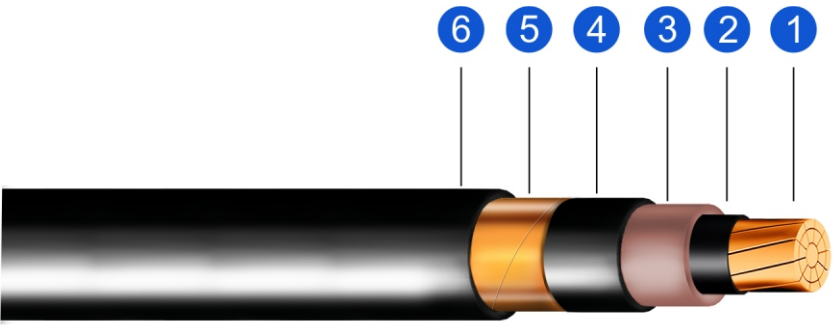
EPRONAX TYPE MV-105 15 kV 100% and 133% I.L.

EPR/TAPE SCREEN/PVC JACKET POWER CABLE



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 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 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-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.
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

COPPER 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)
						COPPER	TOTAL	CONDUIT IN AIR (1)	UNDERGROUND DUCT (2)	TRAY (3)	
823801047	2	0.27	0.682	0.745	0.921	629	1337	165	165	---	3
823801048	1	0.30	0.714	0.777	0.953	756	1500	190	185	---	3
823801049	1/0	0.33	0.751	0.814	0.990	916	1704	215	215	220	3
823801050	2/0	0.37	0.791	0.854	1.029	1117	1952	255	245	250	3
823801051	3/0	0.42	0.837	0.900	1.076	1368	2258	290	275	290	3
823801052	4/0	0.47	0.891	0.954	1.130	1685	2638	330	315	335	3 ½
823801053	250	0.52	0.934	0.997	1.173	1963	2967	365	345	370	3 ½
823801054	350	0.61	1.029	1.092	1.268	2679	3794	440	415	460	4
823801057	500	0.73	1.151	1.214	1.390	3775	5035	535	500	575	4
823801060	750	0.90	1.316	1.379	1.555	5572	7026	655	610	745	5
823801062	1000	1.06	1.472	1.535	1.770	7372	9210	755	690	890	5

COPPER 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)
						COPPER	TOTAL	CONDUIT IN AIR (1)	UNDERGROUND DUCT (2)	TRAY (3)	
825801047	2	0.27	0.772	0.835	1.011	648	1511	165	165	---	3
825801048	1	0.30	0.804	0.867	1.042	775	1680	190	185	---	3
825801049	1/0	0.33	0.841	0.904	1.080	935	1890	215	215	220	3
825801050	2/0	0.37	0.880	0.943	1.119	1136	2144	255	245	250	3
825801051	3/0	0.42	0.927	0.990	1.166	1388	2457	290	275	290	3 ½
825801052	4/0	0.47	0.981	1.044	1.220	1704	2846	330	315	335	3 ½
825801053	250	0.52	1.024	1.087	1.263	1982	3182	365	345	370	4
825801054	350	0.61	1.119	1.181	1.357	2698	4024	440	415	460	4
825801057	500	0.73	1.241	1.304	1.479	3795	5284	535	500	575	5
825801060	750	0.90	1.406	1.469	1.705	5591	7494	655	610	745	5
825801062	1000	1.06	1.561	1.624	1.860	7392	9521	755	690	890	6

(1) Ampacities are in accordance with table 310.60(C)(73) of the NEC for insulated triplexed or three single-conductor copper 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)(77) of the NEC for three single-insulated copper 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) (69) 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.