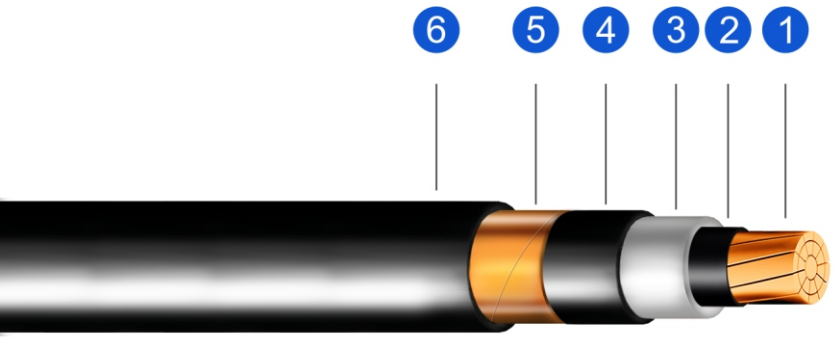
INDULINK TYPE MV-105 5 kV 100% and 133% I.L.

XLPE/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: Tree-retardant cross-linked polyethylene (TR-XLPE).
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

- INDULINK 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 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 Distribubtion 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)	
824601045	4	0.21	0.469	0.531	0.677	309	759	110	120	---	3
824601047	2	0.27	0.522	0.585	0.731	436	986	145	155	---	3
824601048	1	0.30	0.554	0.617	0.763	522	1136	175	180	---	3
824601049	1/0	0.33	0.591	0.654	0.800	630	1325	200	210	220	3
824601050	2/0	0.37	0.631	0.694	0.870	765	1605	225	235	250	3
824601051	3/0	0.42	0.677	0.740	0.916	934	1895	270	270	290	3
824601052	4/0	0.47	0.731	0.794	0.970	1147	2256	305	310	335	3
824601053	250	0.52	0.774	0.837	1.013	1333	2569	355	345	370	3
824601054	350	0.61	0.869	0.932	1.108	1812	3362	430	415	460	3 ½
824601057	500	0.73	0.991	1.054	1.230	2543	4558	530	505	580	3 ½
824601060	750	0.90	1.156	1.219	1.395	3739	6489	665	630	750	4
824601062	1000	1.06	1.312	1.375	1.551	4937	8417	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)	
826401045	4	0.21	0.489	0.552	0.698	313	785	110	120	---	3
826401047	2	0.27	0.543	0.606	0.752	440	1013	145	155	---	3
826401048	1	0.30	0.574	0.637	0.783	526	1165	175	180	---	3
826401049	1/0	0.33	0.612	0.675	0.851	634	1403	200	210	220	3
826401050	2/0	0.37	0.651	0.714	0.890	770	1637	225	235	250	3
826401051	3/0	0.42	0.698	0.761	0.937	939	1928	270	270	290	3
826401052	4/0	0.47	0.752	0.815	0.990	1151	2290	305	310	335	3
826401053	250	0.52	0.795	0.858	1.034	1338	2605	355	345	370	3
826401054	350	0.61	0.889	0.952	1.128	1816	3401	430	415	460	3 ½
826401057	500	0.73	1.011	1.074	1.250	2548	4600	530	505	580	4
826401060	750	0.90	1.177	1.240	1.416	3743	6537	665	630	750	4
826401062	1000	1.06	1.332	1.395	1.571	4ç 941	8469	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).

