



# Medium Voltage Al-Cu XLPE Insulated PVC Sheathed Unarmoured Power Cable

3.6~36KV Medium Voltage Un-Armoured XLPE Power Cable



## SPECIFICATIONS AND STANDARDS

1. IEC60502-2 VDE 0276-620 AS/NZS1429.1 ICEA S93-639 ICEA S94-649
2. Rated Voltage: 3.6/6(7.2)kV, 3.8/6.6(7.2)kV, 6/10(12)kV, 6.35/11(12)kV, 8.7/10(15)kV, 8.7/15(17.5)kV, 12/20(22)kV, 12.7/22(24)kV, 12.7/22(24)kV, 18/30(36)kV, 19/33(36)kV
3. Number of cores : Single core, three cores, with round or sector Conductor.

## APPLICATIONS

Media Voltage XLPE Insulated power cable is used to transmit and distribute power in power transmission and distribution system of 35kV or lower. It is generally applied to the fields including power, construction, mines, metallurgy, petrochemical industry and communication in complete replace of oil immersed paper insulated power cable.

## PROPERTY:

- 1.The highest allowed operating temperature of conductor for long-term working is 90 degrees.
- 2.In short circuit (Max long term is no more than 5 seconds). The highest temperature for conductor is no more than 250 degrees.
- 3.The cable is laid without horizontal drop limit. The environment temperature should be no lower than 0 when lay. Otherwise it should be preheated.
- 4.Excellent electrical performance, resistance to chemical corrosion.
- 5.They can stand advisable traction when laid. They can stand traction from Outside. Left low smoke halogen-free after burned. Retard the burning of the cable.

## CONSTRUCTION

Cable Type (MV XLPE power cable)	Conductor		Insulation	Screen	Armor				Outer Sheath	
	Aluminum	Copper	XLPE	SCT	SW	ST	DST	AW	PVC	PE
Cu/XLPE/PVC		P	P	P	---	---	---	---	P	
Cu/XLPE/PE		P	P	P	---	---	---	---		P
Al/XLPE/PVC	P		P	P	---	---	---	---	P	
Al/XLPE/PE	P		P	P	---	---	---	---		P
Cu/XLPE/STA/PVC		P	P	P	---	P	---	---	P	



# Medium Voltage Al-Cu XLPE Insulated PVC Sheathed Unarmoured Power Cable

3.6~36KV Medium Voltage Un-Armoured XLPE Power Cable

Cu/XLPE/STA/PE		P	P	P	---	P	---	---		P
Al/XLPE/STA/PVC	P		P	P	---	P	---	---	P	
Al/XLPE/STA/PE	P		P	P	---	P	---	---		P
Cu/XLPE/DSTA/PVC		P	P	P	---	---	P	---	P	
Cu/XLPE/DSTA/PE		P	P	P	---	---	P	---		P
Al/XLPE/DSTA/PVC	P		P	P	---	---	P	---	P	
Al/XLPE/DSTA/PE	P		P	P	---	---	P	---		P
Cu/XLPE/SWA/PVC		P	P	P	P	---	---	---	P	
Cu/XLPE/SWA/PE		P	P	P	P	---	---	---		P
Al/XLPE/SWA/PVC	P		P	P	P	---	---	---	P	
Al/XLPE/SWA/PE	P		P	P	P	---	---	---		P
Cu/XLPE/AWA/PVC		P	P	P	---	---	---	P	P	
Cu/XLPE/AWA/PE		P	P	P	---	---	---	P		P
Al/XLPE/AWA/PVC	P		P	P	---	---	---	P	P	
Al/XLPE/AWA/PE	P		P	P	---	---	---	P		P

Tipes: screen material SCT= soft copper tape;

## Technical Parameter of Medium Voltage XLPE Power Cable :

1) 3.6/6(7.2)kV, 3.6/6.6(7.2)kV, Single Core, Al or Cu/XLPE/CTS/PVC Unarmoured Power Cable

