 | 500/D |
| | 16 | Flexible | 1.1 | 2.2 | 23.0 | 1.21 | 0.0050 | 73 | 700 | 500/D |
| | 25 | Flexible | 1.3 | 2.4 | 27.5 | 0.780 | 0.0048 | 97 | 1000 | 500/D |
| | 35 | Flexible | 1.3 | 2.6 | 31.0 | 0.554 | 0.0041 | 140 | 1400 | 500/D |
| 3 | 1 | Flexible | 0.8 | 1.4 | 10.5 | 19.5 | 0.0127 | 12 | 100 | 100/C |
| | 1.5 | Flexible | 0.8 | 1.4 | 11.5 | 13.3 | 0.0111 | 15 | 130 | 100/C |
| | 2.5 | Flexible | 0.8 | 1.4 | 13.0 | 7.98 | 0.0092 | 20 | 170 | 100/C |
| | 4 | Flexible | 0.9 | 1.6 | 15.5 | 4.95 | 0.0084 | 26 | 230 | 100/C |
| | 6 | Flexible | 0.9 | 1.8 | 17.5 | 3.30 | 0.0071 | 34 | 320 | 100/C |
| | 10 | Flexible | 1.1 | 2.0 | 21.5 | 1.91 | 0.0068 | 47 | 500 | 500/D |
| | 16 | Flexible | 1.1 | 2.4 | 25.0 | 1.21 | 0.0050 | 63 | 700 | 500/D |
| | 25 | Flexible | 1.3 | 2.6 | 30.0 | 0.780 | 0.0048 | 83 | 1000 | 500/D |
| | 35 | Flexible | 1.3 | 2.8 | 33.5 | 0.554 | 0.0041 | 102 | 1400 | 500/D |
| 4 | 1 | Flexible | 0.8 | 1.6 | 10.5 | 19.5 | 0.0127 | 12 | 100 | 100/C |
| | 1.5 | Flexible | 0.8 | 1.6 | 11.5 | 13.3 | 0.0111 | 15 | 130 | 100/C |
| | 2.5 | Flexible | 0.8 | 1.6 | 13.0 | 7.98 | 0.0092 | 20 | 170 | 100/C |
| | 4 | Flexible | 0.9 | 1.8 | 15.5 | 4.95 | 0.0084 | 26 | 230 | 100/C |
| | 6 | Flexible | 0.9 | 2.0 | 17.5 | 3.30 | 0.0071 | 34 | 320 | 100/C |
| | 10 | Flexible | 1.1 | 2.2 | 21.5 | 1.91 | 0.0068 | 47 | 500 | 500/D |
| | 16 | Flexible | 1.1 | 2.6 | 25.0 | 1.21 | 0.0050 | 63 | 700 | 500/D |
| | 25 | Flexible | 1.3 | 2.8 | 30.0 | 0.780 | 0.0048 | 83 | 1000 | 500/D |
| | 35 | Flexible | 1.3 | 3.1 | 33.5 | 0.554 | 0.0041 | 102 | 1400 | 500/D |

C : Packing in coil
D : Packing in drum

# VCT

## 450/750 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED, ROUND TYPE

TIS 11 Part 101-2559




### CABLE STRUCTURE

**Conductor** : Flexible annealed copper wire

**Insulation** : Polyvinyl chloride (PVC/D)

**Core identification**
2 Cores : Blue, Brown
3 Cores : Brown, Black, Grey
4 Cores : Blue, Brown, Black, Grey

**Sheath** : Black polyvinyl chloride (PVC/ST5)

### TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 7

B

### APPLICATION

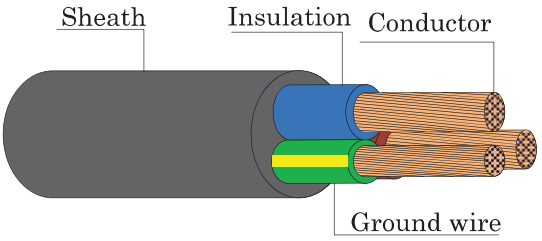
For mobile-electrical equipment used in mines, factories, farm or household appliances. This cable is suitable for use in places where cables come in contact with oils.

| Number of cores | Nominal cross sectional area ($mm^2$) | A.C. Resistance R (Ω/km) | Inductance L (mH/km) | Reactance XL (Ω/km) | Impedance Z (Ω/km) |
|---|---|---|---|---|---|
| 2 | 1 | 23.3000 | 0.3560 | 0.1118 | 23.3000 |
| | 1.5 | 15.9000 | 0.3330 | 0.1048 | 15.9000 |
| | 2.5 | 9.5500 | 0.3070 | 0.0965 | 9.5500 |
| | 4 | 5.9227 | 0.3084 | 0.0969 | 5.9235 |
| | 6 | 3.9485 | 0.8662 | 0.0899 | 3.9495 |
| | 10 | 2.2854 | 0.2768 | 0.0870 | 2.2870 |
| | 16 | 1.4479 | 0.2638 | 0.0829 | 1.4502 |
| | 25 | 0.9334 | 0.2602 | 0.0817 | 0.9370 |
| | 35 | 0.6631 | 0.2500 | 0.0785 | 0.6677 |
| 3 | 1 | 23.3000 | 0.3560 | 0.1118 | 23.3000 |
| | 1.5 | 15.9000 | 0.3330 | 0.1048 | 15.9000 |
| | 2.5 | 9.5500 | 0.3070 | 0.0965 | 9.5500 |
| | 4 | 5.9227 | 0.3084 | 0.0969 | 5.9235 |
| | 6 | 3.9485 | 0.2862 | 0.0899 | 3.9495 |
| | 10 | 2.2854 | 0.2768 | 0.0870 | 2.2870 |
| | 16 | 1.4479 | 0.2638 | 0.0829 | 1.4503 |
| | 25 | 0.9335 | 0.2602 | 0.0817 | 0.9371 |
| | 35 | 0.6632 | 0.2500 | 0.0785 | 0.6678 |
| 4 | 1 | 23.3000 | 0.3560 | 0.1118 | 23.3000 |
| | 1.5 | 15.9000 | 0.3330 | 0.1048 | 15.9000 |
| | 2.5 | 9.5500 | 0.3070 | 0.0965 | 9.5500 |
| | 4 | 5.9227 | 0.3084 | 0.0969 | 5.9235 |
| | 6 | 3.9485 | 0.2862 | 0.0899 | 3.9495 |
| | 10 | 2.2854 | 0.2768 | 0.0870 | 2.2870 |
| | 16 | 1.4479 | 0.2638 | 0.0829 | 1.4503 |
| | 25 | 0.9335 | 0.2602 | 0.0817 | 0.9371 |
| | 35 | 0.6632 | 0.2500 | 0.0785 | 0.6678 |

# VCT-G

## 450/750 V 70° C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED WITH GROUND, ROUND TYPE

TIS 11 Part 101-2559




## CABLE STRUCTURE

**Conductor** : Flexible annealed copper wire

**Insulation** : Polyvinyl chloride (PVC/D)

**Core identification** 2 Cores + Ground : Blue, Brown + Green/Yellow

**Sheath** : Black polyvinyl choride (PVC/ST5)

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 8

## APPLICATION

For mobile-electrical equipment used in mines, factories, farm or household appliances. This cable is suitable for use in places where cables come in contact with oils.

B

| Number of cores | Conductor | | | | Insulation thickness nominal | Sheath thickness approx. | Overall diameter maximum | Conductor resistance maximum at 20°C | | Insulation resistance at 70°C minimum | Continuous currunt rating in free air at 40°C maximum | Cable weight approx. | Standard length |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Nominal cross section area | | Type of Conductor | | | | | Phase | Ground | | | | |
| | Phase ($mm^2$) | Ground ($mm^2$) | Phase | Ground | (mm) | (mm) | (mm) | (Ω/km) | (Ω/km) | (MΩ-km) | (A) | (kg/km) | (m) |
| 2+G | 1 | 1 | Flexible | | 0.8 | 1.2 | 10.0 | 19.5 | 19.5 | 0.0127 | 14 | 120 | 100/C |
| | 1.5 | 1.5 | Flexible | | 0.8 | 1.4 | 12.0 | 13.3 | 13.3 | 0.0111 | 16 | 150 | 100/C |
| | 2.5 | 2.5 | Flexible | | 0.8 | 1.4 | 13.0 | 7.98 | 7.98 | 0.0092 | 25 | 200 | 100/C |
| | 4 | 4 | Flexible | | 0.9 | 1.6 | 15.5 | 4.95 | 4.95 | 0.0084 | 30 | 280 | 100/C |
| | 6 | 6 | Flexible | | 0.9 | 1.8 | 17.5 | 3.30 | 3.30 | 0.0071 | 39 | 400 | 100/C |
| | 10 | 10 | Flexible | | 1.1 | 2.0 | 21.5 | 1.91 | 1.91 | 0.0068 | 51 | 650 | 500/D |
| | 16 | 16 | Flexible | | 1.1 | 2.4 | 25.0 | 1.21 | 1.21 | 0.0050 | 73 | 900 | 500/D |
| | 25 | 16 | Flexible | | 1.3 | 2.6 | 28.5 | 0.780 | 0.780 | 0.0048 | 97 | 1200 | 500/D |
| | 35 | 16 | Flexible | | 1.3 | 2.8 | 31.5 | 0.554 | 0.554 | 0.0041 | 140 | 1500 | 500/D |

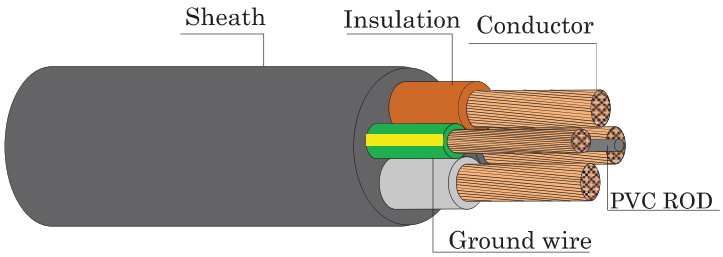
C : Packing in coil
D : Packing in drum

| Number of cores | Nominal cross section area | | A.C. Resistance | Inductance | Reactance | Impedance |
|---|---|---|---|---|---|---|
| | Phase ($mm^2$) | Ground ($mm^2$) | R (Ω/km) | L (mH/km) | XL (Ω/km) | Z (Ω/km) |
| 2+G | 1 | 1 | 23.3000 | 0.3560 | 0.1118 | 23.3000 |
| | 1.5 | 1.5 | 15.9000 | 0.3330 | 0.1048 | 15.9000 |
| | 2.5 | 2.5 | 9.5500 | 0.3070 | 0.0965 | 9.5500 |
| | 4 | 4 | 5.9227 | 0.3084 | 0.0969 | 5.9235 |
| | 6 | 6 | 3.9485 | 0.2862 | 0.0899 | 3.9495 |
| | 10 | 10 | 2.2854 | 0.2768 | 0.0870 | 2.2870 |
| | 16 | 16 | 1.4479 | 0.2638 | 0.0829 | 1.4502 |
| | 25 | 16 | 0.9334 | 0.2602 | 0.0817 | 0.9370 |
| | 35 | 16 | 0.6631 | 0.2500 | 0.0785 | 0.6677 |

