



CONSTRUCTION

- 1- Conductor:** Class B compact stranded 1350 aluminum as per ASTM B-400.
- 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 AL 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-105 under file E-500191.

STANDARDS

ASTM B-400 - Standard Specification for Compact Round Concentric-Lay-Stranded Aluminum 1350 Conductors

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

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

ALUMINUM CONDUCTOR, 25 kV 100 % INSULATION LEVEL, 260 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)
						ALUMINUM	COPPER	TOTAL	CONDUIT IN AIR (1)	UNDERGROUND DUCT (2)	
828001048	1	0.30	0.874	0.937	1.229	176	196	669	130	135	3 ½
828001049	1/0	0.33	0.911	0.974	1.266	223	196	716	150	155	3 ½
828001050	2/0	0.37	0.950	1.013	1.306	279	229	782	175	175	3 ½
828001051	3/0	0.42	0.997	1.060	1.352	354	295	875	200	200	3 ½
828001052	4/0	0.47	1.051	1.114	1.406	445	360	981	230	230	4
828001053	250	0.52	1.094	1.157	1.449	527	426	1075	255	250	4
828001054	350	0.61	1.189	1.252	1.544	736	589	1302	310	305	4
828001057	500	0.73	1.311	1.374	1.726	1061	819	1694	385	370	5
828001060	750	0.90	1.476	1.539	1.992	1592	1252	2324	485	455	5
828001062	1000	1.06	1.631	1.694	2.147	2133	1670	2861	565	525	6

ALUMINUM CONDUCTOR, 25 kV 133 % INSULATION LEVEL, 320 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)
						ALUMINUM	COPPER	TOTAL	CONDUIT IN AIR (1)	UNDERGROUND DUCT (2)	
829901048	1	0.30	0.994	1.057	1.349	176	196	787	130	135	3 ½
829901049	1/0	0.33	1.031	1.094	1.387	223	196	838	150	155	4
829901050	2/0	0.37	1.071	1.134	1.426	279	229	908	175	175	4
829901051	3/0	0.42	1.117	1.180	1.472	354	295	1005	200	200	4
829901052	4/0	0.47	1.171	1.234	1.526	445	360	1116	230	230	4
829901053	250	0.52	1.215	1.278	1.570	527	426	1214	255	250	5
829901054	350	0.61	1.309	1.372	1.724	736	589	1516	310	305	5
829901057	500	0.73	1.431	1.494	1.846	1061	819	1858	385	370	5
829901060	750	0.90	1.596	1.659	2.112	1592	1252	2510	485	455	6
829901062	1000	1.06	1.752	1.815	2.268	2133	1670	3063	565	525	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.