



“Progressive technical innovation for the convenient digital information world”

That our company produces electric power line, line of communication, device to main item because is established in 1965 and contributes in country basic industries Have offered future blueprint of Korea Telecom industry and grow along with customer's trust.

Is establishment continuous growth repeat and display medium and small enterprises' forte maximum because is been family of eastern electron group on August, 1998 and large enterprise's advanced technology and quality sophistication system introduction, I have improved only our company's competitive power that develop.

And extends business scope to optical cable, LAN cable and Magnet Wire in 1999 and made location as the synthesis cable company soundest.

Also, electric wire industry pushes on to manufacturing process improvement, technical innovation, research and development unfolding TPM activity steadily extraordinarily and quality improvement, circle mind curtailment etc.. back I am helping in thorough administration for customers satisfaction.

Our company's technology is serviced to domestic main industry such as KEPCO, Korea Telecom etc.. and is taking the responsibility for main facilities in info-age with up-to-dateness plant, IB.

As well as, export to all the world such as China, Southeast Asia etc.. because is recognized technique of world standard Also, is planning diversification of business contracting Japan Hitachisa and Bus duct technical tie-up Sell out in new product development through cooperation that is persistent with related business circles and is trying in product production of various good quality and progressive technical development.



C O N T E N T

Cathodic Protection Cables

0.6/1kV CU/XLPE/PVC & CU/XLPE/XLPE

0.6/1kV CU/XLPE/AWA/PVC

CU/HMWPE (IEC & ASTM)

CU/PVDF/HMWPE (IEC & ASTM)

CU/HMWPE/PVC/DSWA/HMWPE

0.6/1kV CU/XLPE/PVC & CU/XLPE/XLPE

SCOPE

This specification covers 0.6/1kV copper conductor, XLPE insulated and PVC or XLPE oversheathed cables for cathodic protection system

APPLICATION STANDARDS

- IEC 60228** Conductors of insulated cables
IEC 60502-1 Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1,2 kV) up to 30 kV (Um = 36 kV)
 Part 1:Cables for rated voltages of 1 kV (Um = 1,2 kV) and 3 kV (Um = 3.6 kV)

CONDUCTOR

The conductor shall consist of plain annealed copper wires, and shall be class 2 in accordance with IEC 60228

INSULATION

The insulation shall be extruded with natural color of XLPE compound itself complying with IEC 60502-1

OVERSHEATH

The oversheath shall be extruded with black PVC/ST2 or XLPE compound complying with IEC 60502-1

Conductor			Insulation Thickness (nom.)	Oversheath Thickness (nom.)	Overall Diameter (approx.)	Net Weight (approx.)		Conductor Resistance at 20°C (max.)
Size	No of wire	Outer Dia.(approx.)				XLPE/PVC	XLPE/XLPE	
mm ²	Nos.	mm	mm	mm	mm	kg/km	kg/km	Ω/km
10	7	4.05	0.7	1.4	10	158	140	1.83
16	7	4.7	0.7	1.4	10	212	190	1.15
25	7	5.9	0.9	1.4	12	316	290	0.727
35	7	6.9	0.9	1.4	13	415	380	0.524
50	7	8.1	1.0	1.4	15	544	510	0.387
70	19	9.8	1.1	1.4	17	759	710	0.268
95	19	11.4	1.1	1.5	19	1027	960	0.193
120	19	12.9	1.2	1.5	21	1279	1200	0.153

0.6/1kV CU/XLPE/AWA/PVC

SCOPE

This specification covers 0.6/1kV copper conductor, XLPE insulated, PVC inner covering, single layer of aluminum round wire armoured and PVC oversheathed cables for cathodic protection system.

APPLICATION STANDARDS

- IEC 60228 Conductors of insulated cables
 IEC 60502-1 Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1,2 kV) up to 30 kV (Um = 36 kV)
 Part 1:Cables for rated voltages of 1 kV (Um = 1,2 kV) and 3 kV (Um = 3.6 kV)

CONDUCTOR

The conductor shall consist of plain annealed copper wires, and shall be class 2 in accordance with IEC 60228.

INSULATION

The insulation shall be extruded with natural color of XLPE compound itself complying with IEC 60502-1.

INNER COVERING

The inner covering shall be extruded with black PVC compound complying with IEC 60502-1.

ARMOUR

The armour shall consist of a single layer of aluminum wires, and the binder tape over the armour may be applied by manufacturer's option.

