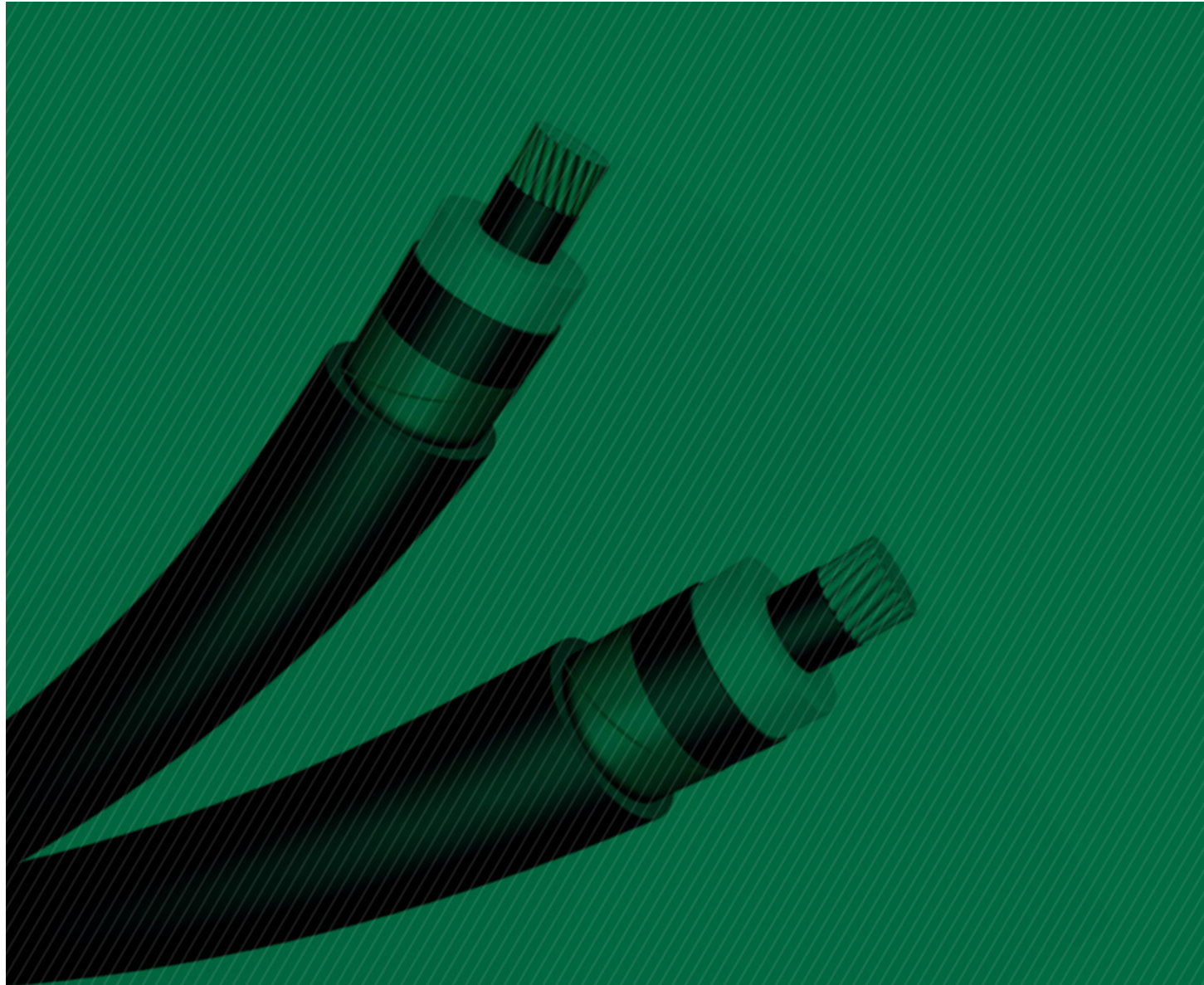




Connecting globally



MV-105 Power Cables
5kV-15kV

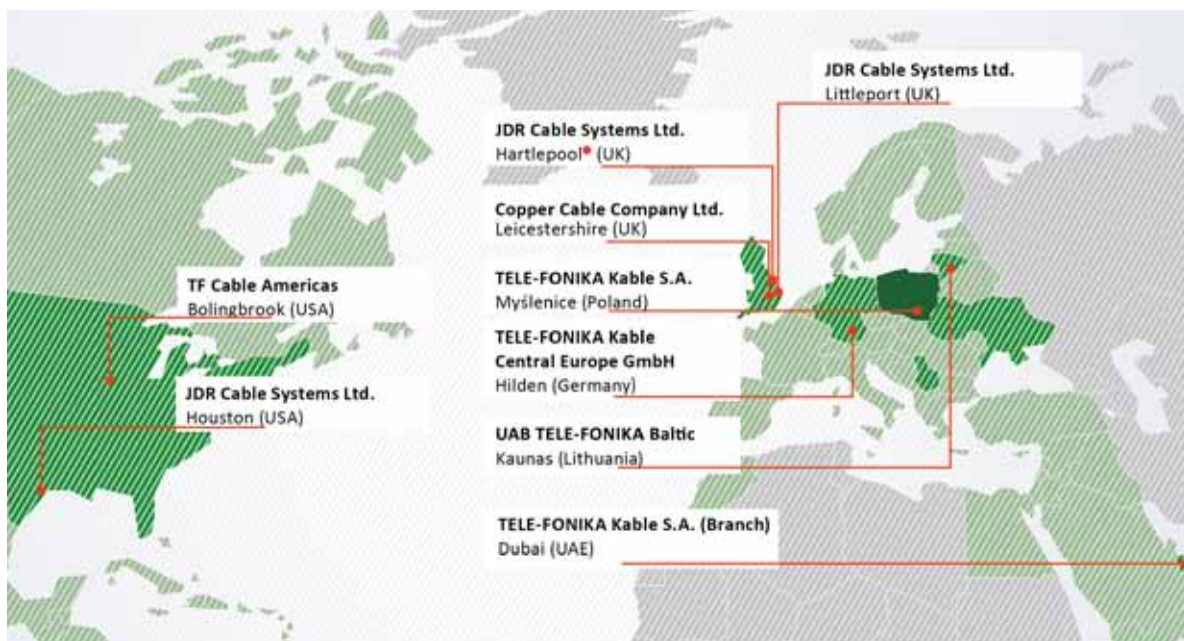
TELE-FONIKA Kable

2

TELE-FONIKA Kable SA, a privately held wire and cable manufacturer headquartered in Krakow, Poland, is one of the largest wire and cable companies in the world. TF operates 8 plants in Central and Eastern Europe with a distribution network stretching 90 countries. Formed through a series of acquisitions and mergers, TFKable has developed world-class technology centers of excellence with state of the art manufacturing operations. Founded in 1992, TFKable grew rapidly and the operations today are a result of internal development projects supported by strategic investments.

TF is the leading medium and high voltage cable manufacturer in Europe with significant market share in rubber insulated portable power cables used by HEAVY INDUSTRY & MINING. Additionally, the company manufactures products for the TELECOMMUNICATION, SHIP BUILDING, ELECTRONIC and ENERGY sectors.

All manufacturing facilities are ISO 9001, ISO 2000, and ISO 14001 certified. All products are manufactured to public, utility and industrial standards including ICEA, IEEE, and ASTM. TELE-FONIKA has over 400 individual certificates issued by more than 30 governing bodies which include UL, CSA, MSHA, SABS, VDE, CE, etc.



TELE-FONIKA Cable Americas

TELE-FONIKA Cable AMERICAS (TFCA) is a U.S. corporation with offices and main warehouse located in Bolingbrook, Illinois. TFCA is a wholly owned subsidiary of TELE-FONIKA Kable (TFK) with responsibility for North and South American markets. TFK, one of the largest manufacturers of wire and cable in Europe, is a fully integrated manufacturer, recognized by the industry as a world-class producer of wire and cable products. The company specializes in products for heavy industry, mining, and utility applications. The company is a recognized global supplier of Portable Power Cords, Mining Cable, and Medium and High Voltage Utility Cables. TFKable has been active in the Americas since 1987, providing products through a network of authorized distributors, international agents, and domestic sales representatives. TFKable markets include utility power distribution, alternative energy, entertainment, portable power, mass transit, military, and a number of other commercial applications.