Normal Cross Section of Conductor	Normal Diameter of Conductor	Normal Thickness of Insulation	Normal Thickness of Copper Tape	Normal Thickness of Outer Sheath	Approx. Overall Dia.	Approx. Net Weight		Max. D.C. Resistance of Conductor at 20°C	
						Al Conductor	Cu Conductor	Al Conductor	Cu Conductor
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/m	kg/m	Ω/km	Ω/km
1x 25	6.0	2.5	0.12	1.5	17.6	0.34	0.49	1.2000	0.7270
1x 35	7.0	2.5	0.12	1.5	18.5	0.39	0.60	0.8680	0.5240
1x 50	8.3	2.5	0.12	1.6	20.0	0.46	0.74	0.6410	0.3870
1x 70	9.7	2.5	0.12	1.6	21.5	0.55	0.96	0.4430	0.2680
1x 95	11.3	2.5	0.12	1.7	23.3	0.66	1.23	0.3200	0.1930
1x 120	13	2.5	0.12	1.7	24.8	0.77	1.48	0.2530	0.1530
1x 150	14.6	2.5	0.12	1.8	26.4	0.87	1.77	0.2060	0.1240
1x 185	15.9	2.5	0.12	1.8	28.1	1.01	2.13	0.1640	0.0991
1x 240	18.3	2.6	0.12	1.9	30.9	1.23	2.71	0.1250	0.0754
1x 300	20.4	2.8	0.12	2.0	33.6	1.48	3.32	0.1000	0.0601



# Medium Voltage Al-Cu XLPE Insulated PVC Sheathed Unarmoured Power Cable

## 3.6~36KV Medium Voltage Un-Armoured XLPE Power Cable

1x 400	23.2	3.0	0.12	2.1	37.0	1.81	4.16	0.0778	0.0470
1x 500	26.4	3.2	0.12	2.2	41.1	2.24	5.27	0.0605	0.0366
1x 630	30.1	3.2	0.12	2.3	45.0	2.73	6.62	0.0469	0.0283

## 3.6/6(7.2)kV, 3.6/6.6(7.2)kV, Three Cores, Al or Cu/XLPE/CTS/PVC Unarmoured Power Cable

Normal Cross Section of Conductor	Normal Diameter of Conductor	Normal Thickness of Insulation	Normal Thickness of Copper Tape	Normal Thickness of Outer Sheath	Approx. Overall Dia.	Approx. Net Weight		Max. D.C. Resistance of Conductor at 20°C	
						Al Conductor	Cu Conductor	Al Conductor	Cu Conductor
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/m	kg/m	Ω/km	Ω/km
3x 25	6.0	2.5	0.1	2.0	34.6	1.13	1.58	1.2000	0.7270
3x 35	6.9	2.5	0.1	2.1	36.8	1.29	1.92	0.8680	0.5240
3x 50	8.2	2.5	0.1	2.2	39.8	1.51	2.36	0.6410	0.3870
3x 70	9.7	2.5	0.1	2.3	43.2	1.81	3.04	0.4430	0.2680
3x 95	11.3	2.5	0.1	2.4	46.9	2.17	3.87	0.3200	0.1930
3x 120	12.8	2.5	0.1	2.4	50.1	2.53	4.69	0.2530	0.1530
3x 150	14.2	2.5	0.1	2.5	53.3	2.90	5.60	0.2060	0.1240
3x 185	15.9	2.5	0.1	2.6	57.2	3.40	6.77	0.1640	0.0991
3x 240	18.3	2.6	0.1	2.8	63.2	4.12	8.55	0.1250	0.0754
3x 300	20.4	2.8	0.1	3.0	69.0	4.89	10.46	0.1000	0.0601
3x 400	23.2	3.0	0.1	3.4	76.7	6.10	13.18	0.0778	0.0470
3x 500	26.4	3.2	0.1	3.6	85.7	8.10	16.55	0.0605	0.0366