OVERSHEATH

The oversheath shall be extruded with black PVC/ST2 compound complying with IEC 60502-1

Conductor			Insulation Thickness (nom.)	Inner Covering Thickness (approx.)	Diameter of Aluminum Wire (nom.)	Oversheath Thickness (nom.)	Overall Diameter (approx.)	Net Weight (approx.)	Conductor Resistance at 20°C (max.)
Size	No of wire	Outer Dia.(approx.)							
mm ²	Nos.	mm	mm	mm	mm	mm	mm	kg/km	Ω/km
16	7	4.7	0.7	1.0	1.6	1.8	17	410	1.15
25	7	5.9	0.9	1.0	1.6	1.8	19	540	0.727
35	7	6.9	0.9	1.0	1.6	1.8	20	660	0.524
50	7	8.1	1.0	1.0	1.6	1.8	22	816	0.387
70	19	9.8	1.1	1.0	1.6	1.8	24	1063	0.268
95	19	11.4	1.1	1.0	1.6	1.8	26	1356	0.193
120	19	12.9	1.2	1.0	1.6	1.8	28	1644	0.153

CU/HMWPE (IEC & ASTM)

SCOPE

This specification covers 0.6/1kV copper conductor, HMWPE insulated cables.

Application included ; a cable between a DC power source and a protected structure or a negative/an anode cable junction box, or between two negative/positive cable junction boxes, or between an anode junction box and a positive cable junction box.

APPLICATION STANDARDS

IEC Standard IEC 60228

ASTM Standard ASTM B 3, ASTM B 8 and ASTM D 1248

CONDUCTOR

The conductor shall consist of plain annealed copper wires, and shall be class 2 in accordance with IEC 60228 or ASTM B 3 and ASTM B 8.

INSULATION

The insulation shall be extruded with black HMWPE (High Molecular Weight Polyethylene) comply with Type 1 or 3, Class C, Category 4 or 5, Grades E-4 or E-5 of ASTM D 1248.

OPTION

Material of conductor : Tin-coated copper conductor

Color of insulation : Various colors on request

Applicable Standard	Conductor			Insulation Thickness (nom.)	Overall Diameter (approx.)	Net Weight (approx.)	Conductor Resistance at 20 °C (max.)
	Size	No of wire	Outer Dia. (approx.)				
	mm ² /AWG	Nos.	mm	mm	mm	kg/km	Ω/km
IEC	1.5	7	1.59	2.3	6.9	48	12.1
	2.5	7	2.01	2.3	7.4	61	7.41
	4	7	2.55	2.3	7.9	80	4.61
	6	7	3.12	2.3	8.6	105	3.08
	10	7	4.05	2.79	10.7	170	1.83
	16	7	4.7	2.79	11.6	225	1.15
	25	7	5.9	2.79	13.1	320	0.727
	35	7	6.9	2.79	14.3	430	0.524
	50	19	8.1	2.79	15.7	560	0.387
	70	19	9.8	3.18	18.5	800	0.268
	95	19	11.4	3.18	20.6	1070	0.193
	120	19	12.9	3.18	22.3	1320	0.153
	150	19	14.4	3.94	24.1	1670	0.124
	185	37	15.9	3.94	27.6	2050	0.0991
	240	37	18.3	3.94	30.4	2650	0.0754
ASTM	10	7	2.93	2.79	9.3	107	3.41
	8	7	3.69	2.79	10.1	148	2.14
	6	7	4.68	2.79	11.0	200	1.35
	4	7	5.88	2.79	12.2	290	0.848
	2	7	7.41	2.79	13.8	410	0.534
	1	19	8.45	2.79	15.2	546	0.423
	1/0	19	9.45	2.79	16.0	645	0.335
	2/0	19	10.65	3.18	18.1	780	0.266
4/0	19	13.4	3.18	21.0	1190	0.167	

CU/PVDF/HMWPE (IEC & ASTM)

SCOPE

This specification covers 0.6/1kV copper conductor, HMWPE insulated cables.

Application included ; a cable between a DC power source and a protected structure or a negative/an anode cable junction box, or between two negative/positive cable junction boxes, or between an anode junction box and a positive cable junction box.

APPLICATION STANDARDS

IEC Standard IEC 60228

ASTM Standard ASTM B 3, ASTM B 8 and ASTM D 1248

CONDUCTOR

The conductor shall consist of plain annealed copper wires, and shall be class 2 in accordance with IEC 60228 or ASTM B 3 and ASTM B 8.

INSULATION

The insulation shall be extruded with a natural color of PVDF (Polyvinylidene Fluoride).

