

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



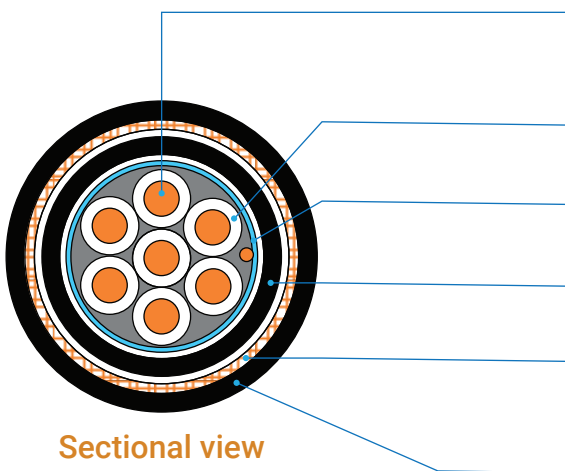
CABLE DESIGNATION

0.6/1kV C(OS)PN, C(OS)PNB, C(OS)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 60331-21(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

Polyester/aluminum tape (AL/PS tape) + Tinned copper drain wire

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 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
3	20	0.76/0.030	1.14 / 0.045	1.14 / 0.045	8.6 / 0.339	100	10.4 / 0.409	190	13.1 / 0.516	260
4			1.14 / 0.045	1.52 / 0.060	9.3 / 0.366	110	11.1 / 0.437	210	14.5 / 0.571	320
5			1.14 / 0.045	1.52 / 0.060	10.0 / 0.394	130	11.8 / 0.465	240	15.2 / 0.598	350
6			1.14 / 0.045	1.52 / 0.060	10.9 / 0.429	150	12.7 / 0.500	270	15.9 / 0.626	380
3	18	0.76/0.030	1.14 / 0.045	1.52 / 0.060	9.1 / 0.358	110	10.9 / 0.429	210	14.1 / 0.555	310
4			1.14 / 0.045	1.52 / 0.060	9.9 / 0.390	140	11.7 / 0.461	240	14.9 / 0.587	340
6			1.14 / 0.045	1.52 / 0.060	11.7 / 0.461	190	13.5 / 0.531	310	16.7 / 0.657	430
25			2.03 / 0.080	2.03 / 0.080	22.4 / 0.882	690	24.2 / 0.953	920	28.5 / 1.122	1,190
3	16	0.76/0.030	1.14 / 0.045	1.52 / 0.060	9.5 / 0.374	130	11.3 / 0.445	230	14.5 / 0.571	330
4			1.14 / 0.045	1.52 / 0.060	10.3 / 0.406	160	12.1 / 0.476	270	15.3 / 0.602	370
5			1.14 / 0.045	1.52 / 0.060	11.2 / 0.441	180	13.0 / 0.512	300	16.2 / 0.638	410
12			1.52 / 0.060	2.03 / 0.080	16.5 / 0.650	400	18.3 / 0.720	570	22.6 / 0.890	780
3	14	0.76/0.030	1.14 / 0.045	1.52 / 0.060	10.3 / 0.406	160	12.1 / 0.476	270	15.3 / 0.602	370
7			1.14 / 0.045	1.52 / 0.060	13.3 / 0.524	300	15.1 / 0.594	440	18.3 / 0.720	570
4	12	0.76/0.030	1.14 / 0.045	1.52 / 0.060	12.3 / 0.484	260	14.1 / 0.555	390	17.3 / 0.681	510
3	10	0.76/0.030	1.14 / 0.045	1.52 / 0.060	12.9 / 0.508	290	14.7 / 0.579	420	17.9 / 0.705	550

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