# VCT-G

## 450/750 V 70° C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED WITH GROUND, ROUND TYPE

TIS 11 Part 101-2559




## CABLE STRUCTURE

**Conductor** : Flexible annealed copper wire

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification**
3 Cores + Ground : Brown, Black, Grey + Green/Yellow

**Sheath** : Black polyvinyl choride (PVC/ST5)

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 8

B

## APPLICATION

For mobile-electrical equipment used in mines, factories, farm or household appliances. This cable is suitable for use in places where cables come in contact with oils.

| Number of cores | Conductor | | | | Insulation thickness nominal | Sheath thickness approx. | Overall diameter maximum | Conductor resistance maximum at 20°C | | Insulation resistance at 70°C minimum | Continuous currunt rating in free air at 40°C maximum | Cable weight approx. | Standard length |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Nominal cross section area | | Type of Conductor | | | | | Phase | Ground | | | | |
| | Phase ($mm^2$) | Ground ($mm^2$) | Phase | Ground | (mm) | (mm) | (mm) | (Ω/km) | (Ω/km) | (MΩ-km) | (A) | (kg/km) | (m) |
| 3+G | 1 | 1 | Flexible | | 0.8 | 1.4 | 11.5 | 19.5 | 19.5 | 0.0127 | 12 | 150 | 100/C |
| | 1.5 | 1.5 | Flexible | | 0.8 | 1.4 | 12.5 | 13.3 | 13.3 | 0.0111 | 15 | 180 | 100/C |
| | 2.5 | 2.5 | Flexible | | 0.8 | 1.4 | 14.0 | 7.98 | 7.98 | 0.0092 | 20 | 240 | 100/C |
| | 4 | 4 | Flexible | | 0.9 | 1.8 | 17.0 | 4.95 | 4.95 | 0.0084 | 26 | 360 | 100/C |
| | 6 | 6 | Flexible | | 0.9 | 2.0 | 19.5 | 3.30 | 3.30 | 0.0071 | 34 | 500 | 500/D |
| | 10 | 10 | Flexible | | 1.1 | 2.2 | 24.0 | 1.91 | 1.91 | 0.0068 | 47 | 850 | 500/D |
| | 16 | 16 | Flexible | | 1.1 | 2.6 | 28.0 | 1.21 | 1.21 | 0.0050 | 63 | 1200 | 500/D |
| | 25 | 16 | Flexible | | 1.3 | 2.8 | 33.0 | 0.780 | 0.780 | 0.0048 | 83 | 1600 | 500/D |
| | 35 | 16 | Flexible | | 1.3 | 3.1 | 37.0 | 0.554 | 0.554 | 0.0041 | 102 | 2100 | 500/D |

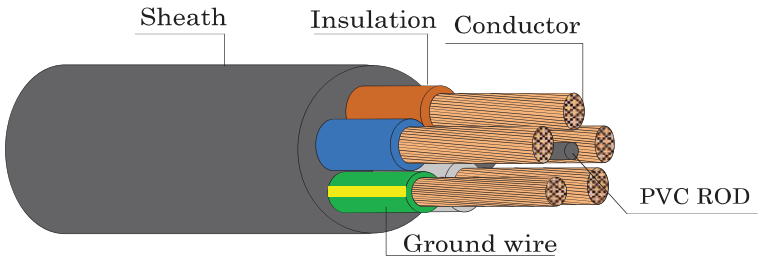
C : Packing in coil
D : Packing in drum

| Number of cores | Nominal cross section area | | A.C. Resistance | Inductance | Reactance | Impedance |
|---|---|---|---|---|---|---|
| | Phase ($mm^2$) | Ground ($mm^2$) | R (Ω/km) | L (mH/km) | XL (Ω/km) | Z (Ω/km) |
| 3+G | 1 | 1 | 23.3000 | 0.3560 | 0.1118 | 23.3000 |
| | 1.5 | 1.5 | 15.9000 | 0.3330 | 0.1048 | 15.9000 |
| | 2.5 | 2.5 | 9.5500 | 0.3070 | 0.0965 | 9.5500 |
| | 4 | 4 | 5.9227 | 0.3084 | 0.0969 | 5.9235 |
| | 6 | 6 | 3.9485 | 0.2862 | 0.0899 | 3.9495 |
| | 10 | 10 | 2.2854 | 0.2768 | 0.0870 | 2.2870 |
| | 16 | 16 | 1.4479 | 0.2638 | 0.0829 | 1.4503 |
| | 25 | 16 | 0.9335 | 0.2602 | 0.0817 | 0.9371 |
| | 35 | 16 | 0.6632 | 0.2500 | 0.0785 | 0.6678 |

# VCT-G

## 450/750 V 70° C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATHED WITH GROUND, ROUND TYPE

TIS 11 Part 101-2559




## CABLE STRUCTURE

**Conductor** : Flexible annealed copper wire

**Insulation** : Polyvinyl chloride (PVC/C)

**Core identification**
4 Cores + Ground : Blue, Brown, Black, Grey + Green/Yellow

**Sheath** : Black polyvinyl choride (PVC/ST5)

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 450/750 Volts

**Rated voltage** : 450 Volts between Line to Earth
: 750 Volts between Line to Line

**Testing voltage** : 2,500 Volts

**Reference standard** : TIS 11 Part 101-2559 Table 8

## APPLICATION

For mobile-electrical equipment used in mines, factories, farm or household appliances. This cable is suitable for use in places where cables come in contact with oils.

B

| Number of cores | Conductor | | | | Insulation thickness nominal | Sheath thickness approx. | Overall diameter maximum | Conductor resistance maximum at 20°C | | Insulation resistance at 70°C minimum | Continuous currunt rating in free air at 40°C maximum | Cable weight approx. | Standard length |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Nominal cross section area | | Type of Conductor | | | | | Phase | Ground | | | | |
| | Phase ($mm^2$) | Ground ($mm^2$) | Phase | Ground | (mm) | (mm) | (mm) | (Ω/km) | (Ω/km) | (MΩ-km) | (A) | (kg/km) | (m) |
| 4+G | 1 | 1 | Flexible | | 0.8 | 1.6 | 13.0 | 19.5 | 19.5 | 0.0127 | 12 | 190 | 100/C |
| | 1.5 | 1.5 | Flexible | | 0.8 | 1.6 | 14.0 | 13.3 | 13.3 | 0.0111 | 15 | 220 | 100/C |
| | 2.5 | 2.5 | Flexible | | 0.8 | 1.6 | 15.5 | 7.98 | 7.98 | 0.0092 | 20 | 310 | 100/C |
| | 4 | 4 | Flexible | | 0.9 | 1.8 | 18.5 | 4.95 | 4.95 | 0.0084 | 26 | 440 | 100/C |
| | 6 | 6 | Flexible | | 0.9 | 2.0 | 21.5 | 3.30 | 3.30 | 0.0071 | 34 | 600 | 500/D |
| | 10 | 10 | Flexible | | 1.1 | 2.2 | 26.5 | 1.91 | 1.91 | 0.0068 | 47 | 1000 | 500/D |
| | 16 | 16 | Flexible | | 1.1 | 2.6 | 30.5 | 1.21 | 1.21 | 0.0050 | 63 | 1400 | 500/D |
| | 25 | 16 | Flexible | | 1.3 | 2.8 | 36.5 | 0.780 | 0.780 | 0.0048 | 83 | 2000 | 500/D |
| | 35 | 16 | Flexible | | 1.3 | 3.1 | 41.5 | 0.554 | 0.554 | 0.0041 | 102 | 2600 | 500/D |

C : Packing in coil
D : Packing in drum

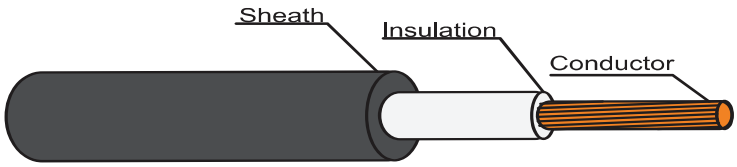
| Number of cores | Nominal cross section area | | A.C. Resistance | Inductance | Reactance | Impedance |
|---|---|---|---|---|---|---|
| | Phase ($mm^2$) | Ground ($mm^2$) | R (Ω/km) | L (mH/km) | XL (Ω/km) | Z (Ω/km) |
| 4+G | 1 | 1 | 23.3000 | 0.3560 | 0.1118 | 23.3000 |
| | 1.5 | 1.5 | 15.9000 | 0.3330 | 0.1048 | 15.9000 |
| | 2.5 | 2.5 | 9.5500 | 0.3070 | 0.0965 | 9.5500 |
| | 4 | 4 | 5.9227 | 0.3084 | 0.0969 | 5.9235 |
| | 6 | 6 | 3.9485 | 0.2862 | 0.0899 | 3.9495 |
| | 10 | 10 | 2.2854 | 0.2768 | 0.0870 | 2.2870 |
| | 16 | 16 | 1.4479 | 0.2638 | 0.0829 | 1.4503 |
| | 25 | 16 | 0.9335 | 0.2602 | 0.0817 | 0.9371 |
| | 35 | 16 | 0.6632 | 0.2500 | 0.0785 | 0.6678 |

# FD-0.6/1KV-CV

## 0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

IEC 60502-1

TIS 2143-2546




Category C
FLAME RETARDANT

### CABLE STRUCTURE

**Conductor** : Non-compacted and compacted round annealed copper

**Insulation** : Cross-Linked polyethylene (XLPE)

**Core identification** Single-core : Natural (Translucent)

**Sheath** : Black flame retardant polyvinyl chloride (PVC/ST2)

### TECHNICAL DATA

**Classification** : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts

**Rated voltage** : 600 Volts between Line to Earth
: 1,000 Volts between Line to Line

**Testing voltag** : 3,500 Volts

**Reference standard** : IEC 60502-1, IEC 60228, IEC 60332-1
IEC 60332-3-24 ( Cat.C )

B

### APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

| Number of core | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Sheath thickness nominal (mm) | Overall diameter approx. (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 20°C minimum (MΩ-km) | Continuous current rating in free air at 40°C maximum | | | Continuous current rating in ground at 30°C maximum (A) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Space (A) | Touching (A) | Trefoil (A) | | | |
| 1 | 1.5 | Non-Compacted | 0.7 | 1.4 | 6.3 | 12.1 | 2,500 | 31 | 24 | 23 | 33 | 50 | 500/D |
| | 300 | Compacted | 1.8 | 1.8 | 29 | 0.0601 | 600 | 821 | 670 | 640 | 601 | 3100 | 500/D |
| | 400 | Compacted | 2.0 | 1.9 | 32 | 0.0470 | 600 | 987 | 790 | 749 | 684 | 3900 | 500/D |
| | 500 | Compacted | 2.2 | 2.0 | 36 | 0.0366 | 600 | 1140 | 908 | 861 | 777 | 5000 | 500/D |
| | 630 | Compacted | 2.4 | 2.2 | 40 | 0.0283 | 550 | 1298 | 1064 | 1014 | 1229 | 6500 | 500/D |
| | 800 | Compacted | 2.6 | 2.3 | 45 | 0.0221 | 550 | 1494 | 1220 | 1156 | 1380 | 8000 | 500/D |
| | 1000 | Compacted | 2.8 | 2.4 | 51 | 0.0176 | 500 | 1712 | 1391 | 1307 | 1532 | 10500 | 500/D |

