

# LOW SMOKE, ZERO HALOGEN (LSZH) 15kV SHIELDED

EPR/COPPER TAPE SHIELD/LSZH, MEDIUM-VOLTAGE POWER, SHIELDED 15kV, UL TYPE MV-105, 133% INS. LEVEL, 220 MILS

## Construction

### Conductor:

- 2 AWG thru 1000 kcmil annealed bare copper compact Class B strand.

### Extruded Strand Shield (ESS):

- Extruded thermoset semi-conducting stress-control layer over conductor.

### Insulation:

- Ethylene Propylene Rubber (EPR) insulation, colored to contrast with the black conducting shield layers.

### Extruded Insulation Shield (EIS):

- Thermoset semi-conducting polymeric layer free stripping from insulation.

### Metallic Shield:

- 5 mil annealed copper tape with an overlap of 25%.

### Jacket:

- Lead free, moisture- and sunlight-resistant, Low-Smoke, Zero-Halogen Polyolefin (LSZH).

### Print:

- 1/C SIZE (AWG OR KCMIL) COMPACT CU LSZH JKT (INSULATION THICKNESS) EPR TYPE MV-105 (VOLTAGE) KV% INSULATION LEVEL SUN RES FOR CT USE (UL) SEQUENTIAL FOOTAGE MARK.  
\* Sizes smaller than 1/0 AWG do not include "FOR CT USE".

### Applications:

- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications.
- For use in wet or dry locations when installed in accordance with NEC.
- For use in aerial, conduit, open tray and underground duct installations.
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4 (A) (5).

### Features:

- Rated at 105°C.
- Excellent heat and moisture resistance.
- Excellent flame resistance.
- Outstanding corona resistance.
- Flexibility for easy handling.
- High dielectric strength.
- Low moisture absorption.
- Electrical stability under stress.
- Low dielectric loss.
- Chemical-resistant.
- Meets cold bend test at -35°C.

### Compliances:

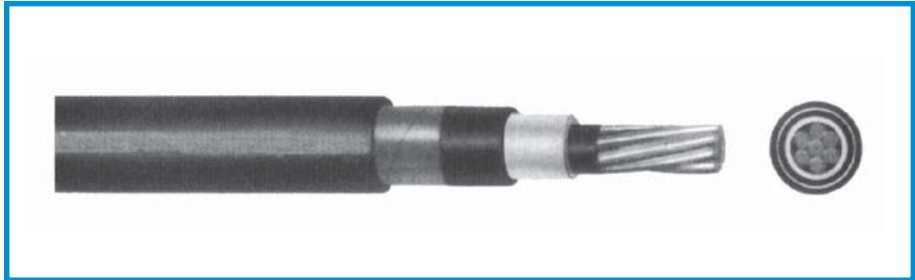
- National Electrical Code (NEC).
- UL 1072.
- ICEA S-93-639/NEMA WC74.
- ICEA S-97-682.
- AEC C58.
- UL listed as Type MV-105 for use in accordance with NEC.
- UL 1685 (Sizes 1/0 AWG and larger) UL Flame Exposure Test.
- Sizes 1/0 AWG and larger are listed and marked "Sunlight-Resistant FOR CT USE" in accordance with NEC.
- IEEE 1202 (70,000 BTU/hr.)/CSA FT4.
- Meets EPA 40 CFR, Part 2671 for leachable lead content per TCLP method.
- OSHA acceptable.

### Optional Flame Tests:

- ICEA T-29-520 (210,000 BTU/hr.).

### Packaging:

- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit.
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing.



CUSTOM CATALOG NUMBER	COND. SIZE AWG/kcmil	INSULATION DIAMETER (INCHES)		NOMINAL JACKET THICKNESS (INCHES)	NOMINAL CABLE		COPPER WEIGHT LBS./1000 FT	AMPACITY			CONDUIT SIZING <sup>4</sup> INCHES
		MIN.	MAX.		DIAMETER (INCHES)	WEIGHT LBS./1000 FT		CONDUIT IN AIR <sup>1</sup>	UNDERGROUND DUCT <sup>2</sup>	TRAY <sup>3</sup>	
<b>15kV, UL TYPE MV-105, 133% INS. LEVEL, 220 MILS</b>											
18180	2	0.710	0.800	0.080	0.99	658	276	165	165	-	3
18181*	1	0.745	0.830	0.080	1.02	733	332	190	185	-	3.5
18182*	1/0	0.780	0.865	0.080	1.06	825	403	215	215	220	3.5
18183	2/0	0.820	0.905	0.080	1.10	938	492	255	245	250	3.5
18184*	3/0	0.865	0.955	0.080	1.14	1078	603	290	275	290	3.5
18185	4/0	0.920	1.005	0.080	1.21	1261	743	330	315	335	3.5
18186*	250	0.970	1.060	0.080	1.25	1407	866	365	345	370	4
18187	350	1.070	1.155	0.080	1.35	1783	1184	440	415	460	5
18188	500	1.190	1.275	0.080	1.47	2331	1657	535	500	575	5
18189	750	1.370	1.460	0.080	1.65	3234	2445	655	610	745	6
18190*	1000	1.520	1.610	0.110	1.86	4219	3228	755	690	890	6

\* Non-stock item, minimum runs apply. Please consult Customer Service for price and delivery.

<sup>1</sup> Ampacities are in accordance with Table 310-73 of the NEC for triplexed or three single conductor copper cable in isolated conduit in air, based on a conductor temperature of 105°C (221°F) and an ambient air temperature of 40°C (104°F).

<sup>2</sup> Ampacities are in accordance with Table 310-77 of the NEC for triplexed or three single conductor copper cable in underground ducts (three conductors per duct), based on a conductor temperature of 105°C (221°F) and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

<sup>3</sup> Ampacities are based on single conductor Type MV-105 sizes 1/0 AWG and larger in an uncovered tray in accordance with Section 392-13(B) of the NEC at an ambient air temperature of 40°C (104°F); the ampacities are based on 75% of the values per Table 310-69. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 95% of the values shown above.

<sup>4</sup> Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered, but it should be checked for individual installations.

<sup>v</sup> 100% insulation level is available upon request.

Dimensions and weights are nominal; subject to industry tolerances.

Note: Sizes smaller than 1/0 AWG do not include "FOR CT USE".

# Custom Cable Corp.



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