



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

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

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITHOUT 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.
Outer Sheath	Black Polyvinyl chloride (ST2) ; Option : 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	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										
K4A123010	3 x 10	6	3.72	2.0	9.0	1.8	27	900	1.83	2,700	85	80	1,000
K4A123016	3 x 16	6	4.69	2.0	10.0	1.9	30	1,150	1.15	2,400	105	105	1,000
K4A123025	3 x 25	6	5.90	2.0	11.5	2.0	33	1,510	0.727	2,100	135	140	1,000
K4A123035	3 x 35	6	6.95	2.0	12.5	2.1	36	1,880	0.524	1,800	165	170	1,000
K4A123050	3 x 50	6	8.33	2.0	13.5	2.2	39	2,430	0.387	1,600	195	205	1,000
K4A123070	3 x 70	12	9.73	2.0	15.5	2.3	43	3,120	0.268	1,400	235	250	500
K4A123095	3 x 95	15	11.45	2.0	17.0	2.4	47	3,990	0.193	1,200	280	305	500
K4A123120	3 x 120	18	12.95	2.0	18.5	2.5	50	4,840	0.153	1,100	315	345	500
K4A123150	3 x 150	18	14.27	2.0	20.0	2.6	53	5,820	0.124	1,100	350	390	250
K4A123185	3 x 185	30	15.98	2.0	21.5	2.7	57	6,980	0.0991	900	395	445	250
K4A123240	3 x 240	34	18.47	2.0	24.0	2.9	63	8,800	0.0754	800	450	520	250
K4A123300	3 x 300	34	20.68	2.0	26.5	3.1	68	10,790	0.0601	700	495	580	250
K4A123400	3 x 400	53	23.39	2.0	29.5	3.3	75	14,000	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 THREE CORES CU/XLPE/PVC 3.6/6 (7.2) kV

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITHOUT 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.
Outer Sheath	Black Polyvinyl chloride (ST2) ; Option : 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										
K4B123010	3 x 10	6	3.72	2.5	10.0	2.0	32	1,010	1.83	3,100	85	80	1,000
K4B123016	3 x 16	6	4.69	2.5	11.0	2.0	33	1,270	1.15	2,800	105	105	1,000
K4B123025	3 x 25	6	5.90	2.5	12.5	2.1	36	1,640	0.727	2,400	135	140	1,000
K4B123035	3 x 35	6	6.95	2.5	13.5	2.1	38	2,000	0.524	2,100	165	170	1,000
K4B123050	3 x 50	6	8.33	2.5	14.5	2.2	42	2,560	0.387	1,900	195	205	1,000
K4B123070	3 x 70	12	9.73	2.5	16.5	2.3	45	3,260	0.268	1,700	235	250	500
K4B123095	3 x 95	15	11.45	2.5	18.0	2.5	49	4,160	0.193	1,500	280	305	500
K4B123120	3 x 120	18	12.95	2.5	19.5	2.6	52	5,020	0.153	1,300	315	345	500
K4B123150	3 x 150	18	14.27	2.5	21.0	2.7	56	6,010	0.124	1,200	350	390	250
K4B123185	3 x 185	30	15.98	2.5	22.5	2.8	59	7,180	0.0991	1,100	395	445	250
K4B123240	3 x 240	34	18.47	2.6	25.5	3.0	66	9,100	0.0754	1,000	450	520	250
K4B123300	3 x 300	34	20.68	2.8	28.0	3.2	72	11,160	0.0601	1,000	495	580	250
K4B123400	3 x 400	53	23.39	3.0	31.5	3.4	85	14,000	0.0470	900	545	655	200

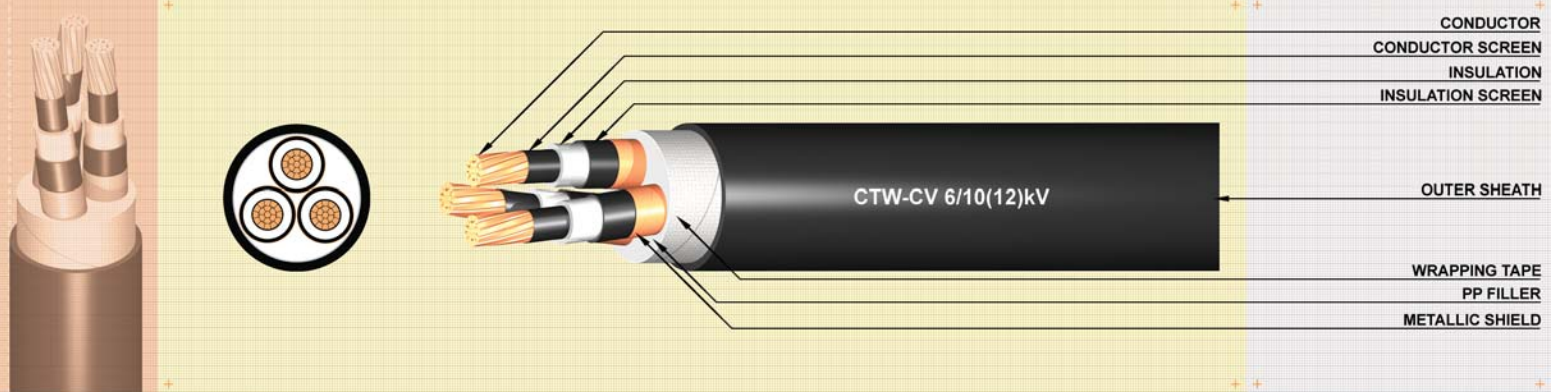
** Depth of laying in ground = 1 m, Rho = 1.2 °C m/watt



