

# DATA CENTER POWER CABLES

## DLO

HEAVY DUTY, FLEXIBLE  
POWER CABLE

## MV-105

1C & 3C MEDIUM VOLTAGE  
POWER CABLE

## TYPE SH

1/C EXTREMELY FLEXIBLE  
POWER CABLE

Shortest  
Lead Times

Best at On-Time  
Delivery



# AmerCable

# FLEXIBLE POWER CABLE • DLO

## 2000 VOLTS • 90°C

DIESEL LOCOMOTIVE CABLE • LIMITED SMOKE (SIZES 2/0 AND HIGHER) • EP/CPE • RHH, RHW-2



### CONDUCTOR

Flexible-stranded,  
tin-coated annealed  
copper

### JACKET

Flame retardant,  
oil and sunlight  
resistant  
Chlorinated  
Polyethylene (CPE)

See below  
for jacket  
color options  
(Special order)



### SEPARATOR

Suitable separator tape  
provides easy stripping  
of insulation

### INSULATION

Ethylene-Propylene rubber  
(EPR)

## APPLICATIONS

AmerCable's 2000V Diesel Locomotive Cable (DLO) is a single conductor portable power cable suitable for use in applications needing great flexibility, excellent wearability and good flex life. Applications include locomotive and car equipment, motor and generator leads, battery leads, shipyards, telecommunications power, heavy earth moving equipment, renewable energy and other heavy duty flexing applications.

## FEATURES

- A two layer composite of flame retardant, oil and sunlight resistant Chlorinated Polyethylene (CPE) outer layer and Ethylene-Propylene rubber (EPR) inner layer. The composite design provides significant diameter reductions compared to designs using full thickness jackets.
- Suitable for continuous operating temperatures of 90°C, wet or dry
- Rated RHH, RHW-2; 2/0 – 1111 kcmil listed and marked "for CT use"
- UL listed as Sunlight Resistant
- UL listed as Marine Shipboard Cable (4/0 and larger) – Special order only
- Insulation and jacket meet hazardous waste regulations, per Code of Federal Regulations 40 Section 261 (40CFR261) for characteristic lead content
- Flame Resistance: FT-4/IEEE1202 for 2/0 – 1111 kcmil and UL VW-1
- Meets smoke release and other requirements of Vertical Cable Tray Test UL 1685 and is marked "ST-1" for 2/0 – 1111 kcmil
- Extremely flexible stranding used for increased flexibility and ease of installation

## RATINGS & APPROVALS

- ICEA S-95-658/ NEMA WC-70: Nonshielded Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- UL Standard 44: Thermoset Insulated Wires & Cables, Types RHH, RHW-2. UL VW-1
- UL Standard 1685: Vertical Tray Fire propagation and Smoke Release Test for Electrical and optical Fiber Cables. (UL,ST-1)
- CSA C22.2 No. 38 Thermoset Wires & Cables, Type RW90
- ASTM B-33: Standard Specification for Tinned Soft or Annealed Copper Wire for Electrical Purposes
- ASTM B-172: Standard Specification for Rope-Lay-Stranded Copper Conductors having Bunch-Stranded Members, for Electrical Conductors
- MSHA P-184
- RoHS Compliant

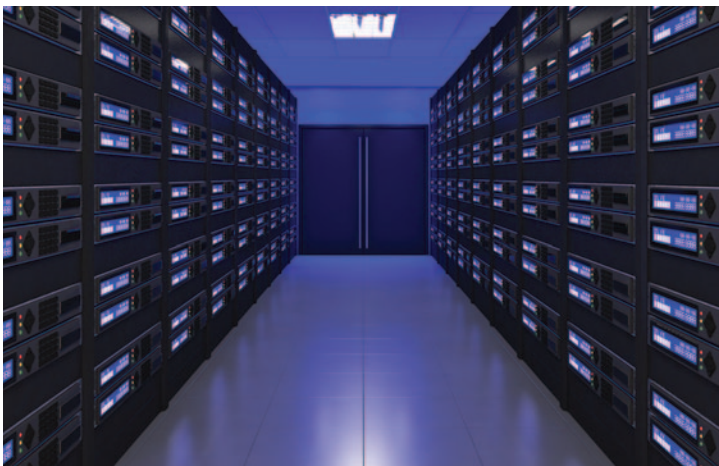
### 37-119 • SINGLE CONDUCTOR PORTABLE POWER CABLE • DLO

Part No. 37-119-	Size AWG/ kcmil	Minimum Wires per Conductor	Nominal Insulation Thickness in.	Nominal Jacket Thickness in.	Nominal Outside Diameter in.	Approx. Weight lbs. per 1,000 ft.	*Ampacity 90°C
201	14	19	0.045	0.015	0.214	31	35
202	12	19	0.045	0.015	0.233	41	40
203	10	37	0.045	0.015	0.257	58	55
204	8	168	0.055	0.030	0.356	77	80
205	6	133	0.055	0.030	0.400	124	105
207	4	133	0.055	0.030	0.460	203	140
209	2	259	0.055	0.030	0.534	265	190
210	1	259	0.065	0.045	0.623	415	220
211	1/0	266	0.080	0.045	0.689	489	260
212	2/0	323	0.065	0.045	0.705	562	300
213	3/0	418	0.065	0.045	0.760	757	350
214	4/0	532	0.065	0.045	0.827	894	405
215	262	646	0.075	0.065	0.932	1091	467
216	313	777	0.075	0.065	1.008	1245	522
217	373	925	0.075	0.065	1.054	1486	591
218	444	1110	0.075	0.065	1.110	1749	652
219	535	1332	0.090	0.065	1.223	2099	728
220	646	1591	0.090	0.065	1.320	2464	815
221	777	1924	0.090	0.065	1.406	2899	904
222	929	2318	0.090	0.065	1.685	3501	1005
223	1111	2745	0.130	0.065	1.850	4166	1119



\* **Ampacity** – Calculated with at 90°C conductor temperature and 30°C ambient air, per 2008 NEC, Table 310.17

• Cable diameters are subject to +/-5% manufacturing tolerance



SAVE  
TIME

Order Your DLO Cable with

## Factory Installed Connectors

SAVE  
MONEY



# MV-105

## Medium Voltage Power Cable

### Single & Three Conductor • PVC or CPE Jacket

### 5kV 100% & 133% Insulation Level

#### Conductor

Bare, annealed copper conforming to ASTM B3 and Class B Compact stranded in accordance with ASTM B496.

#### Grounding Conductor

Bare, annealed copper conforming to ASTM B3 and Class B stranded in accordance with ASTM B8.

