



### 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 tape shield:** 5 mils bare copper tape helically applied with 25 % minimum overlap.
- 6- Jacket:** jacket: black sunlight linear low density thermoplastic polyethylene (LLDPE).

### FEATURES AND APPLICATIONS

- EPRONAX AL type MV-90 is suitable for use in wet or dry locations, in open air (exposed to sunlight), raceways, troughs, ducts, trays 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-400 - Standard Specification for Compact Round Concentric-Lay-Stranded Aluminum 1350 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  
UL 1685 - Safety Vertical-Tray Fire-Propagation and Smoke-Release Test for Electrical and Optical-Fiber Cables

### ALUMINUM 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)
						ALUMINUM	COPPER	TOTAL	CONDUIT IN AIR (1)	UNDERGROUND DUCT (2)	
827301045	4	0.21	0.518	0.581	0.727	88	128	276	84	91	3
827301047	2	0.27	0.572	0.635	0.781	140	139	326	115	120	3
827301048	1	0.30	0.604	0.667	0.813	176	146	374	130	135	3
827301049	1/0	0.33	0.641	0.704	0.880	223	154	414	150	155	3
827301050	2/0	0.37	0.680	0.743	0.919	279	163	459	175	175	3
827301051	3/0	0.42	0.727	0.790	0.966	354	173	516	200	200	3
827301052	4/0	0.47	0.781	0.844	1.020	445	185	585	230	230	3
827301053	250	0.52	0.824	0.887	1.063	527	194	643	255	250	3
827301054	350	0.61	0.919	0.981	1.157	736	214	786	310	305	3 ½
827301057	500	0.73	1.041	1.104	1.279	1061	241	994	385	370	4
827301060	750	0.90	1.206	1.269	1.445	1592	277	1317	485	455	5
827301062	1000	1.06	1.361	1.424	1.600	2133	310	1640	565	525	5

### ALUMINUM 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)
						ALUMINUM	COPPER	TOTAL	CONDUIT IN AIR (1)	UNDERGROUND DUCT (2)	
829301045	4	0.21	0.569	0.631	0.777	88	138	310	84	91	3
829301047	2	0.27	0.622	0.685	0.861	140	150	379	115	120	3
829301048	1	0.30	0.654	0.717	0.893	176	157	412	130	135	3
829301049	1/0	0.33	0.691	0.754	0.930	223	165	454	150	155	3
829301050	2/0	0.37	0.731	0.794	0.970	279	174	501	175	175	3
829301051	3/0	0.42	0.777	0.840	1.016	354	184	560	200	200	3
829301052	4/0	0.47	0.831	0.894	1.070	445	195	630	230	230	3
829301053	250	0.52	0.874	0.937	1.113	527	205	691	255	250	3 ½
829301054	350	0.61	0.969	1.032	1.208	736	225	837	310	305	3 ½
829301057	500	0.73	1.091	1.154	1.330	1061	252	1050	385	370	4
829301060	750	0.90	1.256	1.319	1.495	1592	287	1380	485	455	5
829301062	1000	1.06	1.412	1.475	1.711	2133	321	1774	565	525	5

(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.