

Multi-Conductor CU 600 V PE/PVC Insulation PVC Jacket Control Cable Color Method 1 Table 1

Control Cable 600 Volt Copper Conductors, Polyethylene and Polyvinyl Chloride (PE/PVC) Insulation Polyvinyl Chloride (PVC) Jacket, Control Cable Conductor Identification Method 1 Table 1. Silicone Free



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** 7 strands class B compressed bare copper per ASTM B3 and ASTM B8
2. **Insulation:** Polyethylene (PE) 20 Mils thick and Polyvinyl Chloride (PVC) 10 Mils thick for all cable sizes
3. **Filler:** Polypropylene filler on cables with 5 or less conductors
4. **Binder:** Polyester flat thread binder tape applied for cables with more than 5 conductors
5. **Rip Chord:** Rip chord for ease of jacket removal
6. **Overall Jacket:** Polyvinyl Chloride (PVC) Jacket

APPLICATIONS AND FEATURES:

Southwire's 600 Volt control cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial, aerial supported by a messenger, and where superior electrical properties are desired. These cables are capable of operating continuously at the conductor temperature not in excess of 90°C for normal operation in wet and dry locations, 130°C for emergency overload, and 250°C for short circuit conditions.

SPECIFICATIONS:

- ASTM B3 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- CSA *CSA marking is available upon request*
- ICEA S-58-679 Control Cable Conductor Identification Method 1 Table 1
- ICEA S-73-532 Standard for Control, Thermocouple Extension and Instrumentation Cables
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202 FT4 Vertical Tray Flame Test (70,000 Btu/hr) and ICEA T-29-520 - (210,000 Btu/hr)
- VW-1 (Vertical-Wire) Flame Test

SAMPLE PRINT LEGEND:

Non UL Listed

SOUTHWIRE XX AWG X/C PE/PVC CDRS 75C PVC JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600V {MM/DD/YYYY}
{SEQUENTIAL FOOTAGE MARKS} SEQ FEET



Table 1 – Physical and Electrical Data

Stock Number	Cond. Size	Cond. Number	Diameter Over Cond.	Insul. Thickness	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	DC Resistance	AC Resistance @ 90°C	Min Bending Radius	Allowable Ampacity At 60°C *	Allowable Ampacity 75°C *	Allowable Ampacity 90°C *
	AWG	No.	inch	mil	mil	inch	lb /1000ft	lb /1000ft	Ω /1000ft	Ω /1000ft	inch	Amp	Amp	Amp
18 AWG														
606790	18	12	0.070	30	45	0.511	154	90	6.54	8.34	2.1	6	6	6
14 AWG														
TBA	14	2	0.070	30	45	0.349	26	68	2.630	3.288	1.4	15	15	15
TBA	14	3	0.070	30	45	0.370	38	87	2.630	3.288	1.5	15	15	15
620646	14	4	0.070	30	45	0.403	51	109	2.630	3.288	1.6	14	15	15
TBA	14	5	0.070	30	45	0.440	64	132	2.630	3.288	1.8	14	15	15
TBA	14	6	0.070	30	45	0.479	77	155	2.630	3.288	1.9	14	15	15
606776	14	7	0.070	30	45	0.479	90	171	2.630	3.288	1.9	12	15	15
TBA	14	8	0.070	30	45	0.519	102	195	2.630	3.288	2.1	12	15	15
TBA	14	9	0.070	30	60	0.588	115	236	2.630	3.288	2.4	12	15	15
TBA	14	10	0.070	30	60	0.638	128	266	2.630	3.288	2.6	9	11	12
606777	14	12	0.070	30	60	0.659	154	303	2.630	3.288	2.6	9	11	12
TBA	14	15	0.070	30	60	0.730	192	371	2.630	3.288	2.9	9	11	12
TBA	14	19	0.070	30	60	0.768	243	446	2.630	3.288	3.1	9	11	12
TBA	14	20	0.070	30	60	0.808	256	475	2.630	3.288	3.2	9	11	12
TBA	14	25	0.070	30	80	0.937	320	619	2.630	3.288	3.7	8	9	11
TBA	14	30	0.070	30	80	0.991	384	719	2.630	3.288	4.0	8	9	11
TBA	14	37	0.070	30	80	1.067	474	862	2.630	3.288	5.3	7	8	10
12 AWG														
618721	12	2	0.087	30	45	0.384	41	90	1.660	2.075	1.5	20	20	20
TBA	12	3	0.087	30	45	0.408	61	118	1.660	2.075	1.6	20	20	20
616856	12	4	0.087	30	45	0.445	81	148	1.660	2.075	1.8	16	20	20
617416	12	5	0.087	30	60	0.537	102	188	1.660	2.075	2.0	16	20	20
619173	12	6	0.087	30	45	0.532	122	214	1.660	2.075	2.1	16	20	20
617421	12	7	0.087	30	60	0.582	143	247	1.660	2.075	2.3	14	17	20
577810#	12	7	0.087	45	60	0.668	143	272	1.660	2.075	2.7	14	17	20
TBA	12	8	0.087	30	60	0.607	163	288	1.660	2.075	2.4	14	17	20
619382	12	9	0.087	30	60	0.651	183	324	1.660	2.075	2.6	14	17	20
TBA	12	10	0.087	30	60	0.709	204	365	1.660	2.075	2.8	10	12	15
619993^	12	12	0.087	30	60	0.752	244	396	1.660	2.075	2.9	10	12	15
617420	12	12	0.087	30	60	0.759	244	396	1.660	2.075	2.9	10	12	15
TBA	12	15	0.087	30	60	0.813	305	516	1.660	2.075	3.3	10	12	15
TBA	12	19	0.087	30	80	0.896	387	657	1.660	2.075	3.6	10	12	15
TBA	12	20	0.087	30	80	0.942	407	699	1.660	2.075	3.8	10	12	15
TBA	12	25	0.087	30	80	1.043	509	860	1.660	2.075	5.2	9	11	13
TBA	12	30	0.087	30	80	1.104	611	1005	1.660	2.075	5.5	9	11	13
TBA	12	37	0.087	30	80	1.191	753	1211	1.660	2.075	6.0	8	10	12
10 AWG														
618719	10	2	0.111	30	45	0.431	65	124	1.040	1.300	1.7	30	30	30



