

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

COPPER CONDUCTOR, 5 kV 100 % INSULATION LEVEL, 90 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)	
823601045	4	0.21	0.469	0.531	0.677	408	787	110	120	---	3
823601047	2	0.27	0.522	0.585	0.761	595	1061	145	155	---	3
823601048	1	0.30	0.554	0.617	0.793	721	1216	175	180	---	3
823601049	1/0	0.33	0.591	0.654	0.830	881	1409	200	210	220	3
823601050	2/0	0.37	0.631	0.694	0.870	1083	1646	225	235	250	3
823601051	3/0	0.42	0.677	0.740	0.916	1334	1939	270	270	290	3
823601052	4/0	0.47	0.731	0.794	0.970	1651	2304	305	310	335	3
823601053	250	0.52	0.774	0.837	1.013	1929	2620	355	345	370	3
823601054	350	0.61	0.869	0.932	1.108	2644	3420	430	415	460	3 ½
823601057	500	0.73	0.991	1.054	1.230	3741	4626	530	505	580	3 ½
823601060	750	0.90	1.156	1.219	1.395	5538	6570	665	630	750	4
823601062	1000	1.06	1.312	1.375	1.551	7338	8509	770	720	900	5

COPPER CONDUCTOR, 5 kV 133 % 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)
						COPPER	TOTAL	CONDUIT IN AIR (1)	UNDERGROUND DUCT (2)	TRAY (3)	
825601045	4	0.21	0.489	0.552	0.698	413	816	110	120	---	3
825601047	2	0.27	0.543	0.606	0.752	599	1050	145	155	---	3
825601048	1	0.30	0.574	0.637	0.783	726	1204	175	180	---	3
825601049	1/0	0.33	0.612	0.675	0.851	886	1445	200	210	220	3
825601050	2/0	0.37	0.651	0.714	0.890	1087	1683	225	235	250	3
825601051	3/0	0.42	0.698	0.761	0.937	1338	1977	270	270	290	3
825601052	4/0	0.47	0.752	0.815	0.990	1655	2344	305	310	335	3
825601053	250	0.52	0.795	0.858	1.034	1933	2662	355	345	370	3
825601054	350	0.61	0.889	0.952	1.128	2649	3466	430	415	460	3 ½
825601057	500	0.73	1.011	1.074	1.250	3745	4676	530	505	580	4
825601060	750	0.90	1.177	1.240	1.416	5542	6626	665	630	750	4
825601062	1000	1.06	1.332	1.395	1.571	7342	8571	770	720	900	5

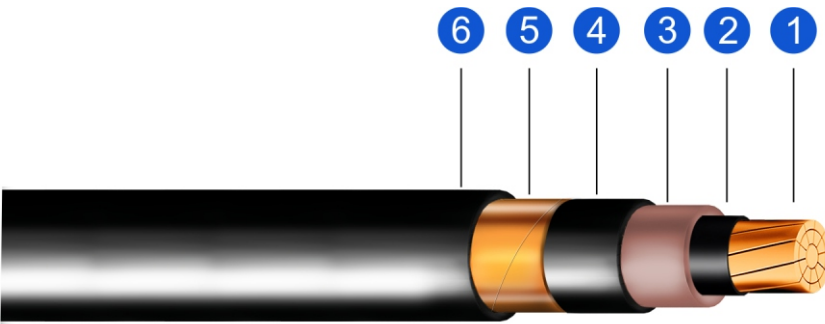
(1) Ampacities are in accordance with table 310.60(C)(73) of the NEC for insulated triplexed or three single-conductor copper cables in isolated conduit in air based on conductor temperatures of 105°C (221°F) and ambient air temperature of 40°C (104°F).

(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.