#### Insulation Shield Nonmetallic

Extruded semiconducting insulation shield meets or exceeds electrical and physical requirements of UL 1072.

#### Conductor Shield

Extruded semiconducting conductor shield meets or exceeds electrical and physical requirements of UL 1072.

#### Insulation

EPR meets or exceeds electrical and physical requirements of UL 1072.

#### Metallic Shield

Bare copper tape shield helically wrapped to provide 100% coverage.

#### Binder Tape

Synthetic material assembles the core in an essentially round configuration.

#### Jacket

Overall polyvinyl chloride jacket per UL 1072, 90°C temperature rating; low acid gas emission; limited flame spread and excellent corrosion resistance.

*Available with a mold-cured thermosetting Chlorinated Polyethylene (CPE) Jacket.*

Download the Full MV-105 Catalog for Complete Sizes and Specs



## APPLICATION

AmerCable medium voltage power cables are recommended for use as feeder circuits, in electric utility generating stations, for distribution circuits, and for feeders or branch circuits in industrial and commercial installations. Type MV cables may be installed in wet or dry locations, indoors or outdoors (exposed to sunlight), in any raceway or underground duct, directly buried if installed in a system with a grounding conductor in close proximity that conforms with NEC Section 250.4(A)(5), or messenger supported in industrial establishments and electric utilities.

## FEATURES

- UL listed as Type MV-105
- Flame retardant: UL 1685, may be marked "For CT Use"
- Excellent mechanical and physical properties
- Sunlight resistant jacket
- Suitable for direct burial, use in cable tray and embedment in concrete

## BEND RADIUS

- 1-conductor: 12X cable overall diameter
- 3-conductor: 12x individual shielded conductor, or 7x overall diameter, whichever is greater
- Triplexed 1/C: 12x individual shielded conductor, or 7x overall diameter, whichever is greater

## RATINGS & APPROVALS

- 105 °C Temperature Rating
- Emergency Temperature Ratings
  - Overload: 140°C
  - Short Circuit: 250°C
- Meets UL 1072 requirements for medium voltage power cables
- Insulation meets electrical and physical requirements of ICEA S-93-639/NEMA WC 74 and UL 1072
- Meets AEIC CS 8 — specification for extruded dielectric shielded power cables rated 5 - 46kV (Qualification Test Requirements).
- Meets ICEA S-97-682 Standard for Shielded Utility Cable Rated for 5-46kV



**5kV • 100% INSULATION • 1/C**

Part Number (37-505)	Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C Ω/kft	DC Res. 25C Ω/kft	AC Resist. 90C, 60 Hz Ω/kft	Inductive Reactance 90C, 60 Hz Ω/kft	Voltage Drop Volts/Amps/kft
					In Air	Cable Tray	Direct Burial					
101	8	90	0.575	231	74	–	95	0.6535	0.6663	0.8332	0.056	0.700
102	6	90	0.605	277	99	–	130	0.4112	0.4192	0.5242	0.053	0.451
103	4	90	0.645	344	130	–	165	0.2585	0.2636	0.3296	0.049	0.293
104	2	90	0.700	448	175	–	205	0.1626	0.1659	0.2075	0.045	0.193
105	1	90	0.735	518	205	–	240	0.1289	0.1315	0.1644	0.043	0.157
106	1/0	90	0.770	603	240	218	270	0.1022	0.1042	0.1304	0.041	0.129
107	2/0	90	0.810	707	275	248	310	0.0811	0.0827	0.1035	0.040	0.107
109	4/0	90	0.950	1035	475	334	405	0.0510	0.0520	0.0653	0.038	0.075
110	250	90	0.995	1179	415	371	445	0.0432	0.0440	0.0553	0.037	0.066
111	350	90	1.095	1546	515	461	580	0.0308	0.0314	0.0396	0.035	0.053
112	500	90	1.215	2074	645	581	635	0.0361	0.0220	0.0280	0.034	0.043
113	750	90	1.460	3001	835	750	780	0.0144	0.0147	0.0191	0.031	0.034

**5kV 133% INSULATION • 1/C**

Part Number (37-505)	Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C Ω/kft	DC Res. 25C Ω/kft	AC Resist. 90C, 60 Hz Ω/kft	Inductive Reactance 90C, 60 Hz Ω/kft	Voltage Drop Volts/Amps/kft
					In Air	Cable Tray	Direct Burial					
118	6	115	0.645	302	110	–	120	0.4112	0.4192	0.5242	0.054	0.452
119	4	115	0.690	374	140	–	160	0.2585	0.2636	0.3296	0.050	0.294
120	2	115	0.745	480	195	–	205	0.1626	0.1659	0.2075	0.047	0.194
121	1	115	0.775	547	225	–	230	0.1289	0.1315	0.1644	0.044	0.158
122	1/0	115	0.815	636	255	218	260	0.1022	0.1042	0.1304	0.043	0.130
123	2/0	115	0.895	779	295	251	295	0.0811	0.0827	0.1035	0.042	0.108
125	4/0	115	0.995	1076	390	334	385	0.0510	0.0520	0.0653	0.039	0.076
126	250	115	1.040	1222	430	371	410	0.0432	0.0440	0.0553	0.038	0.067
127	350	115	1.135	1586	525	458	505	0.0308	0.0314	0.0396	0.036	0.053
128	500	115	1.255	2119	650	574	605	0.0361	0.0220	0.0280	0.034	0.043
129	750	115	1.505	3059	820	743	740	0.0144	0.0147	0.0191	0.032	0.034

**5kV 133% INSULATION • 3/C**

Part Number (37-505)	Size	Ground Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C Ω/kft	DC Res. 25C Ω/kft	AC Resist. 90C, 60 Hz Ω/kft	Inductive Reactance 90C, 60 Hz Ω/kft	Voltage Drop Volts/Amps/kft
						In Air	Cable Tray	Direct Burial					
302	6	6	115	1.305	1099	105	87	95	0.4112	0.4192	0.5242	0.049	0.449
303	4	6	115	1.400	1304	135	114	125	0.2585	0.2636	0.3296	0.045	0.291
304	2	6	115	1.520	1642	185	157	160	0.1626	0.1659	0.2075	0.042	0.191
305	1	4	115	1.590	1913	210	176	185	0.1289	0.1315	0.1644	0.040	0.156
306	1/0	4	115	1.635	2032	240	204	210	0.1022	0.1042	0.1304	0.038	0.127
307	2/0	4	115	1.810	2632	275	233	235	0.0811	0.0827	0.1035	0.037	0.105
309	4/0	3	115	2.030	3619	360	304	305	0.0510	0.0520	0.0653	0.035	0.073
310	250	3	115	2.125	4133	400	333	335	0.0432	0.0440	0.0553	0.034	0.065
311	350	2	115	2.335	5271	490	409	400	0.0308	0.0314	0.0396	0.032	0.051
312	500	1	115	2.595	7100	600	499	485	0.0361	0.0220	0.0280	0.031	0.041
313	750	1/0	115	3.190	10359	745	603	585	0.0144	0.0147	0.0191	0.029	0.033