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

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

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITHOUT 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.
Outer Sheath	Black Polyvinyl chloride (ST2) ; Option : 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	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										
K4E123016	3 x 16	6	4.69	3.4	13.0	2.1	38	1,490	1.15	3,000	105	105	1,000
K4E123025	3 x 25	6	5.90	3.4	14.0	2.2	40	1,870	0.727	2,700	135	140	1,000
K4E123035	3 x 35	6	6.95	3.4	15.0	2.3	43	2,270	0.524	2,400	165	170	1,000
K4E123050	3 x 50	6	8.33	3.4	16.5	2.4	46	2,850	0.387	2,200	195	210	1,000
K4E123070	3 x 70	12	9.73	3.4	18.0	2.5	49	3,570	0.268	1,900	235	255	500
K4E123095	3 x 95	15	11.45	3.4	19.5	2.6	53	4,470	0.193	1,700	280	310	500
K4E123120	3 x 120	18	12.95	3.4	21.0	2.7	57	5,360	0.153	1,600	315	350	500
K4E123150	3 x 150	18	14.27	3.4	22.5	2.8	60	6,360	0.124	1,500	350	395	250
K4E123185	3 x 185	30	15.98	3.4	24.5	3.0	64	7,590	0.0991	1,400	395	450	250
K4E123240	3 x 240	34	18.47	3.4	27.0	3.2	70	9,480	0.0754	1,200	450	525	250
K4E123300	3 x 300	34	20.68	3.4	29.0	3.3	75	11,450	0.0601	1,100	495	585	250
K4E123400	3 x 400	53	23.39	3.4	32.0	3.6	82	14,760	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 THREE CORES CU/XLPE/PVC 8.7/15 (17.5) kV

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITHOUT 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.
Outer Sheath	Black Polyvinyl chloride (ST2) ; Option : 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	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										
K4F123025	3 x 25	6	5.90	4.5	16.0	2.4	46	2,210	0.727	3,200	135	140	1,000
K4F123035	3 x 35	6	6.95	4.5	17.0	2.5	48	2,630	0.524	2,900	165	170	1,000
K4F123050	3 x 50	6	8.33	4.5	18.5	2.6	52	3,230	0.387	2,700	195	210	500
K4F123070	3 x 70	12	9.73	4.5	20.0	2.7	55	3,980	0.268	2,400	235	255	500
K4F123095	3 x 95	15	11.45	4.5	22.0	2.8	59	4,900	0.193	2,200	280	310	500
K4F123120	3 x 120	18	12.95	4.5	23.5	2.9	62	5,810	0.153	2,000	315	350	250
K4F123150	3 x 150	18	14.27	4.5	25.0	3.0	65	6,840	0.124	1,800	350	395	250
K4F123185	3 x 185	30	15.98	4.5	26.5	3.1	70	8,070	0.0991	1,700	390	450	500
K4F123240	3 x 240	34	18.47	4.5	29.0	3.3	76	10,000	0.0754	1,500	445	525	250
K4F123300	3 x 300	34	20.68	4.5	31.5	3.5	81	12,040	0.0601	1,400	490	585	200
K4F123400	3 x 400	53	23.39	4.5	34.5	3.7	88	15,370	0.0470	1,300	540	660	200

