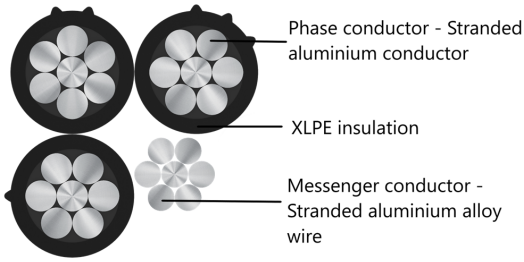
POLYCAB Aerial Bunched Cable (ABC) 3.3kV
Overhead Power Distribution Cable, 1.9/3.3kV



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
1.9/3.3 KV

Operation Temperature
Max.: 90°C
Bending Radius
10 x Overall diameter

CONSTRUCTION

Phase conductor

- Stranded compacted aluminium conductor to IS 8130, Class 2
- Insulated with XLPE (Cross linked polyethylene)
- Sheathed with PVC to IS 5831

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
10000 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

OUR ACCREDITATIONS

NABL

NOTES

Configuration
Three phase system cable with insulated messenger or with bare messenger

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POLYCAB
IDEAS. CONNECTED.

WEIGHT & DIMENSION DATA :

Phase Conductor + Messenger (Bare)

Construction (Phase + Messenger) n x mm²	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 25	2.20	14.42	6.42	802	7.7
3 x 35 + 1 x 35	2.20	15.56	7.60	965	10.8
3 x 50 + 1 x 50	2.20	17.15	9.11	1208	15.5
3 x 70 + 1 x 50	2.20	19.20	9.11	1508	15.5
3 x 95 + 1 x 55	2.20	21.00	9.53	1821	17.0
3 x 120 + 1 x 70	2.20	22.61	10.77	2152	21.6
3 x 150 + 1 x 75	2.20	24.29	11.13	2499	23.1
3 x 185 + 1 x 95	2.20	26.04	12.55	2932	29.4
3 x 240 + 1 x 125	2.20	28.49	14.36	3593	38.5
3 x 300 + 1 x 150	2.20	31.30	15.75	4378	46.3

Phase Conductor + Messenger (Insulated)

Construction (Phase + Messenger) n x mm²	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 25	2.20	2.20	14.4	10.8	866	7.7
3 x 35 + 1 x 35	2.20	2.20	15.6	12.0	1038	10.8
3 x 50 + 1 x 50	2.20	2.20	17.2	13.5	1292	15.5
3 x 70 + 1 x 50	2.20	2.20	19.2	13.5	1593	15.5
3 x 95 + 1 x 55	2.20	2.20	21.0	13.9	1909	17.0
3 x 120 + 1 x 70	2.20	2.20	22.6	15.2	2249	21.6
3 x 150 + 1 x 75	2.20	2.20	24.3	15.5	2599	23.1
3 x 185 + 1 x 95	2.20	2.20	26.0	16.9	3043	29.4
3 x 240 + 1 x 125	2.20	2.20	28.5	18.8	3716	38.5
3 x 300 + 1 x 150	2.20	2.20	31.3	20.2	4512	46.3

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Electrical characteristics

Current carrying capacity and maximum DC conductor resistance.

Construction (Phase + Messenger) n x mm²	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 25	1.2	1.33	0.115	118
3 x 35 + 1 x 35	0.868	0.95	0.109	142
3 x 50 + 1 x 50	0.641	0.66	0.100	169
3 x 70 + 1 x 50	0.443	0.66	0.0971	212
3 x 95 + 1 x 55	0.32	0.605	0.0931	256
3 x 120 + 1 x 70	0.253	0.474	0.0893	296
3 x 150 + 1 x 75	0.206	0.444	0.0868	333
3 x 185 + 1 x 95	0.164	0.349	0.0846	383
3 x 240 + 1 x 125	0.125	0.268	0.0821	444
3 x 300 + 1 x 150	0.1	0.223	0.0804	502

De-Rating Factor

De-ratting 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