



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

CABLE TYPE : CTW-CV SINGLE CORE CU/XLPE/PVC 1.8/3 (3.6) kV

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITH TAPE SHIELD



CONSTRUCTION		APPLICATION	CLASSIFICATION
Conductor	Compact round stranded annealed copper.	Preferably used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.	Maximum Conductor Temperature 90 °C (Normal Operation)
Conductor Screen	Semi-conducting cross-linked polyethylene.		Maximum Conductor Temperature 250 °C (Short-circuit at 5s maximum duration)
Insulation	Cross-linked polyethylene. (XLPE)	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.
Insulation Screen	Semi-conducting cross-linked polyethylene.		
Metallic Shield	Annealed copper tape.		
Separator Tape	Polyester and/or Spunbond tape.		
Outer Sheath	Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7)		

Product code	Conductor			Thickness of insulation mm	Diameter over insulation (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										
K3A121010	1 x 10	6	3.72	2.0	9.0	1.4	14	280	1.83	2,700	90	100	1,000
K3A121016	1 x 16	6	4.69	2.0	10.0	1.4	15	360	1.15	2,400	115	125	1,000
K3A121025	1 x 25	6	5.90	2.0	11.5	1.5	17	470	0.727	2,100	150	165	1,000
K3A121035	1 x 35	6	6.95	2.0	12.5	1.5	18	590	0.524	1,800	180	200	1,000
K3A121050	1 x 50	6	8.33	2.0	13.5	1.5	19	750	0.387	1,600	210	240	1,000
K3A121070	1 x 70	12	9.73	2.0	15.5	1.6	21	970	0.268	1,400	260	295	1,000
K3A121095	1 x 95	15	11.45	2.0	17.0	1.7	23	1,250	0.193	1,200	310	365	1,000
K3A121120	1 x 120	18	12.95	2.0	18.5	1.7	24	1,510	0.153	1,100	350	420	1,000
K3A121150	1 x 150	18	14.27	2.0	20.0	1.8	26	1,820	0.124	1,100	395	475	1,000
K3A121185	1 x 185	30	15.98	2.0	21.5	1.8	28	2,180	0.0991	900	450	545	1,000
K3A121240	1 x 240	34	18.47	2.0	24.0	1.9	30	2,750	0.0754	800	520	640	500
K3A121300	1 x 300	34	20.68	2.0	26.5	2.0	33	3,360	0.0601	700	585	740	500
K3A121400	1 x 400	53	23.39	2.0	29.5	2.1	36	4,370	0.0470	700	670	850	500
K3A121500	1 x 500	53	26.67	2.2	33.5	2.2	40	5,400	0.0366	700	760	975	250
K3A121630	1 x 630	53	30.20	2.4	37.5	2.4	44	6,800	0.0283	600	860	1,130	250
K3A121800	1 x 800	53	34.00	2.6	41.5	2.5	49	8,510	0.0221	600	1,025	1,330	250
K3A1211000	1 x 1,000	53	40.00	2.8	47.5	2.7	56	10,600	0.0176	600	1,215	1,520	250