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 polymeric materials made in USA

COPPER 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)
						COPPER	TOTAL	CONDUIT IN AIR (1)	UNDERGROUND DUCT (2)	TRAY (3)	
823701045	4	0.21	0.518	0.581	0.727	419	860	120	125	---	3
823701047	2	0.27	0.572	0.635	0.781	605	1096	165	165	---	3
823701048	1	0.30	0.604	0.667	0.842	732	1300	190	185	---	3
823701049	1/0	0.33	0.641	0.704	0.880	892	1496	215	215	220	3
823701050	2/0	0.37	0.680	0.743	0.919	1093	1736	255	245	250	3
823701051	3/0	0.42	0.727	0.790	0.966	1345	2033	290	275	290	3
823701052	4/0	0.47	0.781	0.844	1.020	1661	2403	330	315	335	3
823701053	250	0.52	0.824	0.887	1.063	1939	2723	365	345	370	3
823701054	350	0.61	0.919	0.981	1.157	2655	3532	440	415	460	3 ½
823701057	500	0.73	1.041	1.104	1.279	3752	4748	535	500	575	4
823701060	750	0.90	1.206	1.269	1.445	5548	6707	655	610	745	5
823701062	1000	1.06	1.361	1.424	1.600	7349	8660	755	690	890	5

COPPER 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)
						COPPER	TOTAL	CONDUIT IN AIR (1)	UNDERGROUND DUCT (2)	TRAY (3)	
825701045	4	0.21	0.569	0.631	0.777	291	938	120	125	---	3
825701047	2	0.27	0.622	0.685	0.861	466	1228	165	165	---	3
825701048	1	0.30	0.654	0.717	0.893	586	1389	190	185	---	3
825701049	1/0	0.33	0.691	0.754	0.930	738	1589	215	215	220	3
825701050	2/0	0.37	0.731	0.794	0.970	930	1832	255	245	250	3
825701051	3/0	0.42	0.777	0.840	1.016	1172	2133	290	275	290	3
825701052	4/0	0.47	0.831	0.894	1.070	1477	2508	330	315	335	3
825701053	250	0.52	0.874	0.937	1.113	1746	2832	365	345	370	3 ½
825701054	350	0.61	0.969	1.032	1.208	2441	3649	440	415	460	3 ½
825701057	500	0.73	1.091	1.154	1.330	3511	4876	535	500	575	4
825701060	750	0.90	1.256	1.319	1.495	5272	6850	655	610	745	5
825701062	1000	1.06	1.412	1.475	1.711	7038	9010	755	690	890	5

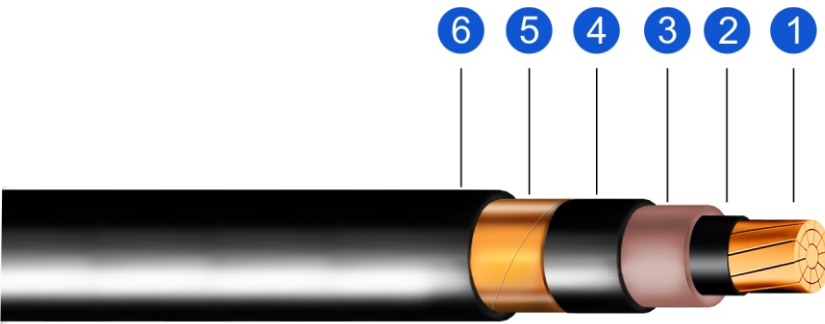
(1) Ampacities are in accordance with table 310.60(C)(73) of the NEC for insulated triplexed or three single-conductor copper cables in isolated conduit in air based on conductor temperatures of 105°C (221°F) and ambient air temperature of 40°C (104°F).

(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.



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

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

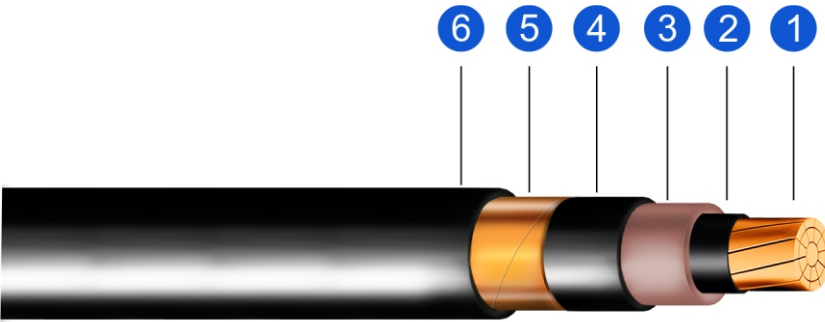
(1) Ampacities are in accordance with table 310.60(C)(73) of the NEC for insulated triplexed or three single-conductor copper cables in isolated conduit in air based on conductor temperatures of 105°C (221°F) and ambient air temperature of 40°C (104°F).

(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.



