

CT1A-09ET with SIMpull® Jacket



5 kVU or 8 kV
Type MV-105

Aluminum Conductor

Thermosetting
Conductor Shield

EPR Insulation

Thermosetting Insulation
Shield

Copper Tape Shield

SIMpull® PVC Jacket

Sizes AWG 1/0 and
Larger Listed for CT Use

APPLICATIONS

Southwire CT1A-09ET Type MV-105 Cable is for use in aerial, direct burial, cable trays, conduit, and underground duct installations as permitted by the NEC®. These cables are capable of operating continuously at a conductor temperature not in excess of 105°C for normal operation, 140°C for emergency overload conditions, and 250°C for short circuit conditions, and are rated at 5,000 V, 133% insulation level (ungrounded system) and 8,000 V, 100% insulation levels (grounded system). This cable may be installed without the need for pulling lubricant.

SPECIFICATIONS

Southwire CT1A-09ET Type MV-105 Cable is manufactured and tested in accordance with the latest revisions of the following standards and specification:

- UL 1072 - Medium Voltage Power Cables
- ICEA S-93-639 (NEMA WC 74) - 5-46 kV Shielded Power Cable for Use in the Transmission & Distribution of Electric Energy
- ICEA S-97-682 (when requested) 5-46 kV Standard for Utility Shielded Power Cable
- UL 1685 – (1/0 AWG and larger) – UL Flame Exposure Test
- IEEE 1202 – Flame Test (70,000 BTU/hr Vertical Tray Test)

Certified qualification tests were performed in accordance with the requirements of AEIC CS-8. Cable has fully met the qualification testing requirements of AEIC CS-8.

CONSTRUCTION

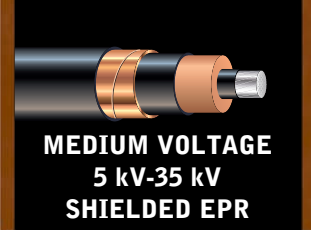
Southwire CT1A-09ET Type MV-105 Cable offers flexible, easy bending insulation, easy cable preparation, fast stripping thermosetting insulation shield, 105°C continuous operating temperature, 100% shield coverage, and it is triple extruded. Cable is sunlight resistant, suitable for direct burial, and listed for cable tray use in sizes 1/0 AWG and larger. SOLONON® low smoke, non-halogen polyolefin jackets and CPE jackets are available upon request.

• Scope

This specification covers single conductor EPR (ethylene propylene rubber) insulated, shielded, thermoplastic jacketed power cable for use in aerial, direct burial, conduit, and underground duct installations. This cable is capable of operating continuously at a conductor temperature not in excess of 105°C for normal operation, 140°C for emergency overload conditions, and 250°C for short circuit conditions, and is rated at 5,000 V, 133% insulation level (ungrounded system).

• Standards

The following standards shall form a part of this specification- UL Standard 1072 for Medium Voltage Power Cable and ICEA S-93-639 (NEMA WC 74) 5-46 kV Shielded Power Cable for Use in the Transmission & Distribution of Electric Energy.



WEIGHTS, MEASUREMENTS AND PACKAGING

PRODUCT CODE	SIZE	CONDUCTOR DIAMETER*		0.115" (2.92mm) INSULATION DIAMETER		EXTRUDED INSULATION SHIELD DIAMETER		MINIMUM POINT JACKET THICKNESS		APPROXIMATE OVERALL DIAMETER		APPROXIMATE NET WEIGHT		ALLOWABLE AMPACITIES**	
	AWG or kcmil	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs/1000 ft	kg/km	DUCTS	CONDUIT IN AIR
CT1A-09ET- 002	2	0.268	5.34	0.504	12.80	0.560	14.22	0.060	1.52	0.696	17.67	272	405	125	115
CT1A-09ET- 001	1	0.299	7.59	0.534	13.56	0.590	14.98	0.060	1.52	0.726	18.44	300	446	140	135
CT1A-09ET- 010	1/0	0.336	8.53	0.571	14.48	0.627	15.93	0.060	1.52	0.763	19.40	340	506	160	155
CT1A-09ET- 020	2/0	0.376	9.55	0.609	15.48	0.667	16.94	0.060	1.52	0.803	20.40	383	570	185	175
CT1A-09ET- 030	3/0	0.423	10.74	0.654	16.62	0.712	18.08	0.070	1.77	0.879	22.34	460	685	210	210
CT1A-09ET- 040	4/0	0.475	12.06	0.704	17.88	0.762	19.35	0.070	1.77	0.929	23.59	520	773	245	240
CT1A-09ET- 250	250	0.520	13.21	0.762	19.35	0.820	20.83	0.070	1.77	0.987	25.07	586	872	270	280
CT1A-09ET- 350	350	0.616	15.64	0.857	21.76	0.915	23.24	0.070	1.77	1.080	27.43	724	1077	325	340
CT1A-09ET- 500	500	0.736	18.69	0.959	24.35	1.035	26.28	0.070	1.77	1.200	30.53	921	1370	400	425
CT1A-09ET- 750	750	0.908	23.06	1.140	28.99	1.220	30.92	0.070	1.77	1.380	35.16	1249	1859	505	545
CT1A-09ET- 100	1000	1.060	26.92	1.290	32.80	1.360	34.73	0.070	1.77	1.530	38.97	1555	2315	590	645

*Minimum diameter per ASTM Standards. Dimensions accuracy ± 0.050 " **Ampacities are based on the NEC® 2008 Edition. Duct ampacities are based on Table 310.78 three conductors in one underground duct, 105°C conductor, 20°C earth ambient temperature. Conduit in air ampacities are based on Table 310.74 three cables within in isolated conduit in air, 105°C conductor, 40°C ambient temperature.

CONSTRUCTION (continued)

• Conductor

The conductor shall be Class B 8000 Series compact aluminum in accordance with ASTM specs B800 and B801 and ICEA Part 2, Section 2.1 and 2.5.

• Conductor Shield

The conductor shall be shielded with an extruded semi-conducting thermosetting polymeric layer over the conductor, applied in tandem with and firmly bonded to the insulation.

• Insulation

The insulation shall be EPR (ethylene propylene rubber) meeting the requirements of the reference standards. The nominal thickness shall be 0.115".

• Insulation Shield

The insulation shall be shielded with an extruded layer of semi-conducting thermosetting material which shall be identified as being semi-conducting. Over this layer shall be applied a helically-wrapped 5-mil copper tape with 25% overlap.

• Jacket

The cable shall be provided with a SIMpull® jacket of black sunlight resistant no lead PVC conforming to the requirements in ICEA. The average thickness shall be in accordance with Table 7-3 of ICEA. Optional SOLONON® low smoke, non-halogen polyolefin jackets and CPE jackets are available upon request.

• Identification

Cable shall be identified by surface printing on the jacket.

• Tests

Certified qualification tests were performed in accordance with the requirements of AEIC.