

Type P Power Control Cable Overall Copper shield (0.6/1kV) Fire Resistant Multi Conductor (14, 16, 18, 20 AWG)



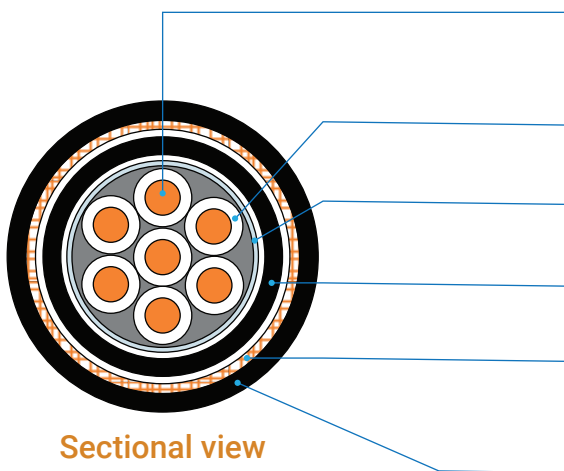
CABLE DESIGNATION

0.6/1kV FS-C(OBS)PN, FS-C(OBS)PNB, FS-C(OBS)PNBS

APPLICATION STANDARD

Design guide	IEEE 1580(2010) , UL 1309(2017)
Insulation material	IEEE 1580, Type P UL 1309, X110
Sheath material	IEEE 1580, Type N
Flame retardant	IEEE 1202 & IEC 60332-3 Category A
Fire resistance	IEC 60331-2I(90min), IEC 60331-1,-2(120min), FS-type only
Cold bend / impact	CSA C22.2 NO. 2556(-40°C/-40°C) (Formerly CSA C22.2 NO.0.3)

CONSTRUCTION



Sectional view

Conductor

- Flexible stranded tinned annealed copper wires as per IEEE 1580
- A suitable separator tape(s) may be applied over the conductor

Insulation

XLPO (Type P) as per IEEE 1580 & XLPO (X110) as per UL 1309

Overall shield

Tinned copper wire braid

Jacket

Thermosetting Neoprene (Type N) as per IEEE 1580 & UL 1309

Armor

- Braid of commercial bronze wires
- A suitable separator tape(s) may be applied under / over the armor

Sheath

- Thermosetting Neoprene (Type N) as per IEEE 1580 & UL 1309
- Outer sheath color : Black

Fire resisting layer(optional)

Mica/glass tape (FS Type cable only)

Cabling

- Insulated conductors shall be cabled
- Flame retardant & non-hygroscopic fillers may be used
- Suitable tape(s) may be applied on the cabled core
- A Filler may be applied to obtain a circular Cable

Core identification

Colored insulation or
Arabic number printing on the insulation

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No. of Cores	Conductor	Thickness of Insulation	Thickness of Jacket	Thickness of Sheath	Unarmor		Armor		Armor and Sheath	
	Nominal Area				Nom.Dia. Approx.	Weight Approx.	Nom.Dia. Approx.	Weight Approx.	Nom.Dia. Approx.	Weight Approx.
No.	AWG or kcmil	mm/inch	mm/inch	mm/inch	mm/inch	kg/km	mm/inch	kg/km	mm/inch	kg/km
4	20	0.76/0.030	1.14 / 0.045	1.52 / 0.060	10.9 / 0.429	190	12.7 / 0.500	310	16.1 / 0.634	430
3	18	0.76/0.030	1.14 / 0.045	1.52 / 0.060	11.0 / 0.433	200	12.8 / 0.504	320	16.2 / 0.638	430
4			1.14 / 0.045	1.52 / 0.060	11.9 / 0.469	240	13.7 / 0.539	360	17.1 / 0.673	480
7			1.52 / 0.060	1.52 / 0.060	14.6 / 0.575	350	16.4 / 0.646	500	19.6 / 0.772	640
12			1.52 / 0.060	2.03 / 0.080	18.7 / 0.736	560	20.5 / 0.807	750	24.8 / 0.976	980
20			2.03 / 0.080	2.03 / 0.080	23.4 / 0.921	850	25.2 / 0.992	1,090	29.5 / 1.161	1,370
15	16	0.76/0.030	1.52 / 0.060	2.03 / 0.080	20.8 / 0.819	720	22.6 / 0.890	930	26.9 / 1.059	1,190
2	14	0.76/0.030	1.14 / 0.045	1.52 / 0.060	11.5 / 0.453	230	13.3 / 0.524	350	16.5 / 0.650	460
3			1.14 / 0.045	1.52 / 0.060	12.1 / 0.476	260	13.9 / 0.547	390	17.1 / 0.673	510
5			1.52 / 0.060	1.52 / 0.060	15.0 / 0.591	390	16.8 / 0.661	550	20.0 / 0.787	690
7			1.52 / 0.060	2.03 / 0.080	16.2 / 0.638	470	18.0 / 0.709	640	22.3 / 0.878	840
14			2.03 / 0.080	2.03 / 0.080	23.0 / 0.906	910	24.8 / 0.976	1,140	29.1 / 1.146	1,420
19			2.03 / 0.080	2.03 / 0.080	25.7 / 1.012	1,130	27.5 / 1.083	1,390	31.8 / 1.252	1,700
30			2.03 / 0.080	2.03 / 0.080	31.4 / 1.236	1,690	33.2 / 1.307	2,010	37.5 / 1.476	2,370
44			2.03 / 0.080	2.79 / 0.110	37.8 / 1.488	2,430	39.6 / 1.559	2,810	45.4 / 1.787	3,390
60			2.03 / 0.080	2.79 / 0.110	41.9 / 1.650	3,050	43.7 / 1.720	3,470	49.5 / 1.949	4,110
91			2.79 / 0.110	2.79 / 0.110	51.4 / 2.024	4,560	53.2 / 2.094	5,070	59.0 / 2.323	5,840

Note. For outer diameter, it is applied to ±5% manufacturing tolerance.