



MV-105 (Medium Voltage) Shielded Power Cable EPR Insulated 5kV to 35kV

APPLICATIONS

For installations in conduit, ducts, aerial and direct burial. Primary power and distribution circuit in industrial, commercial and utility installations. For normal continuously operation not exceeding 105°C in wet and dry locations. Sizes 1/0 AWG and larger are listed for CT use.

SPECIFICATIONS

EPR insulated Medium Voltage cables meet or exceed all applicable requirements of the following standards:

- UL 1072, Standard for Medium Voltage Power Cables.
- ICEA S-93-639 (NEMA WC 74), Standard for Shielded Power Cables 5 – 46 kV

CONSTRUCTION

Conductor:	Bare copper, class B compressed concentric stranding.
Conductor Shield:	Extruded semi-conducting thermosetting compound.
Insulation:	EPR (Ethylene Propylene Rubber), 100% or 133% Insulation levels.
Insulation Shield:	Extruded semi-conducting thermosetting compound.
Metallic Shield:	Uncoated copper tape, helically applied with a minimum overlapped of 25%.
Jacket:	Black sunlight resistant polyvinyl chloride (PVC).

MAXIMUM CONDUCTOR TEMPERATURE

Normal continuous @ 105 degrees C, overload @ 140 degrees C, and Short circuit @ 250 degrees C.

FEATURES & BENEFITS, OPTIONS

- Triple extruded construction by dry curing process guarantees excellent quality of cables.
- Clean stripping insulation shield.
- Triplex configuration option; offers cost saving at the installation stage.

Phoenix Wire and Cable Corp.

1255 Buford Highway; Suite 202, Suwanee GA 30024

Phone: (770) 904 4135; Fax: (770) 904 4139

E-mail: pwc@phoenixwc.com

web site: www.phoenixwc.com



MV-105 (Medium Voltage) Shielded Power Cable 15kV EPR Insulated

15kV EPR 175 MILS (100% INSULATION LEVEL)

Phase Conductor		Thickness (Mils)		Diameter (Inches)			Net Weight (lbs./1000ft)	Allowable Ampacities+	
Size (AWG or kcmil)	No. of Wires	Insulation	Jacket	Over Insulation	Over Insulation Shield	Over Jacket	Complete Cable	Direct Buried	Duct In Air
2	7	175	80	0.690	0.770	1.000	600	155	150
1/0	19	175	80	0.780	0.860	1.050	750	200	195
2/0	19	175	80	0.820	0.900	1.090	850	230	225
3/0	19	175	80	0.870	0.950	1.140	980	260	260
4/0	19	175	80	0.930	1.010	1.200	1150	295	295
250	37	175	80	0.990	1.070	1.260	1300	325	330
350	37	175	80	1.090	1.190	1.380	1650	390	395
500	37	175	80	1.220	1.320	1.510	2170	465	480
750	61	175	110	1.410	1.510	1.700	3030	565	585
1000	61	175	110	1.560	1.680	1.930	4030	640	675

15kV EPR 220 MILS (133% INSULATION LEVEL)

Phase Conductor		Thickness (Mils)		Diameter (Inches)			Net Weight (lbs./1000ft)	Allowable Ampacities+	
Size (AWG or kcmil)	No. of Wires	Insulation	Jacket	Over Insulation	Over Insulation Shield	Over Jacket	Complete Cable	Direct Buried	Duct In Air
2	7	220	80	0.790	0.860	1.080	700	165	165
1/0	19	220	80	0.870	0.920	1.140	870	215	215
2/0	19	220	80	0.910	0.960	1.180	930	245	255
3/0	19	220	80	0.960	1.010	1.230	1070	275	290
4/0	19	220	80	1.020	1.080	1.290	1250	315	330
250	37	220	80	1.080	1.140	1.350	1420	345	365
350	37	220	80	1.180	1.240	1.470	1800	415	440
500	37	220	80	1.310	1.370	1.600	2360	500	535
750	61	220	110	1.500	1.560	1.790	3360	610	655
1000	61	220	110	1.650	1.730	2.020	4290	690	755

+ Ampacities based on earth thermal resistivity of 90°C-cm/watt, 90°C conductor temp., 20°C earth ambient temperature, 75% load factor, and 36" depth of burial. Values are based on one-three phase circuit, one conductor per phase, in adjacent configurations with neutral wires bonded at each.