**Single Conductor Notes:**

- 1) Ampacities in air are based on NEC 2017 Table 310.60(C)(69), for insulated single conductor cable triplexed in air, maximum conductor temperature of 105°C, ambient air temperature of 40°C.
- 2) Ampacities in cable tray are based on NEC 2017 Table 310.60(C)(69), for insulated single conductor copper cable isolated in air, maximum conductor temperature of 105°C, ambient air temperature of 40°C, with a derating factor of 0.75.
- 3) Ampacities for direct burial are based on NEC 2017 Table 310.60(C)(85) for triplexed insulated single conductor copper cable, directly buried, maximum conductor temperature of 105°C, ambient earth temperature of 20°C, 100% load factor, earth thermal resistivity of 90C cm/W.

**Three Conductor Notes:**

- 1) Ampacities in air are based on NEC 2017 Table 310.60(C)(71), for insulated three conductor copper cable isolated in air, maximum conductor temperature of 105°C, ambient air temperature of 40°C.
- 2) Ampacities in cable tray are based on NEC 2017 Table 310.60(C)(75), for insulated three conductor copper cable in isolated conduit in air, maximum conductor temperature of 105°C, ambient air temperature of 40°C, with a derating factor of 0.95.
- 3) Ampacities for direct burial are based on NEC 2017 Table 310.60(C)(83), for insulated three conductor copper cable, directly buried, maximum conductor temperature of 105°C, ambient earth temperature of 20°C, 100 percent load factor, earth thermal resistivity of 90°C cm / W.



# MV-105 Medium Voltage Power Cable

## Single & Three Conductor • PVC or CPE Jacket

### 8kV 100% & 133% Insulation Level



#### Conductor

Bare, annealed copper conforming to ASTM B3 and Class B Compact stranded in accordance with ASTM B496.

#### Grounding Conductor

Bare, annealed copper conforming to ASTM B3 and Class B stranded in accordance with ASTM B8.

#### Insulation Shield Nonmetallic

Extruded semiconducting insulation shield meets or exceeds electrical and physical requirements of UL 1072.

#### Conductor Shield

Extruded semiconducting conductor shield meets or exceeds electrical and physical requirements of UL 1072.

#### Insulation

EPR meets or exceeds electrical and physical requirements of UL 1072.

#### Metallic Shield

Bare copper tape shield helically wrapped to provide 100% coverage.

#### Binder Tape

Synthetic material assembles the core in an essentially round configuration.

#### Jacket

Overall polyvinyl chloride jacket per UL 1072, 90°C temperature rating; low acid gas emission; limited flame spread and excellent corrosion resistance.

*Available with a mold-cured thermosetting Chlorinated Polyethylene (CPE) Jacket.*

## APPLICATION

AmerCable medium voltage power cables are recommended for use as feeder circuits, in electric utility generating stations, for distribution circuits, and for feeders or branch circuits in industrial and commercial installations. Type MV cables may be installed in wet or dry locations, indoors or outdoors (exposed to sunlight), in any raceway or underground duct, directly buried if installed in a system with a grounding conductor in close proximity that conforms with NEC Section 250.4(A)(5), or messenger supported in industrial establishments and electric utilities.

## FEATURES

- UL listed as Type MV-105
- Flame retardant: UL 1685, may be marked "For CT Use"
- Excellent mechanical and physical properties
- Sunlight resistant jacket
- Suitable for direct burial, use in cable tray and embedment in concrete

## BEND RADIUS

- 1-conductor: 12X cable overall diameter
- 3-conductor: 12x individual shielded conductor, or 7x overall diameter, whichever is greater
- Triplexed 1/C: 12x individual shielded conductor, or 7x overall diameter, whichever is greater

## 8kV 100% INSULATION • 1/C • PVC JACKET

Part Number (37-505)	Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C Ω/kft	DC Res. 25C Ω/kft	AC Resist. 90C, 60 Hz Ω/kft	Inductive Reactance 90C, 60 Hz Ω/kft	Voltage Drop Volts/ Amps/kft
					In Air	Cable Tray	Direct Burial					
118	6	115	0.645	302	110	–	120	0.4112	0.4192	0.5242	0.054	0.452
119	4	115	0.690	374	140	–	160	0.2585	0.2636	0.3296	0.050	0.294
120	2	115	0.745	480	195	–	205	0.1626	0.1659	0.2075	0.047	0.194
121	1	115	0.775	547	225	–	230	0.1289	0.1315	0.1644	0.044	0.158
122	1/0	115	0.815	636	255	218	260	0.1022	0.1042	0.1304	0.043	0.130
123	2/0	115	0.895	779	295	251	295	0.0811	0.0827	0.1035	0.042	0.108
125	4/0	115	0.995	1076	390	334	385	0.0510	0.0520	0.0653	0.039	0.076
126	250	115	1.040	1222	430	371	410	0.0432	0.0440	0.0553	0.038	0.067
127	350	115	1.135	1586	525	458	505	0.0308	0.0314	0.0396	0.036	0.053
128	500	115	1.255	2119	650	574	605	0.0361	0.0220	0.0280	0.034	0.043
129	750	115	1.505	3059	820	743	740	0.0144	0.0147	0.0191	0.032	0.034

