



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

CABLE TYPE : CTW-CV-SWA THREE CORES CU/XLPE/SWA/PVC 1.8/3 (3.6) kV

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITH STEEL WIRE ARMOUR



CONSTRUCTION

| | |
|-------------------|--|
| Conductor | Compact round stranded annealed copper. |
| Conductor Screen | Semi-conducting cross-linked polyethylene. |
| Insulation | Cross-linked polyethylene. (XLPE) |
| Insulation Screen | Semi-conducting cross-linked polyethylene. |
| Metallic Shield | Annealed copper tape. |
| Filler | Polypropylene (Nonhygroscopic material) |
| Wrapping Tape | Polyester and/or Spunbond tape. |
| Separator Sheath | Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7) |
| Armour | Galvanized steel wire. |
| Separator Tape | Polyester and/or Spunbond tape. |
| Outer Sheath | Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7) |

APPLICATION

Preferably used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

CLASSIFICATION

Maximum Conductor Temperature 90 °C (Normal Operation)
Maximum Conductor Temperature 250 °C (Short-circuit at 5s maximum duration)

REFERENCE

IEC 60228 & IEC 60502-1

** AC Test Voltage : 6.5 kV

NOTE

A special FR-PVC or Low Smoke Halogen Free (LSHF) Flame retardant sheath can be supplied in accordance with IEC 60332-3.

| Product code | Conductor | | | Thickness of insulation (mm) | Diameter over insulation (Approx.) (mm) | Diameter of armour wire (mm) | Diameter over armour (Approx.) (mm) | Thickness of outer sheath (mm) | Overall diameter (Approx.) (mm) | Cable weight (Approx.) (kg/km) | Maximum conductor resistance at 20°C (Ω/km) | Minimum insulation resistance at 20°C (MΩ-km) | Ampacities direct burial in ground at 30°C (A) | Allowable ampacities in free air at 40°C (ambient) (A) | Standard length (m/R) |
|--------------|---|-------------------------------|-------------------------|------------------------------|---|------------------------------|-------------------------------------|--------------------------------|---------------------------------|--------------------------------|---|---|--|--|-----------------------|
| | Nominal cross-sectional area core x mm ² | Minimum number of wire No./mm | Diameter (Approx.) (mm) | | | | | | | | | | | | |
| K4A423010 | 3 x 10 | 6 | 3.72 | 2.0 | 9.0 | 2.0 | 30.0 | 2.0 | 35 | 2,160 | 1.83 | 2,700 | 85 | 80 | 1,000 |
| K4A423016 | 3 x 16 | 6 | 4.69 | 2.0 | 10.0 | 2.0 | 32.0 | 2.1 | 38 | 2,500 | 1.15 | 2,400 | 105 | 105 | 1,000 |
| K4A423025 | 3 x 25 | 6 | 5.90 | 2.0 | 11.5 | 2.0 | 35.0 | 2.2 | 40 | 2,980 | 0.727 | 2,100 | 135 | 140 | 500 |
| K4A423035 | 3 x 35 | 6 | 6.95 | 2.0 | 12.5 | 2.0 | 37.0 | 2.3 | 43 | 3,450 | 0.524 | 1,800 | 165 | 170 | 500 |
| K4A423050 | 3 x 50 | 6 | 8.33 | 2.0 | 13.5 | 2.5 | 41.0 | 2.4 | 47 | 4,540 | 0.387 | 1,600 | 195 | 205 | 500 |
| K4A423070 | 3 x 70 | 12 | 9.73 | 2.0 | 15.5 | 2.5 | 44.0 | 2.5 | 51 | 5,420 | 0.268 | 1,400 | 235 | 250 | 250 |
| K4A423095 | 3 x 95 | 15 | 11.45 | 2.0 | 17.0 | 2.5 | 48.0 | 2.7 | 55 | 6,560 | 0.193 | 1,200 | 280 | 305 | 250 |
| K4A423120 | 3 x 120 | 18 | 12.95 | 2.0 | 18.5 | 2.5 | 51.5 | 2.8 | 59 | 7,620 | 0.153 | 1,100 | 315 | 345 | 250 |
| K4A423150 | 3 x 150 | 18 | 14.27 | 2.0 | 20.0 | 2.5 | 54.5 | 2.9 | 62 | 8,740 | 0.124 | 1,100 | 350 | 390 | 250 |
| K4A423185 | 3 x 185 | 30 | 15.98 | 2.0 | 21.5 | 2.5 | 58.5 | 3.0 | 66 | 10,160 | 0.0991 | 900 | 395 | 445 | 250 |
| K4A423240 | 3 x 240 | 34 | 18.47 | 2.0 | 24.0 | 2.5 | 64.0 | 3.2 | 72 | 12,350 | 0.0754 | 800 | 450 | 520 | 200 |
| K4A423300 | 3 x 300 | 34 | 20.68 | 2.0 | 26.5 | 3.15 | 70.5 | 3.5 | 80 | 15,520 | 0.0601 | 700 | 495 | 580 | 200 |
| K4A423400 | 3 x 400 | 53 | 23.39 | 2.0 | 29.5 | 3.15 | 77.0 | 3.7 | 87 | 19,220 | 0.0470 | 700 | 545 | 655 | 200 |

