

19ET with SIMpull® Jacket



35 kV or 25 kVU Type
MV-105

Copper Conductor

Thermosetting
Conductor Shield

EPR Insulation

Thermosetting Insulation
Shield

Tape Shield

SIMPull® PVC Jacket

APPLICATIONS

Southwire 19ET Type MV-105 Cable is for use in aerial, direct burial, 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 25,000 V, 133%, and 35,000 V, 100% insulation level.

SPECIFICATIONS

Southwire 19ET 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
- 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 19ET 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. Also available listed for cable tray use upon request. SOLONON® low smoke, non-halogen polyolefin jackets and CPE jackets are available upon request.

• Scope

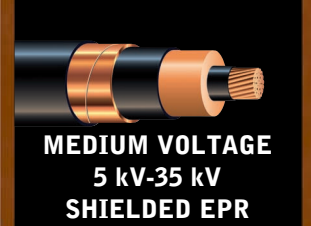
This specification covers single conductor EPR (ethylene propylene rubber) insulated, shielded, thermoplastic jacketed power cable for use in aerial, direct burial, conduit, and underground duct installations. This cable is capable of operating continuously at a conductor temperature not in excess of 105°C for normal operation, 140°C for emergency overload conditions, and 250°C for short circuit conditions, and are rated at 25,000 V, 133% insulation level, and 35,000 V, 100% insulation level (grounded 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*		0.345" (8.76mm) 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
19-ET-010	1/0	0.362	9.19	1.098	27.88	1.153	29.27	0.070	1.78	1.320	33.5	1071	1593	215	215
19-ET-020	2/0	0.405	10.29	1.138	28.89	1.193	30.29	0.070	1.78	1.360	34.5	1189	1769	245	255
19-ET-030	3/0	0.456	11.58	1.188	30.16	1.243	31.56	0.070	1.78	1.410	35.8	1340	1993	275	290
19-ET-040	4/0	0.512	13.00	1.243	31.56	1.298	32.96	0.070	1.78	1.465	37.2	1523	2266	315	330
19-ET-250	250	0.558	14.17	1.300	33.02	1.355	34.42	0.070	1.78	1.520	38.6	1688	2512	345	365
19-ET-350	350	0.661	16.79	1.403	35.62	1.458	37.02	0.070	1.78	1.625	41.3	2089	3108	415	440
19-ET-500	500	0.790	20.07	1.528	38.80	1.583	40.20	0.100	2.54	1.813	46.0	2761	4108	500	535
19-ET-750	750	0.968	24.59	1.715	43.56	1.778	45.15	0.100	2.54	2.008	51.0	3718	5533	610	655
19-ET-100	1000	1.117	28.37	1.860	47.24	1.923	48.83	0.100	2.54	2.153	54.7	4620	6875	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 0.345".

• 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 jacket.

• Tests

Certified qualification tests were performed in accordance with the requirements of AEIC CS-8.

• Available Alternatives

Upon request, cable is available in sizes 1/0 AWG and larger listed for use in cable trays.