## 2) 6/10(12)kV, 6.35/11(12)kV, Single Core, Al or Cu/XLPE/CTS/PVC Unarmoured Power Cable

Normal Cross Section of Conductor	Normal Diameter of Conductor	Normal Thickness of Insulation	Normal Thickness of Copper Tape	Normal Thickness of Outer Sheath	Approx. Overall Dia.	Approx. Net Weight		Max. D.C. Resistance of Conductor at 20°C	
						Al Conductor	Cu Conductor	Al Conductor	Cu Conductor
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/m	kg/m	Ω/km	Ω/km
1x 25	6.0	3.4	0.12	1.5	19.4	0.40	0.55	1.2000	0.7270
1x 35	6.9	3.4	0.12	1.6	20.5	0.45	0.66	0.8680	0.5240
1x 50	8.2	3.4	0.12	1.6	21.8	0.52	0.80	0.6410	0.3870
1x 70	9.7	3.4	0.12	1.7	23.5	0.62	1.03	0.4430	0.2680
1x 95	11.3	3.4	0.12	1.7	25.1	0.73	1.30	0.3200	0.1930
1x 120	12.8	3.4	0.12	1.8	26.8	0.85	1.56	0.2530	0.1530
1x 150	14.2	3.4	0.12	1.8	28.2	0.95	1.85	0.2060	0.1240
1x 185	15.9	3.4	0.12	1.9	30.1	1.10	2.22	0.1640	0.0991
1x 240	18.3	3.4	0.12	2.0	32.7	1.33	2.80	0.1250	0.0754
1x 300	20.4	3.4	0.12	2.0	34.8	1.54	3.39	0.1000	0.0601
1x 400	23.2	3.4	0.12	2.2	38.0	1.87	4.22	0.0778	0.0470



# Medium Voltage Al-Cu XLPE Insulated PVC Sheathed Unarmoured Power Cable

## 3.6~36KV Medium Voltage Un-Armoured XLPE Power Cable

1x 500	26.4	3.4	0.12	2.2	41.5	2.26	5.29	0.0605	0.0366
1x 630	30.1	3.4	0.12	2.4	45.6	2.78	6.67	0.0469	0.0283

## 6/10(12)kV, 6.35/11(12)kV, Three Cores, Al or Cu/XLPE/CTS/PVC Unarmoured Power Cable

Normal Cross Section of Conductor	Normal Diameter of Conductor	Normal Thickness of Insulation	Normal Thickness of Copper Tape	Normal Thickness of Outer Sheath	Approx. Overall Dia.	Approx. Net Weight		Max. D.C. Resistance of Conductor at 20°C	
						Al Conductor	Cu Conductor	Al Conductor	Cu Conductor
						kg/m	kg/m	Ω/km	Ω/km
3x 25	6.0	3.4	0.1	2.1	38.7	1.30	1.75	1.2000	0.7270
3x 35	6.9	3.4	0.1	2.2	40.9	1.47	2.22	0.8680	0.5240
3x 50	8.2	3.4	0.1	2.3	43.9	1.70	2.50	0.6410	0.3870
3x 70	9.7	3.4	0.1	2.4	47.3	2.02	3.25	0.4430	0.2680
3x 95	11.3	3.4	0.1	2.5	51.0	2.42	4.12	0.3200	0.1930
3x 120	12.8	3.4	0.1	2.6	54.4	2.79	4.95	0.2530	0.1530
3x 150	14.2	3.4	0.1	2.7	57.6	3.17	5.87	0.2060	0.1240
3x 185	15.9	3.4	0.1	2.8	61.5	3.69	7.06	0.1640	0.0991
3x 240	18.3	3.4	0.1	2.9	66.9	4.38	8.82	0.1250	0.0754
3x 300	20.4	3.4	0.1	3.1	71.8	5.11	10.68	0.1000	0.0601
3x 400	23.2	3.4	0.1	3.3	78.3	6.24	13.32	0.0778	0.0470
3x 500	26.4	3.4	0.1	3.5	86.4	7.63	16.50	0.0605	0.0366

