



CONSTRUCTION

- 1- Conductor:** Compact class B stranded soft annealed bare copper as per ASTM B-496.
- 2- Conductor shield:** Extruded thermoset semi-conducting stress control layer.
- 3- Insulation:** Ethylene propylene rubber (EPR).
- 4- Insulation shield:** Extruded thermoset strippable semi-conducting insulation shield.
- 5- Copper wires shield:** One-third neutral concentric round annealed bare copper wires helically applied over the insulation shield.
- 6- Jacket:** black sunlight linear low density thermoplastic polyethylene (LLDPE).

FEATURES AND APPLICATIONS

- EPRONAX type MV-90 is suitable for use in wet or dry locations, in open air (exposed to sunlight), raceways, troughs, ducts and direct burial.
- Typical installations include feeder or branch circuits in generating stations, industrial and commercial installations.
- Rated at maximum operating temperature of 90 °C for normal operation, 130 °C for emergency overload and 250 °C for short-circuit conditions.
- True triple and dry curing extrusion system.
- Excellent flexibility.
- Excellent corona and moisture resistance.
- Cold bend tested at -35 °C.
- NEC guidelines must be followed for proper application.
- UL listed as MV-90 under file E-500191.

STANDARDS

ASTM B-3 - Standard Specification for Soft or Annealed Copper Wire

ASTM B-496 - Standard Specification for Compact Round Concentric-Lay-Stranded Copper Conductors.

UL 1072 - Medium-Voltage Power Cables.

ICEA S-93-639 - 5-46 kV Shielded Power Cable for use in the Transmission and Distribution of Electric Energy

COPPER CONDUCTOR, 8 kV 100 % INSULATION LEVEL, 115 MILS

PRODUCT CODE	COND. SIZE (AWG or kcmil)	NOMINAL CONDUCTOR DIAMETER (inches)	NOMINAL INSULATION DIAM. (inches)	NOMINAL INSULATION SHIELD DIAM. (inches)	NOMINAL DIAMETER OVER JACKET (inches)	APPROX. WEIGHT (lb/kft)		AMPACITY (A)		CONDUIT SIZE (inches)
						COPPER	TOTAL	CONDUIT IN AIR (1)	UNDERGROUND DUCT (2)	
820601045	4	0.21	0.518	0.581	0.873	488	459	110	115	3
820601047	2	0.27	0.572	0.635	0.927	662	563	150	155	3
820601048	1	0.30	0.604	0.667	0.959	815	646	170	175	3
820601049	1/0	0.33	0.641	0.704	0.996	1032	759	195	200	3
820601050	2/0	0.37	0.680	0.743	1.035	1291	892	225	230	3
820601051	3/0	0.42	0.727	0.790	1.082	1630	1064	260	260	3
820601052	4/0	0.47	0.781	0.844	1.136	2066	1281	295	295	3 ½
820601053	250	0.52	0.824	0.887	1.179	2433	1464	330	325	3 ½
820601054	350	0.61	0.919	0.981	1.274	3390	1931	395	390	4
820601057	500	0.73	1.041	1.104	1.496	4868	2705	480	465	5
820601060	750	0.90	1.206	1.269	1.722	7359	3954	585	565	5
820601062	1000	1.06	1.361	1.424	1.877	9752	5097	675	640	6

COPPER CONDUCTOR, 8 kV 133 % INSULATION LEVEL, 140 MILS

PRODUCT CODE	COND. SIZE (AWG or kcmil)	NOMINAL CONDUCTOR DIAMETER (inches)	NOMINAL INSULATION DIAM. (inches)	NOMINAL INSULATION SHIELD DIAM. (inches)	NOMINAL DIAMETER OVER JACKET (inches)	APPROX. WEIGHT (lb/kft)		AMPACITY (A)		CONDUIT SIZE (inches)
						COPPER	TOTAL	CONDUIT IN AIR (1)	UNDERGROUND DUCT (2)	
822501045	4	0.21	0.569	0.631	0.924	488	493	110	115	3
820601047	2	0.27	0.622	0.685	0.978	662	599	150	155	3
822501048	1	0.30	0.654	0.717	1.009	815	683	170	175	3
822501049	1/0	0.33	0.691	0.754	1.046	1032	798	195	200	3
822501050	2/0	0.37	0.731	0.794	1.086	1291	932	225	230	3
822501051	3/0	0.42	0.777	0.840	1.132	1630	1106	260	260	3 ½
822501052	4/0	0.47	0.831	0.894	1.186	2066	1325	295	295	3 ½
822501053	250	0.52	0.874	0.937	1.230	2433	1510	330	325	3 ½
822501054	350	0.61	0.969	1.032	1.324	3390	1980	395	390	4
822501057	500	0.73	1.091	1.154	1.547	4868	2762	480	465	5
822501060	750	0.90	1.256	1.319	1.772	7359	4019	585	565	5
822501062	1000	1.06	1.412	1.475	1.928	9752	5169	675	640	6

(1) Ampacities are in accordance with table 310.60(C)(74) of the NEC for insulated triplexed or three single-conductor aluminum cables in isolated conduit in air based on conductor temperatures of 90°C (194°F) and ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with table 310.60(C)(78) of the NEC for three single-insulated aluminum conductors in underground electrical ducts (three conductors per electrical duct) based on ambient earth temperature of 20°C (68°F) electrical duct arrangement in accordance with figure 31060 detail 1 100 percent load factor thermal resistance (rho) of 90 conductor temperatures of 90°C (194°F).

(3) Ampacities are in accordance with Section 392.80(B)(2) of the NEC for single Type MV-90 conductor cables or single conductors cabled together (triplexed, quadruplexed, etc) installed in uncovered cable tray at ambient temperature of 40°C (104°F) and conductor temperatures of 90°C (194°F). The ampacities shall not exceed 75 percent of the allowable ampacities in Table 310.60(C) (70). Where the cable trays are covered for more than 18 m (6 ft) with solid unventilated covers the ampacities for 1/0 AWG and larger single conductor cables shall not exceed 93 percent of the values shown above. Jam ratio has not been considered and should be checked to avoid possible jamming.

Values are nominal and subject to manufacturing tolerances.