See Page 3  
for Ratings &  
Approvals

### 8kV 100% INSULATION • 3/C

Part Number (37-505)	Size	Ground Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C Ω/kft	DC Res. 25C Ω/kft	AC Resist. 90C, 60 Hz Ω/kft	Inductive Reactance 90C, 60 Hz Ω/kft	Voltage Drop Volts/ Amps/kft
						In Air	Cable Tray	Direct Burial					
302	6	6	115	1.305	1099	105	87	95	0.4112	0.4192	0.5242	0.049	0.449
303	4	6	115	1.400	1304	135	114	125	0.2585	0.2636	0.3296	0.045	0.291
304	2	6	115	1.520	1642	185	157	160	0.1626	0.1659	0.2075	0.042	0.191
305	1	4	115	1.590	1913	210	176	185	0.1289	0.1315	0.1644	0.040	0.156
306	1/0	4	115	1.635	2032	240	204	210	0.1022	0.1042	0.1304	0.038	0.127
307	2/0	4	115	1.810	2632	275	233	235	0.0811	0.0827	0.1035	0.037	0.105
309	4/0	3	115	2.030	3619	360	304	305	0.0510	0.0520	0.0653	0.035	0.073
310	250	3	115	2.125	4133	400	333	335	0.0432	0.0440	0.0553	0.034	0.065
311	350	2	115	2.335	5271	490	409	400	0.0308	0.0314	0.0396	0.032	0.051
312	500	1	115	2.595	7100	600	499	485	0.0361	0.0220	0.0280	0.031	0.041
313	750	1/0	115	3.190	10359	745	603	585	0.0144	0.0147	0.0191	0.029	0.033



### 8kV • 133% INSULATION • 1/C

Part Number (37-505)	Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C Ω/kft	DC Res. 25C Ω/kft	AC Resist. 90C, 60 Hz Ω/kft	Inductive Reactance 90C, 60 Hz Ω/kft	Voltage Drop Volts/ Amps/kft
					In Air	Cable Tray	Direct Burial					
134	6	0.140	0.745	342	110	-	120	0.4112	0.4192	0.5242	0.056	0.453
135	4	0.140	0.790	413	140	-	160	0.2585	0.2636	0.3296	0.052	0.295
136	2	0.140	0.880	548	195	-	205	0.1626	0.1659	0.2075	0.049	0.195
137	1	0.140	0.910	617	225	-	230	0.1289	0.1315	0.1644	0.047	0.160
138	1/0	0.140	0.950	709	255	218	260	0.1022	0.1042	0.1304	0.046	0.132
139	2/0	0.140	0.990	818	295	251	295	0.0811	0.0827	0.1035	0.044	0.109
141	4/0	0.140	0.080	1112	390	334	385	0.0510	0.0520	0.0653	0.041	0.077
142	250	0.140	1.125	1255	430	371	410	0.0432	0.0440	0.0553	0.039	0.068
144	350	0.140	1.235	1636	525	458	505	0.0308	0.0314	0.0396	0.038	0.054
146	500	0.140	1.350	2166	650	574	665	0.0361	0.0220	0.0280	0.036	0.044
148	750	0.140	1.610	3114	820	743	740	0.0144	0.0147	0.0191	0.035	0.036



### 8kV 133% INSULATION LEVEL • 3/C

Part Number (37-505)	Size	Ground Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C Ω/kft	DC Res. 25C Ω/kft	AC Resist. 90C, 60 Hz Ω/kft	Inductive Reactance 90C, 60 Hz Ω/kft	Voltage Drop Volts/ Amps/kft
						In Air	Cable Tray	Direct Burial					
332	6	6	0.140	1.510	1185	105	87	95	0.4112	0.4192	0.5242	0.051	0.450
333	4	6	0.140	1.610	1412	125	114	125	0.2585	0.2636	0.3296	0.047	0.292
334	2	6	0.140	1.755	1358	185	157	160	0.1626	0.1659	0.2075	0.043	0.192
335	1	4	0.140	1.825	1596	210	176	185	0.1289	0.1315	0.1644	0.042	0.157
336	1/0	4	0.140	1.915	1874	240	204	210	0.1022	0.1042	0.1304	0.041	0.129
337	2/0	4	0.140	2.000	2168	275	233	235	0.0811	0.0827	0.1035	0.039	0.106
339	4/0	2	0.140	2.225	3750	360	304	305	0.0510	0.0520	0.0653	0.037	0.074
340	250	2	0.140	2.315	4220	400	333	335	0.0432	0.0440	0.0553	0.035	0.066
342	350	2	0.140	2.520	4598	490	409	400	0.0308	0.0314	0.0396	0.034	0.052
343	500	1	0.140	2.650	6122	600	499	485	0.0361	0.0220	0.0280	0.032	0.042
344	750	1/0	0.140	3.210	10115	745	603	585	0.0144	0.0147	0.0191	0.031	0.034

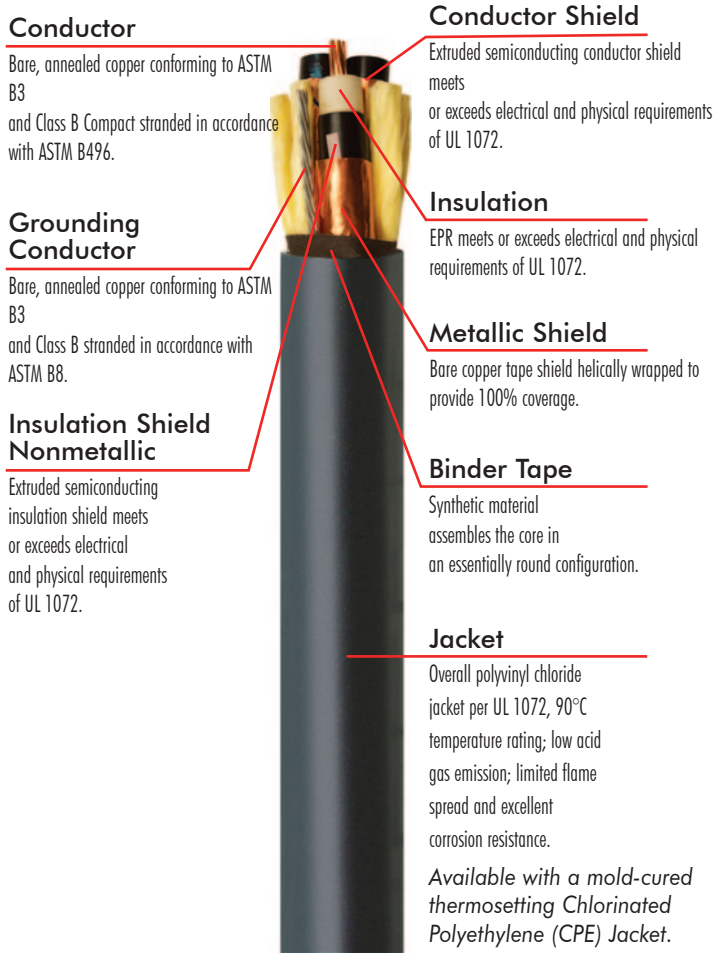
See Page 2 for Technical Notes

# MV-105

## Medium Voltage Power Cable

### Single & Three Conductor • PVC or CPE Jacket

### 15kV 100% & 133% Insulation Level



### APPLICATION

AmerCable medium voltage power cables are recommended for use as feeder circuits, in electric utility generating stations, for distribution circuits, and for feeders or branch circuits in industrial and commercial installations. Type MV cables may be installed in wet or dry locations, indoors or outdoors (exposed to sunlight), in any raceway or underground duct, directly buried if installed in a system with a grounding conductor in close proximity that conforms with NEC Section 250.4(A)(5), or messenger supported in industrial establishments and electric utilities.