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

COPPER 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)
						COPPER	TOTAL	CONDUIT IN AIR (1)	UNDERGROUND DUCT (2)	TRAY (3)	
823901048	1	0.30	0.874	0.937	1.113	790	1830	190	185	---	3 ½
823901049	1/0	0.33	0.911	0.974	1.150	950	2044	215	215	220	3 ½
823901050	2/0	0.37	0.950	1.013	1.189	1151	2303	255	245	250	3 ½
823901051	3/0	0.42	0.997	1.060	1.236	1403	2623	290	275	285	3 ½
823901052	4/0	0.47	1.051	1.114	1.290	1719	3018	330	315	335	4
823901053	250	0.52	1.094	1.157	1.333	1997	3360	365	345	370	4
823901054	350	0.61	1.189	1.252	1.427	2713	4214	440	415	455	4
823901057	500	0.73	1.311	1.374	1.550	3810	5489	535	500	565	5
823901060	750	0.90	1.476	1.539	1.775	5606	7728	655	610	730	5
823901062	1000	1.06	1.631	1.694	1.930	7407	9773	755	690	870	6

COPPER 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)
						COPPER	TOTAL	CONDUIT IN AIR (1)	UNDERGROUND DUCT (2)	TRAY (3)	
825901048	1	0.30	0.994	1.057	1.233	816	2108	190	185	---	4
825901049	1/0	0.33	1.031	1.094	1.270	976	2330	215	215	220	4
825901050	2/0	0.37	1.071	1.134	1.310	1177	2598	255	245	250	4
825901051	3/0	0.42	1.117	1.180	1.356	1428	2927	290	275	285	4
825901052	4/0	0.47	1.171	1.234	1.410	1745	3335	330	315	335	5
825901053	250	0.52	1.215	1.278	1.453	2023	3685	365	345	370	5
825901054	350	0.61	1.309	1.372	1.548	2739	4560	440	415	455	5
825901057	500	0.73	1.431	1.494	1.730	3835	6056	535	500	565	5
825901060	750	0.90	1.596	1.659	1.895	5632	8149	655	610	730	6
825901062	1000	1.06	1.752	1.815	2.051	7432	10228	755	690	870	6

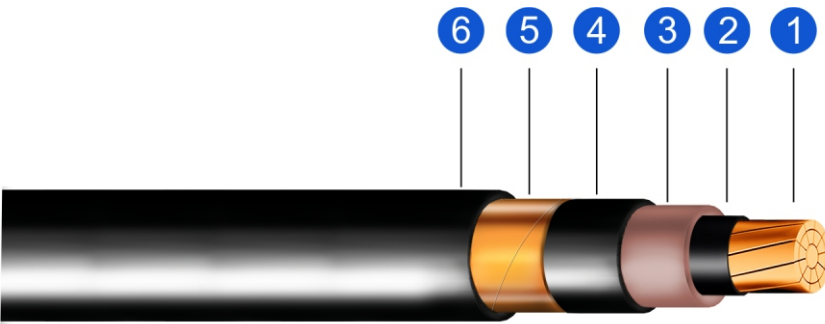
(1) Ampacities are in accordance with table 310.60(C)(73) of the NEC for insulated triplexed or three single-conductor copper cables in isolated conduit in air based on conductor temperatures of 105°C (221°F) and ambient air temperature of 40°C (104°F).

(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.



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

COPPER 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)
						COPPER	TOTAL	CONDUIT IN AIR (1)	UNDERGROUND DUCT (2)	TRAY (3)	
824001049	1/0	0.33	1.081	1.144	1.320	986	2456	215	215	220	4
824001050	2/0	0.37	1.120	1.183	1.359	1188	2727	255	245	250	4
824001051	3/0	0.42	1.167	1.230	1.406	1439	3060	290	275	285	4
824001052	4/0	0.47	1.221	1.284	1.460	1756	3472	330	315	335	5
824001053	250	0.52	1.264	1.327	1.503	2034	3827	365	345	370	5
824001054	350	0.61	1.359	1.422	1.598	2750	4710	440	415	455	5
824001057	500	0.73	1.481	1.544	1.779	3846	6222	535	500	565	5
824001060	750	0.90	1.646	1.709	1.945	5643	8330	655	610	730	6
824001062	1000	1.06	1.802	1.865	2.100	7443	10423	755	690	870	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).

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