

5kV Medium Voltage Power Cable — MV-90 / MV-105

XLPE & EPR Insulated | Shielded & Unshielded | Industrial, Commercial & Utility Distribution

PRODUCT OVERVIEW

Mirabel Energy USA 5kV medium voltage cable is engineered for power distribution in industrial facilities, commercial buildings, utility feeders, and renewable energy installations where system voltages require a step above low-voltage construction but the infrastructure demands of sub-transmission cable are not yet required. Available in MV-90 (90°C rated) and MV-105 (105°C rated) designations with XLPE or EPR insulation systems, these cables are suited for wet and dry locations, conduit, direct burial, and cable tray installations. Unshielded constructions are available for grounded systems per NEC 310.10(E), while copper tape-shielded designs are standard for ungrounded and resistance-grounded systems. Ideal for motor leads, transformer secondaries, and distribution feeders in manufacturing, water treatment, and data center utility infrastructure.

90°C Normal Operation	130°C Emergency Overload	250°C Short-Circuit Fault	1,000 lbs/ft Max Sidewall Pressure
5 kV (8.7kV BIL) Voltage Rating	90°C / 105°C Temp Rating	XLPE or EPR Insulation	1,000 lbs/ft Sidewall Press.

APPLICATIONS

- Industrial plant MV distribution feeders and motor leads
- Commercial building utility service entrance (5kV class)
- Renewable energy (solar / wind) MV collection circuits
- Water and wastewater treatment plant power distribution
- Data center utility infrastructure and generator tie cables
- Mining surface operations and portable substation feeds

KEY SPECIFICATIONS

- 5kV (8.7kV BIL) voltage rating — MV-90 (90°C) and MV-105 (105°C) available
- XLPE insulation: superior dielectric strength, low capacitance, chemical resistance
- EPR insulation: maximum flexibility, water-tree resistance, ideal for wet locations
- Copper tape shield option for ungrounded/resistance-grounded system applications
- Rated for wet/dry locations, conduit, cable tray, and direct burial
- Lube-free jacket options available — no lubrication required for conduit pulls
- 1,000 lbs/ft maximum sidewall pressure — designed for long conduit pulls
- Concentric stranded or compressed stranded conductors — #2 AWG through 1000 kcmil

TECHNICAL SPECIFICATIONS

Parameter	MV-90 (XLPE)	MV-90 (EPR)
Voltage Rating	5kV / 8.7kV BIL	5kV / 8.7kV BIL
Conductor Temp (Normal)	90°C	90°C
Conductor Temp (Emerg.)	130°C	130°C
Conductor Temp (Fault)	250°C	250°C
Insulation Thickness	Per ICEA S-93-639	Per ICEA S-93-639
Shield Type	Cu tape (optional)	Cu tape (optional)
Jacket	PVC / LSZH / CSPE	PVC / LSZH / CSPE

CONDUCTOR SIZES & CONFIGS #2 AWG – 1000 kcmil 1/C, 3/C Shielded and unshielded	STOCKING LOCATIONS Reno, NV · Houston, TX Standard & project-phased delivery	OEM REPRESENTATIVE GCP Energy LLC — Salt Lake City, UT portal.gcpenergy.us
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