CT1-09ET with SIM*pull* Jacket

5 kVU or 8 kV
Type MV-105

Copper Conductor

Thermosetting
Conductor Shield

EPR Insulation

Thermosetting Insulation
Shield

SIM*pull*® PVC Jacket

APPLICATIONS

Southwire CT1-09ET 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% (ungrounded system) and 8,000 V 100% insulation level (grounded system). This cable may be installed without the need for pulling lubricant.

SPECIFICATIONS

Southwire CT1-09ET 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 - (AWG 1/0 and larger) -UL Flame Exposure Test
- IEEE 1202 - Flame Testing of Cables for Use in Cable Tray in industrial and Commercial Occupancies (70,000 BTU/hr)

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.

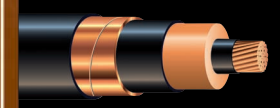
CONSTRUCTION

Southwire CT1-09ET 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 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, cable trays, 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, and 8,000 V, 100% insulation level.
- **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.
- **Conductor**
  The conductor shall be Class B compressed soft or annealed copper in accordance with ASTM Specs B3 and B8 and IECA Part 2, Section 2.1 and 2.5.

Southwire® Industrial Cable

UL LISTED MADE IN USA



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
C1-09ET-002	2	0.283	7.19	0.547	13.89	0.623	15.82	0.055	1.40	0.759	19.3	455	677	155	145
C1-09ET-001	1	0.322	8.18	0.608	15.43	0.663	16.83	0.055	1.40	0.799	20.3	525	782	180	175
CT1-09ET-010	1/0	0.362	9.19	0.648	16.45	0.703	17.84	0.070	1.78	0.870	22.1	641	954	210	200
CT1-09ET-020	2/0	0.405	10.29	0.688	17.46	0.743	18.86	0.070	1.78	0.910	23.1	745	1108	235	225
CT1-09ET-030	3/0	0.456	11.58	0.738	18.73	0.793	20.13	0.070	1.78	0.960	24.4	877	1306	270	270
CT1-09ET-040	4/0	0.512	13.00	0.793	20.13	0.848	21.53	0.070	1.78	1.015	25.8	1036	1541	310	305
CT1-09ET-250	250	0.558	14.17	0.850	21.59	0.905	22.99	0.070	1.78	1.070	27.2	1181	1757	345	355
CT1-09ET-350	350	0.661	16.79	0.953	24.19	1.008	25.59	0.070	1.78	1.175	29.8	1543	2297	415	430
CT1-09ET-500	500	0.790	20.07	1.078	27.37	1.133	28.77	0.070	1.78	1.300	33.0	2067	3076	505	530
CT1-09ET-750	750	0.968	24.59	1.265	32.13	1.320	33.53	0.070	1.78	1.487	37.8	2932	4363	630	665
CT1-09ET-1000	1000	1.117	28.37	1.410	35.81	1.465	37.21	0.070	1.78	1.632	41.5	3771	5612	720	770

*Minimum diameter per ASTM Standards. Dimensions accuracy ±0.050" **Ampacities are based on the NEC® 2008 Edition. Duct ampacities are based on Table 310.77 three conductors in one underground duct, 105°C conductor, 20°C earth ambient temperature. Conduit in air ampacities are based on Table 310.73 three cables in isolated conduit in air, 105°C conductor, 40°C ambient temperature.

CONSTRUCTION (continued)

- **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 referenced standards. The nominal thickness shall be 0.115".
- **Insulation Shield**
  The insulation shall be covered with an extruded layer of semi-conducting thermosetting material which shall be identified as being semi-conducting. Over this layer shall be a helically-wrapped 5-mil copper tape with 25% overlap.
- **Jacket**
  The cable shall be provided with a SIM*pull*® 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 jacket.
- **Tests**
  Certified qualification tests were performed in accordance with the requirements of AEIC.