### FEATURES

UL listed as Type MV-105

- Flame retardant: UL 1685, may be marked "For CT Use"
- Excellent mechanical and physical properties
- Sunlight resistant jacket
- Suitable for direct burial, use in cable tray and embedment in concrete

### BEND RADIUS

- 1-conductor: 12X cable overall diameter
- 3-conductor: 12x individual shielded conductor, or 7x overall diameter, whichever is greater
- Triplexed 1/C: 12x individual shielded conductor, or 7x overall diameter, whichever is greater

### 15kV • 100% INSULATION • 1/C

Part Number (37-505)	Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C Ω/kft	DC Res. 25C Ω/kft	AC Resist. 90C, 60 Hz Ω/kft	Inductive Reactance 90C, 60 Hz Ω/kft	Voltage Drop Volts/Amps/kft
					In Air	Cable Tray	Direct Burial					
164	2	220	1.005	700	195	—	205	0.1626	0.1659	0.2075	0.054	0.198
165	1	220	1.035	774	225	—	230	0.1289	0.1315	0.1644	0.051	0.162
166	1/0	220	1.070	867	255	218	260	0.1022	0.1042	0.1304	0.049	0.134
167	2/0	220	1.115	987	295	251	295	0.0811	0.0520	0.1035	0.047	0.111
169	4/0	220	1.210	1295	390	334	385	0.0510	0.0440	0.0653	0.044	0.079
170	250	220	1.275	1473	430	371	410	0.0432	0.0827	0.0553	0.043	0.070
171	350	220	1.370	1856	525	458	505	0.0308	0.0314	0.0396	0.040	0.056
172	500	220	1.480	2411	650	574	605	0.0361	0.0220	0.0280	0.038	0.045
173	750	220	1.780	3478	820	743	740	0.0144	0.0147	0.0191	0.036	0.037

See Page 3  
for Ratings &  
Approvals

## 15kV 133% INSULATION • 1/C

Part Number (37-505)	Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C Ω/kft	DC Res. 25C Ω/kft	AC Resist. 90C, 60 Hz Ω/kft	Inductive Reactance 90C, 60 Hz Ω/kft	Voltage Drop Volts/Amps/kft
					In Air	Cable Tray	Direct Burial					
150	2	0.175	0.945	601	195	-	205	0.1626	0.1659	0.2075	0.051	0.196
151	1	0.175	0.975	672	225	-	230	0.1289	0.1315	0.1644	0.049	0.161
152	1/0	0.175	1.015	765	255	218	260	0.1022	0.1042	0.1304	0.048	0.133
153	2/0	0.175	1.055	877	295	251	295	0.0811	0.0827	0.1035	0.045	0.110
155	4/0	0.175	1.155	1181	390	334	385	0.0510	0.0520	0.0653	0.042	0.078
156	250	0.175	1.210	1342	430	371	410	0.0432	0.0440	0.0553	0.041	0.069
158	350	0.175	1.300	1708	525	458	505	0.0308	0.0314	0.0396	0.039	0.055
160	500	0.175	1.415	2244	650	574	665	0.0361	0.0220	0.0280	0.037	0.044
162	750	0.175	1.605	3164	820	743	740	0.0144	0.0147	0.0191	0.035	0.036

## 15kV 133% INSULATION LEVEL • 3/C

Part Number (37-505)	Size	Ground Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C Ω/kft	DC Res. 25C Ω/kft	AC Resist. 90C, 60 Hz Ω/kft	Inductive Reactance 90C, 60 Hz Ω/kft	Voltage Drop Volts/Amps/kft
						In Air	Cable Tray	Direct Burial					
357	2	6	220	2.045	2401	185	157	160	0.1626	0.1659	0.2075	0.049	0.195
358	1	4	220	2.110	2729	210	176	185	0.1289	0.1315	0.1644	0.047	0.160
359	1/0	4	220	2.190	3069	240	204	210	0.1022	0.1042	0.1304	0.045	0.131
360	2/0	4	220	2.275	3343	275	233	235	0.0811	0.0827	0.1035	0.043	0.109
362	4/0	3	220	2.490	4345	360	304	305	0.0510	0.0520	0.0653	0.040	0.076
363	250	3	220	2.625	4957	400	333	335	0.0432	0.0440	0.0553	0.039	0.068
364	350	2	220	2.895	6349	490	409	400	0.0308	0.0314	0.0396	0.037	0.054
365	500	1	220	3.155	8359	600	499	485	0.0361	0.0220	0.0280	0.035	0.043
366	750	1/0	220	3.655	11657	745	603	585	0.0144	0.0147	0.0191	0.033	0.035

## 15kV 100% INSULATION LEVEL • 3/C

Part Number (37-505)	Size	Ground Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C Ω/kft	DC Res. 25C Ω/kft	AC Resist. 90C, 60 Hz Ω/kft	Inductive Reactance 90C, 60 Hz Ω/kft	Voltage Drop Volts/Amps/kft
						In Air	Cable Tray	Direct Burial					
346	2	6	0.175	1.900	2001	185	157	160	0.1626	0.1659	0.2075	0.046	0.193
347	1	4	0.175	1.965	2263	210	176	185	0.1289	0.1315	0.1644	0.044	0.158
348	1/0	4	0.175	2.050	2575	240	204	210	0.1022	0.1042	0.1304	0.043	0.130
349	2/0	4	0.175	2.140	2918	275	233	235	0.0811	0.0827	0.1035	0.041	0.107
351	4/0	2	0.175	2.355	3969	360	304	305	0.0510	0.0520	0.0653	0.038	0.075
352	250	2	0.175	2.450	4449	400	333	335	0.0432	0.0440	0.0553	0.037	0.066
354	350	2	0.175	2.660	5607	490	409	400	0.0308	0.0314	0.0396	0.035	0.053
355	500	1	0.175	3.030	7623	600	499	485	0.0361	0.0220	0.0280	0.034	0.043
356	750	1/0	0.175	3.400	10573	745	603	585	0.0144	0.0147	0.0191	0.032	0.034

### Single Conductor Notes:

- 1) Ampacities in air are based on NEC 2017 Table 310.60(C)(69), for insulated single conductor cable triplexed in air, maximum conductor temperature of 105°C, ambient air temperature of 40°C.
- 2) Ampacities in cable tray are based on NEC 2017 Table 310.60(C)(69), for insulated single conductor copper cable isolated in air, maximum conductor temperature of 105°C, ambient air temperature of 40°C, with a derating factor of 0.75.
- 3) Ampacities for direct burial are based on NEC 2017 Table 310.60(C)(85) for triplexed insulated single conductor copper cable, directly buried, maximum conductor temperature of 105°C, ambient earth temperature of 20°C, 100% load factor, earth thermal resistivity of 90C cm/W..