** Depth of laying in ground = 1 m, Rho = 1.2 °C m/watt
R = Packing in reel



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

CABLE TYPE : CTW-CV-SWA THREE CORES CU/XLPE/SWA/PVC 3.6/6 (7.2) kV

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITH STEEL WIRE ARMOUR



CONSTRUCTION

| | |
|-------------------|--|
| Conductor | Compact round stranded annealed copper. |
| Conductor Screen | Semi-conducting cross-linked polyethylene. |
| Insulation | Cross-linked polyethylene. (XLPE) |
| Insulation Screen | Semi-conducting cross-linked polyethylene. |
| Metallic Shield | Annealed copper tape. |
| Filler | Polypropylene (Nonhygroscopic material) |
| Wrapping Tape | Polyester and/or Spunbond tape. |
| Separator Sheath | Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7) |
| Armour | Galvanized steel wire. |
| Separator Tape | Polyester and/or Spunbond tape. |
| Outer Sheath | Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7) |

APPLICATION

Preferably used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

CLASSIFICATION

Maximum Conductor Temperature 90 °C (Normal Operation)
Maximum Conductor Temperature 250 °C (Short-circuit at 5s maximum duration)

REFERENCE

IEC 60228 & IEC 60502-2
** AC Test Voltage : 12.5 kV

NOTE

A special FR-PVC or Low Smoke Halogen Free (LSHF) Flame retardant sheath can be supplied in accordance with IEC 60332-3.

