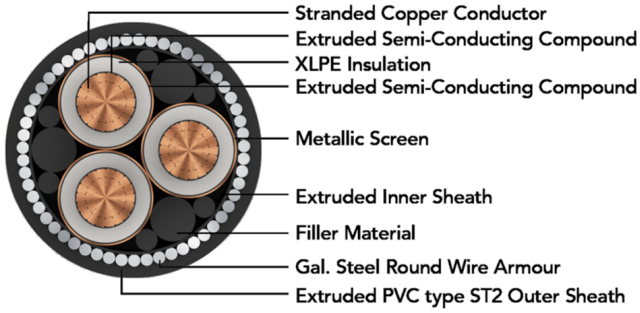
POLYCAB MV MC CU IS 7098-2, 11/11 KV(UE)

Medium Voltage Multi Core Copper Armoured Cable, 11/11 KV (UE) AC



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 11/11 KV(UE) XLPE insulated with copper conductor multi core cable is suitable to use for power distribution for external and direct burial applications in power network system.

CHARACTERISTICS

Voltage Rating
Nominal Voltage: 11/11 KV (UE)

Operation Temperature
Max. operating temperature: 90°C
Max. Short Circuit Temperature: 250°C

Bending Radius:
Fixed Installation: 15D
D is overall diameter of cable

CONSTRUCTION

- Conductor: Circular Compacted Copper conductor as per IS 8130, class 2
- Conductor Screen: Extruded Semi-conductive compound
- Insulation: XLPE
- Non-Metallic Insulation Screen: Extruded Semi-conductive compound
- Metallic Insulation Screen: Copper tape screen
- Inner Sheath: Extruded Polyvinyl Chloride
- Armour: Galvanised steel Round/Flat Wire Armoured
- Outer Sheath: Extruded Polyvinyl Chloride

Colour: Black

Test Voltage
35kV AC 50 Hz

Impulse test Voltage
95 KV

OUTSTANDING FEATURES

- Flame retardant
- High life
- UV resistant

STANDARD FOLLOWS

IS 8130:2013
IS 5831:1984
IS 3975:1979
IS 7098-2:2011

COMPLIANCE

- Conductor resistance IS 8130
- Insulation resistance IS 7098-2
- Flammability test IEC 60332-1-2
- Partial Discharge test IS 7098-2

OUR ACCREDITATIONS

APPROVAL

NOTES

- Inner sheath available with FR/ FRLS
- Outer/ Inner available with FR/FRLS

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DIMENSIONS AND WEIGHTS:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight
			Under armour	Over armour	Overall	(Approx.)
2XWY	No.	mm^2	mm	mm	mm	Kg/Km
MVIS11CXSWY2003C025SA001S	3C	25	41.5	46.5	50.6	4399
MVIS11CXSWY2003C035SA001S	3C	35	44.0	49.0	53.0	4920
MVIS11CXSWY2003C050SA001S	3C	50	47.5	52.5	56.9	5761
MVIS11CXSWY2003C070SA001S	3C	70	50.9	55.9	60.7	6729
MVIS11CXSWY2003C095SA001S	3C	95	54.8	59.8	64.5	7808
MVIS11CXSWY2003C120SA001S	3C	120	58.4	64.7	69.7	9740
MVIS11CXSWY2003C150SA001S	3C	150	62.1	68.4	73.8	11082
MVIS11CXSWY2003C185SA001S	3C	185	65.7	72.0	77.7	12545
MVIS11CXSWY2003C240SA001S	3C	240	71.0	79.0	85.0	15997
MVIS11CXSWY2003C300SA001S	3C	300	76.4	84.4	90.4	18627
MVIS11CXSWY2003C400SA001S	3C	400	83.3	91.3	97.3	22181
MVIS11CXSWY2003C500SA001S	3C	500	90.5	98.5	104.5	26290
MVIS11CXSWY2003C630SA001S	3C	630	97.7	105.7	111.7	30757