3

TELE-FONIKA Kable GROUP KEY STATISTICS

- 1 billion USD in annual turnover
- 3rd largest wire and cable supplier in Europe and one of the TOP global producers
- No. 1 European POWER CABLE SUPPLIER
- 3000 Group Employees
- 15 Global Facilities
- 25,000 Different types of wire and cable constructions
- Sales & Distribution network stretching 90 countries

TFKable IS THE MEDIUM POWER SOLUTION

APPLICATIONS

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

4

INSTALLATIONS

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

BENEFITS AND FEATURES

- Durable construction allows for installations in practically any environment
- 105°C insulation rating allows for higher ampacity rating of a cable
- Continuous Conductor Operating Temperature 105°C
- Emergency Overload Rating 140°C
- Short Circuit Rating 250°C
- UL listed as Type MV-105
- Oil and sunlight resistant
- Flame retardant PVC jacket
- Listed for CT use for sizes 1/0 AWG and larger

100% Insulation Level

- Used for cables installed in grounded systems and systems equipped with a protective device that will clear ground faults within 1 minute

133% Insulation Level

- Used for cables installed in ungrounded systems and systems where faults will be de-energized within 1 hour but not quicker than 1 minute

Standard Construction

CONDUCTOR

Class B compressed copper or aluminum.
Cable element that allows for the flow of electrical current.

CONDUCTOR SHIELD

The semiconducting thermoset extruded layer equalizes electrical charge across the conductor surface. It also minimizes electrical stresses should the conductor surface become uneven due to voids between conductor and insulation. The semiconducting layer eliminates potential for corona discharge by reduction of air voids between the conductor and the insulation. This greatly improves insulation life expectancy.

INSULATION

Thermoset extruded EPR layer whose main function is to contain electricity and resist leakage of electrical charges. Insulation also serves as a protective layer

INSULATION SHIELD

The semiconducting thermoset extruded layer transfer insulation charging current to the metallic shield. It provides symmetrical distribution of voltage stress within insulation. Its function is also to restrict the electric field within the insulation

METALLIC SHIELD

The bare copper tape reduces the risk of shock to personnel by safely carrying and transferring leaked current in case of a cable fault. The metallic shield provides additional mechanical damage protection for the cable core.

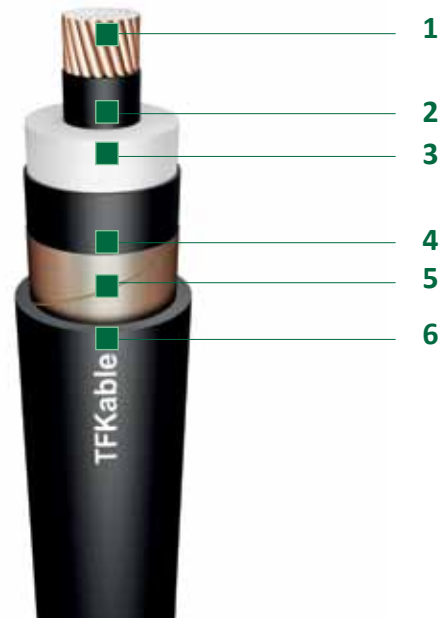
JACKET

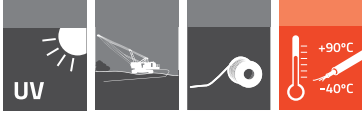
External layer of extruded thermoplastic PVC provides protection for all internal cable elements from any mechanical, chemical or thermal abuse it may experience during cable installation and operation.

5

MV-105

1. CONDUCTOR - compressed stranded class B per ASTM (Copper or Aluminum)
2. CONDUCTOR SHIELD - semiconducting thermoset layer
3. INSULATION - EPR (Ethylene Propylene Rubber)
4. INSULATION SHIELD - semiconducting thermoset layer
5. Metallic SHIELD - 5 mil bare copper tape shield with a 25% overlap
6. JACKET - sunlight resistant PVC (Polyvinyl Chloride)





MV-105 5kV & 15kV

UL 1072, ASTM B-496, ICEA S-93-639, ICEA S-97-682, AEIC CS8-2000, IEEE 383

Medium Voltage 5kV & 15kV 133% Copper Conductor, Copper Tape Shielded Power Cable