| Product code | Conductor | | | Thickness of insulation (mm) | Diameter over insulation (Approx.) (mm) | Diameter of armour wire (mm) | Diameter over armour (Approx.) (mm) | Thickness of outer sheath (mm) | Overall diameter (Approx.) (mm) | Cable weight (Approx.) (kg/km) | Maximum conductor resistance at 20°C (Ω/km) | Minimum insulation resistance at 20°C (MΩ-km) | Ampacities direct burial in ground at 30°C (A) | Allowable ampacities in free air at 40°C (ambient) (A) | Standard length (m/R) |
|--------------|---|-------------------------------|-------------------------|------------------------------|---|------------------------------|-------------------------------------|--------------------------------|---------------------------------|--------------------------------|---|---|--|--|-----------------------|
| | Nominal cross-sectional area core x mm ² | Minimum number of wire No./mm | Diameter (Approx.) (mm) | | | | | | | | | | | | |
| K4B423010 | 3 x 10 | 6 | 3.72 | 2.5 | 10.0 | 2.0 | 32.0 | 2.1 | 38 | 2,360 | 1.83 | 3,100 | 85 | 80 | 1,000 |
| K4B423016 | 3 x 16 | 6 | 4.69 | 2.5 | 11.0 | 2.0 | 34.5 | 2.2 | 40 | 2,720 | 1.15 | 2,800 | 105 | 105 | 500 |
| K4B423025 | 3 x 25 | 6 | 5.90 | 2.5 | 12.5 | 2.0 | 37.0 | 2.3 | 43 | 3,200 | 0.727 | 2,400 | 135 | 140 | 500 |
| K4B423035 | 3 x 35 | 6 | 6.95 | 2.5 | 13.5 | 2.5 | 40.5 | 2.4 | 47 | 4,090 | 0.524 | 2,100 | 165 | 170 | 500 |
| K4B423050 | 3 x 50 | 6 | 8.33 | 2.5 | 14.5 | 2.5 | 43.5 | 2.5 | 50 | 4,830 | 0.387 | 1,900 | 195 | 205 | 500 |
| K4B423070 | 3 x 70 | 12 | 9.73 | 2.5 | 16.5 | 2.5 | 46.5 | 2.6 | 53 | 5,740 | 0.268 | 1,700 | 235 | 250 | 250 |
| K4B423095 | 3 x 95 | 15 | 11.45 | 2.5 | 18.0 | 2.5 | 50.5 | 2.8 | 57 | 6,830 | 0.193 | 1,500 | 280 | 305 | 250 |
| K4B423120 | 3 x 120 | 18 | 12.95 | 2.5 | 19.5 | 2.5 | 54.0 | 2.9 | 61 | 7,900 | 0.153 | 1,300 | 315 | 345 | 250 |
| K4B423150 | 3 x 150 | 18 | 14.27 | 2.5 | 21.0 | 2.5 | 57.0 | 3.0 | 64 | 9,100 | 0.124 | 1,200 | 350 | 390 | 250 |
| K4B423185 | 3 x 185 | 30 | 15.98 | 2.5 | 22.5 | 2.5 | 61.0 | 3.1 | 69 | 10,510 | 0.0991 | 1,100 | 395 | 445 | 250 |
| K4B423240 | 3 x 240 | 34 | 18.47 | 2.6 | 25.5 | 3.15 | 68.0 | 3.4 | 77 | 13,680 | 0.0754 | 1,000 | 450 | 520 | 200 |
| K4B423300 | 3 x 300 | 34 | 20.68 | 2.8 | 28.0 | 3.15 | 74.0 | 3.6 | 84 | 16,160 | 0.0601 | 1,000 | 495 | 580 | 200 |
| K4B423400 | 3 x 400 | 53 | 23.39 | 3.0 | 31.5 | 3.15 | 82.0 | 3.9 | 92 | 20,160 | 0.0470 | 900 | 545 | 655 | 200 |

** Depth of laying in ground = 1 m, Rho = 1.2 °C m/watt



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

CABLE TYPE : CTW-CV-SWA THREE CORES CU/XLPE/SWA/PVC 6/10 (12) kV

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITH STEEL WIRE ARMOUR



CONSTRUCTION

| | |
|-------------------|--|
| Conductor | Compact round stranded annealed copper. |
| Conductor Screen | Semi-conducting cross-linked polyethylene. |
| Insulation | Cross-linked polyethylene. (XLPE) |
| Insulation Screen | Semi-conducting cross-linked polyethylene. |
| Metallic Shield | Annealed copper tape. |
| Filler | Polypropylene (Nonhygroscopic material) |
| Wrapping Tape | Polyester and/or Spunbond tape. |
| Separator Sheath | Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7) |
| Armour | Galvanized steel wire. |
| Separator Tape | Polyester and/or Spunbond tape. |
| Outer Sheath | Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7) |

APPLICATION

Preferably used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

CLASSIFICATION

Maximum Conductor Temperature 90 °C (Normal Operation)
Maximum Conductor Temperature 250 °C (Short-circuit at 5s maximum duration)

REFERENCE

IEC 60228 & IEC 60502-2
** AC Test Voltage : 21 kV

NOTE

A special FR-PVC or Low Smoke Halogen Free (LSHF) Flame retardant sheath can be supplied in accordance with IEC 60332-3.