### Three Conductor Notes:

- 1) Ampacities in air are based on NEC 2017 Table 310.60(C)(71), for insulated three conductor copper cable isolated in air, maximum conductor temperature of 105°C, ambient air temperature of 40°C.
- 2) Ampacities in cable tray are based on NEC 2017 Table 310.60(C)(75), for insulated three conductor copper cable in isolated conduit in air, maximum conductor temperature of 105°C, ambient air temperature of 40°C, with a derating factor of 0.95.
- 3) Ampacities for direct burial are based on NEC 2017 Table 310.60(C)(83), for insulated three conductor copper cable, directly buried, maximum conductor temperature of 105°C, ambient earth temperature of 20°C, 100 percent load factor, earth thermal resistivity of 90°C cm / W.



# MV-105 Medium Voltage Power Cable



**Single & Three Conductor • PVC or CPE Jacket**

**25kV 100% & 133% Insulation Level • 35kV 100% Insulation**

### Conductor

Bare, annealed copper conforming to ASTM B3 and Class B Compact stranded in accordance with ASTM B496.

### Grounding Conductor

Bare, annealed copper conforming to ASTM B3 and Class B stranded in accordance with ASTM B8.

### Insulation Shield Nonmetallic

Extruded semiconducting insulation shield meets or exceeds electrical and physical requirements of UL 1072.

### Conductor Shield

Extruded semiconducting conductor shield meets or exceeds electrical and physical requirements of UL 1072.

### Insulation

EPR meets or exceeds electrical and physical requirements of UL 1072.

### Metallic Shield

Bare copper tape shield helically wrapped to provide 100% coverage.

### Binder Tape

Synthetic material assembles the core in an essentially round configuration.

### Jacket

Overall polyvinyl chloride jacket per UL 1072, 90°C temperature rating; low acid gas emission; limited flame spread and excellent corrosion resistance.

*Available with a mold-cured thermosetting Chlorinated Polyethylene (CPE) Jacket. (see pages 11 - 12)*

## APPLICATION

AmerCable medium voltage power cables are recommended for use as feeder circuits, in electric utility generating stations, for distribution circuits, and for feeders or branch circuits in industrial and commercial installations. Type MV cables may be installed in wet or dry locations, indoors or outdoors (exposed to sunlight), in any raceway or underground duct, directly buried if installed in a system with a grounding conductor in close proximity that conforms with NEC Section 250.4(A)(5), or messenger supported in industrial establishments and electric utilities.

## FEATURES

UL listed as Type MV-105

- Flame retardant: UL 1685, may be marked "For CT Use"
- Excellent mechanical and physical properties
- Sunlight resistant jacket
- Suitable for direct burial, use in cable tray and embedment in concrete

## BEND RADIUS

- 1-conductor: 12X cable overall diameter
- 3-conductor: 12x individual shielded conductor, or 7x overall diameter, whichever is greater
- Triplexed 1/C: 12x individual shielded conductor, or 7x overall diameter, whichever is greater

**25kV • 100% INSULATION • 1/C**

Part Number (37-505)	Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C Ω/kft	DC Res. 25C Ω/kft	AC Resist. 90C, 60 Hz Ω/kft	Inductive Reactance 90C, 60 Hz Ω/kft	Voltage Drop Volts/Amps/kft
					In Air	Cable Tray	Direct Burial					
175	1	0.260	1.170	856	225	-	230	0.1289	0.1315	0.1644	0.053	0.163
176	1/0	0.260	1.205	951	255	218	260	0.1022	0.1042	0.1304	0.052	0.135
177	2/0	0.260	1.245	1069	295	248	295	0.0811	0.0827	0.1035	0.049	0.112
178	4/0	0.260	1.345	1388	390	334	385	0.0510	0.0520	0.0653	0.046	0.080
179	250	0.260	1.385	1539	430	368	410	0.0432	0.0440	0.0553	0.044	0.071
188	350	0.260	1.545	2013	525	454	505	0.0308	0.0314	0.0396	0.043	0.057
190	500	0.260	1.665	2580	650	566	665	0.0361	0.0220	0.0280	0.040	0.047
191	750	0.260	1.860	3546	820	728	740	0.0144	0.0147	0.0191	0.038	0.038

**See Page 3  
for Ratings &  
Approvals**

## 25kV 133% INSULATION • 1/C

Part Number (37-505)	Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C $\Omega$ /kft	DC Res. 25C $\Omega$ /kft	AC Resist. 90C, 60 Hz $\Omega$ /kft	Inductive Reactance 90C, 60 Hz $\Omega$ /kft	Voltage Drop Volts/Amps/kft
					In Air	Cable Tray	Direct Burial					
180	1/0	345	1.350	1178	255	218	260	0.1022	0.1042	0.1304	0.054	0.144
181	2/0	345	1.385	1296	295	248	295	0.0811	0.0827	0.1035	0.052	0.115
183	4/0	345	1.485	1632	390	334	385	0.0510	0.0520	0.0653	0.049	0.072
184	250	345	1.530	1797	430	368	410	0.0432	0.0440	0.0553	0.047	0.061
185	350	345	1.625	2198	525	454	505	0.0308	0.0314	0.0396	0.044	0.043
186	500	345	1.805	2890	650	566	605	0.0361	0.0220	0.0280	0.043	0.042
187	750	345	2.055	3945	820	728	740	0.0144	0.0147	0.0191	0.039	0.020