MV-105 (Medium Voltage) Shielded Power Cable 25kV EPR Insulated

25kV EPR 260 MILS (100% INSULATION LEVEL)

Phase Conductor		Thickness (Mils)		Diameter (Inches)			Net Weight (lbs./1000ft)	Allowable Ampacities+	
Size (AWG or kcmil)	No. of Wires	Insulation	Jacket	Over Insulation	Over Insulation Shield	Over Jacket	Complete Cable	Direct Buried	Duct In Air
1/0	19	260	80	0.93	0.98	1.15	887	215	215
2/0	19	260	80	0.97	1.02	1.19	1000	245	255
3/0	19	260	80	1.02	1.07	1.24	1144	275	290
4/0	19	260	80	1.07	1.13	1.30	1319	315	330
250	37	260	80	1.13	1.18	1.35	1476	345	365
350	37	260	110	1.23	1.29	1.46	1863	415	440
500	37	260	110	1.36	1.41	1.58	2415	500	535
750	61	260	110	1.55	1.60	1.83	3426	610	655
1000	61	260	110	1.69	1.75	1.98	4307	690	755

25kV EPR 345 MILS (133% INSULATION LEVEL)

Phase Conductor		Thickness (Mils)		Diameter (Inches)			Net Weight (lbs./1000ft)	Allowable Ampacities+	
Size (AWG or kcmil)	No. of Wires	Insulation	Jacket	Over Insulation	Over Insulation Shield	Over Jacket	Complete Cable	Direct Buried	Duct In Air
1/0	19	345	80	1.11	1.20	1.39	1180	215	215
2/0	19	345	80	1.15	1.25	1.44	1300	245	255
3/0	19	345	80	1.20	1.29	1.49	1460	275	290
4/0	19	345	80	1.26	1.34	1.55	1650	315	330
250	37	345	80	1.33	1.42	1.60	1830	345	365
350	37	345	110	1.43	1.52	1.78	2230	415	440
500	37	345	110	4.55	1.66	1.91	2930	500	535
750	61	345	110	1.74	1.86	2.12	3960	610	655
1000	61	345	110	1.89	2.02	2.27	4920	690	755

+ Ampacities based on earth thermal resistivity of 90°C-cm/watt, 90°C conductor temp., 20°C earth ambient temperature, 75% load factor, and 36" depth of burial. Values are based on one-three phase circuit, one conductor per phase, in adjacent configurations with neutral wires bonded at each end.



MV-105 (Medium Voltage) Shielded Power Cable 35kV EPR Insulated

35kV EPR 345 MILS (100% INSULATION LEVEL)

Phase Conductor		Thickness (Mils)		Diameter (Inches)			Net Weight (lbs./1000ft)	Allowable Ampacities+	
Size (AWG or kcmil)	No. of Wires	Insulation	Jacket	Over Insulation	Over Insulation Shield	Over Jacket	Complete Cable	Direct Buried	Duct In Air
1/0	19	345	80	1.11	1.20	1.39	1180	215	215
2/0	19	345	80	1.15	1.25	1.44	1300	245	255
3/0	19	345	80	1.20	1.29	1.49	1460	275	290
4/0	19	345	80	1.26	1.34	1.55	1650	315	330
250	37	345	80	1.33	1.42	1.60	1830	345	365
350	37	345	110	1.43	1.52	1.78	2230	415	440
500	37	345	110	4.55	1.66	1.91	2930	500	535
750	61	345	110	1.74	1.86	2.12	3960	610	655
1000	61	345	110	1.89	2.02	2.27	4920	690	755

35kV EPR 420 MILS (133% INSULATION LEVEL)

Phase Conductor		Thickness (Mils)		Diameter (Inches)			Net Weight (lbs./1000ft)	Allowable Ampacities+	
Size (AWG or kcmil)	No. of Wires	Insulation	Jacket	Over Insulation	Over Insulation Shield	Over Jacket	Complete Cable	Direct Buried	Duct In Air
1/0	19	420	80	1.250	1.340	1.550	1370	215	215
2/0	19	420	80	1.310	1.390	1.600	1500	245	255
3/0	19	420	80	1.360	1.450	1.650	1650	275	290
4/0	19	420	80	1.410	1.500	1.710	1840	315	330
250	37	420	110	1.470	1.570	1.840	2140	345	365
350	37	420	110	1.580	1.680	1.930	2590	415	440
500	37	420	110	1.700	1.820	2.070	3240	500	535
750	61	420	110	1.890	2.010	2.280	4260	610	655
1000	61	420	110	2.040	2.160	2.430	5230	690	755

+ Ampacities based on earth thermal resistivity of 90°C-cm/watt, 90°C conductor temp., 20°C earth ambient temperature, 75% load factor, and 36" depth of burial. Values are based on one-three phase circuit, one conductor per phase, in adjacent configurations with neutral wires bonded at each end.