**Remark** : Thermal resistivity of soil 1.2 K.m/W or °C.m/W

Deep of laying (For cable laid direct in ground) 0.3 m

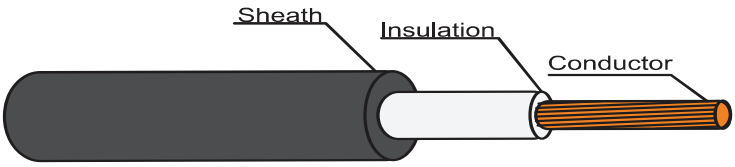
D : Packing in drum

# FD-0.6/1KV-CV

## 0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

IEC 60502-1

TIS 2143-2546




Category C
FLAME RETARDANT

### CABLE STRUCTURE

**Conductor** : Non-compacted and compacted round annealed copper

**Insulation** : Cross-Linked polyethylene (XLPE)

**Core identification** Single-core : Natural (Translucent)

**Sheath** : Black flame retardant polyvinyl chloride (PVC/ST2)

### TECHNICAL DATA

**Classification** : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts

**Rated voltage** : 600 Volts between Line to Earth
: 1,000 Volts between Line to Line

**Testing voltag** : 3,500 Volts

**Reference standard** : IEC 60502-1, IEC 60228, IEC 60332-1
IEC 60332-3-24 ( Cat.C )

### APPLICATION

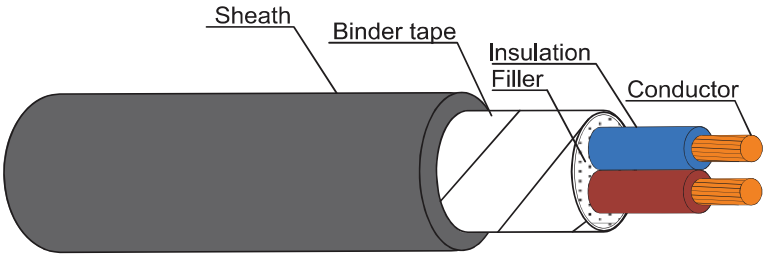
For installation exposed, or in raceway, wet or dry location, or direct burial in ground.

| Number of core | Nominal cross sectional area ($mm^2$) | A.C.Resistance R (Ω/km) | | | Inductance L (mH/km) | | | Reactance XL (Ω/km) | | | Impedance Z (Ω/km) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Space | Touching | Trefoil | Space | Touching | Trefoil | Space | Touching | Trefoil | Space | Touching | Trefoil |
| 1 | 1.5 | 15.4287 | 15.4287 | 15.4287 | 0.6630 | 0.5244 | 0.4782 | 0.2083 | 0.1647 | 0.1502 | 15.4301 | 15.4296 | 15.4294 |
| | 300 | 0.0779 | 0.0787 | 0.0792 | 0.4413 | 0.3027 | 0.2565 | 0.1387 | 0.0951 | 0.0806 | 0.1591 | 0.1234 | 0.1130 |
| | 400 | 0.0616 | 0.0625 | 0.0632 | 0.4393 | 0.3007 | 0.2545 | 0.1380 | 0.0945 | 0.0800 | 0.1511 | 0.1133 | 0.1019 |
| | 500 | 0.0488 | 0.0499 | 0.0509 | 0.4365 | 0.2979 | 0.2517 | 0.1371 | 0.0936 | 0.0791 | 0.1455 | 0.1061 | 0.0940 |
| | 630 | 0.0387 | 0.0402 | 0.0414 | 0.4341 | 0.2954 | 0.2492 | 0.1364 | 0.0928 | 0.0783 | 0.1418 | 0.1011 | 0.0886 |
| | 800 | 0.0314 | 0.0332 | 0.0346 | 0.4309 | 0.2923 | 0.2461 | 0.1354 | 0.0918 | 0.0773 | 0.1390 | 0.0977 | 0.0847 |
| | 1000 | 0.0263 | 0.0284 | 0.0301 | 0.4265 | 0.2879 | 0.2416 | 0.1340 | 0.0904 | 0.0759 | 0.1366 | 0.0948 | 0.0817 |

B

# FD-0.6/1KV-CV

## 0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE




IEC 60502-1

TIS 2143-2546

Category C
FLAME RETARDANT

### CABLE STRUCTURE

**Conductor** : Non-compacted and compacted round annealed copper

**Insulation** : Cross-Linked polyethylene (XLPE)

**Core identification**
2 Cores: Blue, Brown

**Sheath** : Black flame retardant polyvinyl chloride (PVC/ST2)

### TECHNICAL DATA

**Classification** : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts

**Rated voltage** : 600 Volts between Line to Earth
: 1,000 Volts between Line to Line

**Testing voltag** : 3,500 Volts

**Reference standard** : IEC 60502-1, IEC 60228, IEC 60332-1
IEC 60332-3-24 ( Cat.C )

B

### APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Sheath thickness nominal (mm) | Overall diameter approx. (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 20°C minimum (MΩ-km) | Continuous current rating in free air at 40°C maximum (A) | Continuous current rating in ground at 30°C maximum (A) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 1.5 | Non-Compacted | 0.7 | 1.8 | 11.0 | 12.1 | 2,500 | 27 | 33 | 130 | 500/D |
| | 95 | Compacted | 1.1 | 2.0 | 33 | 0.193 | 650 | 329 | 350 | 2200 | 500/D |
| | 120 | Compacted | 1.2 | 2.1 | 37 | 0.153 | 650 | 381 | 400 | 2800 | 500/D |
| | 150 | Compacted | 1.4 | 2.2 | 41 | 0.124 | 700 | 436 | 450 | 3400 | 500/D |
| | 185 | Compacted | 1.6 | 2.3 | 45 | 0.0991 | 700 | 503 | 505 | 4200 | 500/D |
| | 240 | Compacted | 1.7 | 2.5 | 51 | 0.0754 | 650 | 593 | 585 | 5500 | 500/D |
| | 300 | Compacted | 1.8 | 2.7 | 56 | 0.0601 | 600 | 676 | 665 | 7000 | 500/D |
| | 400 | Compacted | 2.0 | 2.9 | 63 | 0.0470 | 600 | 777 | 750 | 8500 | 500/D |

**Remark** : Thermal resistivity of soil 1.2 K.m/W or °C.m/W

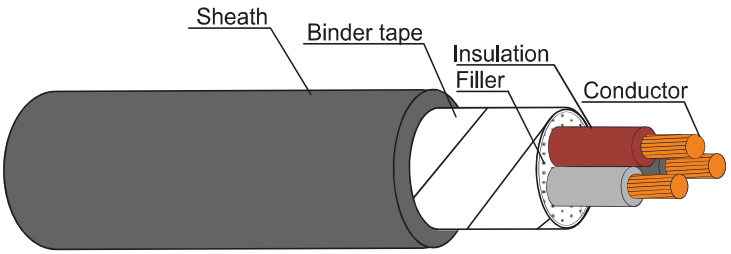
Deep of laying (For cable laid direct in ground) 0.8 m

D : Packing in Drum

| Number of cores | Nominal cross sectional area ($mm^2$) | A.C.Resistance R (Ω/km) | Inductance L (mH/km) | Reactance XL (Ω/km) | Impedance Z (Ω/km) |
|---|---|---|---|---|---|
| 2 | 1.5 | 15.4287 | 0.3427 | 0.1077 | 15.4291 |
| | 95 | 0.2468 | 0.2331 | 0.0732 | 0.2575 |
| | 120 | 0.1960 | 0.2315 | 0.0727 | 0.2091 |
| | 150 | 0.1593 | 0.2302 | 0.0723 | 0.1749 |
| | 185 | 0.1278 | 0.2338 | 0.0734 | 0.1474 |
| | 240 | 0.0981 | 0.2295 | 0.0721 | 0.1217 |
| | 300 | 0.0791 | 0.2260 | 0.0710 | 0.1063 |
| | 400 | 0.0630 | 0.2259 | 0.0710 | 0.0949 |

# FD-0.6/1KV-CV

## 0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE




IEC 60502-1

TIS 2143-2546

Category C
FLAME RETARDANT

### CABLE STRUCTURE

**Conductor** : Non-compacted and compacted round annealed copper

**Insulation** : Cross-Linked polyethylene (XLPE)

**Core identification**
3 Cores: Brown, Black, Grey

**Sheath** : Black flame retardant polyvinyl chloride (PVC/ST2)

### TECHNICAL DATA

**Classification** : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts

**Rated voltage** : 600 Volts between Line to Earth
: 1,000 Volts between Line to Line

**Testing voltag** : 3,500 Volts

**Reference standard** : IEC 60502-1, IEC 60228, IEC 60332-1
IEC 60332-3-24 ( Cat.C )

### APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Sheath thickness nominal (mm) | Overall diameter approx. (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 20°C minimum (MΩ-km) | Continuous current rating in free air at 40°C maximum (A) | Continuous current rating in ground at 30°C maximum (A) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 1.5 | Non-Compacted | 0.7 | 1.8 | 11.5 | 12.1 | 2,500 | 22 | 28 | 150 | 500/D |
| | 95 | Compacted | 1.1 | 2.0 | 36 | 0.193 | 650 | 272 | 295 | 3100 | 500/D |
| | 120 | Compacted | 1.2 | 2.1 | 39 | 0.153 | 650 | 320 | 335 | 3900 | 500/D |
| | 150 | Compacted | 1.4 | 2.3 | 44 | 0.124 | 700 | 366 | 380 | 4800 | 500/D |
| | 185 | Compacted | 1.6 | 2.4 | 49 | 0.0991 | 700 | 422 | 425 | 6000 | 500/D |
| | 240 | Compacted | 1.7 | 2.6 | 55 | 0.0754 | 650 | 498 | 495 | 8000 | 500/D |
| | 300 | Compacted | 1.8 | 2.8 | 61 | 0.0601 | 600 | 567 | 560 | 9500 | 500/D |
| | 400 | Compacted | 2.0 | 3.1 | 68 | 0.0470 | 600 | 652 | 630 | 12500 | 500/D |

**Remark** : Thermal resistivity of soil 1.2 K.m/W or °C.m/W

Deep of laying (For cable laid direct in ground) 0.8 m

D : Packing in Drum

| Number of cores | Nominal cross sectional area ($mm^2$) | A.C.Resistance R (Ω/km) | Inductance L (mH/km) | Reactance XL (Ω/km) | Impedance Z (Ω/km) |
|---|---|---|---|---|---|
| 3 | 1.5 | 15.4287 | 0.3427 | 0.1077 | 15.4291 |
| | 95 | 0.2471 | 0.2331 | 0.0732 | 0.2577 |
| | 120 | 0.1964 | 0.2315 | 0.0727 | 0.2094 |
| | 150 | 0.1597 | 0.2302 | 0.0723 | 0.1753 |
| | 185 | 0.1282 | 0.2338 | 0.0734 | 0.1478 |
| | 240 | 0.0987 | 0.2295 | 0.0721 | 0.1222 |
| | 300 | 0.0798 | 0.2260 | 0.0710 | 0.1068 |
| | 400 | 0.0639 | 0.2259 | 0.0710 | 0.0955 |

