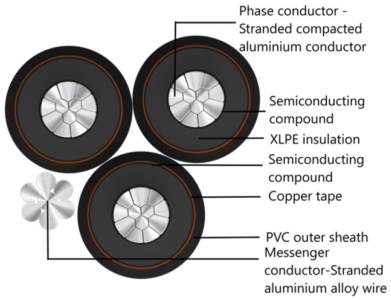
POLYCAB Aerial Bunched Cable (ABC) 33kV
Overhead Power Distribution Cable, 19/33KV(E) AC



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 areas where underground installation is not possible.

CHARACTERISTICS

Voltage Rating
19/33 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
63000 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 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 95	8.80	30.90	12.55	3100	29.39
3 x 35 + 1 x 100	8.80	32.04	12.85	3345	30.82
3 x 50 + 1 x 125	8.80	33.63	14.36	3749	38.50
3 x 70 + 1 x 125	8.80	35.28	14.36	4131	38.50
3 x 95 + 1 x 150	8.80	37.08	15.75	4648	46.32
3 x 120 + 1 x 150	8.80	38.69	15.75	5068	46.32
3 x 150 + 1 x 185	8.80	40.77	17.49	5760	57.12
3 x 185 + 1 x 185	8.80	42.52	17.49	6286	57.12
3 x 240 + 1 x 240	8.80	45.37	19.93	7362	74.12
3 x 300 + 1 x 240	8.80	47.78	19.93	8194	74.12

Phase Conductor + Messenger (Insulated)

Construction 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 95	8.80	8.80	30.90	30.1	3738	29.39
3 x 35 + 1 x 100	8.80	8.80	32.04	30.4	3992	30.82
3 x 50 + 1 x 125	8.80	8.80	33.63	32.0	4442	38.50
3 x 70 + 1 x 125	8.80	8.80	35.28	32.0	4823	38.50
3 x 95 + 1 x 150	8.80	8.80	37.08	33.4	5382	46.32
3 x 120 + 1 x 150	8.80	8.80	38.69	33.4	5802	46.32
3 x 150 + 1 x 185	8.80	8.80	40.77	35.1	6546	57.12
3 x 185 + 1 x 185	8.80	8.80	42.52	35.1	7072	57.12
3 x 240 + 1 x 240	8.80	8.80	45.37	37.5	8221	74.12
3 x 300 + 1 x 240	8.80	8.80	47.78	37.5	9053	74.12

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Electrical characteristics

Current carrying capacity and maximum DC conductor resistance.

Nominal cross sectional area 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 95	1.2	0.349	0.162	
3 x 35 + 1 x 100	0.868	0.333	0.154	146
3 x 50 + 1 x 125	0.641	0.268	0.143	177
3 x 70 + 1 x 125	0.443	0.268	0.135	220
3 x 95 + 1 x 150	0.32	0.223	0.129	264
3 x 120 + 1 x 150	0.253	0.223	0.123	303
3 x 150 + 1 x 185	0.206	0.181	0.119	340
3 x 185 + 1 x 185	0.164	0.181	0.115	387
3 x 240 + 1 x 240	0.125	0.139	0.111	449
3 x 300 + 1 x 240	0.1	0.139	0.107	501

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