## 3) 8.7/10(15)kV, Single Core, Al or Cu/XLPE/CTS/PVC Unarmoured Power Cable

Normal Cross Section of Conductor	Normal Diameter of Conductor	Normal Thickness of Insulation	Normal Thickness of Copper Tape	Normal Thickness of Outer Sheath	Approx. Overall Dia.	Approx. Net Weight		Max. D.C. Resistance of Conductor at 20°C	
						Al Conductor	Cu Conductor	Al Conductor	Cu Conductor
						kg/m	kg/m	Ω/km	Ω/km
1x 25	6.0	4.5	0.12	1.6	21.8	0.48	0.63	1.2000	0.7270
1x 35	6.9	4.5	0.12	1.7	22.9	0.54	0.75	0.8680	0.5240
1x 50	8.2	4.5	0.12	1.7	24.2	0.61	0.89	0.6410	0.3870
1x 70	9.7	4.5	0.12	1.8	25.9	0.72	1.13	0.4430	0.2680
1x 95	11.3	4.5	0.12	1.8	27.5	0.84	1.40	0.3200	0.1930
1x 120	12.8	4.5	0.12	1.9	29.2	0.96	1.67	0.2530	0.1530
1x 150	14.2	4.5	0.12	1.9	30.6	1.06	1.96	0.2060	0.1240
1x 185	15.9	4.5	0.12	2.0	32.5	1.22	2.34	0.1640	0.0991
1x 240	18.3	4.5	0.12	2.1	35.1	1.46	2.93	0.1250	0.0754
1x 300	20.4	4.5	0.12	2.1	37.2	1.68	3.52	0.1000	0.0601
1x 400	23.2	4.5	0.12	2.2	40.2	2.00	4.35	0.0778	0.0470



# Medium Voltage Al-Cu XLPE Insulated PVC Sheathed Unarmoured Power Cable

## 3.6~36KV Medium Voltage Un-Armoured XLPE Power Cable

1x 500	26.4	4.5	0.12	2.3	43.9	2.43	5.45	0.0605	0.0366
1x 630	30.1	4.5	0.12	2.4	47.8	2.93	6.83	0.0469	0.0283

## 8.7/10(15)kV, Three Cores, Al or Cu/XLPE/CTS/PVC Unarmoured Power Cable

Normal Cross Section of Conductor	Normal Diameter of Conductor	Normal Thickness of Insulation	Normal Thickness of Copper Tape	Normal Thickness of Outer Sheath	Approx. Overall Dia.	Approx. Net Weight		Max. D.C. Resistance of Conductor at 20°C	
						Al Conductor	Cu Conductor	Al Conductor	Cu Conductor
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/m	kg/m	Ω/km	Ω/km
3x 25	6.0	4.5	0.1	2.3	43.9	1.57	2.02	0.9270	0.7270
3x 35	6.9	4.5	0.1	2.4	46.0	1.75	2.38	0.6680	0.5240
3x 50	8.2	4.5	0.1	2.4	48.8	2.00	2.85	0.4936	0.3870
3x 70	9.7	4.5	0.1	2.5	52.3	2.34	3.57	0.3420	0.2680
3x 95	11.3	4.5	0.1	2.6	55.9	2.75	4.45	0.2464	0.1930
3x 120	12.8	4.5	0.1	2.7	59.4	3.16	5.32	0.1955	0.1530
3x 150	14.2	4.5	0.1	2.8	62.6	3.57	6.27	0.1587	0.1240
3x 185	15.9	4.5	0.1	2.9	66.4	4.07	7.45	0.1271	0.0991
3x 240	18.3	4.5	0.1	3.1	72.0	4.82	9.25	0.0976	0.0754
3x 300	20.4	4.5	0.1	3.3	77.0	5.71	11.28	0.0778	0.0601
3x 400	23.2	4.5	0.1	3.4	83.2	6.78	13.86	0.0615	0.0470
3x 500	26.4	4.5	0.1	3.5	91.1	8.20	17.32	0.0487	0.0366