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	AWG	No.	inch	mil	mil	inch	lb /1000ft	lb /1000ft	Ω /1000ft	Ω /1000ft	inch	Amp	Amp	Amp
619117	10	3	0.111	30	45	0.459	97	165	1.040	1.300	1.8	30	30	30
618720	10	4	0.111	30	60	0.540	130	223	1.040	1.300	2.2	24	28	30
616733	10	4	0.111	30	60	0.552	130	225	1.040	1.300	2.2	24	28	30
TBA	10	5	0.111	30	60	0.581	162	273	1.040	1.300	2.3	24	28	30
TBA	10	6	0.111	30	60	0.632	194	323	1.040	1.300	2.5	24	28	30
618968	10	7	0.111	30	60	0.632	227	358	1.040	1.300	2.5	21	24	28
619179	10	8	0.111	30	60	0.685	259	410	1.040	1.300	2.7	21	24	28
606782	10	9	0.111	30	60	0.736	291	461	1.040	1.300	2.9	21	24	28
619181	10	10	0.111	30	60	0.803	324	519	1.040	1.300	3.2	15	17	20
618911	10	12	0.111	30	60	0.830	389	600	1.040	1.300	3.3	15	17	20
TBA	10	15	0.111	30	80	0.964	486	777	1.040	1.300	3.9	15	17	20
TBA	10	19	0.111	30	80	1.014	615	941	1.040	1.300	5.1	15	17	20
TBA	10	20	0.111	30	80	1.067	648	1001	1.040	1.300	5.3	15	17	20
TBA	10	25	0.111	30	80	1.184	810	1236	1.040	1.300	5.9	13	15	18
TBA	10	30	0.111	30	80	1.254	971	1450	1.040	1.300	6.3	13	15	18
TBA	10	37	0.111	30	80	1.355	1198	1755	1.040	1.300	6.8	12	14	16
617347 [^]	9	2	0.127	30	45	0.472	65	135	0.809	0.996	1.9	35	45	50
617349 [^]	9	4	0.127	30	60	0.579	65	247	0.809	0.996	2.3	28	36	40
617350 [^]	9	8	0.127	30	60	0.747	65	447	0.809	0.996	3.0	25	32	36

All dimensions are nominal and subject to normal manufacturing tolerances

∅ Cable marked with this symbol is a standard stock item

* Ampacities are based on Table 310.15 (B)(16) of the NEC, 2017 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts, based on ambient temperature of 30°C (86°F)

[^] 19 Strand Class C

1000 Volts