## 25kV 100% INSULATION LEVEL • 3/C

Part Number (37-505)	Size	Ground Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C $\Omega$ /kft	DC Res. 25C $\Omega$ /kft	AC Resist. 90C, 60 Hz $\Omega$ /kft	Inductive Reactance 90C, 60 Hz $\Omega$ /kft	Voltage Drop Volts/Amps/kft
						In Air	Cable Tray	Direct Burial					
369	1	4	0.260	2.355	2870	210	176	185	0.1289	0.1315	0.1644	0.049	0.161
370	1/0	4	0.260	2.440	3189	240	204	210	0.1022	0.1042	0.1304	0.048	0.133
371	2/0	4	0.260	2.530	3561	275	233	235	0.0811	0.0827	0.1035	0.045	0.110
373	4/0	2	0.260	2.805	4807	360	304	305	0.0510	0.0520	0.0653	0.042	0.077
374	250	2	0.260	2.900	5312	400	333	335	0.0432	0.0440	0.0553	0.041	0.069
376	350	2	0.260	3.105	6550	490	409	400	0.0308	0.0314	0.0396	0.039	0.055
377	500	1	0.260	3.385	8439	600	499	485	0.0361	0.0220	0.0280	0.037	0.044
378	750	1/0	0.260	3.775	11517	745	603	585	0.0144	0.0147	0.0191	0.035	0.036

## 35kV 100% INSULATION 1/C

Part Number (37-505)	Size	Insulation Thickness	Outside Diameter	Weight (lbs/Kft)	Ampacities			DC Res. 20C $\Omega$ /kft	DC Res. 25C $\Omega$ /kft	AC Resist. 90C, 60 Hz $\Omega$ /kft	Inductive Reactance 90C, 60 Hz $\Omega$ /kft	Voltage Drop Volts/Amps/kft
					In Air	Cable Tray	Direct Burial					
180	1/0	345	1.350	1178	255	218	260	0.1022	0.1042	0.1304	0.054	0.144
181	2/0	345	1.385	1296	295	248	295	0.0811	0.0827	0.1035	0.052	0.115
183	4/0	345	1.485	1632	390	334	385	0.0510	0.0520	0.0653	0.049	0.072
184	250	345	1.530	1797	430	368	410	0.0432	0.0440	0.0553	0.047	0.061
185	350	345	1.625	2198	525	454	505	0.0308	0.0314	0.0396	0.044	0.043
186	500	345	1.805	2890	650	566	605	0.0361	0.0220	0.0280	0.043	0.042
187	750	345	2.055	3945	820	728	740	0.0144	0.0147	0.0191	0.039	0.020

### Single Conductor Notes:

- 1) Ampacities in air are based on NEC 2017 Table 310.60(C)(69), for insulated single conductor cable triplexed in air, maximum conductor temperature of 105°C, ambient air temperature of 40°C.
- 2) Ampacities in cable tray are based on NEC 2017 Table 310.60(C)(69), for insulated single conductor copper cable isolated in air, maximum conductor temperature of 105°C, ambient air temperature of 40°C, with a derating factor of 0.75.
- 3) Ampacities for direct burial are based on NEC 2017 Table 310.60(C)(85) for triplexed insulated single conductor copper cable, directly buried, maximum conductor temperature of 105°C, ambient earth temperature of 20°C, 100% load factor, earth thermal resistivity of 90C cm/W.

### Three Conductor Notes:

- 1) Ampacities in air are based on NEC 2017 Table 310.60(C)(71), for insulated three conductor copper cable isolated in air, maximum conductor temperature of 105°C, ambient air temperature of 40°C.
- 2) Ampacities in cable tray are based on NEC 2017 Table 310.60(C)(75), for insulated three conductor copper cable in isolated conduit in air, maximum conductor temperature of 105°C, ambient air temperature of 40°C, with a derating factor of 0.95.
- 3) Ampacities for direct burial are based on NEC 2017 Table 310.60(C)(83), for insulated three conductor copper cable, directly buried, maximum conductor temperature of 105°C, ambient earth temperature of 20°C, 100 percent load factor, earth thermal resistivity of 90°C cm / W.



**Shortest  
Lead Times**

**Best at  
On-Time  
Delivery**

# MV-105 OVERVIEW

AmerCable's MV-105 medium voltage power cables are recommended for use as feeder circuits, in electric utility generating stations, for distribution circuits and for feeders or branch circuits in industrial and commercial installations.

## Typical Uses of MV-105 Cable

### Primary Power Distribution

- Used in medium-voltage systems from 5 kV to 35 kV.
- Commonly installed in industrial facilities such as data centers, substations, power generation plants, downstream energy facilities and utilities.

### Underground or Outdoor Installations

- Suitable for direct burial if installed in a system with a grounding conductor in close proximity that conforms with NEC Section 250.4(A)(5). Can be embedded in concrete.
- Can be used in tray, conduit or messenger supported in industrial establishments and electric utilities where tray cables are not practical or cost-prohibitive.
- Rated for wet and dry locations.

### Feeder and Branch Circuits

- Used to carry power from substations to various equipment or switchgear within a plant or industrial facility.
- Found in solar farms, wind farms and other renewable energy infrastructure to carry power from generation units to transformers or substations.

## Key Cable Features

- UL listed as Type MV-105
- Two jacket options - PVC or CPE
  - Excellent mechanical and physical properties
  - Sunlight resistant
- Voltage Rating from 5kV, up to 35kV.
- Temperature Rating of 105°C in normal operation
- Ethylene Propylene Rubber (EPR) insulation meets or exceeds the electrical and physical requirements of UL 1072.
- Bare copper tape shield helically wrapped to provide 100% coverage.



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# TYPE SH

## Medium Voltage Power Cable

### Single Conductor • 5kV– 35kV

#### CONDUCTOR

Flexible tin-coated soft annealed bunch stranded copper meeting ASTM B-33

#### CONDUCTOR SHIELD

Combination semi-conducting tape and/or extruded semiconductive thermosetting material

#### INSULATION

Heat, moisture and ozone resisting 90°C Ethylene-Propylene rubber (EPR) meeting ICEA S-75-381/NEMA WC58

#### INSULATION SHIELD

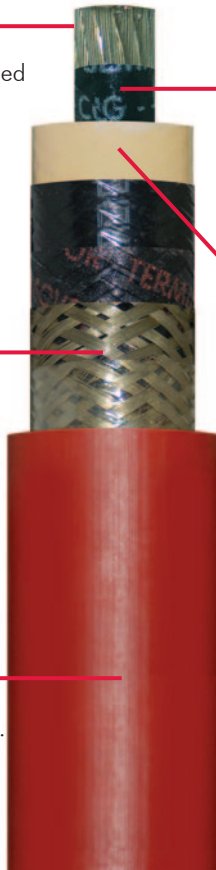
Tin-coated copper braid applied over a semiconductive tape (5-15kV). Extruded semi-conductive thermosetting material (25-35kV)

#### JACKET

CPE meeting ICEA S-75-381/NEMA WC58. Consult factory for availability of other jacket materials.