## 4) 12/20(24)kV, 12.7/22(24)kV, Single Core, Al or Cu/XLPE/CTS/PVC Unarmoured Power Cable

Normal Cross Section of Conductor	Normal Diameter of Conductor	Normal Thickness of Insulation	Normal Thickness of Copper Tape	Normal Thickness of Outer Sheath	Approx. Overall Dia.	Approx. Net Weight		Max. D.C. Resistance of Conductor at 20°C	
						Al Conductor	Cu Conductor	Al Conductor	Cu Conductor
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/m	kg/m	Ω/km	Ω/km
1x 25	---	---	---	---	---	---	---	---	---
1x 35	6.9	5.5	0.12	1.7	24.9	0.62	0.83	0.8680	0.5240
1x 50	8.2	5.5	0.12	1.8	26.4	0.70	0.98	0.6410	0.3870
1x 70	9.7	5.5	0.12	1.8	27.9	0.80	1.21	0.4430	0.2680
1x 95	11.3	5.5	0.12	1.9	29.7	0.94	1.50	0.3200	0.1930
1x 120	12.8	5.5	0.12	1.9	31.2	1.05	1.77	0.2530	0.1530
1x 150	14.2	5.5	0.12	2.0	32.8	1.17	2.07	0.2060	0.1240
1x 185	15.9	5.5	0.12	2.0	34.5	1.33	2.45	0.1640	0.0991
1x 240	18.3	5.5	0.12	2.1	37.1	1.57	3.04	0.1250	0.0754
1x 300	20.4	5.5	0.12	2.2	39.4	1.81	3.66	0.1000	0.0601
1x 400	23.2	5.5	0.12	2.3	42.4	2.14	4.49	0.0778	0.0470



# Medium Voltage Al-Cu XLPE Insulated PVC Sheathed Unarmoured Power Cable

## 3.6~36KV Medium Voltage Un-Armoured XLPE Power Cable

1x 500	26.4	5.5	0.12	2.4	46.1	2.58	5.61	0.0605	0.0366
1x 630	30.1	5.5	0.12	2.4	49.8	3.10	6.99	0.0469	0.0283

## 12/20(24)kV, 12.7/22(24)kV, Three Cores, Al or Cu/XLPE/CTS/PVC Unarmoured Power Cable

Normal Cross Section of Conductor	Normal Diameter of Conductor	Normal Thickness of Insulation	Normal Thickness of Copper Tape	Normal Thickness of Outer Sheath	Approx. Overall Dia.	Approx. Net Weight		Max. D.C. Resistance of Conductor at 20°C	
						Al Conductor	Cu Conductor	Al Conductor	Cu Conductor
						kg/m	kg/m	Ω/km	Ω/km
3x 25	---	---	---	---	---	---	---	---	---
3x 35	6.9	5.5	0.1	2.4	50.3	2.00	2.63	0.8680	0.6680
3x 50	8.2	5.5	0.1	2.5	53.3	2.26	3.11	0.6410	0.4936
3x 70	9.7	5.5	0.1	2.6	56.8	2.62	3.85	0.4430	0.3420
3x 95	11.3	5.5	0.1	2.8	60.6	3.07	4.77	0.3200	0.2464
3x 120	12.8	5.5	0.1	2.9	64.1	3.49	5.65	0.2530	0.1955
3x 150	14.2	5.5	0.1	3.0	67.3	3.91	6.61	0.2060	0.1587
3x 185	15.9	5.5	0.1	3.1	71.2	4.44	7.81	0.1640	0.1271
3x 240	18.3	5.5	0.1	3.3	76.8	5.21	9.64	0.1250	0.0976
3x 300	20.4	5.5	0.1	3.3	81.3	6.10	11.66	0.1000	0.0778
3x 400	23.2	5.5	0.1	3.5	87.7	7.20	14.28	0.0778	0.0615
3x 500	26.4	5.5	0.1	3.8	96.0	9.15	17.80	0.0605	0.0487

