



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 flame retardant, sunlight and oil resistant I polyvinyl chloride (PVC).

FEATURES AND APPLICATIONS

- EPRONAX AL MV-90 is suitable for use in wet or dry locations, in open air (exposed to sunlight), raceways, troughs, tray, 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.
- FT4 (70,000 BTU/hr) Flame test and CT use (1/0 AWG and larger).
- 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
- UL 1685 - Safety Vertical-Tray Fire-Propagation and Smoke-Release Test for Electrical and Optical-Fiber Cables
- IEEE 1202 – Flame-propagation testing of wire and cable

ALUMINUM CONDUCTOR, 35 kV 100 % INSULATION LEVEL, 345 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)	TRAY (3)	
840501049	1/0	0.33	1.081	1.144	1.436	223	196	2131	150	155	150	4
840501050	2/0	0.37	1.120	1.183	1.476	279	229	2293	175	175	170	4
840501051	3/0	0.42	1.167	1.230	1.522	354	295	2517	200	200	200	4
840501052	4/0	0.47	1.221	1.284	1.576	445	360	2772	230	230	230	5
840501053	250	0.52	1.264	1.327	1.619	527	426	2997	255	250	260	5
840501054	350	0.61	1.359	1.422	1.774	736	589	3736	310	305	320	5
840501057	500	0.73	1.481	1.544	1.896	1061	819	4517	385	370	395	5
840501060	750	0.90	1.646	1.709	2.162	1592	1252	6069	485	455	515	6
840501062	1000	1.06	1.802	1.865	2.317	2133	1670	7325	565	525	620	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.