Multi-Conductor CU 600 V FR-XLPE PVC Jacket Control Cable Color Method 1 Table 1

Control Cable 600 Volt Copper Conductors, Flame Retardant Cross Linked Polyethylene (FR-XLPE) 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:** Flame Retardant Cross Linked Polyethylene (FR-XLPE)
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 Cord:** Rip cord 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. UL rated constructions can be used in Class I, II, and III, Division 2 hazardous locations per NEC Article 501 and 502. UL rated constructions with 3 or more conductors are listed for exposed runs (TC-ER) per NEC 336.10.

SPECIFICATIONS:

- ASTM B3 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1277 Electrical Power and Control Tray Cables
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- CSA *CSA marking is available upon request*
- CSA C22.2 No.230 Tray Cables - Rated TC-ER
- 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:

UL Listed
SOUTHWIRE E75755 {UL} XX AWG X/C FR-XLPE (XHHW-2) CDRS 90{D}C PVC JKT 600V TYPE TC-ER SUN. RES. DIRECT BURIAL YEAR {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

CSA Listed
SOUTHWIRE #P 156205 CSA XX AWG X/C FR-XLPE CDRS 90C PVC JACKET, -40C, FT-4, SUN RES, DIR BUR, 600V {MM/DD/YYYY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

Non UL Listed
SOUTHWIRE XX AWG X/C FR-XLPE CDRS 90C 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 @ 25°C	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														
624177	18	2	0.046	25	45	0.287	10	39	6.54	8.34	1.2	15	15	15
620556	18	4	0.046	25	45	0.326	26	60	6.54	8.34	1.3	15	15	15
14 AWG														
TBA	14	2	0.070	30	45	0.349	26	68	2.630	3.288	1.4	15	15	15
618791^	14	3	0.070	30	45	0.378	38	92	2.630	3.288	1.5	15	15	15
TBA	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
619481	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
619483^	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
TBA	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														
619487^	12	2	0.087	30	45	0.392	41	87	1.660	2.075	1.5	20	20	20
619488^	12	3	0.087	30	45	0.408	61	118	1.660	2.075	1.6	20	20	20
619489^	12	4	0.087	30	45	0.445	81	148	1.660	2.075	1.8	16	20	20
TBA	12	5	0.087	30	45	0.487	102	181	1.660	2.075	1.9	16	20	20
TBA	12	6	0.087	30	45	0.532	122	214	1.660	2.075	2.1	16	20	20
619492	12	7	0.087	30	45	0.532	143	237	1.660	2.075	2.1	14	17	20
TBA	12	8	0.087	30	60	0.607	163	288	1.660	2.075	2.4	14	17	20
TBA	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
604283^	12	12	0.087	30	60	0.732	244	419	1.660	2.075	2.9	10	12	15
620307	12	12	0.087	30	60	0.732	244	419	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
620306	12	2	0.087	30	45	392.4	41	112	1.660	2.075	1.5	20	20	20
10 AWG														

Stock Number	Cond. Size	Cond. Number	Diameter Over Cond.	Insul. Thickness	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	DC Resistance @ 25°C	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
604018	10	2	0.111	30	45	0.436	65	120	1.040	1.300	1.7	30	35	40
604282	10	2	0.111	30	45	0.440	65	136	1.040	1.300	1.8	30	35	40
620764	10	3	0.111	30	45	0.467	97	169	1.040	1.300	1.9	30	30	30
672864^	10	3	0.111	30	45	0.467	97	202	1.040	1.300	1.8	30	30	30
619088^	10	4	0.111	30	45	0.502	130	210	1.040	1.300	2.0	24	28	30
604284^	10	4	0.111	30	45	0.511	130	213	1.040	1.353	2.0	24	28	32
619090^	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
628428^	10	7	0.111	30	60	0.632	227	358	1.040	1.300	2.5	21	24	28
661859	10	7	0.111	30	60	0.640	227	356	1.040	1.300	2.6	21	24	28
619498^	10	8	0.111	30	60	0.685	259	410	1.040	1.300	2.7	21	24	28
TBA	10	9	0.111	30	60	0.736	291	461	1.040	1.300	2.9	21	24	28
673084!	10	9	0.111	30	60	0.753	291	451	1.040	1.300	3.0	21	24	28
TBA	10	10	0.111	30	60	0.803	324	519	1.040	1.300	3.2	15	17	20
606676^	10	12	0.111	30	80	0.880	389	615	1.040	1.300	3.5	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

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)
^ UL Listed part number
! Three striped tracers