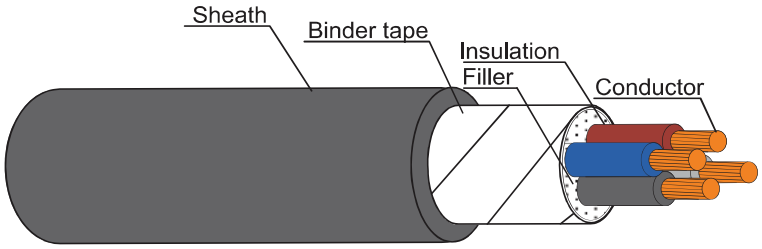
B

# FD-0.6/1KV-CV

## 0.6/1 kV 90°C CROSS-LINKED POLYETHYLENE INSULATED PVC SHEATHED FLAME RETARDANT POWER CABLE

IEC 60502-1

TIS 2143-2546




Category C
FLAME RETARDANT

### CABLE STRUCTURE

**Conductor** : Non-compacted and compacted round annealed copper

**Insulation** : Cross-Linked polyethylene (XLPE)

**Core identification**
4 Cores: Blue, Brown, Black, Grey

**Sheath** : Black flame retardant polyvinyl chloride (PVC/ST2)

### TECHNICAL DATA

**Classification** : Maximum conductor temperature 90°C
: Circuit voltage not exceeding 1,200 Volts

**Rated voltage** : 600 Volts between Line to Earth
: 1,000 Volts between Line to Line

**Testing voltag** : 3,500 Volts

**Reference standard** : IEC 60502-1, IEC 60228, IEC 60332-1
IEC 60332-3-24 ( Cat.C )

B

### APPLICATION

For installation exposed, or in raceway, wet or dry location, or direct burial in ground

| Number of cores | Nominal cross sectional area ($mm^2$) | Number of wires | Insulation thickness nominal (mm) | Sheath thickness nominal (mm) | Overall diameter approx. (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 20°C minimum (MΩ-km) | Continuous current rating in free air at 40°C maximum (A) | Continuous current rating in ground at 30°C maximum (A) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 1.5 | Non-Compacted | 0.7 | 1.8 | 12.0 | 12.1 | 2,500 | 22 | 28 | 180 | 500/D |
| | 95 | Compacted | 1.1 | 2.0 | 39 | 0.193 | 650 | 272 | 295 | 4000 | 500/D |
| | 120 | Compacted | 1.2 | 2.1 | 44 | 0.153 | 650 | 320 | 335 | 5000 | 500/D |
| | 150 | Compacted | 1.4 | 2.3 | 49 | 0.124 | 700 | 366 | 380 | 6500 | 500/D |
| | 185 | Compacted | 1.6 | 2.4 | 54 | 0.0991 | 700 | 422 | 425 | 8000 | 500/D |
| | 240 | Compacted | 1.7 | 2.6 | 61 | 0.0754 | 650 | 498 | 495 | 10000 | 500/D |
| | 300 | Compacted | 1.8 | 2.8 | 68 | 0.0601 | 600 | 567 | 560 | 12500 | 500/D |
| | 400 | Compacted | 2.0 | 3.1 | 76 | 0.0470 | 600 | 652 | 630 | 16000 | 500/D |

**Remark** : Thermal resistivity of soil 1.2 K.m/W or °C.m/W

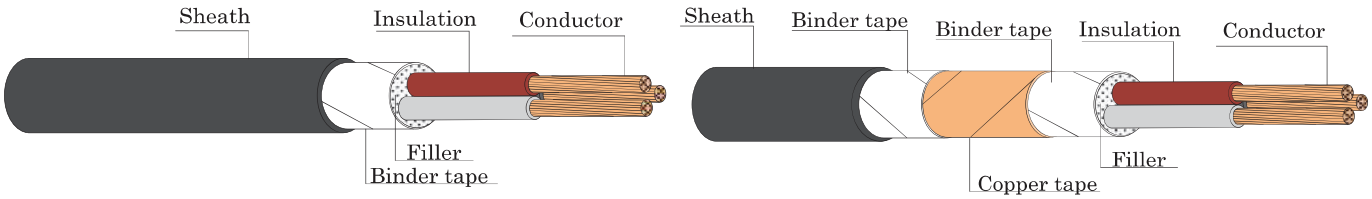
Deep of laying (For cable laid direct in ground) 0.8 m

D : Packing in Drum

| Number of cores | Nominal cross sectional area ($mm^2$) | A.C.Resistance R (Ω/km) | Inductance L (mH/km) | Reactance XL (Ω/km) | Impedance Z (Ω/km) |
|---|---|---|---|---|---|
| 4 | 1.5 | 15.4287 | 0.3427 | 0.1077 | 15.4291 |
| | 95 | 0.2471 | 0.2331 | 0.0732 | 0.2577 |
| | 120 | 0.1964 | 0.2315 | 0.0727 | 0.2094 |
| | 150 | 0.1597 | 0.2302 | 0.0723 | 0.1753 |
| | 185 | 0.1282 | 0.2338 | 0.0734 | 0.1478 |
| | 240 | 0.0987 | 0.2295 | 0.0721 | 0.1222 |
| | 300 | 0.0798 | 0.2260 | 0.0710 | 0.1068 |
| | 400 | 0.0639 | 0.2259 | 0.0710 | 0.0955 |

# CVV or CVV-S

**600 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH CONTROL CABLE**
**600 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH WITH SHIELD CONTROL CABLE**




## CABLE STRUCTURE

**Conductor** : Flexible annealed copper

**Insulation** : Polyvinyl chloride (PVC)

**Core identification**

2 Cores : Blue and Brown
3 Cores : Brown, Black, Grey
4 Cores : Blue, Brown, Black, Grey
More than 4 Cores :
Black with marking numbers, colored white, printed continuously throungout the whole length of insulated wires for the porpose of core identification.

**Filler** : polypropylene (non-hygroscopic materail)

**Binder tape and Separator tape** : Spunbond tape

**Shield** : Copper tape

**Sheath** : Black polyvinyl chloride (PVC)

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 600 Volts

**Testing voltage** : 2,000 Volts

**Reference standard** : THAI YAZAKI STANDARD

B

## APPLICATION

For supervisory electrical equipment, station control circuits, outdoor, suitable installation in the dry or wet cable trenches.

| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Sheath thickness nominal (mm) | Overall diameter approx. (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|
| 2 | 0.5 | Flexible | 0.6 | 0.9 | 7.5 | 39.0 | 0.0130 | 49 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.2 | 8.5 | 26.0 | 0.0114 | 65 | 300/D |
| | 1 | Flexible | 0.6 | 1.2 | 8.7 | 19.5 | 0.0104 | 75 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.2 | 9.3 | 13.3 | 0.0089 | 90 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.2 | 10.5 | 7.98 | 0.0081 | 130 | 300/D |
| | 4 | Flexible | 0.8 | 1.2 | 12.0 | 4.95 | 0.0076 | 170 | 300/D |
| | 6 | Flexible | 0.8 | 1.4 | 14.0 | 3.30 | 0.0061 | 250 | 300/D |
| 3 | 0.5 | Flexible | 0.6 | 1.2 | 8.5 | 39.0 | 0.0130 | 65 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.2 | 8.9 | 26.0 | 0.0114 | 80 | 300/D |
| | 1 | Flexible | 0.6 | 1.2 | 9.1 | 19.5 | 0.0104 | 90 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.2 | 9.8 | 13.3 | 0.0089 | 110 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.2 | 11.0 | 7.98 | 0.0081 | 160 | 300/D |
| | 4 | Flexible | 0.8 | 1.2 | 13.0 | 4.95 | 0.0076 | 230 | 300/D |
| | 6 | Flexible | 0.8 | 1.4 | 15.0 | 3.30 | 0.0061 | 330 | 300/D |
| 4 | 0.5 | Flexible | 0.6 | 1.2 | 9.1 | 39.0 | 0.0130 | 80 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.2 | 9.6 | 26.0 | 0.0114 | 95 | 300/D |
| | 1 | Flexible | 0.6 | 1.2 | 9.8 | 19.5 | 0.0104 | 110 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.2 | 10.5 | 13.3 | 0.0089 | 140 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.2 | 12.0 | 7.98 | 0.0081 | 200 | 300/D |
| | 4 | Flexible | 0.8 | 1.4 | 14.5 | 4.95 | 0.0076 | 300 | 300/D |
| | 6 | Flexible | 0.8 | 1.4 | 16.5 | 3.30 | 0.0061 | 410 | 300/D |
| 5 | 0.5 | Flexible | 0.6 | 1.2 | 9.8 | 39.0 | 0.0130 | 90 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.2 | 10.0 | 26.0 | 0.0114 | 110 | 300/D |
| | 1 | Flexible | 0.6 | 1.2 | 10.5 | 19.5 | 0.0104 | 130 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.2 | 11.5 | 13.3 | 0.0089 | 160 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 13.5 | 7.98 | 0.0081 | 250 | 300/D |
| | 4 | Flexible | 0.8 | 1.4 | 15.5 | 4.95 | 0.0076 | 350 | 300/D |
| | 6 | Flexible | 0.8 | 1.4 | 18.0 | 3.30 | 0.0061 | 500 | 300/D |

D = Packing in drum

# CVV or CVV-S

**600 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH CONTROL CABLE**
**600 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH WITH SHIELD CONTROL CABLE**

| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Sheath thickness nominal (mm) | Overall diameter approx. (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|
| 6 | 0.5 | Flexible | 0.6 | 1.2 | 10.5 | 39.0 | 0.0130 | 110 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.2 | 11.0 | 26.0 | 0.0114 | 130 | 300/D |
| | 1 | Flexible | 0.6 | 1.2 | 11.5 | 19.5 | 0.0104 | 150 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.2 | 12.0 | 13.3 | 0.0089 | 190 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 14.5 | 7.98 | 0.0081 | 290 | 300/D |
| | 4 | Flexible | 0.8 | 1.4 | 17.0 | 4.95 | 0.0076 | 420 | 300/D |
| | 6 | Flexible | 0.8 | 1.4 | 19.5 | 3.30 | 0.0061 | 600 | 300/D |
| 7 | 0.5 | Flexible | 0.6 | 1.2 | 10.5 | 39.0 | 0.0130 | 110 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.2 | 11.0 | 26.0 | 0.0114 | 140 | 300/D |
| | 1 | Flexible | 0.6 | 1.2 | 11.5 | 19.5 | 0.0104 | 160 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.2 | 12.0 | 13.3 | 0.0089 | 210 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 14.5 | 7.98 | 0.0081 | 320 | 300/D |
| | 4 | Flexible | 0.8 | 1.4 | 17.0 | 4.95 | 0.0076 | 460 | 300/D |
| | 6 | Flexible | 0.8 | 1.4 | 19.5 | 3.30 | 0.0061 | 650 | 300/D |
| 8 | 0.5 | Flexible | 0.6 | 1.2 | 11.0 | 39.0 | 0.0130 | 130 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.2 | 11.5 | 26.0 | 0.0114 | 160 | 300/D |
| | 1 | Flexible | 0.6 | 1.2 | 12.0 | 19.5 | 0.0104 | 180 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 13.5 | 13.3 | 0.0089 | 240 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 16.0 | 7.98 | 0.0081 | 360 | 300/D |
| | 4 | Flexible | 0.8 | 1.4 | 18.5 | 4.95 | 0.0076 | 550 | 300/D |
| | 6 | Flexible | 0.8 | 1.4 | 21.0 | 3.30 | 0.0061 | 750 | 300/D |
| 9 | 0.5 | Flexible | 0.6 | 1.2 | 12.0 | 39.0 | 0.0130 | 150 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.2 | 12.5 | 26.0 | 0.0114 | 180 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 13.5 | 19.5 | 0.0104 | 220 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 14.5 | 13.3 | 0.0089 | 270 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 17.0 | 7.98 | 0.0081 | 410 | 300/D |
| | 4 | Flexible | 0.8 | 1.4 | 20.0 | 4.95 | 0.0076 | 600 | 300/D |
| | 6 | Flexible | 0.8 | 1.4 | 23.0 | 3.30 | 0.0061 | 850 | 300/D |
| 10 | 0.5 | Flexible | 0.6 | 1.2 | 12.5 | 39.0 | 0.0130 | 150 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 14.0 | 26.0 | 0.0114 | 210 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 14.5 | 19.5 | 0.0104 | 240 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 15.5 | 13.3 | 0.0089 | 310 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 18.0 | 7.98 | 0.0081 | 460 | 300/D |
| | 4 | Flexible | 0.8 | 1.4 | 21.0 | 4.95 | 0.0076 | 650 | 300/D |
| | 6 | Flexible | 0.8 | 1.8 | 25.0 | 3.30 | 0.0061 | 1,000 | 300/D |
| 11 | 0.5 | Flexible | 0.6 | 1.2 | 12.5 | 39.0 | 0.0130 | 170 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 14.0 | 26.0 | 0.0114 | 210 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 14.5 | 19.5 | 0.0104 | 250 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 15.5 | 13.3 | 0.0089 | 320 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 18.0 | 7.98 | 0.0081 | 480 | 300/D |
| | 4 | Flexible | 0.8 | 1.4 | 21.0 | 4.95 | 0.0076 | 700 | 300/D |
| | 6 | Flexible | 0.8 | 1.8 | 25.0 | 3.30 | 0.0061 | 1,100 | 300/D |
| 12 | 0.5 | Flexible | 0.6 | 1.2 | 13.0 | 39.0 | 0.0130 | 180 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 14.5 | 26.0 | 0.0114 | 220 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 15.0 | 19.5 | 0.0104 | 280 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 16.0 | 13.3 | 0.0089 | 350 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 19.0 | 7.98 | 0.0081 | 550 | 300/D |
| | 4 | Flexible | 0.8 | 1.4 | 22.0 | 4.95 | 0.0076 | 750 | 300/D |
| | 6 | Flexible | 0.8 | 1.8 | 26.0 | 3.30 | 0.0061 | 1,200 | 300/D |
| 13 | 0.5 | Flexible | 0.6 | 1.4 | 14.0 | 39.0 | 0.0130 | 200 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 15.0 | 26.0 | 0.0114 | 250 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 15.5 | 19.5 | 0.0104 | 290 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 17.0 | 13.3 | 0.0089 | 370 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 20.0 | 7.98 | 0.0081 | 550 | 300/D |
| | 4 | Flexible | 0.8 | 1.4 | 23.0 | 4.95 | 0.0076 | 850 | 300/D |
| | 6 | Flexible | 0.8 | 1.8 | 28.0 | 3.30 | 0.0061 | 1,200 | 300/D |
| 14 | 0.5 | Flexible | 0.6 | 1.4 | 14.0 | 39.0 | 0.0130 | 210 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 15.0 | 26.0 | 0.0114 | 250 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 15.5 | 19.5 | 0.0104 | 300 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 17.0 | 13.3 | 0.0089 | 390 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 20.0 | 7.98 | 0.0081 | 600 | 300/D |
| | 4 | Flexible | 0.8 | 1.4 | 23.0 | 4.95 | 0.0076 | 850 | 300/D |
| | 6 | Flexible | 0.8 | 1.8 | 28.0 | 3.30 | 0.0061 | 1,300 | 300/D |

D = Packing in drum

# CVV or CVV-S

**600 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH CONTROL CABLE**
**600 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH WITH SHIELD CONTROL CABLE**

| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Sheath thickness nominal (mm) | Overall diameter approx. (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|
| 15 | 0.5 | Flexible | 0.6 | 1.4 | 14.5 | 39.0 | 0.0130 | 220 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 15.5 | 26.0 | 0.0114 | 270 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 16.0 | 19.5 | 0.0104 | 320 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 17.5 | 13.3 | 0.0089 | 420 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 21.0 | 7.98 | 0.0081 | 650 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 25.0 | 4.95 | 0.0076 | 950 | 300/D |
| | 6 | Flexible | 0.8 | 1.8 | 29.0 | 3.30 | 0.0061 | 1,400 | 300/D |
| 16 | 0.5 | Flexible | 0.6 | 1.4 | 15.0 | 39.0 | 0.0130 | 230 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 15.5 | 26.0 | 0.0114 | 280 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 16.0 | 19.5 | 0.0104 | 340 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 17.5 | 13.3 | 0.0089 | 430 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 21.0 | 7.98 | 0.0081 | 650 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 25.0 | 4.95 | 0.0076 | 1,000 | 300/D |
| | 6 | Flexible | 0.8 | 1.8 | 29.0 | 3.30 | 0.0061 | 1,400 | 300/D |
| 17 | 0.5 | Flexible | 0.6 | 1.4 | 15.5 | 39.0 | 0.0130 | 240 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 16.5 | 26.0 | 0.0114 | 310 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 17.0 | 19.5 | 0.0104 | 370 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 18.5 | 13.3 | 0.0089 | 470 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 22.0 | 7.98 | 0.0081 | 700 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 27.0 | 4.95 | 0.0076 | 1,100 | 300/D |
| | 6 | Flexible | 0.8 | 1.8 | 31.0 | 3.30 | 0.0061 | 1,600 | 300/D |
| 18 | 0.5 | Flexible | 0.6 | 1.4 | 15.5 | 39.0 | 0.0130 | 250 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 16.5 | 26.0 | 0.0114 | 310 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 17.0 | 19.5 | 0.0104 | 370 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 18.5 | 13.3 | 0.0089 | 470 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 22.0 | 7.98 | 0.0081 | 700 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 27.0 | 4.95 | 0.0076 | 1,100 | 300/D |
| | 6 | Flexible | 0.8 | 1.8 | 31.0 | 3.30 | 0.0061 | 1,600 | 300/D |
| 19 | 0.5 | Flexible | 0.6 | 1.4 | 15.5 | 39.0 | 0.0130 | 260 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 16.5 | 26.0 | 0.0114 | 320 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 17.0 | 19.5 | 0.0104 | 380 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 18.5 | 13.3 | 0.0089 | 490 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 22.0 | 7.98 | 0.0081 | 750 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 27.0 | 4.95 | 0.0076 | 1,100 | 300/D |
| | 6 | Flexible | 0.8 | 1.8 | 31.0 | 3.30 | 0.0061 | 1,600 | 300/D |
| 20 | 0.5 | Flexible | 0.6 | 1.4 | 16.0 | 39.0 | 0.0130 | 270 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 17.0 | 26.0 | 0.0114 | 330 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 17.5 | 19.5 | 0.0104 | 400 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 19.0 | 13.3 | 0.0089 | 500 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 23.0 | 7.98 | 0.0081 | 800 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 28.0 | 4.95 | 0.0076 | 1,200 | 300/D |
| | 6 | Flexible | 0.8 | 1.8 | 32.0 | 3.30 | 0.0061 | 1,700 | 300/D |
| 21 | 0.5 | Flexible | 0.6 | 1.4 | 16.5 | 39.0 | 0.0130 | 280 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 17.5 | 26.0 | 0.0114 | 350 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 18.0 | 19.5 | 0.0104 | 420 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 19.5 | 13.3 | 0.0089 | 550 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.4 | 23.0 | 7.98 | 0.0081 | 800 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 28.0 | 4.95 | 0.0076 | 1,300 | 300/D |
| | 6 | Flexible | 0.8 | 1.8 | 32.0 | 3.30 | 0.0061 | 1,800 | 300/D |
| 22 | 0.5 | Flexible | 0.6 | 1.4 | 17.0 | 39.0 | 0.0130 | 300 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 18.0 | 26.0 | 0.0114 | 370 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 18.5 | 19.5 | 0.0104 | 450 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 20.0 | 13.3 | 0.0089 | 550 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 25.0 | 7.98 | 0.0081 | 900 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 30.0 | 4.95 | 0.0076 | 1,300 | 300/D |
| | 6 | Flexible | 0.8 | 1.8 | 34.0 | 3.30 | 0.0061 | 1,900 | 300/D |
| 23 | 0.5 | Flexible | 0.6 | 1.4 | 17.0 | 39.0 | 0.0130 | 310 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 18.0 | 26.0 | 0.0114 | 380 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 18.5 | 19.5 | 0.0104 | 460 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 20.0 | 13.3 | 0.0089 | 600 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 25.0 | 7.98 | 0.0081 | 950 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 30.0 | 4.95 | 0.0076 | 1,400 | 300/D |
| | 6 | Flexible | 0.8 | 1.8 | 34.0 | 3.30 | 0.0061 | 2,000 | 300/D |

D = Packing in drum

# CVV or CVV-S

**600 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH CONTROL CABLE**
**600 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH WITH SHIELD CONTROL CABLE**

| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Sheath thickness nominal (mm) | Overall diameter approx. (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|
| 24 | 0.5 | Flexible | 0.6 | 1.4 | 18.0 | 39.0 | 0.0130 | 320 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 19.0 | 26.0 | 0.0114 | 400 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 19.5 | 19.5 | 0.0104 | 500 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 21.0 | 13.3 | 0.0089 | 600 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 26.0 | 7.98 | 0.0081 | 1,000 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 31.0 | 4.95 | 0.0076 | 1,400 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 37.0 | 3.30 | 0.0061 | 2,100 | 300/D |
| 25 | 0.5 | Flexible | 0.6 | 1.4 | 18.0 | 39.0 | 0.0130 | 330 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 19.0 | 26.0 | 0.0114 | 410 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 19.5 | 19.5 | 0.0104 | 490 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 21.0 | 13.3 | 0.0089 | 650 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 26.0 | 7.98 | 0.0081 | 1,000 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 31.0 | 4.95 | 0.0076 | 1,500 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 37.0 | 3.30 | 0.0061 | 2,200 | 300/D |
| 26 | 0.5 | Flexible | 0.6 | 1.4 | 18.0 | 39.0 | 0.0130 | 340 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 19.0 | 26.0 | 0.0114 | 420 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 19.5 | 19.5 | 0.0104 | 500 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 21.0 | 13.3 | 0.0089 | 650 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 26.0 | 7.98 | 0.0081 | 1,000 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 31.0 | 4.95 | 0.0076 | 1,500 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 37.0 | 3.30 | 0.0061 | 2,300 | 300/D |
| 27 | 0.5 | Flexible | 0.6 | 1.4 | 18.5 | 39.0 | 0.0130 | 340 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 19.5 | 26.0 | 0.0114 | 430 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 20.0 | 19.5 | 0.0104 | 500 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 22.0 | 13.3 | 0.0089 | 650 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 27.0 | 7.98 | 0.0081 | 1,100 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 32.0 | 4.95 | 0.0076 | 1,600 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 38.0 | 3.30 | 0.0061 | 2,400 | 300/D |
| 28 | 0.5 | Flexible | 0.6 | 1.4 | 19.0 | 39.0 | 0.0130 | 370 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 20.0 | 26.0 | 0.0114 | 460 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 21.0 | 19.5 | 0.0104 | 550 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 23.0 | 13.3 | 0.0089 | 700 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 28.0 | 7.98 | 0.0081 | 1,100 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 33.0 | 4.95 | 0.0076 | 1,700 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 39.0 | 3.30 | 0.0061 | 2,500 | 300/D |
| 29 | 0.5 | Flexible | 0.6 | 1.4 | 19.0 | 39.0 | 0.0130 | 370 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 20.0 | 26.0 | 0.0114 | 460 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 21.0 | 19.5 | 0.0104 | 550 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 23.0 | 13.3 | 0.0089 | 700 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 28.0 | 7.98 | 0.0081 | 1,100 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 33.0 | 4.95 | 0.0076 | 1,700 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 39.0 | 3.30 | 0.0061 | 2,500 | 300/D |
| 30 | 0.5 | Flexible | 0.6 | 1.4 | 19.0 | 39.0 | 0.0130 | 370 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 20.0 | 26.0 | 0.0114 | 470 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 21.0 | 19.5 | 0.0104 | 550 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.4 | 23.0 | 13.3 | 0.0089 | 750 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 28.0 | 7.98 | 0.0081 | 1,200 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 33.0 | 4.95 | 0.0076 | 1,700 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 39.0 | 3.30 | 0.0061 | 2,600 | 300/D |
| 31 | 0.5 | Flexible | 0.6 | 1.4 | 19.5 | 39.0 | 0.0130 | 400 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 21.0 | 26.0 | 0.0114 | 500 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 22.0 | 19.5 | 0.0104 | 600 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 24.0 | 13.3 | 0.0089 | 850 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 29.0 | 7.98 | 0.0081 | 1,300 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 34.0 | 4.95 | 0.0076 | 1,800 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 41.0 | 3.30 | 0.0061 | 2,700 | 300/D |
| 32 | 0.5 | Flexible | 0.6 | 1.4 | 19.5 | 39.0 | 0.0130 | 400 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 21.0 | 26.0 | 0.0114 | 500 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 22.0 | 19.5 | 0.0104 | 600 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 24.0 | 13.3 | 0.0089 | 850 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 29.0 | 7.98 | 0.0081 | 1,300 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 34.0 | 4.95 | 0.0076 | 1,900 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 41.0 | 3.30 | 0.0061 | 2,800 | 300/D |

D = Packing in drum

# CVV or CVV-S

**600 V 70 °C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH CONTROL CABLE**
**600 V 70 °C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH WITH SHIELD CONTROL CABLE**

| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Sheath thickness nominal (mm) | Overall diameter approx. (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|
| 33 | 0.5 | Flexible | 0.6 | 1.4 | 19.5 | 39.0 | 0.0130 | 400 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 21.0 | 26.0 | 0.0114 | 500 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 22.0 | 19.5 | 0.0104 | 600 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 24.0 | 13.3 | 0.0089 | 850 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 29.0 | 7.98 | 0.0081 | 1,300 | 300/D |
| | 4 | Flexible | 0.8 | 1.8 | 34.0 | 4.95 | 0.0076 | 1,900 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 41.0 | 3.30 | 0.0061 | 2,800 | 300/D |
| 34 | 0.5 | Flexible | 0.6 | 1.4 | 20.0 | 39.0 | 0.0130 | 430 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 21.0 | 26.0 | 0.0114 | 550 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 22.0 | 19.5 | 0.0104 | 650 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 25.0 | 13.3 | 0.0089 | 900 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 30.0 | 7.98 | 0.0081 | 1,400 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 37.0 | 4.95 | 0.0076 | 2,100 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 42.0 | 3.30 | 0.0061 | 3,000 | 300/D |
| 35 | 0.5 | Flexible | 0.6 | 1.4 | 20.0 | 39.0 | 0.0130 | 430 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 21.0 | 26.0 | 0.0114 | 550 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 22.0 | 19.5 | 0.0104 | 650 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 25.0 | 13.3 | 0.0089 | 900 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 30.3 | 7.98 | 0.0081 | 1,400 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 37.0 | 4.95 | 0.0076 | 2,100 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 42.0 | 3.30 | 0.0061 | 3,000 | 300/D |
| 36 | 0.5 | Flexible | 0.6 | 1.4 | 20.0 | 39.0 | 0.0130 | 440 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 21.0 | 26.0 | 0.0114 | 550 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 22.0 | 19.5 | 0.0104 | 650 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 25.0 | 13.3 | 0.0089 | 900 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 30.0 | 7.98 | 0.0081 | 1,400 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 37.0 | 4.95 | 0.0076 | 2,100 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 42.0 | 3.30 | 0.0061 | 3,100 | 300/D |
| 37 | 0.5 | Flexible | 0.6 | 1.4 | 20.0 | 39.0 | 0.0130 | 450 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 21.0 | 26.0 | 0.0114 | 550 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 22.0 | 19.5 | 0.0104 | 700 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 25.0 | 13.3 | 0.0089 | 950 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 30.0 | 7.98 | 0.0081 | 1,400 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 37.0 | 4.95 | 0.0076 | 2,200 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 42.0 | 3.30 | 0.0061 | 3,100 | 300/D |
| 38 | 0.5 | Flexible | 0.6 | 1.4 | 21.0 | 39.0 | 0.0130 | 460 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 22.0 | 26.0 | 0.0114 | 600 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 23.0 | 19.5 | 0.0104 | 700 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 26.0 | 13.3 | 0.0089 | 950 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 31.0 | 7.98 | 0.0081 | 1,500 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 38.0 | 4.95 | 0.0076 | 2,200 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 44.0 | 3.30 | 0.0061 | 3,300 | 300/D |
| 39 | 0.5 | Flexible | 0.6 | 1.4 | 21.0 | 39.0 | 0.0130 | 470 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 22.0 | 26.0 | 0.0114 | 600 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 23.0 | 19.5 | 0.0104 | 700 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 26.0 | 13.3 | 0.0089 | 1,000 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 31.0 | 7.98 | 0.0081 | 1,500 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 38.0 | 4.95 | 0.0076 | 2,300 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 44.0 | 3.30 | 0.0061 | 3,300 | 300/D |
| 40 | 0.5 | Flexible | 0.6 | 1.4 | 21.0 | 39.0 | 0.0130 | 480 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 22.0 | 26.0 | 0.0114 | 600 | 300/D |
| | 1 | Flexible | 0.6 | 1.4 | 23.0 | 19.5 | 0.0104 | 750 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 26.0 | 13.3 | 0.0089 | 1,000 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 31.0 | 7.98 | 0.0081 | 1,500 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 38.0 | 4.95 | 0.0076 | 2,300 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 44.0 | 3.30 | 0.0061 | 3,400 | 300/D |
| 41 | 0.5 | Flexible | 0.6 | 1.4 | 22.0 | 39.0 | 0.0130 | 500 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 23.0 | 26.0 | 0.0114 | 650 | 300/D |
| | 1 | Flexible | 0.6 | 1.8 | 25.0 | 19.5 | 0.0104 | 800 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 27.0 | 13.3 | 0.0089 | 1,000 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 33.0 | 7.98 | 0.0081 | 1,600 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 40.0 | 4.95 | 0.0076 | 2,400 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 46.0 | 3.30 | 0.0061 | 3,500 | 300/D |

D = Packing in drum

# CVV or CVV-S

**600 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH CONTROL CABLE**
**600 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH WITH SHIELD CONTROL CABLE**

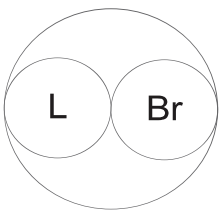
| Number of cores | Nominal cross sectional area ($mm^2$) | Conductor type | Insulation thickness nominal (mm) | Sheath thickness nominal (mm) | Overall diameter approx. (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|
| 42 | 0.5 | Flexible | 0.6 | 1.4 | 22.0 | 39.0 | 0.0130 | 500 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 23.0 | 26.0 | 0.0114 | 650 | 300/D |
| | 1 | Flexible | 0.6 | 1.8 | 25.0 | 19.5 | 0.0104 | 800 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 27.0 | 13.3 | 0.0089 | 1100 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 33.0 | 7.98 | 0.0081 | 1,600 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 40.0 | 4.95 | 0.0076 | 2,500 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 46.0 | 3.30 | 0.0061 | 3,600 | 300/D |
| 43 | 0.5 | Flexible | 0.6 | 1.4 | 22.0 | 39.0 | 0.0130 | 500 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 23.0 | 26.0 | 0.0114 | 650 | 300/D |
| | 1 | Flexible | 0.6 | 1.8 | 25.0 | 19.5 | 0.0104 | 850 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 27.0 | 13.3 | 0.0089 | 1100 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 33.0 | 7.98 | 0.0081 | 1,600 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 40.0 | 4.95 | 0.0076 | 2,500 | 300/D |
| | 6 | Flexible | 0.8 | 2.2 | 46.0 | 3.30 | 0.0061 | 3,600 | 300/D |
| 44 | 0.5 | Flexible | 0.6 | 1.4 | 22.0 | 39.0 | 0.0130 | 550 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 24.0 | 26.0 | 0.0114 | 650 | 300/D |
| | 1 | Flexible | 0.6 | 1.8 | 26.0 | 19.5 | 0.0104 | 850 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 28.0 | 13.3 | 0.0089 | 1,100 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 34.0 | 7.98 | 0.0081 | 1,700 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 41.0 | 4.95 | 0.0076 | 2,600 | 300/D |
| | 6 | Flexible | 0.8 | 2.6 | 48.0 | 3.30 | 0.0061 | 3,800 | 300/D |
| 45 | 0.5 | Flexible | 0.6 | 1.4 | 22.0 | 39.0 | 0.0130 | 550 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 24.0 | 26.0 | 0.0114 | 700 | 300/D |
| | 1 | Flexible | 0.6 | 1.8 | 26.0 | 19.5 | 0.0104 | 850 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 28.0 | 13.3 | 0.0089 | 1,100 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 34.0 | 7.98 | 0.0081 | 1,700 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 41.0 | 4.95 | 0.0076 | 2,600 | 300/D |
| | 6 | Flexible | 0.8 | 2.6 | 48.0 | 3.30 | 0.0061 | 3,900 | 300/D |
| 46 | 0.5 | Flexible | 0.6 | 1.4 | 22.0 | 39.0 | 0.0130 | 550 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 24.0 | 26.0 | 0.0114 | 700 | 300/D |
| | 1 | Flexible | 0.6 | 1.8 | 26.0 | 19.5 | 0.0104 | 900 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 28.0 | 13.3 | 0.0089 | 1,100 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 34.0 | 7.98 | 0.0081 | 1,800 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 41.0 | 4.95 | 0.0076 | 2,700 | 300/D |
| | 6 | Flexible | 0.8 | 2.6 | 48.0 | 3.30 | 0.0061 | 4,000 | 300/D |
| 47 | 0.5 | Flexible | 0.6 | 1.4 | 22.0 | 39.0 | 0.0130 | 550 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.4 | 24.0 | 26.0 | 0.0114 | 700 | 300/D |
| | 1 | Flexible | 0.6 | 1.8 | 26.0 | 19.5 | 0.0104 | 900 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 28.0 | 13.3 | 0.0089 | 1,200 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 34.0 | 7.98 | 0.0081 | 1,800 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 41.0 | 4.95 | 0.0076 | 2,700 | 300/D |
| | 6 | Flexible | 0.8 | 2.6 | 48.0 | 3.30 | 0.0061 | 4,000 | 300/D |
| 48 | 0.5 | Flexible | 0.6 | 1.4 | 23.0 | 39.0 | 0.0130 | 550 | 300/D |
| | 0.75 | Flexible | 0.6 | 1.8 | 25.0 | 26.0 | 0.0114 | 750 | 300/D |
| | 1 | Flexible | 0.6 | 1.8 | 26.0 | 19.5 | 0.0104 | 900 | 300/D |
| | 1.5 | Flexible | 0.6 | 1.8 | 29.0 | 13.3 | 0.0089 | 1,200 | 300/D |
| | 2.5 | Flexible | 0.7 | 1.8 | 34.0 | 7.98 | 0.0081 | 1,800 | 300/D |
| | 4 | Flexible | 0.8 | 2.2 | 42.0 | 4.95 | 0.0076 | 2,800 | 300/D |
| | 6 | Flexible | 0.8 | 2.6 | 49.0 | 3.30 | 0.0061 | 4,100 | 300/D |

D = Packing in drum

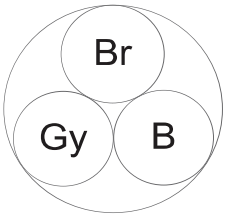
This table show only flexible stranded condutor. If you want to have solid or concentric conductor type, please contact with our sales department for CVV-S : The overall diameter of cable and cable weight shall be change a little bit more.
*Remark : Special protection can be produce.

