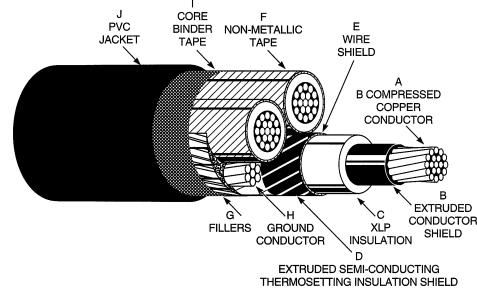


**DESCRIPTION:**

- 3 copper conductors
- Thermosetting conductor shield
- Cross-linked polyethylene (XLP) insulation
- Thermosetting insulation shield
- Drain wire or tape shield
- Copper ground wire
- PVC Jacket



PWC Catalog #	Size	Conductor Diameter	Grd. Cond. Size AWG	Extruded Insulation Shield Diameter	Jacket Thickness	Approx. O.D.	Approx. Net Weight	Allowable Ampacities+	
	AWG or kcmil			inch	inch			inch	inch
03-0510	8	0.140	8	0.470	0.080	1.170	705	59	59
03-0511	6	0.180	6	0.505	0.080	1.240	880	78	79
03-0512	4	0.230	6	0.555	0.080	1.340	1095	100	105
03-0513	2	0.283	6	0.573	0.080	1.504	1318	135	125
03-0514	1	0.322	4	0.613	0.080	1.590	1583	155	140
03-0515	1/0	0.362	4	0.653	0.110	1.740	1944	175	165
03-0516	2/0	0.405	4	0.693	0.110	1.826	2255	200	190
03-0517	3/0	0.456	3	0.743	0.110	1.934	2700	230	220
03-0518	4/0	0.512	3	0.798	0.110	2.053	3197	265	255
03-0519	250	0.558	3	0.855	0.110	2.189	3658	290	280
03-0520	350	0.661	2	0.958	0.110	2.436	5022	355	350
03-0521	500	0.790	1	1.083	0.140	2.680	6444	430	425
03-0522	750	0.968	1/0	1.270	0.140	3.138	9425	530	525

+ Ampacities are based on the NEC 1999 Edition. Duct ampacities are based on Table 310-79 three conductors within an overall covering in one underground duct, 90°C conductor, 20°C earth ambient temperature. Conduit in air ampacities are based on Table 310-75 three cables within an overall covering in isolated conduit in air, 90°C conductor, 40°C ambient temperature.

## 5kV Type MV-90 CABLE CONSTRUCTION

<b>Conductor</b>	The conductor shall be Class B compressed concentric stranded bare copper in accordance with ASTM B3 and B8 and ICEA Part 2, Section 2.1 and 2.5.
<b>Conductor Shield</b>	The conductor shall be shielded with an extruded semi-conducting thermosetting polymeric layer, which shall be firmly bonded to the insulation. The thickness shall be in accordance with the referenced standards.
<b>Insulation</b>	The insulation shall be XLP (cross-linked polyethylene) meeting the requirements of the referenced standards. The average thickness shall be 0.090" and the minimum spot thickness shall be not less than 90% of the average thickness.
<b>Insulation Shield</b>	The insulation shall be shielded with an extruded semi-conducting thermosetting polymeric layer which shall be identified as semi-conducting. Over this layer shall be applied a concentric serve of 24 AWG annealed solid bare copper wires over which shall be applied a lapped non-metallic tape.
<b>Grounding Conductor</b>	The ground conductor shall be Class B compressed concentric stranded bare copper in accordance with ASTM B3 and B8.
<b>Assembly</b>	The insulated and shielded power conductors shall be cabled round with fillers and with a grounding conductor in one outer interstice and covered with a binder tape.
<b>Jacket</b>	The cable shall be covered with a black PVC jacket conforming to the requirements specified for polyvinyl chloride in ICEA. The average thickness shall be in accordance with the referenced standards and the minimum spot thickness shall be not less than 80% of the average thickness. The jacket will be sunlight resistant and will meet the requirements of the IEEE 1202 (70,000 Btu/hr) vertical cable tray flame test.
<b>Identification</b>	Cable shall be identified by surface printing on the jacket.

**APPLICATIONS:**

- Aerial installations
- Direct buried
- Metal racks
- Open trays
- Troughs or raceway

These cables are capable of operating continuously at maximum conductor temperature of 90°C for normal operation, 130°C for emergency overload conditions, and 250°C for short circuit conditions, and are rated at 5,000V, 100% (grounded system) and 133% insulation levels (ungrounded system).

**SCOPE:**

This specification covers three conductor XLP (cross-linked thermosetting polyethylene) insulated, shielded, thermoplastic jacketed power cables with grounding conductor for use in aerial installations, metal racks, open trays, troughs, or continuous rigid cable supports. These cables are capable of operating continuously at a temperature of 90°C for normal operations, 130°C for emergency overload conditions, and 250°C for short circuit conditions, and are rated at 5,000V, 100% insulation level (grounded system), and 133% insulation level (ungrounded system).

**SPECIFICATIONS:**

Manufactured and tested in accordance with the latest revisions of ICEA Pub. No. S-66-524, NEMA Pub. No. WC7, AEIC No. 5<sup>1</sup>, and UL 1072.

<sup>1</sup> AEIC requires 0.115" insulation wall for 133% insulation level.

