

CT1-13ET with SIMpull Jacket



15 kVU Type MV-105

Copper 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 CT1-13ET 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 15,000 V, 133% insulation level (ungrounded system). This cable may be installed without the need for pulling lubricant.

SPECIFICATIONS

Southwire CT1-13ET 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 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 CT1-13ET 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 AWG 1/0 and larger. SOLONON® low smoke, non-halogen polyolefin jackets and CPE jackets are available upon request.

• Scope

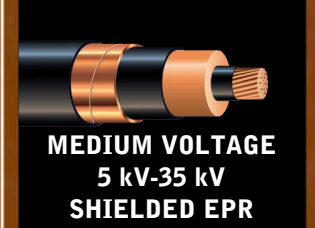
This specification covers single conductor EPR (ethylene propylene rubber) insulated, shielded, thermoplastic jacketed power cable for use in aerial, direct burial, cable trays, conduit, and underground duct installations. This cable is capable of operating continuously at a conductor temperature not 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 15,000 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.

• Conductor

The conductor shall be Class B compressed soft or annealed copper in accordance with ASTM specs B3 and B8 and ICEA Part 2, Section 2.1 and 2.5.



WEIGHTS, MEASUREMENTS AND PACKAGING

PRODUCT CODE	SIZE	CONDUCTOR DIAMETER*		0.220" (5.59mm) 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
CT1-13ET-002	2	0.283	7.19	0.773	19.62	0.828	21.02	0.070	1.78	0.995	25.3	641	953	165	165
CT1-13ET-001	1	0.322	8.18	0.813	20.64	0.868	22.03	0.070	1.78	1.035	26.3	719	1070	185	190
CT1-13ET-010	1/0	0.362	9.19	0.853	21.65	0.908	23.05	0.070	1.78	1.075	27.3	819	1219	215	215
CT1-13ET-020	2/0	0.405	10.29	0.893	22.67	0.948	24.07	0.070	1.78	1.115	28.3	930	1384	245	255
CT1-13ET-030	3/0	0.456	11.58	0.943	23.94	0.998	25.34	0.070	1.78	1.165	29.6	1071	1594	275	290
CT1-13ET-040	4/0	0.512	13.00	0.998	25.34	1.053	26.73	0.070	1.78	1.220	31.0	1238	1841	315	330
CT1-13ET-250	250	0.558	14.17	1.053	26.73	1.108	28.13	0.070	1.78	1.275	32.4	1392	2071	345	365
CT1-13ET-350	350	0.661	16.79	1.158	29.40	1.213	30.80	0.070	1.78	1.380	35.0	1772	2637	415	440
CT1-13ET-500	500	0.790	20.07	1.283	32.58	1.338	33.97	0.070	1.78	1.505	38.2	2317	3447	500	535
CT1-13ET-750	750	0.968	24.59	1.470	37.34	1.525	38.74	0.100	2.54	1.755	44.6	3313	4930	610	655
CT1-13ET-100	1000	1.117	28.37	1.615	41.02	1.670	41.02	0.100	2.54	1.900	48.5	4197	6245	690	755

*Minimum diameter per ASTM Standards. Dimensions accuracy $\pm 0.050"$ **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 0.220".

- 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 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.