35kV Medium Voltage Power Cable — MV-90 / MV-105

XLPE & EPR Insulated | Copper Tape Shielded | Sub-Transmission & Generation Tie Cable

PRODUCT OVERVIEW

Mirabel Energy USA 35kV medium voltage cable represents the upper boundary of the MV cable class — serving sub-transmission feeders, generation step-up interconnects, and large industrial systems operating at the highest distribution voltages. 35kV cable is the primary choice for connecting utility substations to major industrial customers, wind and solar generation sites to the grid, and for underground sub-transmission in urban environments transitioning away from overhead lines. XLPE insulated constructions per AEIC CS9 provide maximum thermal performance and dielectric strength for thermally demanding underground circuits, while EPR insulated designs offer flexibility and proven long-term reliability in cyclic loading and moisture-exposed environments. Available with copper tape shield, wire shield, or LC (lead-covered) constructions.

90°C Normal Operation	130°C Emergency Overload	250°C Short-Circuit Fault	1,000 lbs/ft Max Sidewall Pressure
35 kV (200kV BIL)	**90°C / 105°C**	**345 mils**	**Cu Tape / Wire**
Voltage Rating	Temp Rating	Min Insul.	Shield

APPLICATIONS

- Utility underground sub-transmission feeders (34.5kV)
- Wind and solar generation interconnect tie cable to utility grid
- Industrial and refinery 35kV service entrance and bus feed
- Substation interconnect — transformer primary and bus cable
- Urban underground sub-transmission replacement of overhead lines
- Data center hyperscale utility 35kV primary service infrastructure

KEY SPECIFICATIONS

- 35kV (200kV BIL) voltage rating — top of MV class, suitable for 34.5kV systems
- XLPE per AEIC CS9: premium dielectric performance for high-stress applications
- EPR: maximum long-term reliability in cyclic loading and wet installations
- 345 mil minimum insulation wall per ICEA S-93-639 / AEIC CS9
- Copper tape shield or copper wire shield — selectable per system grounding requirements
- Extruded semi-conducting conductor and insulation shields — smooth interface
- Available with metallic moisture barrier (aluminum/lead) for critical installations
- 1,000 lbs/ft maximum sidewall pressure rating across all conductor sizes

TECHNICAL SPECIFICATIONS

Parameter	MV-90 / AEIC CS9 (XLPE)	MV-90 (EPR)
Voltage Rating	35kV / 200kV BIL	35kV / 200kV BIL
Conductor Temp (Normal)	90°C	90°C
Conductor Temp (Emerg.)	130°C	130°C
Conductor Temp (Fault)	250°C	250°C
Min. Insulation Thick.	345 mils	345 mils
Shield Type	Cu tape or wire	Cu tape or wire
Standard Reference	AEIC CS9 / UL 1072	ICEA S-93-639 / UL 1072

CONDUCTOR SIZES & CONFIGS
1/0 AWG – 1000 kcmil | 1/C and triplexed | Cu tape or wire shield | AEIC CS9 available

STOCKING LOCATIONS
Reno, NV · Houston, TX
Standard & project-phased delivery

OEM REPRESENTATIVE
GCP Energy LLC — Salt Lake City, UT
portal.gcpenergy.us