

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



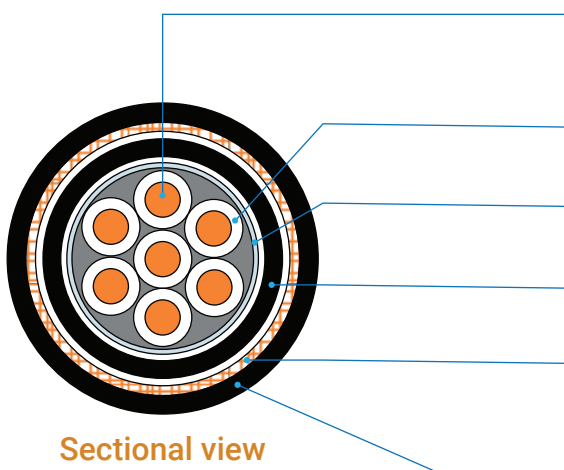
CABLE DESIGNATION

0.6/1kV C(OBS)PN, C(OBS)PNB, 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

Type P Power Control Cable Overall shield AL/PS tape (0.6/1kV) Flame Retardant Multi Conductor (10, 12, 14, 16, 18, 20 AWG)

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

No. of Cores	Conductor Nominal Area	Thickness of Insulation	Thickness of Jacket	Thickness of Sheath	Unarmor		Armor		Armor and Sheath	
					Nom.Dia. Approx.	Weight Approx.	Nom.Dia. Approx.	Weight Approx.	Nom.Dia. Approx.	Weight Approx.
No.	AWG	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	9.7 / 0.382	150	11.5 / 0.453	260	14.9 / 0.587	360
3	18	0.76/0.030	1.14 / 0.045	1.52 / 0.060	9.8 / 0.386	160	11.6 / 0.457	260	15.0 / 0.591	370
4			1.14 / 0.045	1.52 / 0.060	10.6 / 0.417	180	12.4 / 0.488	300	15.8 / 0.622	410
7			1.14 / 0.045	1.52 / 0.060	12.4 / 0.488	260	14.2 / 0.559	390	17.4 / 0.685	510
12			1.52 / 0.060	2.03 / 0.080	16.5 / 0.650	420	18.3 / 0.720	590	22.6 / 0.890	800
20			1.52 / 0.060	2.03 / 0.080	19.6 / 0.772	610	21.4 / 0.843	810	25.7 / 1.012	1,050
15	16	0.76/0.030	1.52 / 0.060	2.03 / 0.080	18.5 / 0.728	570	20.3 / 0.799	760	24.6 / 0.969	980
2	14	0.76/0.030	1.14 / 0.045	1.52 / 0.060	10.4 / 0.409	180	12.2 / 0.480	290	15.4 / 0.606	390
3			1.14 / 0.045	1.52 / 0.060	11.0 / 0.433	210	12.8 / 0.504	330	16.0 / 0.630	440
5			1.14 / 0.045	1.52 / 0.060	12.9 / 0.508	300	14.7 / 0.579	430	17.9 / 0.705	560
7			1.52 / 0.060	1.52 / 0.060	14.7 / 0.579	390	16.5 / 0.650	540	19.7 / 0.776	680
14			1.52 / 0.060	2.03 / 0.080	19.6 / 0.772	680	21.4 / 0.843	880	25.7 / 1.012	1,120
19			2.03 / 0.080	2.03 / 0.080	22.8 / 0.898	920	24.6 / 0.969	1,150	28.9 / 1.138	1,420
30			2.03 / 0.080	2.03 / 0.080	28.1 / 1.106	1,350	29.9 / 1.177	1,640	34.2 / 1.346	1,960
44			2.03 / 0.080	2.03 / 0.080	33.7 / 1.327	1,900	35.5 / 1.398	2,240	39.8 / 1.567	2,620
60			2.03 / 0.080	2.79 / 0.110	37.2 / 1.465	2,420	39.0 / 1.535	2,800	44.8 / 1.764	3,370
91			2.79 / 0.110	2.79 / 0.110	45.7 / 1.799	3,640	47.5 / 1.870	4,090	53.3 / 2.098	4,790

Note. For outer diameter, it is applied to $\pm 5\%$ manufacturing tolerance.