OVERSHEATH

The oversheath shall be extruded with a black HMWPE (High Molecular Weight Polyethylene) comply with Type 1 or 3, Class C, Category 4 or 5, Grades E-4 or E-5, J-1 or J-3 of ASTM D 1248.

OPTION

Material of conductor : Tin-coated copper round wires

Material of insulation : KYNAR PVDF (Polyvinylidene Fluoride)

Applicable Standard	Conductor			Insulation Thickness (nom.)	Oversheath Thickness (nom.)	Overall Diameter (approx.)	Net Weight (approx.)	Conductor Resistance at 20 °C (max.)
	Size	No of wire	Outer Dia. (approx.)					
	mm ² /AWG	Nos.	mm	mm	mm	mm	kg/km	Ω/km
IEC	1.5	7	1.59	0.51	1.65	6.7	50	12.1
	2.5	7	2.01	0.51	1.65	7.2	63	7.41
	4	7	2.55	0.51	1.65	7.7	84	4.61
	6	7	3.12	0.51	1.65	8.4	109	3.08
	10	7	4.05	0.51	1.65	9.3	153	1.83
	16	7	4.7	0.51	1.65	10.5	215	1.15
	25	7	5.9	0.51	1.65	11.9	310	0.727
	35	7	6.9	0.51	1.65	13.1	420	0.524
	50	19	8.1	0.51	1.65	14.5	550	0.387
	70	19	9.8	0.76	1.65	17	790	0.268
	95	19	11.4	0.76	1.65	19.1	1060	0.193
ASTM	10	7	2.93	0.51	1.65	8.2	96	3.41
	8	7	3.69	0.51	1.65	9.1	133	2.14
	6	7	4.68	0.51	1.65	10.1	200	1.35
	4	7	5.88	0.51	1.65	11.4	290	0.848
	2	7	7.41	0.51	1.65	13.0	435	0.534
	1	19	8.45	0.51	1.65	14.3	513	0.423
	1/0	19	9.45	0.51	1.65	15.1	660	0.335
	2/0	19	10.65	0.51	1.65	17.0	830	0.266

CU/HMWPE/PVC/DSWA/HMWPE (IEC & ASTM)

SCOPE

This specification covers 0.6/1kV copper conductor, HMWPE insulated and armoring cables.

Application included ; a cable between a DC power source and a protected structure or a negative/an anode cable junction box, or between two negative/positive cable junction boxes, or between an anode junction box and a positive cable junction box, or offshore anode.

APPLICATION STANDARDS

IEC Standard IEC 60228

ASTM Standard ASTM B 3, ASTM B 8 and ASTM D 1248

CONDUCTOR

The conductor shall consist of plain annealed copper wires, and shall be class 2 in accordance with IEC 60228 or ASTM B 3 and ASTM B 8..

INSULATION

The insulation shall be extruded with black HMWPE (High Molecular Weight Polyethylene) comply with Type 1 or 3, Class C, Category 4 or 5, Grades E-4 or E-5, J1 to J3 of ASTM D 1248.

BEDDING

The insulation shall be extruded with black HMWPE (High Molecular Weight Polyethylene) comply with Type 1 or 3, Class C, Category 4 or 5, Grades E-4 or E-5 of ASTM D 1248.

ARMOR

The armor shall have two layers of armor wires spirally wound over the PVC bedding to provide completed coverage. The first layer shall be a right hand lay and the second layer shall be a left hand lay, and the binder tape over the each armoring wire may be applied by manufacturer's option.

OUTER JACKET

The outer jacket shall be extruded with a black HMWPE (High Molecular Weight Polyethylene) comply with Type 1 or 3, Class C, Category 4 or 5, Grades E-4 or E-5, J1 to J3 of ASTM D 1248. option.

Conductor			Thick. of insulation (nom.)	Thick. of bedding (nom.)	Dia. of wire for armor	Thick. of outer jacket (nom.)	Completed cable diameter (approx.)	Max. DC conductor resistance at 20°C	A.C. Test Voltage	Net weight of cable (approx.)
Nominal Cross Sectional Area	No. of wire	Overall Diameter (approx.)								
mm ² /AWG	No.	mm	mm	mm	mm	mm	mm	Ω/km	kV/5min.	kg/km
50 (1/0AWG)	19	8.1	2.79	1.2	1.2	1.65	28	0.387	3.5	1750
		(9.45)					29	0.335		1935
70 (2/0AWG)	19	9.8	3.18	1.2	1.2	1.65	31	0.268	3.5	2195
		(10.64)					32	0.266		2220