| Product code | Conductor | | | Thickness of insulation (mm) | Diameter over insulation (Approx.) (mm) | Diameter of armour wire (mm) | Diameter over armour (Approx.) (mm) | Thickness of outer sheath (mm) | Overall diameter (Approx.) (mm) | Cable weight (Approx.) (kg/km) | Maximum conductor resistance at 20°C (Ω/km) | Minimum insulation resistance at 20°C (MΩ-km) | Ampacities direct burial in ground at 30°C (A) | Allowable ampacities in free air at 40°C (ambient) (A) | Standard length (m/R) |
|--------------|---|-------------------------------|-------------------------|------------------------------|---|------------------------------|-------------------------------------|--------------------------------|---------------------------------|--------------------------------|---|---|--|--|-----------------------|
| | Nominal cross-sectional area core x mm ² | Minimum number of wire No./mm | Diameter (Approx.) (mm) | | | | | | | | | | | | |
| K4E423016 | 3 x 16 | 6 | 4.69 | 3.4 | 13.0 | 2.0 | 38.5 | 2.3 | 44 | 3,120 | 1.15 | 3,000 | 105 | 105 | 500 |
| K4E423025 | 3 x 25 | 6 | 5.90 | 3.4 | 14.0 | 2.5 | 42.0 | 2.5 | 49 | 4,090 | 0.727 | 2,700 | 135 | 140 | 500 |
| K4E423035 | 3 x 35 | 6 | 6.95 | 3.4 | 15.0 | 2.5 | 44.5 | 2.6 | 50 | 4,590 | 0.524 | 2,400 | 165 | 170 | 500 |
| K4E423050 | 3 x 50 | 6 | 8.33 | 3.4 | 16.5 | 2.5 | 47.5 | 2.7 | 54 | 5,370 | 0.387 | 2,200 | 195 | 210 | 500 |
| K4E423070 | 3 x 70 | 12 | 9.73 | 3.4 | 18.0 | 2.5 | 51.0 | 2.8 | 58 | 6,300 | 0.268 | 1,900 | 235 | 255 | 250 |
| K4E423095 | 3 x 95 | 15 | 11.45 | 3.4 | 19.5 | 2.5 | 54.5 | 2.9 | 62 | 7,390 | 0.193 | 1,700 | 280 | 310 | 250 |
| K4E423120 | 3 x 120 | 18 | 12.95 | 3.4 | 21.0 | 2.5 | 58.0 | 3.0 | 66 | 8,530 | 0.153 | 1,600 | 315 | 350 | 250 |
| K4E423150 | 3 x 150 | 18 | 14.27 | 3.4 | 22.5 | 2.5 | 61.0 | 3.1 | 69 | 9,680 | 0.124 | 1,500 | 350 | 395 | 250 |
| K4E423185 | 3 x 185 | 30 | 15.98 | 3.4 | 24.5 | 2.5 | 65.0 | 3.3 | 73 | 11,180 | 0.0991 | 1,400 | 395 | 450 | 250 |
| K4E423240 | 3 x 240 | 34 | 18.47 | 3.4 | 27.0 | 3.15 | 72.0 | 3.5 | 81 | 14,270 | 0.0754 | 1,200 | 450 | 525 | 200 |
| K4E423300 | 3 x 300 | 34 | 20.68 | 3.4 | 29.0 | 3.15 | 77.0 | 3.7 | 87 | 16,680 | 0.0601 | 1,100 | 495 | 585 | 200 |
| K4E423400 | 3 x 400 | 53 | 23.39 | 3.4 | 32.0 | 3.15 | 84.0 | 3.9 | 94 | 20,540 | 0.0470 | 1,000 | 545 | 660 | 200 |

** Depth of laying in ground = 1 m, Rho = 1.2 °C m/watt
R = Packing in reel



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

CABLE TYPE : CTW-CV-SWA THREE CORES CU/XLPE/SWA/PVC 8.7/15 (17.5) kV

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITH STEEL WIRE ARMOUR



CONSTRUCTION

| | |
|-------------------|--|
| Conductor | Compact round stranded annealed copper. |
| Conductor Screen | Semi-conducting cross-linked polyethylene. |
| Insulation | Cross-linked polyethylene. (XLPE) |
| Insulation Screen | Semi-conducting cross-linked polyethylene. |
| Metallic Shield | Annealed copper tape. |
| Filler | Polypropylene (Nonhygroscopic material) |
| Wrapping Tape | Polyester and/or Spunbond tape. |
| Separator Sheath | Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7) |
| Armour | Galvanized steel wire. |
| Separator Tape | Polyester and/or Spunbond tape. |
| Outer Sheath | Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7) |

APPLICATION

Preferably used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

CLASSIFICATION

Maximum Conductor Temperature 90 °C (Normal Operation)
Maximum Conductor Temperature 250 °C (Short-circuit at 5s maximum duration)

