

Armored Medium Voltage Cable — 5kV through 35kV

Interlocked Armor (IAC) · Wire Armor | XLPE & EPR | Industrial, Tray & Direct Burial

PRODUCT OVERVIEW

Mirabel Energy USA armored medium voltage cable combines the dielectric performance of MV-90/MV-105 rated XLPE or EPR insulation with the mechanical protection of interlocked aluminum armor (IAC) or steel wire armor — creating a self-protecting cable system for installation environments where physical damage is a primary risk. Armored MV cable eliminates the need for conduit in many industrial and commercial applications, enabling direct installation in cable trays, raceways, and on structural steel with cable cleats. Interlocked armor constructions are standard for North American industrial and commercial applications, while steel wire armor (SWA) is preferred for direct burial and submarine applications requiring axial tensile strength. All constructions are UL 1072 listed and rated for tray, conduit, direct burial, and exposed surface installation.

90°C Normal Operation	130°C Emergency Overload	250°C Short-Circuit Fault	1,000 lbs/ft Max Sidewall Pressure
5kV – 35kV Voltage Range	IAC or SWA Armor Type	Required (IAC) No Conduit	UL 1072 Listed Rating

APPLICATIONS

- Industrial plant cable tray runs — no conduit required
- Outdoor exposed surface mounting on structural steel with cable cleats
- Direct buried MV service in corrosive or rocky soil (SWA)
- Substation control building underground entry protection
- Offshore platform and industrial dock MV power distribution
- Congested mechanical areas where physical cable protection is critical

KEY SPECIFICATIONS

- Interlocked aluminum armor (IAC): crush-resistant, eliminates conduit in cable tray
- Steel wire armor (SWA): axial tensile strength for direct burial and pulling applications
- XLPE or EPR insulation — 5kV through 35kV voltage classes
- MV-90 rated — 90°C normal / 130°C emergency / 250°C fault
- Copper tape shield under armor — maintains shielding continuity
- UL 1072 listed — suitable for tray, conduit, direct burial, and exposed installation
- Single and three-conductor (triplexed) constructions available
- Overall PVC, LSZH, or CSPE outer jacket over armor for corrosion protection

TECHNICAL SPECIFICATIONS

Parameter	Interlocked Armor (IAC)	Wire Armor (SWA)
Armor Material	Aluminum	Galvanized steel wire
Primary Advantage	No conduit in tray	Direct burial tensile
Voltage Range	5kV – 35kV	5kV – 35kV
Crush Resistance	High	Very high
Axial Tensile Strength	Moderate	High
Installation Method	Tray / surface / conduit	Direct burial / conduit
Jacket Over Armor	PVC / LSZH / CSPE	PVC / LSZH

CONDUCTOR SIZES & CONFIGS #2 AWG – 750 kcmil 1/C and 3/C IAC or SWA XLPE or EPR insulation	STOCKING LOCATIONS Reno, NV · Houston, TX Standard & project-phased delivery	OEM REPRESENTATIVE GCP Energy LLC — Salt Lake City, UT portal.gcpenergy.us
--	---	--