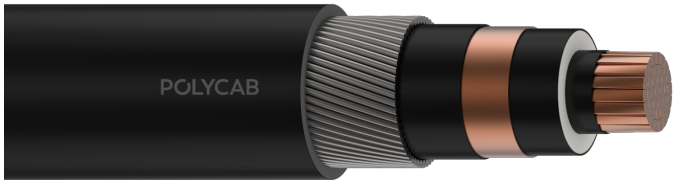
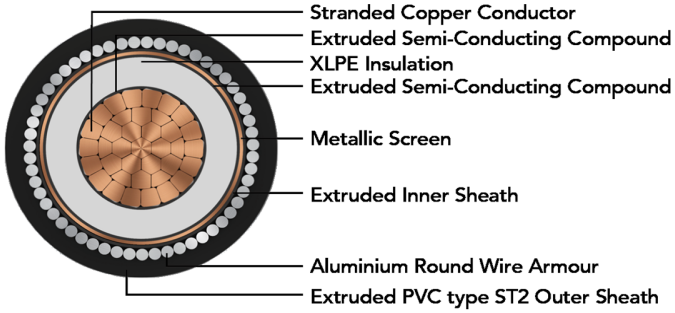
POLYCAB MV SC CU IS 7098-2, 11/11 KV(UE)

Medium Voltage Single 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 single 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: Aluminium Round/Flat Wire Armoured
- Outer Sheath: Extruded Polyvinyl Chloride

Colour: Black

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

Test Voltage
35kV AC 50 Hz

Impulse test Voltage
95 KV

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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.)
2XWaY	No.	mm^2	mm	mm	mm	Kg/Km
MVIS11CXAWY2001C025SA001S	1C	25	19.3	22.5	25.3	888
MVIS11CXAWY2001C035SA001S	1C	35	20.5	23.7	26.5	1025
MVIS11CXAWY2001C050SA001S	1C	50	22.0	25.2	28.4	1249
MVIS11CXAWY2001C070SA001S	1C	70	23.6	26.8	29.9	1486
MVIS11CXAWY2001C095SA001S	1C	95	25.4	29.4	32.5	1855
MVIS11CXAWY2001C120SA001S	1C	120	27.2	31.2	34.3	2168
MVIS11CXAWY2001C150SA001S	1C	150	28.9	32.9	36.0	2530
MVIS11CXAWY2001C185SA001S	1C	185	30.6	34.6	37.7	2909
MVIS11CXAWY2001C240SA001S	1C	240	33.0	37.0	40.5	3547
MVIS11CXAWY2001C300SA001S	1C	300	35.5	39.5	43.0	4237
MVIS11CXAWY2001C400SA001S	1C	400	38.9	42.9	46.7	5289
MVIS11CXAWY2001C500SA001S	1C	500	42.2	47.2	51.3	6617
MVIS11CXAWY2001C630SA001S	1C	630	45.6	50.6	55.0	7952
MVIS11CXAWY2001C800SA001S	1C	800	49.9	54.9	59.3	9720
MVIS11CXAWY2001C01KSA001S	1C	1000	54.2	59.2	63.9	11807

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight
			Under armour	Over armour	Overall	(Approx.)
2XFaY	No.	mm^2	mm	mm	mm	Kg/Km
MVIS11CXAFY2001C025SA001S	1C	25	19.3	20.9	23.7	782
MVIS11CXAFY2001C035SA001S	1C	35	20.5	22.1	24.9	910
MVIS11CXAFY2001C050SA001S	1C	50	22.0	23.6	26.4	1103
MVIS11CXAFY2001C070SA001S	1C	70	23.6	25.2	28.3	1350
MVIS11CXAFY2001C095SA001S	1C	95	25.4	27.0	30.1	1638
MVIS11CXAFY2001C120SA001S	1C	120	27.2	28.8	31.9	1939
MVIS11CXAFY2001C150SA001S	1C	150	28.9	30.5	33.6	2281
MVIS11CXAFY2001C185SA001S	1C	185	30.6	32.2	35.3	2649
MVIS11CXAFY2001C240SA001S	1C	240	33.0	34.6	37.8	3236
MVIS11CXAFY2001C300SA001S	1C	300	35.5	37.1	40.6	3934
MVIS11CXAFY2001C400SA001S	1C	400	38.9	40.5	44.3	4953

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Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight
			Under armour	Over armour	Overall	(Approx.)
2XFaY	No.	mm^2	mm	mm	mm	Kg/Km
MVIS11CXAFY2001C500SA001S	1C	500	42.2	43.8	47.6	6064
MVIS11CXAFY2001C630SA001S	1C	630	45.6	47.2	51.3	7353
MVIS11CXAFY2001C800SA001S	1C	800	49.9	51.5	55.9	9121
MVIS11CXAFY2001C01KSA001S	1C	1000	54.2	55.8	60.5	11145

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	
					2XFaY	2XWaY	2XFaY	2XWaY
1	25	0.727	0.932	0.14	0.46	0.48	0.15	0.15
1	35	0.524	0.672	0.15	0.44	0.45	0.14	0.14
1	50	0.387	0.496	0.17	0.41	0.42	0.13	0.13
1	70	0.268	0.344	0.19	0.39	0.40	0.12	0.13
1	95	0.193	0.248	0.21	0.37	0.38	0.12	0.12
1	120	0.153	0.197	0.23	0.35	0.37	0.11	0.12
1	150	0.124	0.159	0.25	0.34	0.36	0.11	0.11
1	185	0.0991	0.128	0.27	0.33	0.35	0.10	0.11
1	240	0.0754	0.098	0.30	0.32	0.33	0.10	0.10
1	300	0.0601	0.078	0.33	0.31	0.32	0.10	0.10
1	400	0.047	0.062	0.37	0.30	0.31	0.09	0.10
1	500	0.0366	0.049	0.41	0.29	0.30	0.09	0.10
1	630	0.0283	0.038	0.45	0.28	0.30	0.09	0.09
1	800	0.0221	0.031	0.50	0.28	0.29	0.09	0.09
1	1000	0.0176	0.026	0.55	0.27	0.28	0.08	0.09

CURRENT CARRYING CAPACITY:

Nominal area of conductor	Buried direct in the ground		In single -way Ducts		In air	
	Trefoil	Flat touching	Trefoil ducts	Flat touching ducts	Trefoil	Flat Touching
Sqmm	A	A	A	A	A	A
25	127	130	113	111	150	153
35	151	155	134	132	181	185

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Nominal area of conductor	Buried direct in the ground		In single -way Ducts		In air	
	Trefoil	Flat touching	Trefoil ducts	Flat touching ducts	Trefoil	Flat Touching
Sqmm	A	A	A	A	A	A
50	178	181	158	154	216	219
70	216	220	191	186	269	273
95	257	259	227	219	326	329
120	290	292	256	246	376	378
150	323	323	285	272	424	425
185	360	354	317	297	487	480
240	411	398	361	332	568	552
300	456	435	399	362	643	616
400	508	474	443	392	735	690
500	559	510	486	420	828	761
630	611	544	529	446	930	835
800	639	550	550	448	1003	873
1000	672	569	575	460	1083	927

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