

# MV-90 35kV

**UL 1072, ASTM B-231, AEIC CS8, ICEA S-94-649**

Medium Voltage 35kV 100% Aluminum Conductor, Copper Wire Shielded Power Cable

## APPLICATIONS

### INDUSTRIAL AND COMMERCIAL

- Chemical Plants
- Petrochemical Plants
- Electrical Utility Plants
- Water Treatment Facilities
- Steel Mills
- Paper Mills
- Airports
- Shopping Malls
- Military Bases
- Medical Facilities
- Sports Stadiums

### INSTALLATIONS

- In Cable Tray
- Conduit in Air
- Aerial with Messenger Supported
- Direct Buried
- Underground Duct
- Wet and Dry Locations



## CONSTRUCTION

Conductor	Class B compressed uncoated aluminum, watertight
Conductor shield	Extruded layer of semiconducting compound applied under simultaneous triple extrusion process
Insulation	Extruded layer of 90°C rated TR-XLPE
Insulation shield	Extruded layer of semiconducting compound applied by triple extrusion process
Metallic shield	Round Copper Wire Concentric Neutral with water blocking agent
Jacket	Extruded layer of black LLDPE with red stripes

## Characteristic

Maximum conductor operating temperature:	+90°C
Maximum emergency overload temperature:	+140°C
Maximum short-circuit conductor temperature:	+250°C
Maximum sidewall pressure:	1000lbs/ft
Lowest ambient temperature for fixed installation:	-40°C
Lowest installation temperature:	-20°C
Minimum bending radius:	12xD (D-overall diameter of cable)

## Approvals

(UL) E129949

Approved by USDA Rural Utilities Service

# MV-90

## 35kV 100% INSULATION LEVEL

Conductor Size	Insulation Thickness	Diameter over insulation	Concentric Neutral	Jacket Thickness	Outer Diameter	Cable Weight	Ampacities*			Min. Bending Radius	Max. Pull Tension
							Isolated in Air	Direct Buried	Under ground Duct		
AWG / MCM	mils	inches	No x AWG	mils	inches	lbs / 1000ft	A			inches	lbs
<b>One-Third Concentric Neutral</b>											
1/0	345	1.10	9 # 16	70	1.46	840	200	215	155	17.52	845
2/0	345	1.14	11 # 16	70	1.51	950	230	245	175	18.12	1065
3/0	345	1.19	14 # 16	70	1.56	1080	270	275	200	18.72	1345
4/0	345	1.25	17 # 16	70	1.61	1120	310	315	230	19.32	1695
250	345	1.30	13 # 14	70	1.67	1320	345	345	250	20.04	2000
350	345	1.40	18 # 14	70	1.85	1540	430	415	305	22.2	2800
500	345	1.54	16 # 12	90	2.02	1980	530	510	370	24.24	4000
750	345	1.72	24 # 12	90	2.21	2550	685	635	455	26.52	6000
<b>One-Sixth Concentric Neutral</b>											
1000	345	1.87	16 # 12	90	2.36	2760	825	740	525	28.32	6000
1250	345	2.01	31 # 14	90	2.49	3450	950	825	585	29.88	6000
1500	345	2.13	38 # 14	90	2.61	4220	1060	945	640	31.32	6000

\* Ampacities „Underground Duct“ per NEC 2023 Table 315.60(C)(12). Ampacities „Isolated in Air“ per NEC 2023 Table 315.60(C)(4). Ampacities „Direct Buried“ per NEC 2023 Table 315.60(C)(16).

### Sample print legend:

TF KABLE (SIZE) AL STRANDFILLED TYPE MV-90 (UL) TRXLPE 35kV 100% INS LEVEL 345 MILS SUN RES MADE IN POLAND (Year)