REFERENCE

IEC 60228 & IEC 60502-2
** AC Test Voltage : 30.5 kV

NOTE

A special FR-PVC or Low Smoke Halogen Free (LSHF) Flame retardant sheath can be supplied in accordance with IEC 60332-3.

| Product code | Conductor | | | Thickness of insulation (mm) | Diameter over insulation (Approx.) (mm) | Diameter of armour wire (mm) | Diameter over armour (Approx.) (mm) | Thickness of outer sheath (mm) | Overall diameter (Approx.) (mm) | Cable weight (Approx.) (kg/km) | Maximum conductor resistance at 20°C (Ω/km) | Minimum insulation resistance at 20°C (MΩ-km) | Ampacities direct burial in ground at 30°C (A) | Allowable ampacities in free air at 40°C (ambient) (A) | Standard length (m/R) |
|--------------|---|-------------------------------|-------------------------|------------------------------|---|------------------------------|-------------------------------------|--------------------------------|---------------------------------|--------------------------------|---|---|--|--|-----------------------|
| | Nominal cross-sectional area core x mm ² | Minimum number of wire No./mm | Diameter (Approx.) (mm) | | | | | | | | | | | | |
| K4F423025 | 3 x 25 | 6 | 5.90 | 4.5 | 16.0 | 2.5 | 47.5 | 2.7 | 54 | 4,730 | 0.727 | 3,200 | 135 | 140 | 500 |
| K4F423035 | 3 x 35 | 6 | 6.95 | 4.5 | 17.0 | 2.5 | 49.5 | 2.7 | 56 | 5,220 | 0.524 | 2,900 | 165 | 170 | 500 |
| K4F423050 | 3 x 50 | 6 | 8.33 | 4.5 | 18.5 | 2.5 | 52.5 | 2.8 | 60 | 6,030 | 0.387 | 2,700 | 195 | 210 | 250 |
| K4F423070 | 3 x 70 | 12 | 9.73 | 4.5 | 20.0 | 2.5 | 56.0 | 3.0 | 64 | 7,020 | 0.268 | 2,400 | 235 | 255 | 250 |
| K4F423095 | 3 x 95 | 15 | 11.45 | 4.5 | 22.0 | 2.5 | 59.5 | 3.1 | 68 | 8,180 | 0.193 | 2,200 | 280 | 310 | 250 |
| K4F423120 | 3 x 120 | 18 | 12.95 | 4.5 | 23.5 | 2.5 | 63.5 | 3.2 | 72 | 9,310 | 0.153 | 2,000 | 315 | 350 | 250 |
| K4F423150 | 3 x 150 | 18 | 14.27 | 4.5 | 25.0 | 3.15 | 67.5 | 3.4 | 77 | 11,340 | 0.124 | 1,800 | 350 | 395 | 250 |
| K4F423185 | 3 x 185 | 30 | 15.98 | 4.5 | 26.5 | 3.15 | 71.5 | 3.5 | 81 | 12,890 | 0.0991 | 1,700 | 390 | 450 | 200 |
| K4F423240 | 3 x 240 | 34 | 18.47 | 4.5 | 29.0 | 3.15 | 77.0 | 3.7 | 87 | 15,220 | 0.0754 | 1,500 | 445 | 525 | 200 |
| K4F423300 | 3 x 300 | 34 | 20.68 | 4.5 | 31.5 | 3.15 | 82.0 | 3.9 | 92 | 17,680 | 0.0601 | 1,400 | 490 | 585 | 200 |
| K4F423400 | 3 x 400 | 53 | 23.39 | 4.5 | 34.5 | 3.15 | 89.0 | 4.1 | 100 | 21,540 | 0.0470 | 1,300 | 540 | 660 | 200 |

** Depth of laying in ground = 1 m, Rho = 1.2 °C m/watt



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

CABLE TYPE : CTW-CV-SWA THREE CORES CU/XLPE/SWA/PVC 12/20 (24) kV

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITH STEEL WIRE ARMOUR



CONSTRUCTION

| | |
|-------------------|--|
| Conductor | Compact round stranded annealed copper. |
| Conductor Screen | Semi-conducting cross-linked polyethylene. |
| Insulation | Cross-linked polyethylene. (XLPE) |
| Insulation Screen | Semi-conducting cross-linked polyethylene. |
| Metallic Shield | Annealed copper tape. |
| Filler | Polypropylene (Nonhygroscopic material) |
| Wrapping Tape | Polyester and/or Spunbond tape. |
| Separator Sheath | Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7) |
| Armour | Galvanized steel wire. |
| Separator Tape | Polyester and/or Spunbond tape. |
| Outer Sheath | Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7) |