## 600 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH CONTROL CABLE
## 600 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH WITH SHIELD CONTROL CABLE

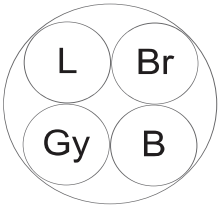
### ARRANGEMENT OF CORES FOR CVV or CVV-S



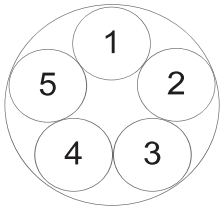
2 CORES



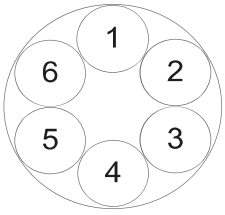
3 CORES



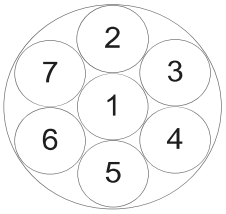
4 CORES



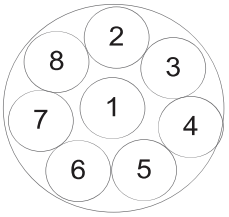
5 CORES



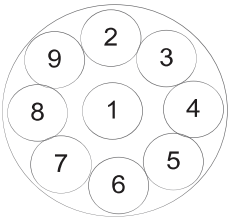
6 CORES



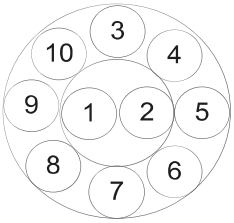
7 CORES



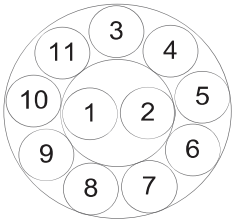
8 CORES



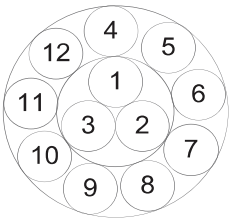
9 CORES



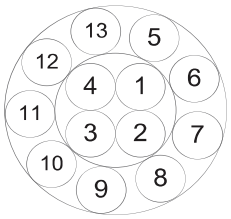
10 CORES



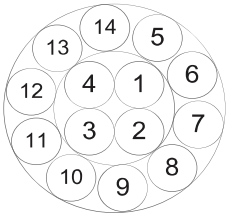
11 CORES



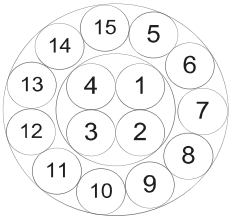
12 CORES



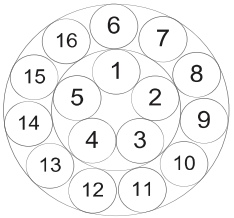
13 CORES



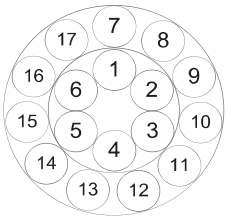
14 CORES



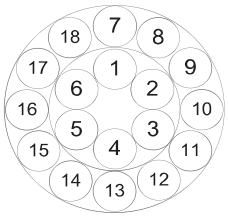
15 CORES



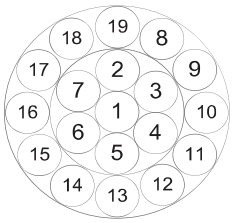
16 CORES



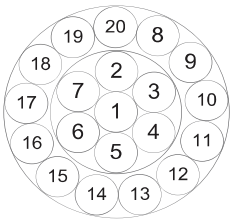
17 CORES



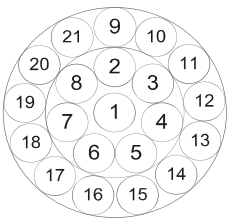
18 CORES



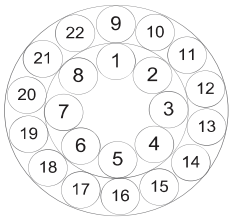
19 CORES



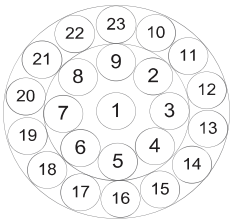
20 CORES



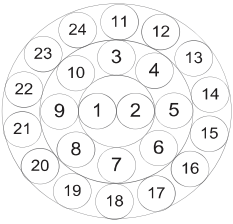
21 CORES



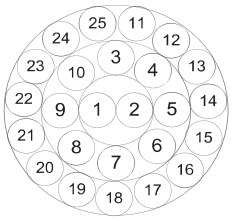
22 CORES



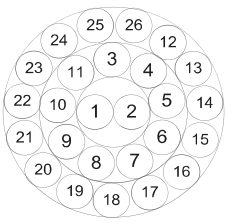
23 CORES



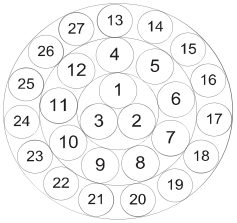
24 CORES



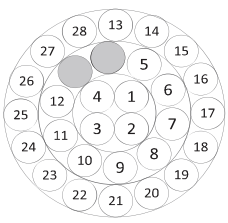
25 CORES



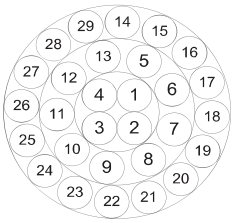
26 CORES



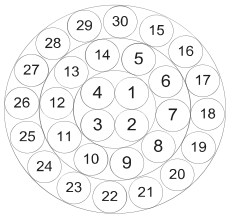
27 CORES



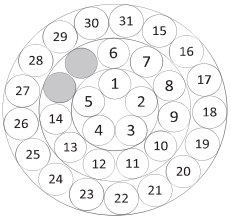
28 CORES



29 CORES



30 CORES



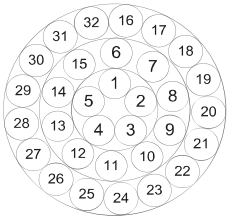
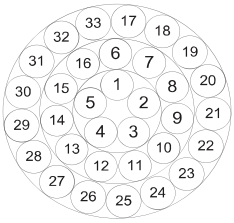
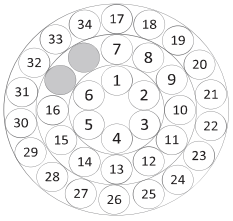
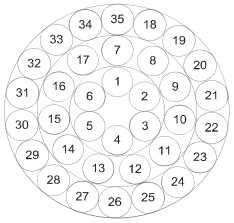
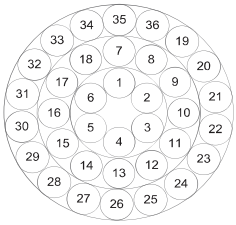
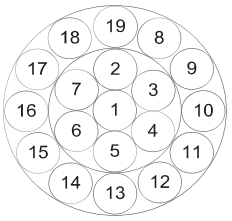
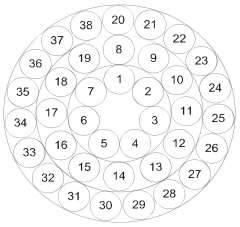
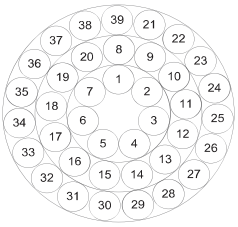
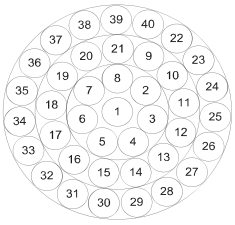
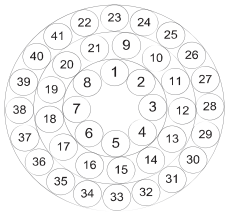
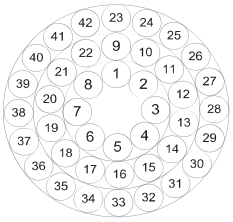
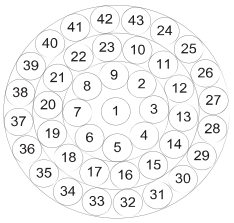
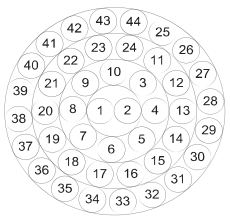
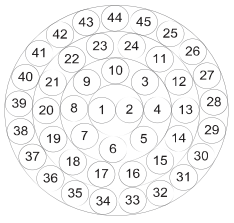
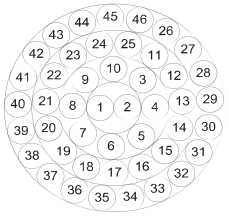
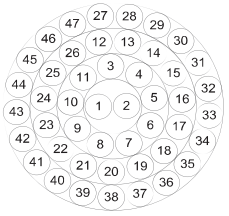
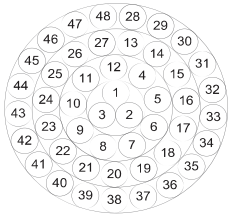
31 CORES

NOTE : Fillers are necessary to fill the cable a substantially circular cross section.
(If the stranded cores be circle enough, fillers shall not be necessary)

B

## 600 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH CONTROL CABLE
## 600 V 70°C FLEXIBLE CONDUCTOR PVC INSULATED AND SHEATH WITH SHIELD CONTROL CABLE

### ARRANGEMENT OF CORES FOR CVV or CVV-S

| | | | | |
|---|---|---|---|---|
|  32 CORES |  33 CORES |  34 CORES |  35 CORES |  36 CORES |
|  37 CORES |  38 CORES |  39 CORES |  40 CORES |  41 CORES |
|  42 CORES |  43 CORES |  44 CORES |  45 CORES |  46 CORES |
|  47 CORES |  48 CORES | | | |