6

CONSTRUCTION

Conductor	Class B compressed annealed uncoated copper
Conductor shield	Extruded layer of semiconducting compound applied under simultaneous triple extrusion process
Insulation	Extruded layer of 105°C rated Ethylene Propylene Rubber (EPR)
Insulation shield	Extruded layer of semiconducting compound applied by triple extrusion process
Metallic shield	5 mil bare copper tape applied helically with a 25% overlap.
Jacket	Extruded layer of black sunlight resistant Polyvinyl Chloride (PVC)

Characteristic

Maximum conductor operating temperature:	+105°C
Maximum conductor emergency overload temperature:	+140°C
Maximum short-circuit conductor temperature:	+250°C
Lowest ambient temperature for mixed installation	-40°C
Lowest installation temperature	-5°C
Minimum bending radius	12xD (D-overall diameter of cable)

- Flame retardant PVC jacket
- Listed for CT use for sizes I/O AWG and larger



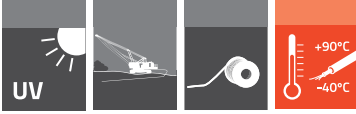
5kV 133%/8kV 100% INSULATION LEVEL

Part Number	Conductor Size	Insulation Thickness	Diameter over Insulation	Jacket Thickness	Outer Diameter	Cable Weight	Ampacities *		
							Isolated in Air	Direct Buried	Underground Duct
	AWG / MCM	mils	inches	mils	inches	lbs /kft	A		
MV105-5kV2-1	2 AWG	115	0.55	60	0.78	425	215	225	155
MV105-5kV1-1	1 AWG		0.60		0.80	515	250	260	180
MV105-5kV1/0-1	1/0 AWG		0.65		0.85	580	290	295	210
MV105-5kV2/0-1	2/0 AWG		0.69		0.95	675	330	335	235
MV105-5kV3/0-1	3/0 AWG		0.75		1.00	860	385	380	270
MV105-5kV4/0-1	4/0 AWG		0.80		1.05	985	445	435	310
MV105-5kV250-1	250 MCM		80	0.85	1.10	1130	495	475	345
MV105-5kV350-1	350 MCM			0.95	1.20	1480	615	575	410
MV105-5kV500-1	500 MCM			1.10	1.35	2000	775	700	505
MV105-5kV750-1	750 MCM			1.30	1.55	2870	1000	865	630
MV105-5kV1000-1	1000 MCM			1.40	1.70	3690	1200	1005	720

15kV 133% INSULATION LEVEL

Part Number	Conductor Size	Insulation Thickness	Diameter over Insulation	Jacket Thickness	Outer Diameter	Cable Weight	Ampacities *		
							Isolated in Air	Direct Buried	Underground Duct
	AWG / MCM	mils	inches	mils	inches	lbs /kft	A		
MV105-15kV2-1	2 AWG	220	0.75	80	1.03	593	215	225	165
MV105-15kV1-1	1 AWG		0.79		1.05	700	250	260	185
MV105-15kV1/0-1	1/0 AWG		0.82		1.09	770	290	295	215
MV105-15kV2/0-1	2/0 AWG		0.86		1.13	865	335	335	245
MV105-15kV3/0-1	3/0 AWG		0.92		1.17	1040	385	380	275
MV105-15kV4/0-1	4/0 AWG		0.97		1.21	1165	445	435	315
MV105-15kV250-1	250 MCM		110	1.02	1.30	1320	495	475	345
MV105-15kV350-1	350 MCM			1.12	1.40	1680	610	575	415
MV105-15kV500-1	500 MCM			1.26	1.52	2200	765	700	500
MV105-15kV750-1	750 MCM			1.41	1.77	3115	990	865	610
MV105-15kV1000-1	1000 MCM			1.97	1.95	4060	1185	1005	690

* Ampacities „Underground Duct“ per NEC 2011 Table 310.60 (C) (78). Ampacities „Isolated in Air“ per NEC 2011 Table 310.60 (C) (70). Ampacities „Direct Buried“ per NEC 2011 Table 310.60 (C) (82).



