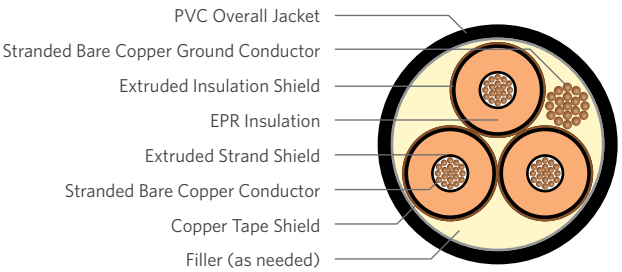
EPR/CTS/PVC Power, Type MV-105, 3 Conductor, 5kV–15kV

Series E8 (Copper Conductors)



PRODUCT DESCRIPTION

The Superior Essex 3 Conductor MV-105 Power Cables consist of fully annealed bare copper Class B stranded conductors, covered with ethylene propylene rubber (EPR), copper tape shield, and black PVC jacket. These cables are used in industrial power circuits.

APPLICATIONS

- In conduit, duct, free air, direct burial and raceways, primary installations include cable trays, and outdoor locations
- In wet or dry locations
- Approved for Class I, Div. 2 industrial hazardous locations per NEC
- Designed to operate continuously at a conductor temperature not exceeding
  - » 105°C for normal operations
  - » 140°C for emergency overload
  - » 250°C for short circuit

FEATURES

- Rated at 105°C wet or dry
- Excellent corona resistance
- High dielectric strength
- Low moisture absorption
- Low dielectric loss
- Excellent sunlight resistance
- For CT USE per UL® 1072
- Meets cold bend test at -35°C
- For direct burial applications

MARKETS

SPECIFICATIONS

Conductor Count	3 conductor
Conductor	Fully annealed bare copper Class B compressed strand
Gauge Sizes	Available in 2 AWG through 750 kcmil
Conductor Strand Shield	Extruded thermoset semi-conducting polymer over the conductor
Insulation	Ethylene Propylene Rubber (EPR)
Insulation Shield	Extruded thermoset semi-conducting polymer over the insulation
Phase Identification	Color ribbons in each phase (standard: black-red-blue)
Shield	Annealed copper tape helically applied with a 25% overlap
Fillers	Non-hygroscopic fillers, as necessary to obtain a circular cross section
Ground Conductor	Uninsulated bare copper ground
Overall Jacket	Polyvinyl Chloride (PVC)
Jacket Marking	00000 FT SUPERIOR ESSEX XXAWG (or XXXKCMIL) 3/C XXKV XXX% INSUL LEVEL XXXMILS EPR/PVC JKT TYPE MV-105 FOR CT USE (UL) SUN RES DIR BUR MADE IN USA MMDDYYYY
Packaging	Non-returnable reels in a variety of lengths and dimensions
Performance Compliances	ASTM B8 UL 1072 UL 1685 (flame compliance) ICEA S-93-639/NEMA WC74 ICEA S-97-682 AEIC CS8 CSA FT4/IEEE 1202 (flame compliance) NEC
Other Compliances	EPA 40 CFR, Part 261 OSHA

UL is a registered trademark of UL LLC.

PRODUCT KEY

Conductor	Stranding	Voltage	Insulation (CCV)	Shield	Jacket
Cu	B	MV	EPR	Copper Tape	PVC

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Copper Cdr 5kV 133%/8kV 100% I.L., 115-mils, Shielded Series E8FLR