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight
			Under armour	Over armour	Overall	(Approx.)
2XFY	No.	mm^2	mm	mm	mm	Kg/Km
MVIS11CXSFY2003C025SA001S	3C	25	41.5	43.1	46.8	2957
MVIS11CXSFY2003C035SA001S	3C	35	44.0	45.6	49.6	3438
MVIS11CXSFY2003C050SA001S	3C	50	47.5	49.1	53.2	4139
MVIS11CXSFY2003C070SA001S	3C	70	50.9	52.5	56.9	4965
MVIS11CXSFY2003C095SA001S	3C	95	54.8	56.4	61.1	5993
MVIS11CXSFY2003C120SA001S	3C	120	58.4	60.0	64.7	6956
MVIS11CXSFY2003C150SA001S	3C	150	62.1	63.7	68.7	8164
MVIS11CXSFY2003C185SA001S	3C	185	65.7	67.3	72.7	9433
MVIS11CXSFY2003C240SA001S	3C	240	71.0	72.6	78.3	11463

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Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight
			Under armour	Over armour	Overall	(Approx.)
2XFY	No.	mm^2	mm	mm	mm	Kg/Km
MVIS11CXASFY2003C300SA001S	3C	300	76.4	78.0	84.0	13755
MVIS11CXSFY2003C400SA001S	3C	400	83.3	84.9	90.9	16909
MVIS11CXSFY2003C500SA001S	3C	500	90.5	92.1	98.1	20538
MVIS11CXSFY2003C630SA001S	3C	630	97.7	99.3	105.3	24605

The above data is approximate & subject to manufacturing tolerance.

ELECTRICAL CHARACTERISTICS:

No. of Cores	Core Cross sectional Area	Max. DC Resistance at 20°C	Max. AC Resistance at 90°C	Approx. Capacitance	Approx. Inductance		Approx. Reactance	
No.	mm^2	Ω/km	Ω/km	µF/km	mH/km		Ω/km	
					2XFY	2XWY	2XFY	2XWY
3	25	0.727	0.932	0.14	0.42	0.42	0.131	0.131
3	35	0.524	0.672	0.15	0.40	0.40	0.124	0.124
3	50	0.387	0.496	0.17	0.36	0.36	0.114	0.114
3	70	0.268	0.344	0.19	0.35	0.35	0.109	0.109
3	95	0.193	0.248	0.21	0.33	0.33	0.104	0.104
3	120	0.153	0.197	0.23	0.32	0.32	0.100	0.100
3	150	0.124	0.159	0.25	0.31	0.31	0.096	0.096
3	185	0.0991	0.128	0.27	0.30	0.30	0.094	0.094
3	240	0.0754	0.098	0.30	0.29	0.29	0.090	0.090
3	300	0.0601	0.078	0.33	0.28	0.28	0.087	0.087
3	400	0.047	0.062	0.37	0.27	0.27	0.084	0.084
3	500	0.0366	0.049	0.41	0.26	0.26	0.082	0.082
3	630	0.0283	0.038	0.45	0.25	0.25	0.080	0.080

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CURRENT CARRYING CAPACITY:

Nominal area of conductor	Buried direct in ground	In a buried duct	In air
Sqmm	A	A	A
25	121	105	133
35	144	125	160
50	169	146	191
70	207	179	237
95	245	213	286
120	278	241	329
150	311	269	371
185	349	308	422
240	401	354	493
300	449	396	560
400	506	446	643
500	565	497	731

Update Air Ambient temperature: 40°C
Ground ambient temperature: 30°C
Conductor operating temperature: 90°C
The above table is in accordance with IS 3961(part 7):2016

De-Rating Factor

Rating factor for variation in ambient air temperature for cable in free air

Ambient air Temperature	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
De-Rating Factor	1.14	1.10	1.05	1.00	0.95	0.89	0.84	0.77

Maximum conductor temperature 90°C

Rating factor for variation in ground temperature for direct buried cables.

Ground Temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
De-Rating Factor	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82

Maximum conductor temperature 90°C

Rating factor for variation in ground temperature for cable in duct.

Ground Temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
De-Rating Factor	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82

Maximum conductor temperature 90°C