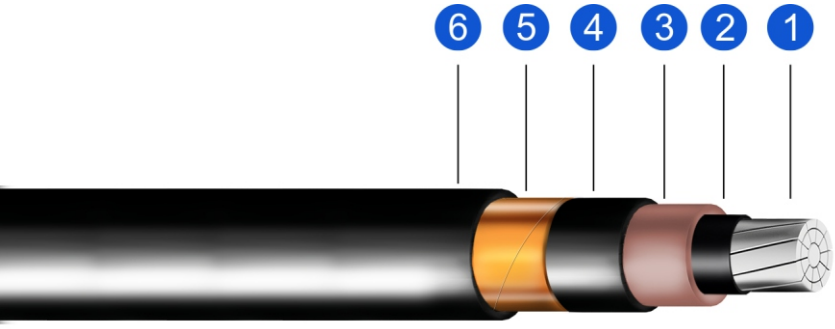
EPRONAX AL TYPE MV-105 15 kV 100% and 133% I.L

AL/EPR/TAPE SCREEN/PVC JACKET POWER CABLE



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

FEATURES AND APPLICATIONS

- EPRONAX AL type MV-105 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 105 °C for normal operation, 140 °C for emergency overload and 250 °C for short-circuit conditions. Superior current carrying capacity.
- 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
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

All polimeric materials made in USA

ALUMINUM CONDUCTOR, 15 kV 100 % INSULATION LEVEL, 175 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)	
831001047	2	0.27	0.682	0.745	0.921	140	163	1010	130	130	---	3
831001048	1	0.30	0.714	0.777	0.953	176	170	1091	150	145	---	3
831001049	1/0	0.33	0.751	0.814	0.990	223	178	1190	170	165	170	3
831001050	2/0	0.37	0.791	0.854	1.029	279	186	1301	200	190	195	3
831001051	3/0	0.42	0.837	0.900	1.076	354	196	1440	225	215	225	3
831001052	4/0	0.47	0.891	0.954	1.130	445	208	1606	260	245	260	3 ½
831001053	250	0.52	0.934	0.997	1.173	527	218	1749	290	270	290	3 ½
831001054	350	0.61	1.029	1.092	1.268	736	238	2090	350	330	360	4
831001057	500	0.73	1.151	1.214	1.390	1061	264	2585	430	400	450	4
831001060	750	0.90	1.316	1.379	1.555	1592	300	3347	540	490	585	5
831001062	1000	1.06	1.472	1.535	1.770	2133	334	4304	640	565	705	5

ALUMINUM CONDUCTOR, 15 kV 133 % INSULATION LEVEL, 220 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)	
833001047	2	0.27	0.772	0.835	1.011	140	182	1185	130	130	---	3
833001048	1	0.30	0.804	0.867	1.042	176	189	1270	150	145	---	3
833001049	1/0	0.33	0.841	0.904	1.080	223	197	1375	170	165	170	3
833001050	2/0	0.37	0.880	0.943	1.119	279	206	1493	200	190	195	3 ½
833001051	3/0	0.42	0.927	0.990	1.166	354	216	1639	225	215	225	3 ½
833001052	4/0	0.47	0.981	1.044	1.220	445	227	1814	260	245	260	3 ½
833001053	250	0.52	1.024	1.087	1.263	527	237	1963	290	270	290	3 ½
833001054	350	0.61	1.119	1.181	1.357	736	257	2320	350	330	360	4
833001057	500	0.73	1.241	1.304	1.479	1061	284	2834	430	400	450	5
833001060	750	0.90	1.406	1.469	1.705	1592	320	3815	540	490	585	5
833001062	1000	1.06	1.561	1.624	1.860	2133	353	4615	640	565	705	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 105°C (221°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 105°C (221°F).

(3) Ampacities are in accordance with Section 392.80(B)(2) of the NEC for single Type MV-105 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 105°C (221°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.