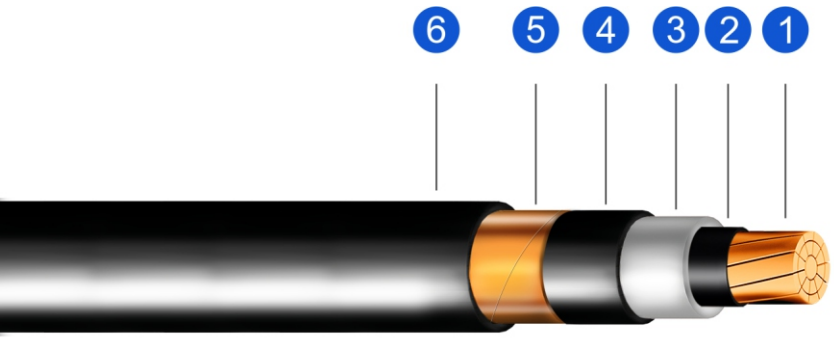
(2) Ampacities are in accordance with table 310.60(C)(77) of the NEC for three single-insulated copper conductors in underground electrical ducts (three conductors per electrical duct) based on ambient earth temperature of 20°C (68°F) electrical duct arrangement in accordance with figure 31060 detail 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.

INDULINK TYPE MV-105 8 kV 100% and 133% I.L.

XLPE/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: Tree-retardant cross-linked polyethylene (TR-XLPE).
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

- INDULINK 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 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 Distribubtion 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, 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)	
824701045	4	0.21	0.518	0.581	0.727	320	823	120	125	---	3
824701047	2	0.27	0.572	0.635	0.781	446	1054	165	165	---	3
824701048	1	0.30	0.604	0.667	0.842	532	1255	190	185	---	3
824701049	1/0	0.33	0.641	0.704	0.880	640	1448	215	215	220	3
824701050	2/0	0.37	0.680	0.743	0.919	776	1684	255	245	250	3
824701051	3/0	0.42	0.727	0.790	0.966	945	1977	290	275	290	3
824701052	4/0	0.47	0.781	0.844	1.020	1158	2341	330	315	335	3
824701053	250	0.52	0.824	0.887	1.063	1344	2658	365	345	370	3
824701054	350	0.61	0.919	0.981	1.157	1822	3457	440	415	460	3 ½
824701057	500	0.73	1.041	1.104	1.279	2554	4662	535	500	575	4
824701060	750	0.90	1.206	1.269	1.445	3750	6605	655	610	745	5
824701062	1000	1.06	1.361	1.424	1.600	4947	8544	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)	
826501045	4	0.21	0.569	0.631	0.777	330	892	120	125	---	3
826501047	2	0.27	0.622	0.685	0.861	457	1175	165	165	---	3
826501048	1	0.30	0.654	0.717	0.893	543	1332	190	185	---	3
826501049	1/0	0.33	0.691	0.754	0.930	651	1528	215	215	220	3
826501050	2/0	0.37	0.731	0.794	0.970	787	1767	255	245	250	3
826501051	3/0	0.42	0.777	0.840	1.016	956	2063	290	275	290	3
826501052	4/0	0.47	0.831	0.894	1.070	1168	2432	330	315	335	3
826501053	250	0.52	0.874	0.937	1.113	1355	2751	365	345	370	3 ½
826501054	350	0.61	0.969	1.032	1.208	1833	3557	440	415	460	3 ½
826501057	500	0.73	1.091	1.154	1.330	2565	4771	535	500	575	4
826501060	750	0.90	1.256	1.319	1.495	3760	6726	655	610	745	5
826501062	1000	1.06	1.412	1.475	1.711	4958	8869	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).

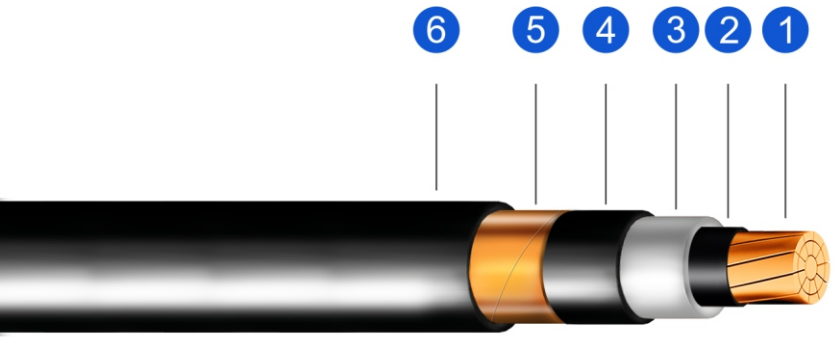
(2) Ampacities are in accordance with table 310.60(C)(77) of the NEC for three single-insulated copper conductors in underground electrical ducts (three conductors per electrical duct) based on ambient earth temperature of 20°C (68°F) electrical duct arrangement in accordance with figure 31060 detail 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.