APPLICATION

Preferably used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

CLASSIFICATION

Maximum Conductor Temperature 90 °C (Normal Operation)
Maximum Conductor Temperature 250 °C (Short-circuit at 5s maximum duration)

REFERENCE

IEC 60228 & IEC 60502-2
** AC Test Voltage : 42 kV

NOTE

A special FR-PVC or Low Smoke Halogen Free (LSHF) Flame retardant sheath can be supplied in accordance with IEC 60332-3.

| Product code | Conductor | | | Thickness of insulation (mm) | Diameter over insulation (Approx.) (mm) | Diameter of armour wire (mm) | Diameter over armour (Approx.) (mm) | Thickness of outer sheath (mm) | Overall diameter (Approx.) (mm) | Cable weight (Approx.) (kg/km) | Maximum conductor resistance at 20°C (Ω/km) | Minimum insulation resistance at 20°C (MΩ-km) | Ampacities direct burial in ground at 30°C (A) | Allowable ampacities in free air at 40°C (ambient) (A) | Standard length (m/R) |
|--------------|---|-------------------------------|-------------------------|------------------------------|---|------------------------------|-------------------------------------|--------------------------------|---------------------------------|--------------------------------|---|---|--|--|-----------------------|
| | Nominal cross-sectional area core x mm² | Minimum number of wire No./mm | Diameter (Approx.) (mm) | | | | | | | | | | | | |
| K4G423035 | 3 x 35 | 6 | 6.95 | 5.5 | 19.5 | 2.5 | 54.5 | 2.9 | 62 | 5,890 | 0.524 | 3,300 | 165 | 175 | 250 |
| K4G423050 | 3 x 50 | 6 | 8.33 | 5.5 | 21.0 | 2.5 | 57.5 | 3.0 | 65 | 6,720 | 0.387 | 3,100 | 195 | 215 | 250 |
| K4G423070 | 3 x 70 | 12 | 9.73 | 5.5 | 22.5 | 2.5 | 60.5 | 3.1 | 69 | 7,670 | 0.268 | 2,800 | 235 | 260 | 250 |
| K4G423095 | 3 x 95 | 15 | 11.45 | 5.5 | 24.0 | 2.5 | 64.5 | 3.3 | 73 | 8,880 | 0.193 | 2,500 | 280 | 315 | 250 |
| K4G423120 | 3 x 120 | 18 | 12.95 | 5.5 | 25.5 | 3.15 | 69.5 | 3.4 | 79 | 10,910 | 0.153 | 2,300 | 315 | 355 | 250 |
| K4G423150 | 3 x 150 | 18 | 14.27 | 5.5 | 27.0 | 3.15 | 72.5 | 3.5 | 82 | 12,180 | 0.124 | 2,200 | 350 | 400 | 200 |
| K4G423185 | 3 x 185 | 30 | 15.98 | 5.5 | 28.5 | 3.15 | 76.0 | 3.7 | 86 | 13,730 | 0.0991 | 2,000 | 390 | 455 | 200 |
| K4G423240 | 3 x 240 | 34 | 18.47 | 5.5 | 31.0 | 3.15 | 82.0 | 3.9 | 92 | 16,170 | 0.0754 | 1,800 | 445 | 525 | 200 |
| K4G423300 | 3 x 300 | 34 | 20.68 | 5.5 | 33.5 | 3.15 | 87.0 | 4.0 | 97 | 18,560 | 0.0601 | 1,600 | 490 | 585 | 200 |
| K4G423400 | 3 x 400 | 53 | 23.39 | 5.5 | 36.5 | 3.15 | 93.5 | 4.2 | 105 | 22,530 | 0.0470 | 1,500 | 540 | 660 | 200 |