** Depth of laying in ground = 1 m, Rho = 1.2 °C m/watt, Spacing of cable = 2 x cable overall diameter

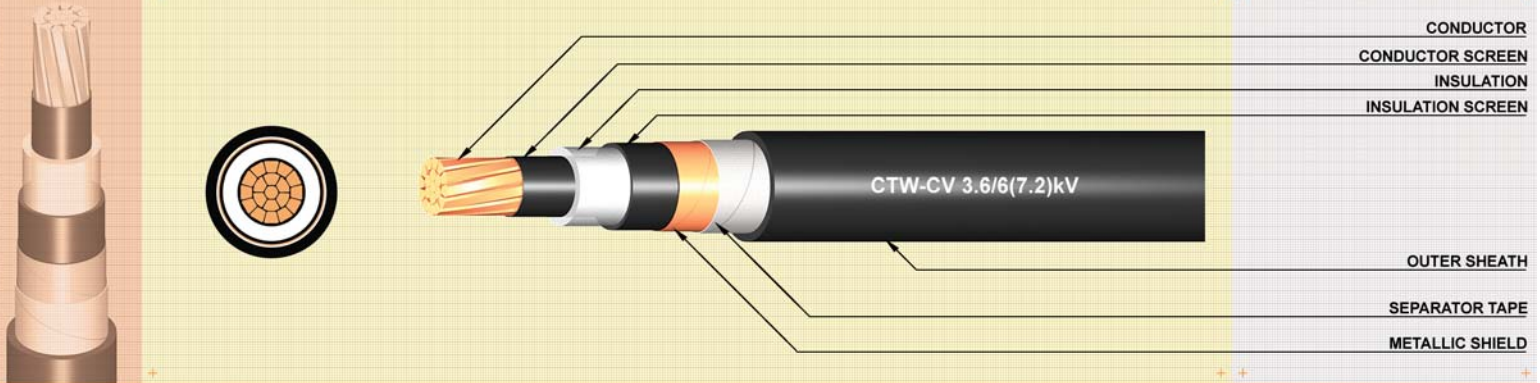
R = Packing in reel



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

CABLE TYPE : **CTW-CV SINGLE CORE CU/XLPE/PVC 3.6/6 (7.2) kV**

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITH TAPE SHIELD



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.
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	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										
K3B121010	1 x 10	6	3.72	2.5	10.0	1.4	16	310	1.83	3,100	90	100	1,000
K3B121016	1 x 16	6	4.69	2.5	11.0	1.5	17	400	1.15	2,800	115	125	1,000
K3B121025	1 x 25	6	5.90	2.5	12.5	1.5	18	510	0.727	2,400	150	165	1,000
K3B121035	1 x 35	6	6.95	2.5	13.5	1.5	19	620	0.524	2,100	180	200	1,000
K3B121050	1 x 50	6	8.33	2.5	14.5	1.6	21	800	0.387	1,900	210	240	1,000
K3B121070	1 x 70	12	9.73	2.5	16.5	1.6	22	1,010	0.268	1,700	260	295	1,000
K3B121095	1 x 95	15	11.45	2.5	18.0	1.7	24	1,290	0.193	1,500	310	365	1,000
K3B121120	1 x 120	18	12.95	2.5	19.5	1.7	25	1,550	0.153	1,300	350	420	1,000
K3B121150	1 x 150	18	14.27	2.5	21.0	1.8	27	1,870	0.124	1,200	395	475	1,000
K3B121185	1 x 185	30	15.98	2.5	22.5	1.9	29	2,240	0.0991	1,100	450	545	1,000
K3B121240	1 x 240	34	18.47	2.6	25.5	2.0	32	2,830	0.0754	1,000	520	640	500
K3B121300	1 x 300	34	20.68	2.8	28.0	2.0	35	3,450	0.0601	1,000	585	740	500
K3B121400	1 x 400	53	23.39	3.0	31.5	2.2	38	4,510	0.0470	900	670	850	500
K3B121500	1 x 500	53	26.67	3.2	35.5	2.3	42	5,560	0.0366	900	760	975	250
K3B121630	1 x 630	53	30.20	3.2	38.5	2.4	46	6,920	0.0283	800	860	1,130	250
K3B121800	1 x 800	53	34.00	3.2	42.5	2.6	50	8,630	0.0221	700	1,025	1,330	250
K3B1211000	1 x 1,000	53	40.00	3.2	48.5	2.8	57	10,700	0.0176	600	1,215	1,520	250