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

XLPE/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: Tree-retardant cross-linked polyethylene (TR-XLPE).
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

- INDULINK 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 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 Distribubtion 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)	
824801047	2	0.27	0.682	0.745	0.921	470	1270	165	165	---	3
824801048	1	0.30	0.714	0.777	0.953	556	1429	190	185	---	3
824801049	1/0	0.33	0.751	0.814	0.990	664	1628	215	215	220	3
824801050	2/0	0.37	0.791	0.854	1.029	799	1871	255	245	250	3
824801051	3/0	0.42	0.837	0.900	1.076	968	2171	290	275	290	3
824801052	4/0	0.47	0.891	0.954	1.130	1181	2544	330	315	335	3 ½
824801053	250	0.52	0.934	0.997	1.173	1368	2867	365	345	370	3 ½
824801054	350	0.61	1.029	1.092	1.268	1846	3681	440	415	460	4
824801057	500	0.73	1.151	1.214	1.390	2577	4905	535	500	575	4
824801060	750	0.90	1.316	1.379	1.555	3773	6875	655	610	745	5
824801062	1000	1.06	1.472	1.535	1.770	4971	9037	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)	
826601047	2	0.27	0.772	0.835	1.011	489	1421	165	165	---	3
826601048	1	0.30	0.804	0.867	1.042	575	1584	190	185	---	3
826601049	1/0	0.33	0.841	0.904	1.080	683	1788	215	215	220	3
826601050	2/0	0.37	0.880	0.943	1.119	819	2036	255	245	250	3 ½
826601051	3/0	0.42	0.927	0.990	1.166	988	2341	290	275	290	3 ½
826601052	4/0	0.47	0.981	1.044	1.220	1200	2721	330	315	335	3 ½
826601053	250	0.52	1.024	1.087	1.263	1387	3050	365	345	370	4
826601054	350	0.61	1.119	1.181	1.357	1865	3877	440	415	460	4
826601057	500	0.73	1.241	1.304	1.479	2597	5116	535	500	575	5
826601060	750	0.90	1.406	1.469	1.705	3793	7299	655	610	745	5
826601062	1000	1.06	1.561	1.624	1.860	4990	9300	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).

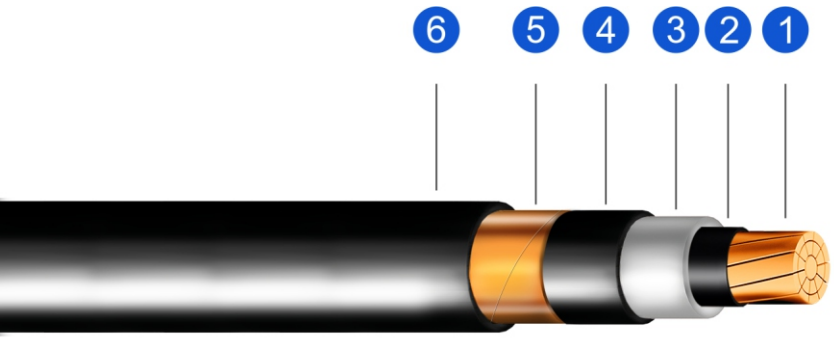
(2) Ampacities are in accordance with table 310.60(C)(77) of the NEC for three single-insulated copper conductors in underground electrical ducts (three conductors per electrical duct) based on ambient earth temperature of 20°C (68°F) electrical duct arrangement in accordance with figure 31060 detail 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.

INDULINK TYPE MV-105 25 kV 100% and 133% I.L.

