

**Type P Power Cable For Distribution (0.6/1 kV, 2kV)
Flame Retardant Single Conductor**



CABLE DESIGNATION

2kV SP(HD), SPB(HD), SPBS(HD)

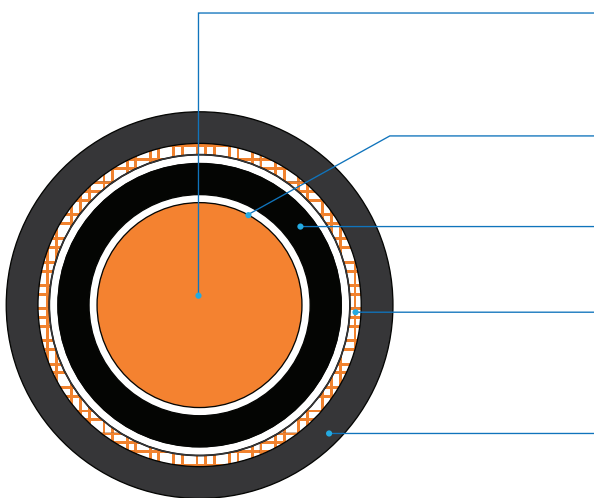
2kV SP, SPB, SPBS

0.6/1kV SP, SPB, SPBS

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

Core identification

- Black

Conductor

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

Fire resisting layer(optional)

Mica/glass tape (FS Type cable only)

Insulation

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

Type P Power Cable For Distribution (0.6/1 kV, 2kV) Flame Retardant Single Conductor

2kV SP(HD) / 2kV SPB(HD), 2kV SPBS(HD)

No. of Cores	Conductor	Thickness of Insulation	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	kg/km	mm/inch	kg/km	mm/inch	kg/km
1	4/0	2.67 / 0.105	2.03 / 0.080	20.9 / 0.823	1,210	22.7 / 0.894	1,420	27.0 / 1.063	1,680
	262	2.67 / 0.105	2.03 / 0.080	22.4 / 0.882	1,440	24.2 / 0.953	1,670	28.5 / 1.122	1,940
	313	2.67 / 0.105	2.03 / 0.080	24.1 / 0.949	1,710	25.9 / 1.020	1,950	30.2 / 1.189	2,240
	373	2.67 / 0.105	2.03 / 0.080	25.8 / 1.016	2,010	27.6 / 1.087	2,270	31.9 / 1.256	2,570
	444	2.67 / 0.105	2.03 / 0.080	27.7 / 1.091	2,380	29.5 / 1.161	2,660	33.8 / 1.331	2,980
	535	3.05 / 0.120	2.03 / 0.080	30.6 / 1.205	2,870	32.4 / 1.276	3,180	36.7 / 1.445	3,530
	646	3.05 / 0.120	2.03 / 0.080	32.8 / 1.291	3,390	34.6 / 1.362	3,720	38.9 / 1.531	4,090
	777	3.05 / 0.120	2.03 / 0.080	35.0 / 1.378	4,050	36.8 / 1.449	4,400	41.1 / 1.618	4,800
	1111	3.05 / 0.120	2.79 / 0.110	40.2 / 1.583	5,670	42.0 / 1.654	6,070	47.8 / 1.882	6,690

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

2kV SP/ 2kV SPB, 2kV SPBS

No. of Cores	Conductor	Thickness of Insulation	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	kg/km	mm/inch	kg/km	mm/inch	kg/km
1	18	1.14 / 0.045	1.14 / 0.045	3.8 / 0.150	20	5.6 / 0.220	70	8.3 / 0.327	110
	16	1.14 / 0.045	1.14 / 0.045	3.9 / 0.154	30	5.7 / 0.224	70	8.4 / 0.331	120
	14	1.14 / 0.045	1.14 / 0.045	4.3 / 0.169	30	6.1 / 0.240	90	8.8 / 0.346	130
	12	1.14 / 0.045	1.14 / 0.045	4.8 / 0.189	50	6.6 / 0.260	100	9.3 / 0.366	150
	10	1.14 / 0.045	1.14 / 0.045	5.5 / 0.217	70	7.3 / 0.287	130	10.0 / 0.394	190
	8	1.40 / 0.055	1.14 / 0.045	6.6 / 0.260	100	8.4 / 0.331	170	11.1 / 0.437	240
	6	1.40 / 0.055	1.14 / 0.045	7.6 / 0.299	150	9.4 / 0.370	240	12.1 / 0.476	300
	5	1.40 / 0.055	1.52 / 0.060	9.5 / 0.374	220	11.3 / 0.445	320	14.7 / 0.579	430
	4	1.40 / 0.055	1.52 / 0.060	10.0 / 0.394	250	11.8 / 0.465	360	15.2 / 0.598	470
	3	1.40 / 0.055	1.52 / 0.060	10.6 / 0.417	290	12.4 / 0.488	400	15.8 / 0.622	520
	2	1.40 / 0.055	1.52 / 0.060	11.2 / 0.441	340	13.0 / 0.512	460	16.4 / 0.646	580
	1	1.65 / 0.065	1.52 / 0.060	13.2 / 0.520	480	15.0 / 0.591	620	18.4 / 0.724	750
	1/0	1.65 / 0.065	1.52 / 0.060	14.4 / 0.567	590	16.2 / 0.638	740	19.6 / 0.772	890
	2/0	1.65 / 0.065	1.52 / 0.060	15.6 / 0.614	750	17.4 / 0.685	910	20.8 / 0.819	1,060
	3/0	1.65 / 0.065	2.03 / 0.080	17.2 / 0.677	900	19.0 / 0.748	1,080	23.5 / 0.925	1,310
	4/0	1.65 / 0.065	2.03 / 0.080	18.9 / 0.744	1,130	20.7 / 0.815	1,320	25.2 / 0.992	1,570
	262	1.90 / 0.075	2.03 / 0.080	20.9 / 0.823	1,380	22.7 / 0.894	1,590	27.2 / 1.071	1,860
	313	1.90 / 0.075	2.03 / 0.080	22.6 / 0.890	1,640	24.4 / 0.961	1,870	28.9 / 1.138	2,150
	373	1.90 / 0.075	2.03 / 0.080	24.3 / 0.957	1,930	26.1 / 1.028	2,180	30.6 / 1.205	2,480
	444	1.90 / 0.075	2.03 / 0.080	26.2 / 1.031	2,300	28.0 / 1.102	2,560	32.5 / 1.280	2,880
	535	2.29 / 0.090	2.03 / 0.080	29.1 / 1.146	2,780	30.9 / 1.217	3,070	35.4 / 1.394	3,430
	646	2.29 / 0.090	2.03 / 0.080	31.3 / 1.232	3,290	33.1 / 1.303	3,610	37.6 / 1.480	3,980
	777	2.29 / 0.090	2.03 / 0.080	33.5 / 1.319	3,940	35.3 / 1.390	4,280	39.8 / 1.567	4,680
	1111	2.79 / 0.110	2.79 / 0.110	39.7 / 1.563	5,630	41.5 / 1.634	6,030	47.5 / 1.870	6,660

