

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).

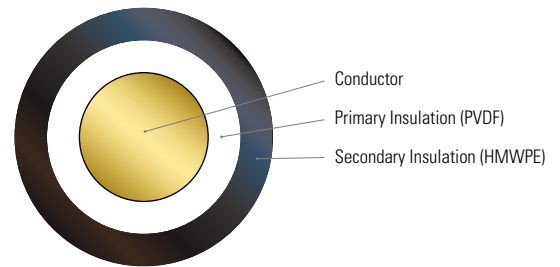
OVERSHEATH

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