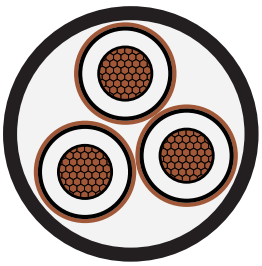
MEDIUM VOLTAGE UNARMOURED CABLES: IEC 60502-2

Application

These Medium Voltage Single Core & Three Core Cables are Designed for Electricity Power Distributation, Suitable for Installation in Power Supply Stations, Commercial, Industrial and Urban Residential Networks, Indoors and in Cable Ducts as well as for Installation on Cable Trays for industries, Switchboards and the power Stations with Nominal Voltage Uo/U Ranging from 3.6/6 kV to 18/30 kV.

Construction

Conductor	:	Annealed Plain Copper or Aluminium Compacted Round Stranded Conductors to carry Current and withstand Pulling Stresses During Cable Laying. Conductors Complying with IEC 60228.
Inner Semi-Conducting Screen	:	Extruded Layer of Semi-Conducting Screen over Conductor to Smooth the Electric Field at the Conductor and Firmly Bonded to the Insulation to exclude all air voids ,and Prevent Concentration of electric field of the interface between the Insulation and the Inner Semi-Conductor. Semi-Conducting Compound Complying with IEC 60502-2
Insulation	:	The Insulation of XLPE (Cross-Linked Polyethylene) Rated Voltage, Lightning Overoltage, Switching Overvoltage, and Withstand the Various Voltage Field Stress During the Cable Service Life as per IEC 60502-2
Core Semi-Conducting Screen	:	Extruded Layer of Semi-Conducting Screen over the Insulation . The Screen is Tightly Fitted to the Insulation to Exclude all air Voids, Prevent Concentration of electric field of the interface between the Insulation and the Semi-Conductor. Semi-Conducting Compound Complying with IEC 60502-2
Metallic Screen	:	The Metallic Screen Shall Consist of Copper Tape. The Metallic Layer may be applied over the Individual Cores. Metallic Screen Provide no Electric Field outer side of the Cable.
Filler (Optional)	:	Non Hygroscopic filler
Outer Sheath	:	The Outer-sheath Comprises a layer of Extruded as per Requirement PVC or LSZH. Outer sheath Compound Complying with IEC 60502-2
Temperature Range	:	Minimum Conductor Operating Temperature : -15°C (XLPE INSULATION) Maximum Conductor Operating Temperature: 90°C (XLPE INSULATION) Short Circuit Temperature: 250°C (5 Seconds Maximum Duration)(XLPE INSULATION)
Bending Radius	:	Single Core Unarmoured: 20D Three Core Unarmoured: 15D D is Nominal Diameter of Cable



3 Core Cables - 8.7/15KV, CU Or AL Conductor, XLPE Insulation, Metallic Screen: Copper Tape, PVC Sheathed

DIMENSIONAL DATA

Catalouge Number	Nominal Cross Section Area	Nominal Insulation Thickness	Nominal Overall Sheath Thickness	Approx Overall Dia
	SQ.MM	**MM**	**MM**	**MM**
NMV15CT*2XY3C0250	25	4.5	2.3	44
NMV15CT*2XY3C0350	35	4.5	2.4	46
NMV15CT*2XY3C0500	50	4.5	2.5	50
NMV15CT*2XY3C0700	70	4.5	2.6	53
NMV15CT*2XY3C0950	95	4.5	2.7	57
NMV15CT*2XY3C1200	120	4.5	2.8	60
NMV15CT*2XY3C1500	150	4.5	2.9	64
NMV15CT*2XY3C1850	185	4.5	3.1	68
NMV15CT*2XY3C2400	240	4.5	3.2	73
NMV15CT*2XY3C3000	300	4.5	3.4	78
NMV15CT*2XY3C4000	400	4.5	3.6	85

Notes: *V(*) ADD "A" for Aluminium cable & "C" for Copper cable

The above data is indicative & may be changed without prior information.

ELECTRICAL DATA

Nominal Cross Section Area	D.C Resistance		Short Circuit Rating of Conductor 1 sec.		Capacitance	Charging Current	Short Circuit Rating of Copper Tape Screen 1 Sec.	Reactance	Inductance
	CU	AL	CU	AL					
Sq.mm	Ω/Km	Ω/Km	kA	kA	pF/m	mA/m	kA	μΩ/m	μΩ/m
25	0.727	1.2	3.6	2.36	178	0.48	0.6	132	410
35	0.524	0.868	5.0	3.3	193	0.53	0.6	123	390
50	0.387	0.641	7.15	4.72	211	0.58	0.7	116	370
70	0.268	0.443	10.01	6.61	240	0.65	0.7	110	350
95	0.193	0.32	13.58	8.97	267	0.73	0.8	105	330
120	0.153	0.253	17.16	11.33	291	0.79	0.8	102	320
150	0.124	0.206	21.45	14.16	312	0.85	0.9	98	310
185	0.0991	0.164	26.45	17.46	340	0.93	0.9	95	300
240	0.0754	0.125	34.32	22.66	375	1.02	1.0	91	290
300	0.0601	0.100	42.9	28.32	411	1.12	1.1	89	280
400	0.0470	0.0778	57.2	37.76	454	1.24	1.2	84	270