

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.

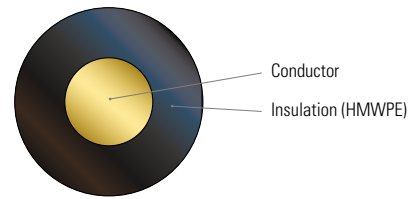
INSULATION

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	