## 5) 18/30(36)kV, 19/33(36)kV, Single Core, Al or Cu/XLPE/CTS/PVC Unarmoured Power Cable

Normal Cross Section of Conductor	Normal Diameter of Conductor	Normal Thickness of Insulation	Normal Thickness of Copper Tape	Normal Thickness of Outer Sheath	Approx. Overall Dia.	Approx. Net Weight		Max. D.C. Resistance of Conductor at 20°C	
						Al Conductor	Cu Conductor	Al Conductor	Cu Conductor
						kg/m	kg/m	Ω/km	Ω/km
1x 25	---	---	---	---	---	---	---	---	---
1x 35	---	---	---	---	---	---	---	---	---
1x 50	8.2	8.0	0.12	2.0	31.8	0.95	1.23	0.6410	0.3870
1x 70	9.7	8.0	0.12	2.0	33.3	1.07	1.47	0.4430	0.2680
1x 95	11.3	8.0	0.12	2.1	35.1	1.21	1.78	0.3200	0.1930
1x 120	12.8	8.0	0.12	2.1	36.6	1.34	2.05	0.2530	0.1530
1x 150	14.2	8.0	0.12	2.2	38.2	1.47	2.37	0.2060	0.1240
1x 185	15.9	8.0	0.12	2.2	39.9	1.64	2.76	0.1640	0.0991
1x 240	18.3	8.0	0.12	2.3	42.5	1.90	3.37	0.1250	0.0754
1x 300	20.4	8.0	0.12	2.4	44.8	2.16	4.01	0.1000	0.0601
1x 400	23.2	8.0	0.12	2.4	47.6	2.52	4.87	0.0778	0.0470



## Medium Voltage Al-Cu XLPE Insulated PVC Sheathed Unarmoured Power Cable

**3.6~36KV Medium Voltage Un-Armoured XLPE Power Cable**

1x 500	26.4	8.0	0.12	2.5	51.3	2.98	6.01	0.0605	0.0366
1x 630	30.1	8.0	0.12	2.6	55.2	3.54	7.43	0.0469	0.0283

**18/30(36)kV, 19/33(36)kV, Three Cores, Al or Cu/XLPE/CTS/PVC Un-armoured Power Cable**

Normal Cross Section of Conductor	Normal Diameter of Conductor	Normal Thickness of Insulation	Normal Thickness of Copper Tape	Normal Thickness of Outer Sheath	Approx. Overall Dia.	Approx. Net Weight		Max. D.C. Resistance of Conductor at 20°C	
						Al	Cu	Al	Cu
						Conductor	Conductor	Conductor	Conductor
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/m	kg/m	Ω/km	Ω/km
3x 25	---	---	---	---	---	---	---	---	---
3x 35	---	---	---	---	---	---	---	---	---
3x 50	8.2	8.0	0.1	2.9	64.9	3.02	3.87	0.6410	0.4936
3x 70	9.7	8.0	0.1	3.0	68.4	3.42	4.65	0.4430	0.3420
3x 95	11.3	8.0	0.1	3.1	72.0	3.89	5.59	0.3200	0.2464
3x 120	12.8	8.0	0.1	3.3	75.7	4.39	6.54	0.2530	0.1955
3x 150	14.2	8.0	0.1	3.3	78.7	4.85	7.55	0.2060	0.1587
3x 185	15.9	8.0	0.1	3.4	82.6	5.42	8.79	0.1640	0.1271
3x 240	18.3	8.0	0.1	3.5	88.0	6.22	10.66	0.1250	0.0976
3x 300	20.4	8.0	0.1	3.7	92.9	7.20	12.77	0.1000	0.0778
3x 400	23.2	8.0	0.1	3.9	99.3	8.38	15.46	0.0778	0.0615
3x 500	26.4	8.0	0.1	4.2	107.6	10.15	18.85	0.0605	0.0487