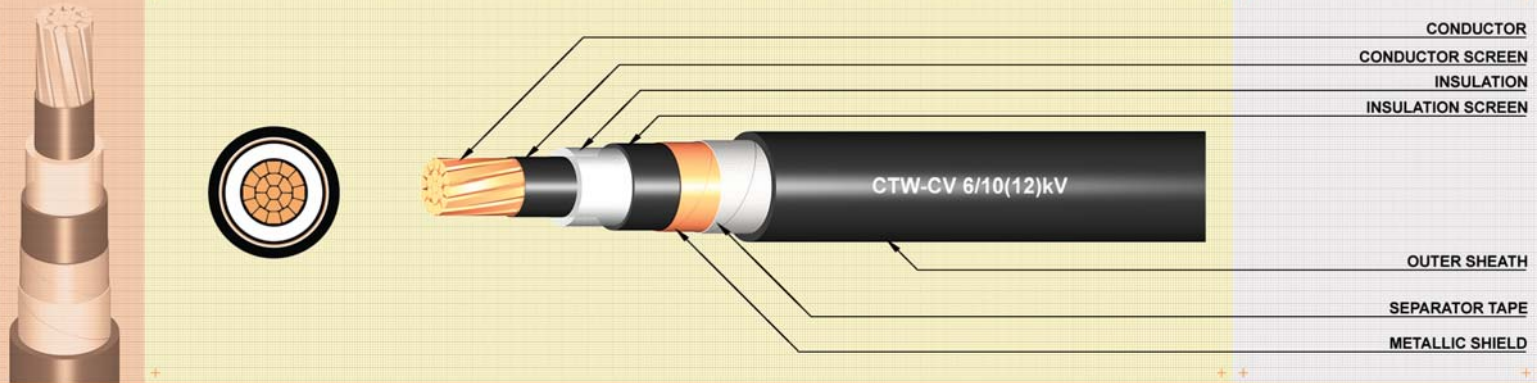
** Depth of laying in ground = 1 m, Rho = 1.2 °C m/watt, Spacing of cable = 2 x cable overall diameter



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

CABLE TYPE : CTW-CV SINGLE CORE CU/XLPE/PVC 6/10 (12) kV

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITH TAPE SHIELD



CONSTRUCTION		APPLICATION	CLASSIFICATION
Conductor	Compact round stranded annealed copper.	Preferably used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.	Maximum Conductor Temperature 90 °C (Normal Operation)
Conductor Screen	Semi-conducting cross-linked polyethylene.		Maximum Conductor Temperature 250 °C (Short-circuit at 5s maximum duration)
Insulation	Cross-linked polyethylene. (XLPE)	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.
Insulation Screen	Semi-conducting cross-linked polyethylene.		
Metallic Shield	Annealed copper tape.		
Separator Tape	Polyester and/or Spunbond tape.		
Outer Sheath	Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7)		

Product code	Conductor			Thickness of insulation mm	Diameter over insulation (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										
K3E121016	1 x 16	6	4.69	3.4	13.0	1.5	19	450	1.15	3,000	110	120	1,000
K3E121025	1 x 25	6	5.90	3.4	14.0	1.6	20	580	0.727	2,700	140	160	1,000
K3E121035	1 x 35	6	6.95	3.4	15.0	1.6	21	690	0.524	2,400	170	195	1,000
K3E121050	1 x 50	6	8.33	3.4	16.5	1.7	23	880	0.387	2,200	200	235	1,000
K3E121070	1 x 70	12	9.73	3.4	18.0	1.7	24	1,100	0.268	1,900	250	290	1,000
K3E121095	1 x 95	15	11.45	3.4	19.5	1.8	26	1,380	0.193	1,700	295	360	1,000
K3E121120	1 x 120	18	12.95	3.4	21.0	1.8	28	1,650	0.153	1,600	335	415	1,000
K3E121150	1 x 150	18	14.27	3.4	22.5	1.9	29	1,970	0.124	1,500	375	470	1,000
K3E121185	1 x 185	30	15.98	3.4	24.5	1.9	31	2,330	0.0991	1,400	430	540	1,000
K3E121240	1 x 240	34	18.47	3.4	27.0	2.0	34	2,920	0.0754	1,200	495	635	500
K3E121300	1 x 300	34	20.68	3.4	29.0	2.1	36	3,540	0.0601	1,100	560	735	500
K3E121400	1 x 400	53	23.39	3.4	32.0	2.2	39	4,560	0.0470	1,000	640	845	500
K3E121500	1 x 500	53	26.67	3.4	35.5	2.3	43	5,590	0.0366	900	725	970	250
K3E121630	1 x 630	53	30.20	3.4	39.0	2.4	46	6,950	0.0283	800	820	1,125	250
K3E121800	1 x 800	53	34.00	3.4	43.0	2.6	51	8,670	0.0221	700	985	1,325	250
K3E1211000	1 x 1,000	53	40.00	3.4	49.0	2.8	57	10,740	0.0176	600	1,185	1,515	250