MV-105 5kV & 15kV

UL 1072, ASTM B-496, ICEA S-93-639, ICEA S-97-682, AEIC CS8-2000, IEEE 383

Medium Voltage 5kV & 15kV 133% Copper Conductor, Copper Tape Shielded Power Cable

8

CONSTRUCTION

Conductor	Class B compressed concentric strand aluminum 1350
Conductor shield	Extruded layer of semiconducting compound applied under simultaneous triple extrusion process
Insulation	Extruded layer of 105°C rated Ethylene Propylene Rubber (EPR)
Insulation shield	Extruded layer of semiconducting compound applied by triple extrusion process
Metallic shield	5 mil bare copper tape applied helically with a 25% overlap.
Jacket	Extruded layer of black sunlight resistant Polyvinyl Chloride (PVC)

Characteristic

Maximum conductor operating temperature:	+105°C
Maximum conductor emergency overload temperature:	+140°C
Maximum short-circuit conductor temperature:	+250°C
Lowest ambient temperature for mixed installation	-40°C
Lowest installation temperature	-5°C
Minimum bending radius	12xD (D-overall diameter of cable)

- Flame retardant PVC jacket
- Listed for CT use for sizes I/O AWG and larger



5kV 133%/8kV 100% INSULATION LEVEL

Part Number	Conductor Size	Insulation Thickness	Diameter over Insulation	Jacket Thickness	Outer Diameter	Cable Weight	Ampacities *		
							Isolated in Air	Direct Buried	Underground Duct
	AWG / MCM	mils	inches	mils	inches	lbs /kft	A		
MV105-5kV2-1	2 AWG	115	0.54	60	0.74	310	165	195	125
MV105-5kV1-1	1 AWG		0.58		0.78	342	195	220	140
MV105-5kV1/0-1	1/0 AWG		0.61		0.82	380	225	250	160
MV105-5kV2/0-1	2/0 AWG		0.66		0.86	425	260	285	185
MV105-5kV3/0-1	3/0 AWG		0.70		0.93	508	300	320	210
MV105-5kV4/0-1	4/0 AWG		0.77		1.00	580	350	365	245
MV105-5kV250-1	250 MCM		80	0.82	1.05	643	385	395	270
MV105-5kV350-1	350 MCM			0.92	1.15	786	480	480	325
MV105-5kV500-1	500 MCM			1.05	1.28	990	605	580	400
MV105-5kV750-1	750 MCM			1.24	1.46	1321	790	720	505
MV105-5kV1000-1	1000 MCM			1.40	1.61	1645	950	840	590

15kV 133% INSULATION LEVEL

Part Number	Conductor Size	Insulation Thickness	Diameter over Insulation	Jacket Thickness	Outer Diameter	Cable Weight	Ampacities *		
							Isolated in Air	Direct Buried	Underground Duct
	AWG / MCM	mils	inches	mils	inches	lbs /kft	A		
MV105-15kV2-1	2 AWG	220	0.75	80	0.97	487	215	225	130
MV105-15kV1-1	1 AWG		0.79		1.01	525	250	260	145
MV105-15kV1/0-1	1/0 AWG		0.82		1.04	770	570	295	215
MV105-15kV2/0-1	2/0 AWG		0.86		1.09	865	625	335	245
MV105-15kV3/0-1	3/0 AWG		0.91		1.13	1040	685	380	275
MV105-15kV4/0-1	4/0 AWG		0.97		1.19	1165	762	435	315
MV105-15kV250-1	250 MCM		110	1.03	1.25	1320	836	475	345
MV105-15kV350-1	350 MCM			1.13	1.35	1680	995	575	415
MV105-15kV500-1	500 MCM			1.25	1.47	2200	765	700	500
MV105-15kV750-1	750 MCM			1.43	1.65	3115	990	865	610
MV105-15kV1000-1	1000 MCM			1.59	1.86	4060	1185	1005	690

* Ampacities „Underground Duct“ per NEC 2011 Table 310.60 (C) (78). Ampacities „Isolated in Air“ per NEC 2011 Table 310.60 (C) (70). Ampacities „Direct Buried“ per NEC 2011 Table 310.60 (C) (82).

TELE-FONIKA Cable Americas
555 Remington Blvd., Suite A
Bolingbrook, Illinois 60440
(630)406-9000 phone
(630)406-6574 fax
www.tfcable.com



TELE-FONIKA Kable S.A.
ul. Hipolita Cegielskiego 1
32-400 Myślenice, Poland
T. (+48) 12 652 5000
F. (+48) 12 652 5156

info@tfkable.com

www.tfkable.com