PART NUMBERS AND PHYSICAL CHARACTERISTICS

Part Number	Conductor Size AWG/kcmil	Nominal Conductor Diameter[1] in (mm)	Nominal Insulation Diameter[1] in (mm)	Ground Wire AWG	Nominal Jacket Thickness[1] in (mm)	Nominal Overall Diameter[1] in (mm)	Nominal Net Weight[1] lbs/kft (kg/km)	Ampacity		
								Conduit in Air[2]	Underground Duct[3]	Tray[4]
E8FLR-021B03CB00	2	0.280 (7.1)	0.563 (14.31)	6	0.080 (2.03)	1.614 (41.0)	1644 (2446)	165	160	185
E8FLR-011B03CB00	1	0.319 (8.1)	0.602 (15.29)	4	0.080 (2.03)	1.762 (44.8)	1976 (2940)	185	185	210
E8FLR-1A1B03CB00	1/0	0.358 (9.1)	0.642 (16.31)	4	0.080 (2.03)	1.848 (46.9)	2268 (3375)	215	210	240
E8FLR-2A1B03CB00	2/0	0.401 (10.2)	0.685 (17.41)	4	0.080 (2.03)	1.940 (49.3)	2594 (3860)	245	235	275
E8FLR-3A1B03CB00	3/0	0.451 (11.5)	0.736 (18.69)	3	0.080 (2.03)	2.050 (52.1)	3033 (4513)	280	270	315
E8FLR-4A1B03CB00	4/0	0.507 (12.9)	0.792 (20.12)	3	0.110 (2.79)	2.170 (55.1)	3529 (5252)	320	305	360
E8FLR-A11B03CB00	250	0.552 (14.0)	0.838 (21.29)	2	0.110 (2.79)	2.269 (57.6)	4004 (5958)	350	335	400
E8FLR-A31B03CB00	350	0.654 (16.6)	0.941 (23.91)	2	0.110 (2.79)	2.491 (63.3)	5245 (7805)	430	400	490
E8FLR-A61B03CB00	500	0.781 (19.8)	1.069 (27.15)	1	0.140 (3.55)	2.825 (71.7)	7058 (11616)	525	485	600
E8FLR-B21B03CB00	750	0.958 (24.3)	1.248 (31.70)	1/0	0.140 (3.55)	3.140 (79.8)	9833 (14633)	635	585	745

Copper Cdr 15kV 133% I.L., 220-mils, Shielded Series E8JLR

PART NUMBERS AND PHYSICAL CHARACTERISTICS

Part Number	Conductor Size AWG/kcmil	Nominal Conductor Diameter[1] in (mm)	Nominal Insulation Diameter[1] in (mm)	Ground Wire AWG	Nominal Jacket Thickness[1] in (mm)	Nominal Overall Diameter[1] in (mm)	Nominal Net Weight[1] lbs/kft (kg/km)	Ampacity		
								Conduit in Air[2]	Underground Duct[3]	Tray[4]
E8JLR-021B03CB00	2	0.280 (7.1)	0.793 (20.14)	6	0.110 (2.79)	2.172 (55.2)	2434 (3623)	165	160	185
E8JLR-011B03CB00	1	0.319 (8.1)	0.832 (21.13)	4	0.110 (2.79)	2.256 (57.3)	2749 (4091)	185	185	210
E8JLR-1A1B03CB00	1/0	0.358 (9.1)	0.872 (22.15)	4	0.110 (2.79)	2.342 (59.5)	3069 (4567)	215	210	240
E8JLR-2A1B03CB00	2/0	0.401 (10.2)	0.915 (23.24)	4	0.110 (2.79)	2.435 (61.8)	3429 (5103)	245	235	275
E8JLR-3A1B03CB00	3/0	0.451 (11.5)	0.966 (24.54)	3	0.110 (2.79)	2.544 (64.6)	3916 (5827)	280	270	315
E8JLR-4A1B03CB00	4/0	0.507 (12.9)	1.022 (25.96)	3	0.110 (2.79)	2.665 (67.7)	4475 (6659)	320	305	360
E8JLR-A11B03CB00	250	0.552 (14.0)	1.068 (27.13)	2	0.110 (2.79)	2.824 (71.7)	5168 (7690)	350	335	400
E8JLR-A31B03CB00	350	0.654 (16.6)	1.171 (29.74)	2	0.140 (3.55)	3.045 (77.3)	6289 (9359)	430	400	490
E8JLR-A61B03CB00	500	0.781 (19.8)	1.299 (32.99)	1	0.140 (3.55)	3.320 (84.3)	8102 (12057)	525	485	600
E8JLR-B21B03CB00	750	0.958 (24.3)	1.478 (37.50)	1/0	0.140 (3.55)	3.610 (91.7)	10978 (16337)	635	585	745

[1]The dimensions and weights shown are nominal and subject to industry standards and manufacturing tolerances. Other designs are available upon request.
[2]Ampacities are in accordance with NEC table 310.60(C)(75), Type MV-105, 5001-35000 Volts, for tray or conduit in air.
[3]Ampacities are in accordance with NEC table 310.60(C)(79), Type MV-105, 5001-35000 Volts s, for underground duct, one circuit.
[4]Ampacities are in accordance with NEC table 310.60(C)(71), Type MV-105, 5001-35000 Volts, for in air (tray).