

STANDARD SPECIFICATIONS

REFERENCE: ICEA S-93-639 (NEMA WC 74), AEIC No. CS6, ICEA P-45-482.

CONDUCTOR: Concentric-lay, uncoated or coated copper, strand Class B. Normal maximum operating temperature 90°C.

CONDUCTOR SHIELD: Extruded semiconducting thermosetting material, ICEA S-93-639, Section 3.

INSULATION: Ethylene-propylene rubber, ICEA S-93-639, Section 4, not less than 220 mils (5590 μm) average thickness; 198 mils (5030 μm) minimum thickness.

SHIELD: Extruded semiconducting thermosetting material, and nonembedded coated copper tape or coated copper wires, ICEA S-93-639, Section 5. Extruded material shall be tested in accordance with AEIC CS6, Paragraph D.1. Shield area shall be not less than that of one helically applied 5 mil (130 μm) copper tape with a 10 percent overlap when calculated according to Formula 3 in ICEA P-45-482.

JACKET: Black polyvinyl chloride, ICEA S-93-639, Paragraph 7.1.9.

FACTORY TEST: Cable shall meet the requirements of ICEA S-93-639 and AEIC No. CS6.

Cable Details

Size		Number of Strands	*Jacket Thickness		Maximum Outside Diameter	
AWG or mcm	mm^2		in.	μm	in.	mm
1	40	19	0.080	2030	1.17	29.72
1/0	50	19	0.080	2030	1.21	30.73
2/0	70	19	0.080	2030	1.25	31.75
4/0	95	19	0.080	2030	1.30	33.02
250	120	37	0.080	2030	1.43	36.32
350	185	37	0.080	2030	1.53	38.86
500	240	37	0.080	2030	1.66	42.16
750	400	61	0.110	2790	1.95	49.53
1000	500	61	0.110	2790	2.19	55.63

*The average thickness shall be not less than that indicated above. The minimum thickness shall be not less than 80 percent of the values indicated above.

The conductor shield, insulation, and insulation shield shall be applied in a triple extrusion process with all three components being cured at the same time.

The color of the insulation shall be in contrast to the color of the semiconducting paint. The semiconducting paint shall be readily removable for terminating.

A durable marking shall be provided on the surface of the cable at intervals not exceeding 24 inches (600 mm). Marking shall include manufacturer's name, insulating material, conductor size, and voltage class.

C						Voltage Test After Installation: DC Test Voltage - 65kV Duration of Test - 15 Minutes 15,000 Volt, Single Conductor Power Cable 133 Percent Insulation Level (15-1-EPR-PVC-SH)	CITY OF DETROIT
B							WATER AND SEWERAGE
A							DEPARTMENT
	DESCRIPTION	DRW	CKD	APP	DATE		ENGINEERING
REVISIONS							DIVISION
DRAWN BY: B & V							SHEET 1 OF 1
CHECKED BY: S.D.A.							16050-10
APPROVED:							DWG No.
							SCALE: NONE