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

Type P Power Cable For Distribution (0.6/1 kV, 2kV) Flame Retardant Single Conductor

0.6/1kV SP, / 0.6/1kV SPB, 0.6/1kV SPBS

No. of Cores	Conductor	Thickness of Insulation	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	kg/km	mm/inch	kg/km	mm/inch	kg/km
1	18	0.76 / 0.030	1.14 / 0.045	3.0 / 0.118	20	4.8 / 0.189	50	7.5 / 0.295	90
	16	0.76 / 0.030	1.14 / 0.045	3.2 / 0.124	20	5.0 / 0.197	60	7.7 / 0.303	100
	14	0.76 / 0.030	1.14 / 0.045	3.5 / 0.139	30	5.3 / 0.209	70	8.0 / 0.315	110
	12	0.76 / 0.030	1.14 / 0.045	4.0 / 0.157	40	5.8 / 0.228	90	8.5 / 0.335	130
	10	0.76 / 0.030	1.14 / 0.045	4.7 / 0.186	60	6.5 / 0.256	120	9.2 / 0.362	170
	8	1.14 / 0.045	1.14 / 0.045	6.1 / 0.238	90	7.9 / 0.311	160	10.6 / 0.417	220
	6	1.14 / 0.045	1.14 / 0.045	7.1 / 0.279	140	8.9 / 0.350	220	11.6 / 0.457	290
	5	1.14 / 0.045	1.52 / 0.060	9.0 / 0.354	210	10.8 / 0.425	310	14.2 / 0.559	410
	4	1.14 / 0.045	1.52 / 0.060	9.5 / 0.373	240	11.3 / 0.445	340	14.7 / 0.579	450
	3	1.14 / 0.045	1.52 / 0.060	10.1 / 0.397	280	11.9 / 0.469	390	15.3 / 0.602	500
	2	1.14 / 0.045	1.52 / 0.060	10.7 / 0.420	330	12.5 / 0.492	440	15.9 / 0.626	560
	1	1.40 / 0.055	1.52 / 0.060	12.7 / 0.500	460	14.5 / 0.571	600	17.9 / 0.705	730
	1/0	1.40 / 0.055	1.52 / 0.060	13.9 / 0.547	580	15.7 / 0.618	720	19.1 / 0.752	860
	2/0	1.40 / 0.055	1.52 / 0.060	15.1 / 0.594	730	16.9 / 0.665	890	20.3 / 0.799	1,040
	3/0	1.40 / 0.055	2.03 / 0.080	16.7 / 0.656	880	18.5 / 0.728	1,060	23.0 / 0.906	1,280
	4/0	1.40 / 0.055	2.03 / 0.080	18.4 / 0.723	1,110	20.2 / 0.795	1,300	24.7 / 0.972	1,540
	262	1.65 / 0.065	2.03 / 0.080	20.4 / 0.803	1,350	22.2 / 0.874	1,560	26.7 / 1.051	1,820
	313	1.65 / 0.065	2.03 / 0.080	22.1 / 0.870	1,610	23.9 / 0.941	1,840	28.4 / 1.118	2,120
	373	1.65 / 0.065	2.03 / 0.080	23.8 / 0.937	1,910	25.6 / 1.008	2,150	30.1 / 1.185	2,450
	444	1.65 / 0.065	2.03 / 0.080	25.7 / 1.012	2,270	27.5 / 1.083	2,530	32.0 / 1.260	2,850
	535	2.03 / 0.080	2.03 / 0.080	28.6 / 1.124	2,750	30.4 / 1.197	3,040	34.9 / 1.374	3,390
	646	2.03 / 0.080	2.03 / 0.080	30.8 / 1.211	3,260	32.6 / 1.283	3,570	37.1 / 1.461	3,940
	777	2.03 / 0.080	2.03 / 0.080	33.0 / 1.298	3,910	34.8 / 1.370	4,240	39.3 / 1.547	4,630
	1111	2.79 / 0.110	2.79 / 0.110	39.7 / 1.562	5,620	41.5 / 1.634	6,020	47.5 / 1.870	6,660

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