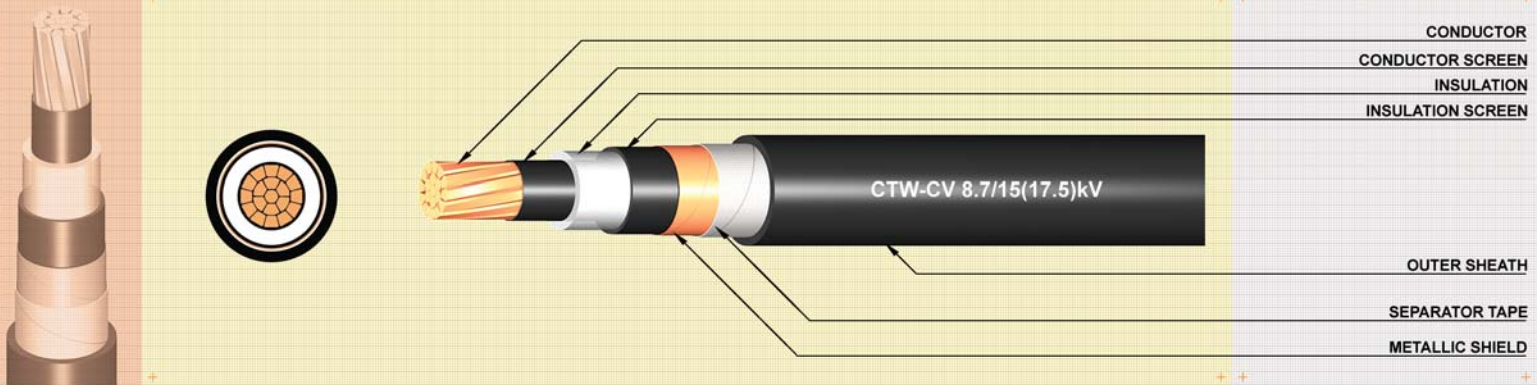
** Depth of laying in ground = 1 m, Rho = 1.2 °C m/watt, Spacing of cable = 2 x cable overall diameter
R = Packing in reel



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

CABLE TYPE : CTW-CV SINGLE CORE CU/XLPE/PVC 8.7/15 (17.5) kV

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITH TAPE SHIELD



CONSTRUCTION		APPLICATION	CLASSIFICATION
Conductor	Compact round stranded annealed copper.	Preferably used for urban networks. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.	Maximum Conductor Temperature 90 °C (Normal Operation)
Conductor Screen	Semi-conducting cross-linked polyethylene.		Maximum Conductor Temperature 250 °C (Short-circuit at 5s maximum duration)
Insulation	Cross-linked polyethylene. (XLPE)	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.
Insulation Screen	Semi-conducting cross-linked polyethylene.		
Metallic Shield	Annealed copper tape.		
Separator Tape	Polyester and/or Spunbond tape.		
Outer Sheath	Black Polyvinyl chloride (ST2) ; Optional : Polyethylene (ST7)		