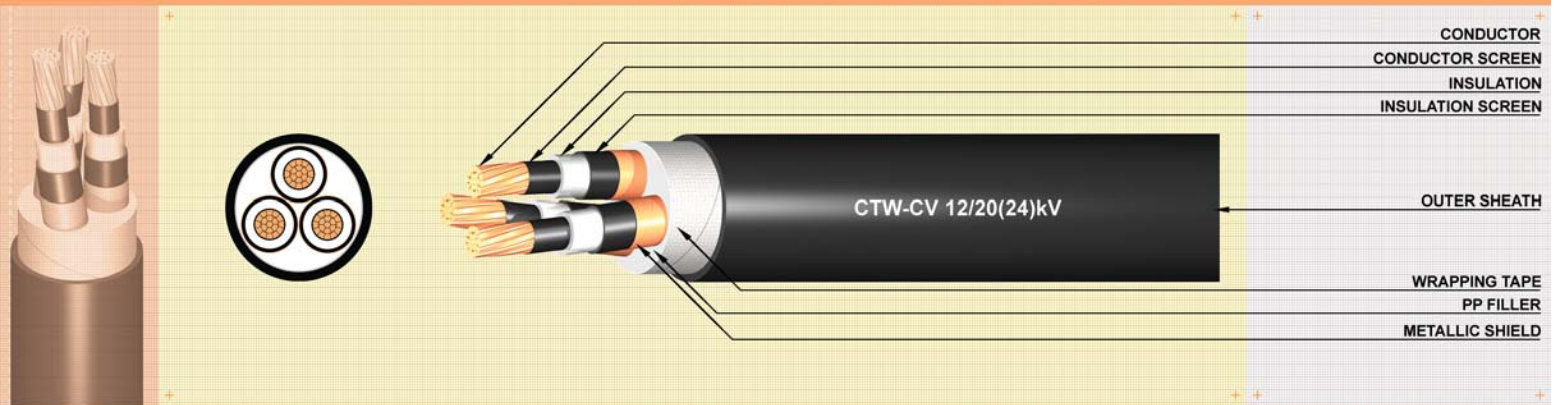
** Depth of laying in ground = 1 m, Rho = 1.2 °C m/watt



CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

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

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITHOUT ARMOUR



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)		
Insulation Screen	Semi-conducting cross-linked polyethylene.		
Metallic Shield	Annealed copper tape.		
Filler	Polypropylene (Nonhygroscopic material)	IEC 60228 & IEC 60502-2 ** AC Test Voltage : 42 kV	A special FR-PVC or Low Smoke Halogen Free (LSHF) Flame retardant sheath can be supplied in accordance with IEC 60332-3.
Wrapping Tape	Polyester and/or Spunbond tape.		
Outer Sheath	Black Polyvinyl chloride (ST2) ; Option : Polyethylene (ST7)		
		REFERENCE	NOTE

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											
K4G123035	3 x 35	6	6.95	5.5	19.5	2.6	53	2,970	0.524	3,300	165	175	500	
K4G123050	3 x 50	6	8.33	5.5	21.0	2.7	56	3,590	0.387	3,100	195	215	500	
K4G123070	3 x 70	12	9.73	5.5	22.5	2.8	60	4,350	0.268	2,800	235	260	500	
K4G123095	3 x 95	15	11.45	5.5	24.0	3.0	64	5,340	0.193	2,500	280	315	500	
K4G123120	3 x 120	18	12.95	5.5	25.5	3.1	67	6,270	0.153	2,300	315	355	250	
K4G123150	3 x 150	18	14.27	5.5	27.0	3.2	71	7,320	0.124	2,200	350	400	250	
K4G123185	3 x 185	30	15.98	5.5	28.5	3.3	75	8,570	0.0991	2,000	390	455	250	
K4G123240	3 x 240	34	18.47	5.5	31.0	3.5	81	10,540	0.0754	1,800	445	525	250	
K4G123300	3 x 300	34	20.68	5.5	33.5	3.7	86	12,620	0.0601	1,600	490	585	200	
K4G123400	3 x 400	53	23.39	5.5	36.5	3.9	93	15,990	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 THREE CORES CU/XLPE/PVC 18/30 (36) kV

MEDIUM VOLTAGE CROSS-LINKED POLYETHYLENE INSULATED, COPPER CONDUCTOR WITHOUT 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.
Outer Sheath	Black Polyvinyl chloride (ST2) ; Option : 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										
K4I123050	3 x 50	6	8.33	8.0	26.0	3.1	68	4,660	0.387	4,000	195	215	250
K4I123070	3 x 70	12	9.73	8.0	27.5	3.2	72	5,470	0.268	3,600	235	260	250
K4I123095	3 x 95	15	11.45	8.0	29.0	3.4	77	6,530	0.193	3,300	275	315	250
K4I123120	3 x 120	18	12.95	8.0	30.5	3.5	80	7,520	0.153	3,000	310	355	250
K4I123150	3 x 150	18	14.27	8.0	32.0	3.6	83	8,620	0.124	2,800	345	400	250
K4I123185	3 x 185	30	15.98	8.0	34.0	3.7	87	9,930	0.0991	2,700	390	455	250
K4I123240	3 x 240	34	18.47	8.0	36.5	3.9	93	11,990	0.0754	2,400	445	525	250
K4I123300	3 x 300	34	20.68	8.0	38.5	4.1	98	14,160	0.0601	2,200	490	585	200
K4I123400	3 x 400	53	23.39	8.0	41.5	4.3	105	17,640	0.0470	2,000	540	660	200

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