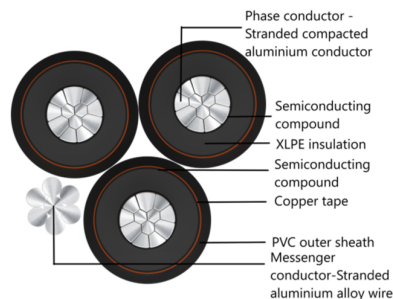


POLYCAB Aerial Bunched Cable (ABC) 11kV Overhead Power Distribution Cable, 6.35/11KV(E) AC



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB Aerial Bunched Cable (ABC) is recommended as overhead distribution feeder in rural or residential areas and hill area where underground installation is not possible.

CHARACTERISTICS

Voltage Rating
6.35/11 KV(E)

Operation Temperature
Max.: 90°C

Bending Radius
10 x Overall diameter

CONSTRUCTION

Phase conductor

- Stranded compacted aluminium conductor to IS 8130, Class 2
- Screened by semiconducting compound
- Insulated with XLPE (Cross linked polyethylene)
- Screened by semiconducting compound
- Wrapped with copper tape
- Sheathed with PVC sheath

Messenger conductor

- Stranded circular or compacted heat-treated aluminium-magnesium alloy wire to IS 398 (part 4)
- Insulated with in-house developed compounded XLPE (if required)

Core Identification

Phase conductor one, two or three ridges
Neutral conductor four ridges
Messenger (if insulated) No identification mark

Test Voltage
21000 V AC

STANDARD FOLLOWS

IS 8130:2013
IS 398 (Part 4)
IS 5831
IS 7098-2
IS 14255:1995

COMPLIANCE

Conductor resistance IS 8130
Elongation test IS 5831
Tensile strength IS 5831

NOTES

Configuration

Three phase system cable with insulated messenger or with bare messenger

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WEIGHT & DIMENSION DATA

Phase Conductor + Messenger(Bare)

Construction n x mm ²	Insulation thickness mm	Phase conductor Overall diameter mm	messenger Overall diameter mm	Weight (Approx.)	Minimum Breaking load of messenger KN
3 x 25 + 1 x 50	3.60	20.10	9.11	1487	15.5
3 x 35 + 1 x 50	3.60	21.24	9.11	1660	15.5
3 x 50 + 1 x 70	3.60	22.83	10.77	1969	21.6
3 x 70 + 1 x 70	3.60	24.48	10.77	2266	21.6
3 x 95 + 1 x 80	3.60	26.28	11.49	2647	24.7
3 x 120 + 1 x 95	3.60	27.89	12.55	3027	29.4
3 x 150 + 1 x 125	3.60	29.97	14.36	3585	38.5
3 x 185 + 1 x 125	3.60	31.72	14.36	4020	38.5
3 x 240 + 1 x 150	3.60	34.17	15.75	4750	46.3
3 x 300 + 1 x 185	3.60	36.58	17.49	5547	57.1

Phase Conductor + Messenger(Insulated)

Construction n x mm ²	Insulation thickness mm		Phase conductor Overall diameter mm	messenger Overall diameter mm	Weight (Approx.)	Minimum Breaking load of messenger KN
	Phase mm	Messenger mm				
3 x 25 + 1 x 50	3.60	3.60	20.10	16.3	1643	15.5
3 x 35 + 1 x 50	3.60	3.60	21.24	16.3	1816	15.5
3 x 50 + 1 x 70	3.60	3.60	22.83	18.0	2145	21.6
3 x 70 + 1 x 70	3.60	3.60	24.48	18.0	2442	21.6
3 x 95 + 1 x 80	3.60	3.60	26.28	18.7	2832	24.7
3 x 120 + 1 x 95	3.60	3.60	27.89	19.7	3225	29.4
3 x 150 + 1 x 125	3.60	3.60	29.97	21.6	3804	38.5
3 x 185 + 1 x 125	3.60	3.60	31.72	21.6	4240	38.5
3 x 240 + 1 x 150	3.60	3.60	34.17	23.0	4987	46.3
3 x 300 + 1 x 185	3.60	3.60	36.58	24.7	5805	57.1

Electrical characteristics

Current carrying capacity and maximum DC conductor resistance.

POLYCAB Aerial Bunched Cable (ABC) 11kV Overhead Power Distribution Cable, 6.35/11KV(E) AC

Construction (Phase + Messenger) n x mm ²	Maximum DC conductor resistance at 20°C		Reactance Ω/km	Current carrying capacity in Air @ 40°C Amp.
	Phase Ω/km	Messenger Ω/km		
3 x 25 + 1 x 50	1.2	0.663	0.135	119
3 x 35 + 1 x 50	0.868	0.663	0.129	143
3 x 50 + 1 x 70	0.641	0.474	0.118	171
3 x 70 + 1 x 70	0.443	0.474	0.112	213
3 x 95 + 1 x 80	0.32	0.416	0.107	258
3 x 120 + 1 x 95	0.253	0.349	0.103	298
3 x 150 + 1 x 125	0.206	0.268	0.100	335
3 x 185 + 1 x 125	0.164	0.268	0.0970	384
3 x 240 + 1 x 150	0.125	0.223	0.0935	446
3 x 300 + 1 x 185	0.1	0.181	0.0902	503

De-Rating Factor

De-rating factor for various ambient temperature

Air-Temperature	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
De-rating factor	1.14	1.1	1.05	1	0.95	0.89	0.84	0.77