#### IDENTIFICATION

Cable shall be surface printed showing manufacturer, size, voltage rating, type and temperature rating

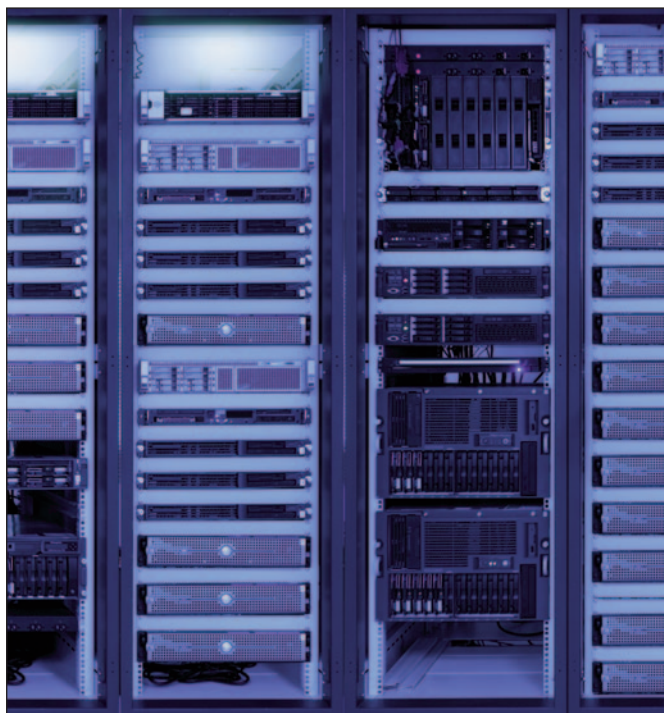


#### APPLICATION

These single conductor portable power cables are extremely flexible and specifically designed for use on mobile substation equipment. The Type SH cable is often necessary for supplying power while replacing damaged utility poles or during routine maintenance of substations.

#### FEATURES

- Extremely flexible stranding for ease of bending
- The conductor shield is bonded to the insulation – providing easy, clean stripping
- Jacket is heat, oil, flame and chemical resistant
- Continuous conductor temperature 90°C
- Jackets available in voltage colors, yellow (5 & 8kV), orange (15kV), red (25 & 35kV). Consult factory for availability of other colors.



#### RATINGS & APPROVALS

- ASTM B-33: Standard Specification for Tinned Soft or Annealed Copper Wire for Electrical Purposes
- ICEA S-75-381/NEMA WC-58: Portable and Power Feeder Cables for Use in Mines and Similar Applications
- UL 1072 Medium Voltage Cable MV-105 (pending)

**CSA approval  
available by  
special order**

## 5KV SINGLE CONDUCTOR PORTABLE POWER CABLE – TYPE SH

Part No. 37-550-	Size AWG/kcmil	Minimum Wires per Conductor	Nominal Insulation Thickness in.	Nominal Jacket Thickness in.	Nominal Outside Diameter in.	Approx. Weight lbs. per 1,000 ft.	Ampacity 90°C
002	2	259	.110	.125	0.975	674	190
004	1/0	266	.110	.140	1.058	825	260
005	2/0	323	.110	.140	1.170	1039	300
007	4/0	532	.110	.155	1.300	1393	400
008	250	627	.120	.155	1.330	1477	445
022	350	888	.120	.170	1.484	1926	550
010	500	1221	.120	.190	1.700	2662	695



## 15KV SINGLE CONDUCTOR PORTABLE POWER CABLE

Part No. 37-550-	Size AWG/kcmil	Minimum Wires per Conductor	Nominal Insulation Thickness in.	Nominal Jacket Thickness in.	Nominal Outside Diameter in.	Approx. Weight lbs. per 1,000 ft.	Ampacity 90°C
016	2	259	.210	.155	1.203	881	195
017	1/0	266	.210	.155	1.320	1147	260
018	2/0	323	.210	.155	1.350	1226	300
020	4/0	532	.210	.170	1.497	1594	400
021	250	627	.210	.170	1.547	1758	445
009	350	888	.210	.190	1.765	2364	550
024	500	1221	.210	.190	1.900	2937	685

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assemblies  
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lower your overall  
connectivity costs.*

- Lugs
- Elbows
- Stress Cones

## 25KV SINGLE CONDUCTOR PORTABLE POWER CABLE

Part No. 37-550-	Size AWG/kcmil	Minimum Wires per Conductor	Nominal Insulation Thickness in.	Nominal Jacket Thickness in.	Nominal Outside Diameter in.	Approx. Weight lbs. per 1,000 ft.	Ampacity 90°C
030	1/0	266	.295	.170	1.500	1350	260
031	2/0	323	.295	.170	1.555	1507	300
033	4/0	532	.295	.190	1.713	1909	395
034	250	627	.295	.190	1.763	2085	440
035	350	888	.295	.190	1.886	2517	545
037	500	1221	.295	.205	2.048	3168	680

## 35KV SINGLE CONDUCTOR PORTABLE POWER CABLE

Part No. 37-550-	Size AWG/kcmil	Minimum Wires per Conductor	Nominal Insulation Thickness in.	Nominal Jacket Thickness in.	Nominal Outside Diameter in.	Approx. Weight lbs. per 1,000 ft.	Ampacity 90°C
050	1/0	266	.380	.170	1.175	1632	260
051	2/0	342	.380	.205	1.840	1898	300
053	4/0	532	.380	.205	1.915	2235	395
054	250	627	.380	.205	1.975	2509	440
055	350	888	.380	.205	2.100	2901	545
057	500	1221	.380	.205	2.280	3396	680

- Cable diameters and weights are subject to +/- 5% manufacturing tolerance
- Ampacity is calculated with a 90°C conductor temperature and 40°C ambient air, per 2008 NEC, Table 310.69

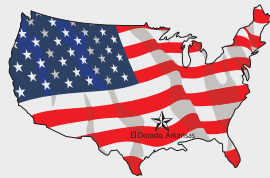
**AmerCable** manufactures high quality jacketed electrical cables for a wide variety of specialized industrial and utility applications.



**AmerCable** is an ISO 9001:2015 certified cable manufacturer that combines leading-edge technology, proven manufacturing techniques, and high quality service to deliver

the finest industrial and utility cable products available.

**AmerCable** serves a worldwide customer base from our manufacturing facility in El Dorado, Arkansas. Our professional field engineering and sales force work directly with customers, or in partnership with our network of independent distributors, to identify and fulfill your specific cable requirements.



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