** Depth of laying in ground = 1 m, Rho = 1.2 °C m/watt
R = Packing in reel



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

CABLE TYPE : CTW-CV-SWA THREE CORES CU/XLPE/SWA/PVC 18/30 (36) kV

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITH STEEL WIRE ARMOUR



CONSTRUCTION

| | |
|-------------------|--|
| Conductor | Compact round stranded annealed copper. |
| Conductor Screen | Semi-conducting cross-linked polyethylene. |
| Insulation | Cross-linked polyethylene. (XLPE) |
| Insulation Screen | Semi-conducting cross-linked polyethylene. |
| Metallic Shield | Annealed copper tape. |
| Filler | Polypropylene (Nonhygroscopic material) |
| Wrapping Tape | Polyester and/or Spunbond tape. |
| Separator Sheath | Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7) |
| Armour | Galvanized steel wire. |
| Separator Tape | Polyester and/or Spunbond tape. |
| Outer Sheath | Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7) |

APPLICATION

Preferably used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.

CLASSIFICATION

Maximum Conductor Temperature 90 °C (Normal Operation)
Maximum Conductor Temperature 250 °C (Short-circuit at 5s maximum duration)

REFERENCE

IEC 60228 & IEC 60502-2
** AC Test Voltage : 63 kV

NOTE

A special FR-PVC or Low Smoke Halogen Free (LSHF) Flame retardant sheath can be supplied in accordance with IEC 60332-3.

| Product code | Conductor | | | Thickness of insulation (mm) | Diameter over insulation (Approx.) (mm) | Diameter of armour wire (mm) | Diameter over armour (Approx.) (mm) | Thickness of outer sheath (mm) | Overall diameter (Approx.) (mm) | Cable weight (Approx.) (kg/km) | Maximum conductor resistance at 20°C (Ω/km) | Minimum insulation resistance at 20°C (MΩ-km) | Ampacities direct burial in ground at 30°C (A) | Allowable ampacities in free air at 40°C (ambient) (A) | Standard length (m/R) |
|--------------|---|-------------------------------|-------------------------|------------------------------|---|------------------------------|-------------------------------------|--------------------------------|---------------------------------|--------------------------------|---|---|--|--|-----------------------|
| | Nominal cross-sectional area core x mm ² | Minimum number of wire No./mm | Diameter (Approx.) (mm) | | | | | | | | | | | | |
| K4I423050 | 3 x 50 | 6 | 8.33 | 8.0 | 26.0 | 3.15 | 70.5 | 3.5 | 80 | 9,400 | 0.387 | 4,000 | 195 | 215 | 250 |
| K4I423070 | 3 x 70 | 12 | 9.73 | 8.0 | 27.5 | 3.15 | 74.0 | 3.6 | 83 | 10,480 | 0.268 | 3,600 | 235 | 260 | 250 |
| K4I423095 | 3 x 95 | 15 | 11.45 | 8.0 | 29.0 | 3.15 | 77.5 | 3.7 | 87 | 11,790 | 0.193 | 3,300 | 275 | 315 | 250 |
| K4I423120 | 3 x 120 | 18 | 12.95 | 8.0 | 30.5 | 3.15 | 81.0 | 3.8 | 91 | 13,040 | 0.153 | 3,000 | 310 | 355 | 200 |
| K4I423150 | 3 x 150 | 18 | 14.27 | 8.0 | 32.0 | 3.15 | 84.0 | 3.9 | 95 | 14,400 | 0.124 | 2,800 | 345 | 400 | 200 |
| K4I423185 | 3 x 185 | 30 | 15.98 | 8.0 | 34.0 | 3.15 | 88.0 | 4.1 | 98 | 15,990 | 0.0991 | 2,700 | 390 | 455 | 200 |
| K4I423240 | 3 x 240 | 34 | 18.47 | 8.0 | 36.5 | 3.15 | 93.5 | 4.3 | 105 | 18,540 | 0.0754 | 2,400 | 445 | 525 | 200 |
| K4I423300 | 3 x 300 | 34 | 20.68 | 8.0 | 38.5 | 3.15 | 98.5 | 4.4 | 110 | 21,080 | 0.0601 | 2,200 | 490 | 585 | 200 |
| K4I423400 | 3 x 400 | 53 | 23.39 | 8.0 | 41.5 | 3.15 | 106.0 | 4.7 | 117 | 25,160 | 0.0470 | 2,000 | 540 | 660 | 200 |

** Depth of laying in ground = 1 m, Rho = 1.2 °C m/watt