XLPE/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: Tree-retardant cross-linked polyethylene (TR-XLPE).
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

- INDULINK 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 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 Distribubtion 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)	
824901048	1	0.30	0.874	0.937	1.113	790	1713	190	185	---	3 ½
824901049	1/0	0.33	0.911	0.974	1.150	950	1921	215	215	220	3 ½
824901050	2/0	0.37	0.950	1.013	1.189	1151	2172	255	245	250	3 ½
824901051	3/0	0.42	0.997	1.060	1.236	1403	2483	290	275	285	3 ½
824901052	4/0	0.47	1.051	1.114	1.290	1719	2868	330	315	335	4
824901053	250	0.52	1.094	1.157	1.333	1997	3201	365	345	370	4
824901054	350	0.61	1.189	1.252	1.427	2713	4037	440	415	455	4
824901057	500	0.73	1.311	1.374	1.550	3810	5289	535	500	565	5
824901060	750	0.90	1.476	1.539	1.775	5606	7496	655	610	730	5
824901062	1000	1.06	1.631	1.694	1.930	7407	9512	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)	
826701048	1	0.30	0.994	1.057	1.233	616	1951	190	185	---	4
826701049	1/0	0.33	1.031	1.094	1.270	724	2165	215	215	220	4
826701050	2/0	0.37	1.071	1.134	1.310	860	2423	255	245	250	4
826701051	3/0	0.42	1.117	1.180	1.356	1029	2742	290	275	285	4
826701052	4/0	0.47	1.171	1.234	1.410	1241	3136	330	315	335	5
826701053	250	0.52	1.215	1.278	1.453	1428	3477	365	345	370	5
826701054	350	0.61	1.309	1.372	1.548	1906	4329	440	415	455	5
826701057	500	0.73	1.431	1.494	1.730	2638	5797	535	500	565	5
826701060	750	0.90	1.596	1.659	1.895	3833	7851	655	610	730	6
826701062	1000	1.06	1.752	1.815	2.051	5031	9894	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).

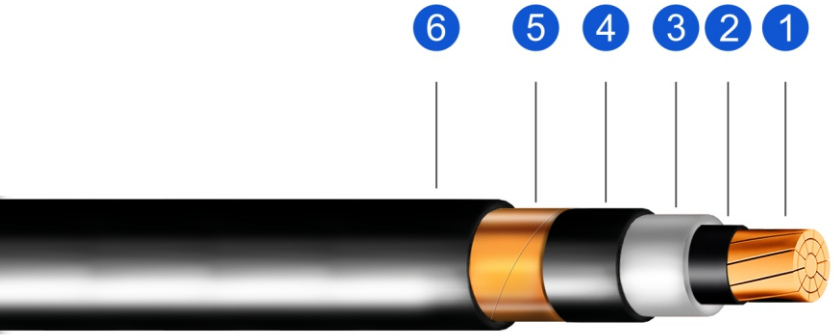
(2) Ampacities are in accordance with table 310.60(C)(77) of the NEC for three single-insulated copper conductors in underground electrical ducts (three conductors per electrical duct) based on ambient earth temperature of 20°C (68°F) electrical duct arrangement in accordance with figure 31060 detail 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.

INDULINK TYPE MV-105 35 kV 100%

XLPE/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: Tree-retardant cross-linked polyethylene (TR-XLPE).
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

- INDULINK 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 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 Distribubtion 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)	
825001049	1/0	0.33	1.081	1.144	1.320	735	2272	215	215	220	4
825001050	2/0	0.37	1.120	1.183	1.359	870	2533	255	245	250	4
825001051	3/0	0.42	1.167	1.230	1.406	1.039	2854	290	275	285	4
825001052	4/0	0.47	1.221	1.284	1.460	1252	3253	330	315	335	5
825001053	250	0.52	1.264	1.327	1.503	1438	3597	365	345	370	5
825001054	350	0.61	1.359	1.422	1.598	1917	4456	440	415	455	5
825001057	500	0.73	1.481	1.544	1.779	2648	5938	535	500	565	5
825001060	750	0.90	1.646	1.709	1.945	3844	8004	655	610	730	6
825001062	1000	1.06	1.802	1.865	2.100	5042	10058	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.