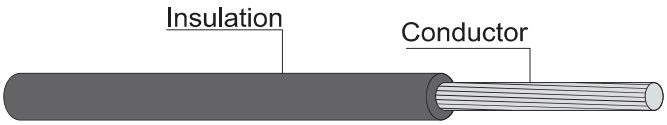
NOTE : Fillers are necessary to fill the cable a substantially circular cross section.
(If the stranded cores be circle enough, fillers shall not be necessary)

B

# THWA

## 750V 70°C ALUMINIUM CONDUCTOR PVC INSULATED, SINGLE CORE

TIS 293-2541




### CABLE STRUCTURE

**Conductor** : Solid and Stranded hard drawn aluminium wires
Sizes 10 mm² up to 500 mm²

**Insulation** : Black polyvinyl chloride (PVC)

### TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 750 Volts

**Testing voltage** : 2,500 Volts
**Reference standard** : TIS 293-2541, Table 1

### APPLICATION

For low voltage overhead distribution line

| Nominal cross sectional area (mm²) | Number and diameter of wires (No./mm) | Insulation thickness nominal (mm) | Overall diameter approx. (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Breaking strength of conductor minimum (N) | Continuous currunt rating in free air at 40°C maximum (A) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|
| 10 | 1/3.49 | 1.1 | 6.0 | 3.08 | 0.0078 | 1,562 | 52 | 50 | 500/C |
| 10 | 7/1.32 | 1.1 | 6.5 | 3.08 | 0.0070 | 1,769 | 52 | 55 | 500/C |
| 16 | 1/4.43 | 1.1 | 7.0 | 1.91 | 0.0064 | 2,445 | 70 | 70 | 500/C |
| 16 | 7/1.68 | 1.1 | 7.6 | 1.91 | 0.0058 | 2,781 | 70 | 80 | 500/C |
| 25 | 7/2.12 | 1.3 | 9.3 | 1.20 | 0.0055 | 4,241 | 95 | 120 | 300/C |
| 35 | 7/2.49 | 1.3 | 10.5 | 0.868 | 0.0048 | 5,703 | 117 | 160 | 200/C |
| 50 | 7/2.90 | 1.5 | 12.0 | 0.641 | 0.0047 | 7,423 | 143 | 210 | 200/C |
| 50 | 19/1.76 | 1.5 | 12.5 | 0.641 | 0.0047 | 8,114 | 143 | 210 | 200/C |
| 70 | 19/2.12 | 1.5 | 14.0 | 0.443 | 0.0040 | 11,487 | 185 | 280 | 100/C |
| 95 | 19/2.49 | 1.7 | 16.5 | 0.320 | 0.0038 | 15,470 | 226 | 390 | 100/C |
| 120 | 19/2.80 | 1.7 | 18.0 | 0.253 | 0.0035 | 18,810 | 264 | 470 | 500/D |
| 120 | 37/2.01 | 1.7 | 18.0 | 0.253 | 0.0034 | 20,114 | 264 | 470 | 500/D |
| 150 | 37/2.23 | 1.9 | 20.0 | 0.206 | 0.0035 | 24,704 | 302 | 600 | 500/D |
| 185 | 37/2.50 | 2.1 | 22.0 | 0.164 | 0.0034 | 30,187 | 352 | 700 | 500/D |
| 240 | 61/2.23 | 2.3 | 25.0 | 0.125 | 0.0033 | 38,568 | 421 | 900 | 500/D |
| 300 | 61/2.49 | 2.5 | 28.0 | 0.100 | 0.0032 | 46,901 | 487 | 1,100 | 500/D |
| 400 | 61/2.82 | 2.7 | 32.0 | 0.0778 | 0.0031 | 57,948 | 574 | 1,400 | 500/D |
| 500 | 61/3.20 | 3.1 | 36.0 | 0.0605 | 0.0031 | 73,194 | 675 | 1,900 | 500/D |

C : Packing in coil
D : Packing in drum

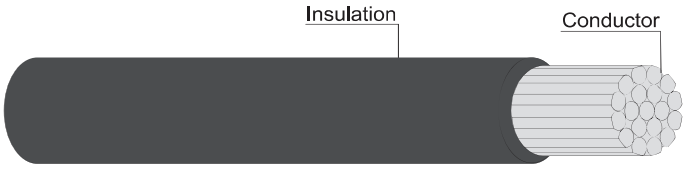
| Nominal cross sectional area (mm²) | Number and diameter of wires (No./mm) | A.C.Resistance R (Ω/km) | Inductance L (mH/km) | Reactance XL (Ω/km) | Impedance Z (Ω/km) |
|---|---|---|---|---|---|
| 10 | 1/3.49 | 3.7006 | 0.4819 | 0.1514 | 3.7037 |
| 10 | 7/1.32 | 3.7006 | 0.4868 | 0.1529 | 3.7038 |
| 16 | 1/4.43 | 2.2949 | 0.4650 | 0.1461 | 2.2996 |
| 16 | 7/1.68 | 2.2949 | 0.4698 | 0.1476 | 2.2996 |
| 25 | 7/2.12 | 1.4419 | 0.4637 | 0.1457 | 1.4492 |
| 35 | 7/2.49 | 1.0430 | 0.4539 | 0.1426 | 1.0527 |
| 50 | 7/2.90 | 0.7703 | 0.4553 | 0.1430 | 0.7835 |
| 50 | 19/1.76 | 0.7703 | 0.4459 | 0.1401 | 0.7829 |
| 70 | 19/2.12 | 0.5325 | 0.4359 | 0.1370 | 0.5498 |
| 95 | 19/2.49 | 0.3847 | 0.4340 | 0.1363 | 0.4082 |
| 120 | 19/2.80 | 0.3043 | 0.4280 | 0.1345 | 0.3327 |
| 120 | 37/2.01 | 0.3043 | 0.4255 | 0.1337 | 0.3324 |
| 150 | 37/2.23 | 0.2479 | 0.4258 | 0.1338 | 0.2817 |
| 185 | 37/2.50 | 0.1976 | 0.4248 | 0.1334 | 0.2384 |
| 240 | 61/2.23 | 0.1509 | 0.4150 | 0.1304 | 0.1994 |
| 300 | 61/2.49 | 0.1210 | 0.4201 | 0.1320 | 0.1791 |
| 400 | 61/2.82 | 0.0946 | 0.4175 | 0.1311 | 0.1617 |
| 500 | 61/3.20 | 0.0741 | 0.4184 | 0.1314 | 0.1509 |

C

# THWA-C

## 750V 70°C COMPACTED ALUMINIUM CONDUCTOR PVC INSULATED, SINGLE CORE

TIS 293-2541




## CABLE STRUCTURE

**Conductor** : Compact stranded hard drawn aluminium wires
Sizes 10 mm² up to 500 mm²

**Insulation** : Black Polyvinyl chloride (PVC)

## TECHNICAL DATA

**Classification** : Maximum conductor temperature 70°C
: Circuit voltage not exceeding 750 Volts

**Testing voltage** : 2,500 Volts
**Reference standard** : TIS 293-2541, Table 2

## APPLICATION

For low voltage overhead distribution line

| Nominal cross sectional area ($mm^2$) | Actual cross sectional area ($mm^2$) | Minimum number of wires (No.) | Conductor diameter approx. (mm) | Insulation thickness nominal (mm) | Overall diameter approx. (mm) | Conductor resistance at 20°C maximum (Ω/km) | Insulation resistance at 70°C minimum (MΩ-km) | Breaking strength of conductor minimum (N) | Continuous currunt rating in free air at 40°C maximum (A) | Cable weight approx. (kg/km) | Standard Length (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 9.64 | 6 | 3.72 | 1.1 | 6.3 | 3.08 | 0.0084 | 1,768 | 52 | 50 | 500/C |
| 16 | 15.55 | 6 | 4.69 | 1.1 | 7.2 | 1.91 | 0.0068 | 2,734 | 69 | 75 | 500/C |
| 25 | 24.75 | 6 | 5.90 | 1.3 | 8.8 | 1.20 | 0.0064 | 4,120 | 93 | 110 | 300/C |
| 35 | 34.21 | 6 | 6.95 | 1.3 | 9.9 | 0.868 | 0.0056 | 5,591 | 115 | 150 | 300/C |
| 50 | 46.32 | 6 | 8.01 | 1.5 | 11.5 | 0.641 | 0.0059 | 7,313 | 141 | 200 | 200/C |
| 70 | 67.03 | 12 | 9.73 | 1.5 | 13.5 | 0.443 | 0.0050 | 10,420 | 178 | 270 | 100/C |
| 95 | 92.79 | 15 | 11.40 | 1.7 | 15.5 | 0.320 | 0.0047 | 14,098 | 220 | 370 | 100/C |
| 120 | 117.37 | 15 | 12.95 | 1.7 | 17.0 | 0.253 | 0.0042 | 18,518 | 258 | 450 | 100/C |
| 150 | 144.15 | 15 | 14.27 | 1.9 | 18.5 | 0.206 | 0.0042 | 22,457 | 294 | 550 | 500/D |
| 185 | 181.06 | 30 | 15.98 | 2.1 | 21.0 | 0.164 | 0.0042 | 28,974 | 342 | 700 | 500/D |
| 240 | 237.55 | 30 | 18.47 | 2.3 | 24.0 | 0.125 | 0.0040 | 37,506 | 410 | 900 | 500/D |
| 300 | 296.94 | 30 | 20.68 | 2.5 | 26.0 | 0.100 | 0.0038 | 45,642 | 475 | 1,100 | 500/D |
| 400 | 381.67 | 53 | 23.39 | 2.7 | 30.0 | 0.0778 | 0.0036 | 56,992 | 560 | 1,400 | 500/D |
| 500 | 490.81 | 53 | 26.67 | 3.1 | 34.0 | 0.0605 | 0.0037 | 72,195 | 659 | 1,800 | 500/D |

C : Packing in Coil
D : Packing in Drum

| Nominal cross sectional area ($mm^2$) | A.C.Resistance R (Ω/km) | Inductance L (mH/km) | Reactance XL (Ω/km) | Impedance Z (Ω/km) |
|---|---|---|---|---|
| 10 | 3.7006 | 0.4930 | 0.1549 | 3.7039 |
| 16 | 2.2949 | 0.4734 | 0.1487 | 2.2997 |
| 25 | 1.4419 | 0.4676 | 0.1469 | 1.4493 |
| 35 | 1.0430 | 0.4584 | 0.1440 | 1.0529 |
| 50 | 0.7703 | 0.4617 | 0.1451 | 0.7838 |
| 70 | 0.5325 | 0.4414 | 0.1387 | 0.5502 |
| 95 | 0.3847 | 0.4377 | 0.1375 | 0.4086 |
| 120 | 0.3043 | 0.4321 | 0.1358 | 0.3332 |
| 150 | 0.2479 | 0.4319 | 0.1357 | 0.2826 |
| 185 | 0.1976 | 0.4290 | 0.1348 | 0.2392 |
| 240 | 0.1509 | 0.4261 | 0.1339 | 0.2017 |
| 300 | 0.1210 | 0.4244 | 0.1333 | 0.1801 |
| 400 | 0.0946 | 0.4206 | 0.1321 | 0.1625 |
| 500 | 0.0741 | 0.4217 | 0.1325 | 0.1518 |

C