Product code	Conductor			Thickness of insulation mm	Diameter over insulation (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										
K3F121025	1 x 25	6	5.90	4.5	16.0	1.6	22	660	0.727	3,200	140	155	1,000
K3F121035	1 x 35	6	6.95	4.5	17.0	1.7	24	790	0.524	2,900	170	190	1,000
K3F121050	1 x 50	6	8.33	4.5	18.5	1.7	25	970	0.387	2,700	200	230	1,000
K3F121070	1 x 70	12	9.73	4.5	20.0	1.8	27	1,210	0.268	2,400	250	285	1,000
K3F121095	1 x 95	15	11.45	4.5	22.0	1.8	28	1,490	0.193	2,200	295	355	1,000
K3F121120	1 x 120	18	12.95	4.5	23.5	1.9	30	1,770	0.153	2,000	335	410	1,000
K3F121150	1 x 150	18	14.27	4.5	25.0	1.9	31	2,090	0.124	1,800	375	455	1,000
K3F121185	1 x 185	30	15.98	4.5	26.5	2.0	33	2,470	0.0991	1,700	430	525	1,000
K3F121240	1 x 240	34	18.47	4.5	29.0	2.1	36	3,060	0.0754	1,500	495	620	500
K3F121300	1 x 300	34	20.68	4.5	31.5	2.2	38	3,700	0.0601	1,400	560	720	500
K3F121400	1 x 400	53	23.39	4.5	34.5	2.3	42	4,730	0.0470	1,300	640	825	500
K3F121500	1 x 500	53	26.67	4.5	38.0	2.4	45	5,770	0.0366	1,100	725	950	250
K3F121630	1 x 630	53	30.20	4.5	41.5	2.5	49	7,150	0.0283	1,000	820	1,120	250
K3F121800	1 x 800	53	34.00	4.5	45.0	2.6	53	8,860	0.0221	900	985	1,305	250
K3F1211000	1 x 1,000	53	40.00	4.5	51.5	2.9	60	10,980	0.0176	800	1,185	1,495	250

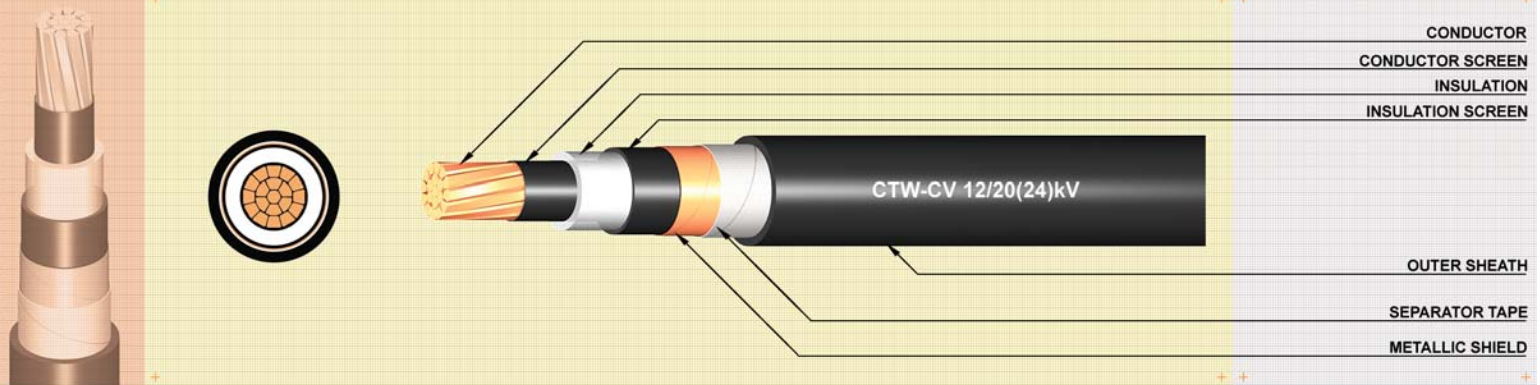
** Depth of laying in ground = 1 m, Rho = 1.2 °C m/watt, Spacing of cable = 2 x cable overall diameter



