Control Cable 600 Volt Copper Conductors, Flame Retardant Cross Linked Polyethylene (FR-XLPE) Insulation Chlorinated Polyethylene (CPE) Jacket, Control Cable Conductor Identification Method 1 Table 1. Silicone Free

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), 30 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: Chlorinated Polyethylene (CPE) Jacket

APPLICATIONS AND FEATURES:

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 1277 Electrical Power and Control Tray Cables
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-58-679 Control Cable Conductor Identification Method 1 Table 2
- 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

Table 1 – Physical and Electrical Data

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
16 AWG													
16	2	0.057	25	45	0.308	16	47	4.180	5.266	1.2	-	-	-
16	4	0.057	25	45	0.355	32	77	4.180	5.266	1.4	-	-	-
16	7	0.057	25	45	0.425	56	121	4.180	5.266	1.7	-	-	-
14 AWG													

14	2	0.070	30	45	0.349	26	68	2.630	3.288	1.4	15	15	15
14	3	0.070	30	45	0.370	38	87	2.630	3.288	1.5	15	15	15
14	4	0.070	30	45	0.403	51	109	2.630	3.288	1.6	14	15	15
14	5	0.070	30	45	0.440	64	132	2.630	3.288	1.8	14	15	15
14	6	0.070	30	45	0.479	77	155	2.630	3.288	1.9	14	15	15
14	7	0.070	30	45	0.479	90	171	2.630	3.288	1.9	12	15	15
14	8	0.070	30	45	0.519	102	195	2.630	3.288	2.1	12	15	15
14	9	0.070	30	60	0.588	115	236	2.630	3.288	2.4	12	15	15
14	10	0.070	30	60	0.638	128	266	2.630	3.288	2.6	9	11	12
14	12	0.070	30	60	0.659	154	303	2.630	3.288	2.6	9	11	12
14	15	0.070	30	60	0.730	192	371	2.630	3.288	2.9	9	11	12
14	19	0.070	30	60	0.768	243	446	2.630	3.288	3.1	9	11	12
14	20	0.070	30	60	0.808	256	475	2.630	3.288	3.2	9	11	12
14	25	0.070	30	80	0.937	320	619	2.630	3.288	3.7	8	9	11
14	30	0.070	30	80	0.991	384	719	2.630	3.288	4.0	8	9	11
14	37	0.070	30	80	1.067	474	862	2.630	3.288	5.3	7	8	10
12 AWG													
12	2	0.087	30	45	0.384	41	90	1.660	2.075	1.5	20	20	20
12	2	0.087	30	45	0.398	41	103	1.660	2.075	1.6	20	20	20
12	3	0.087	30	45	0.408	61	118	1.660	2.075	1.6	20	20	20
12	4	0.087	30	45	0.445	81	148	1.660	2.075	1.8	16	20	20
12	4	0.087	30	45	0.461	81	155	1.660	2.075	1.8	16	20	20
12	5	0.087	30	45	0.487	102	181	1.660	2.075	1.9	16	20	20
12	6	0.087	30	45	0.532	122	214	1.660	2.075	2.1	16	20	20
12	7	0.087	30	45	0.532	143	237	1.660	2.075	2.1	14	17	20
12	8	0.087	30	60	0.607	163	288	1.660	2.075	2.4	14	17	20
12	9	0.087	30	60	0.651	183	324	1.660	2.075	2.6	14	17	20
12	10	0.087	30	60	0.709	204	365	1.660	2.075	2.8	10	12	15
12	12	0.087	30	60	0.732	244	419	1.660	2.075	2.9	10	12	15
12	15	0.087	30	60	0.813	305	516	1.660	2.075	3.3	10	12	15
12	19	0.087	30	80	0.896	387	657	1.660	2.075	3.6	10	12	15
12	20	0.087	30	80	0.942	407	699	1.660	2.075	3.8	10	12	15
12	25	0.087	30	80	1.043	509	860	1.660	2.075	5.2	9	11	13
12	30	0.087	30	80	1.104	611	1005	1.660	2.075	5.5	9	11	13
12	37	0.087	30	80	1.191	753	1211	1.660	2.075	6.0	8	10	12
10 AWG													
10	2	0.111	30	45	0.431	65	124	1.040	1.300	1.7	30	30	30
10	3	0.111	30	45	0.459	97	165	1.040	1.300	1.8	30	30	30
10	4	0.111	30	45	0.511	130	205	1.040	1.300	2.1	24	28	30
10	4	0.111	30	45	0.516	130	206	1.040	1.300	2.1	24	28	30
10	5	0.111	30	60	0.581	162	273	1.040	1.300	2.3	24	28	30
10	6	0.111	30	60	0.632	194	323	1.040	1.300	2.5	24	28	30
10	7	0.111	30	60	0.641	227	356	1.040	1.300	2.5	21	24	28
10	8	0.111	30	60	0.685	259	410	1.040	1.300	2.7	21	24	28

10	9	0.111	30	60	0.736	291	461	1.040	1.300	2.9	21	24	28
10	10	0.111	30	60	0.803	324	519	1.040	1.300	3.2	15	17	20
10	12	0.111	30	60	0.830	389	600	1.040	1.300	3.3	15	17	20
10	12	0.111	30	60	0.887	389	615	1.040	1.300	3.5	15	17	20
10	15	0.111	30	80	0.964	486	777	1.040	1.300	3.9	15	17	20
10	19	0.111	30	80	1.014	615	941	1.040	1.300	5.1	15	17	20
10	20	0.111	30	80	1.067	648	1001	1.040	1.300	5.3	15	17	20
10	25	0.111	30	80	1.184	810	1236	1.040	1.300	5.9	13	15	18
10	30	0.111	30	80	1.254	971	1450	1.040	1.300	6.3	13	15	18
10	37	0.111	30	80	1.355	1198	1755	1.040	1.300	6.8	12	14	16