

600 VOLT	600V, MULTI-CONDUCTOR, FR-XLPE OR FR EPR INSULATION, CPE JACKET (E-2 COLOR CODE) (FLAME RETARDANT CONTROL CABLE) (UL LISTED TYPE TC, TC-ER ON APPLICABLE SIZES)	TYPE <u>D1</u> SPEC <u>70.0100</u> PROJECT <u>410518</u>
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SPECIFICATIONS

REFERENCE:	LATEST EDITIONS OF ICEA S-73-532 (NEMA WC 57), UL-44, UL-1277, IEEE 1202.
CONDUCTOR:	16 AWG, BUNCH STRANDED (CLASS K) PER ASTM B-174; 14 AWG, 12 AWG, OR 10 AWG – CLASS B OR C STRANDED PER ASTM B8, CONCENTRIC-LAY, UNCOATED COPPER; NORMAL MAXIMUM OPERATING TEMPERATURE 90C WET OR DRY (ICEA S-73-532).
INSULATION:	16 AWG, 14 AWG, 12 AWG AND 10 AWG - TYPE II XLPE OR EP RUBBER (ICEA S-73-532); NOT LESS THAN 30 MILS AVERAGE INSULATION THICKNESS (27 MILS MINIMUM THICKNESS).
SHIELD:	NONE.
JACKET:	CABLE ASSEMBLY: BLACK, SUNLIGHT-RESISTANT, FLAME RETARDANT THERMOPLASTIC CHLORINATED POLYETHYLENE (CPE), (ICEA S-73-532). ASSEMBLY JACKET APPLIED OVER TAPE WRAPPED CABLE CORE. THE MINIMUM THICKNESS SHALL BE NOT LESS THAN 80 PERCENT OF THE VALUES INDICATED BELOW.
CONDUCTOR IDENTIFICATION:	ICEA S-73-532, APPENDIX E, METHOD 1, COLORED COMPOUNDS WITH TRACERS, TABLE E-2. WHITE OR GREEN CONDUCTORS SHALL NOT BE PROVIDED. TRACERS SHALL BE CONTINUOUS THROUGHOUT THE LENGTH OF CONDUCTOR. COLOR BANDS OR MARKINGS APPLIED AT DISCRETE INTERVALS ARE NOT ALLOWED.
ASSEMBLY:	TWO CONDUCTOR CABLE SHALL BE FLAT. FOR THREE CONDUCTORS OR MORE, THE CONDUCTORS SHALL BE CABLED TOGETHER WITH FLAME-RETARDANT POLYPROPYLENE FILLERS, AS NECESSARY, TO MAKE THE FINISHED CABLE ROUND.
PRINT LEGEND:	A DURABLE MARKING SHALL BE PROVIDED ON THE SURFACE OF THE CABLE AT INTERVALS NOT EXCEEDING 24 INCHES. MARKING SHALL INCLUDE: MANUFACTURER'S NAME, PLANT OF MFG, VOLTAGE RATING, CONDUCTOR SIZE AND NUMBER OF CONDUCTORS, INSULATION AND JACKET MATERIAL, SUNLIGHT-RESISTANCE, UL LISTING (TYPE TC) (TYPE TC-ER ON 14 AWG AND LARGER), FLAME-RETARDANCE RATING, DAY/MONTH/YEAR OF MFG, AND SEQUENTIAL FOOTAGE MARKINGS.
TESTS:	CABLES SHALL MEET THE REQUIREMENTS OF ICEA S-73-532. FINISHED CABLES SHALL MEET THE FLAME TEST REQUIREMENTS PER IEEE 1202.

CABLE DETAILS

NUMBER OF CONDUCTORS	AVERAGE ASSEMBLY JACKET THICKNESS (INCHES)				O.D. MAXIMUM (INCHES)				COLOR CODE ICEA S-73-532 TABLE E-2					
									COND NO	BASE	TRACER	COND NO	BASE	TRACER
	16 AWG	14 AWG	12 AWG	10 AWG	16 AWG	14 AWG	12 AWG	10 AWG						
2	0.045	0.045	0.045	0.045	0.35	0.38	0.43	0.48	1	BK	-	11	BN	BK
3	0.045	0.045	0.045	0.045	0.37	0.40	0.46	0.52	2	R	-	12	BK	R
4	0.045	0.045	0.045	0.045	0.40	0.43	0.50	0.59	3	BL	-	13	BL	R
5	0.045	0.045	0.045	0.045	0.44	0.48	0.54	0.64	4	O	-	14	O	R
7	0.045	0.045	0.060	0.060	0.48	0.55	0.62	0.70	5	Y	-	15	Y	R
9	0.060	0.060	0.060	0.060	0.58	0.65	0.72	0.80	6	BN	-	16	BN	R
10	0.060	0.060	0.060	0.060	0.60	0.67	0.75	0.87	7	R	BK	17	BK	BL
12	0.060	0.060	0.060	0.080	0.62	0.73	0.81	0.93	8	BL	BK	18	R	BL
15	0.060	0.060	0.060	0.080	0.71	0.78	0.89	1.10	9	O	BK	19	O	BL
19	0.060	0.060	0.080	0.080	0.76	0.85	0.98	1.28	10	Y	BK			
25	0.060	0.080	0.080		0.89	0.99	1.15							
30	0.060	0.080	0.080		0.93	1.07	1.21							
37	0.080	0.080	0.080		1.05	1.16	1.32							

CABLE SHALL BE UL LISTED TYPE TC.

 BLACK & VEATCH Building a world of difference.	JEA - BRANDY BRANCH ENERGY CENTER WAREHOUSE	600-MULTI- FRXLPE OR FREPR-CPE SHEET 1 OF 1
AD06ZCMA	CABLE SPECIFICATION	Dec 2013