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

CABLE TYPE : CTW-CV SINGLE CORE CU/XLPE/PVC 12/20 (24) kV

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITH TAPE SHIELD



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.
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	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										
K3G121035	1 x 35	6	6.95	5.5	19.5	1.8	26	890	0.524	3,300	170	200	1,000
K3G121050	1 x 50	6	8.33	5.5	21.0	1.8	27	1,070	0.387	3,100	200	240	1,000
K3G121070	1 x 70	12	9.73	5.5	22.5	1.9	29	1,320	0.268	2,800	250	295	1,000
K3G121095	1 x 95	15	11.45	5.5	24.0	1.9	31	1,600	0.193	2,500	295	365	1,000
K3G121120	1 x 120	18	12.95	5.5	25.5	2.0	32	1,890	0.153	2,300	335	420	1,000
K3G121150	1 x 150	18	14.27	5.5	27.0	2.0	34	2,210	0.124	2,200	375	475	1,000
K3G121185	1 x 185	30	15.98	5.5	28.5	2.1	36	2,600	0.0991	2,000	430	545	1,000
K3G121240	1 x 240	34	18.47	5.5	31.0	2.2	38	3,210	0.0754	1,800	495	640	500
K3G121300	1 x 300	34	20.68	5.5	33.5	2.2	41	3,830	0.0601	1,600	560	740	500
K3G121400	1 x 400	53	23.39	5.5	36.5	2.3	44	4,880	0.0470	1,500	640	850	500
K3G121500	1 x 500	53	26.67	5.5	40.0	2.5	48	5,950	0.0366	1,300	725	975	250
K3G121630	1 x 630	53	30.20	5.5	43.5	2.6	51	7,340	0.0283	1,200	820	1,130	250
K3G121800	1 x 800	53	34.00	5.5	47.5	2.7	55	9,060	0.0221	1,100	985	1,330	250
K3G1211000	1 x 1,000	53	40.00	5.5	53.5	2.9	62	11,180	0.0176	1,000	1,185	1,520	250

** Depth of laying in ground = 1 m, Rho = 1.2 °C m/watt, Spacing of cable = 2 x cable overall diameter
R = Packing in reel



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

CABLE TYPE : **CTW-CV SINGLE CORE CU/XLPE/PVC 18/30 (36) kV**

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITH TAPE SHIELD



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.
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	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										
K3I121050	1 x 50	6	8.33	8.0	26.0	2.1	33	1,360	0.387	4,000	200	235	1,000
K3I121070	1 x 70	12	9.73	8.0	27.5	2.1	34	1,600	0.268	3,600	250	290	1,000
K3I121095	1 x 95	15	11.45	8.0	29.0	2.2	36	1,910	0.193	3,300	295	360	1,000
K3I121120	1 x 120	18	12.95	8.0	30.5	2.3	38	2,220	0.153	3,000	335	415	1,000
K3I121150	1 x 150	18	14.27	8.0	32.0	2.3	39	2,550	0.124	2,800	375	470	1,000
K3I121185	1 x 185	30	15.98	8.0	34.0	2.4	41	2,960	0.0991	2,700	430	540	1,000
K3I121240	1 x 240	34	18.47	8.0	36.5	2.4	44	3,570	0.0754	2,400	495	635	500
K3I121300	1 x 300	34	20.68	8.0	38.5	2.5	46	4,230	0.0601	2,200	560	735	500
K3I121400	1 x 400	53	23.39	8.0	41.5	2.6	49	5,300	0.0470	2,000	640	845	500
K3I121500	1 x 500	53	26.67	8.0	45.0	2.7	53	6,380	0.0366	1,800	725	970	250
K3I121630	1 x 630	53	30.20	8.0	48.5	2.9	57	7,830	0.0283	1,600	820	1,125	250
K3I121800	1 x 800	53	34.00	8.0	52.5	3.0	61	9,590	0.0221	1,500	985	1,325	250
K3I1211000	1 x 1,000	53	40.00	8.0	58.5	3.1	68	11,790	0.0176	1,400	1,185	1,515	250

** Depth of laying in ground = 1 m, Rho = 1.2 °C m/watt, Spacing of cable = 2 x cable overall diameter