

# ARTICLE 400: FLEXIBLE CORDS AND CABLES

## NEC TABLE 400.5(A)(2)

**Table 400.5(A)(2)** Ampacity of Cable Types SC, SCE, SCT, PPE, G, G-GC and W. Based on Ambient Temperature of 30°C (86°F) [See Table 400.4]

Copper Conductor Size (AWG or kcmil)	Temperature Rating of Cable								
	60°C (140°F)			75°C (167°F)			90°C (194°F)		
	D <sup>1</sup>	E <sup>2</sup>	F <sup>3</sup>	D <sup>1</sup>	E <sup>2</sup>	F <sup>3</sup>	D <sup>1</sup>	E <sup>2</sup>	F <sup>3</sup>
12	–	31	26	–	37	31	–	42	35
10	–	44	37	–	52	43	–	59	49
8	60	55	48	70	65	57	80	74	65
6	80	72	63	95	88	77	105	99	87
4	105	96	84	125	115	101	140	130	114
3	120	113	99	145	135	118	165	152	133
2	140	128	112	170	152	133	190	174	152
1	165	150	131	195	178	156	220	202	177
1/0	195	173	151	230	207	181	260	234	205
2/0	225	199	174	265	238	208	300	271	237
3/0	260	230	201	310	275	241	350	313	274
4/0	300	265	232	360	317	277	405	361	316
250	340	296	259	405	354	310	455	402	352
300	375	330	289	445	395	346	505	449	393
350	420	363	318	505	435	381	570	495	433
400	455	392	343	545	469	410	645	535	468
500	515	448	392	620	537	470	700	613	536
600	575	–	–	690	–	–	780	–	–
700	630	–	–	755	–	–	855	–	–
750	655	–	–	785	–	–	885	–	–
800	680	–	–	815	–	–	920	–	–
900	730	–	–	870	–	–	985	–	–
1000	780	–	–	935	–	–	1055	–	–

- <sup>1</sup> **The ampacities under subheading D** shall be permitted for single-conductor Types SC, SCE, SCT, PPE and W cable only where the individual conductors are not installed in raceways and are not in physical contact with each other except in lengths not to exceed 600 mm (24 in.) where passing through the wall of an enclosure.
- <sup>2</sup> **The ampacities under subheading E** apply to two-conductor cables and other multiconductor cables connected to utilization equipment so that only two conductors are current carrying.
- <sup>3</sup> **The ampacities under subheading F** apply to three-conductor cables and other multiconductor cables connected to utilization equipment so that only three conductors are current carrying.

# ARTICLE 400: FLEXIBLE CORDS AND CABLES

## NEC TABLES 400.5(A)(1) AND 400.5(A)(3)

**Table 400.5(A)(1)** Allowable Ampacity for Flexible Cords and Cables Based on Ambient Temperature of 30°C (86°F)  
 [See 400.13 and Table 400.4]

Conductor Size (AWG or kcmil)	Thermoplastic Types TPT, TST	Thermoset Types C, E, EO, PD, S, SJ, SJO, SJOW, SJOO, SJOOW, SO, SOW, SOO, SOOW, SP-1, SP-2, SP-3, SRD, SV, SVO, SVOO		Types HPD, HPN, HSJ, HSJO, HSJOO
		Thermoplastic Types ET, ETLB, TEP, ETT, SE, SEW, SEO, SEOW, SEOOW, SJE, SJEW, SJEO, SJEOW, SJEOWW, SJT, SJTW, SJTO, SJTOW, SJTOO, SJTOOW, SPE-1, SPE-2, SPE-3, SPT-1, SPT-1W, SPT-2, STP-2W, SPT-3, ST, SRDE, SRDT, STO, STOW, STOO, STOOW, SVE, SVEO, SVT, SVTO, SVTOO		
		A <sup>+</sup>	B <sup>+</sup>	
27*	0.5	—	—	—
20	—	5**	***	—
18	—	7	10	10
17	—	—	12	13
16	—	10	13	15
15	—	—	—	17
14	—	15	18	20
12	—	20	25	30
10	—	25	30	35
8	—	35	40	—
6	—	45	55	—
4	—	60	70	—
2	—	80	95	—

**Table 400.5(A)(3)** Adjustment Factors for More Than Three  
 Current-Carrying Conductors in a Flexible Cord or Cable

Number of Current-Carrying Conductors	Percent of Values in Tables 400.5(A)(1) through 310.19(A)(2)
4-6	80
7-9	70
10-20	50
21-30	45
31-40	40
41 and above	35

\* *Tinsel cord.*

\*\* *Elevator cables only.*

\*\*\* *7 amperes for elevator cables only; 2 amperes for other types.*

+ The allowable currents under subheading A apply to 3-conductor cords and other multiconductor cords connected to utilization equipment so that only 3 conductors are current-carrying. The allowable currents under subheading B apply to 2-conductor cords and other multiconductor cords connected to utilization equipment so that only 2 conductors are current carrying.