Polycab LT Aerial bunch cable conforming to IS 14255 standards

Polycab offers LT aerial bunch cable conforming to IS 14255. These cables are recommended as overhead distribution feeder in rural or residential area and hill area where underground installation is not possible. These cables are available as three phase or single-phase system with or without street light conductor for LT cable with continuous operation temperature 70° C & 90°C

Conductor:

Phase conductor: High conductivity annealed stranded aluminium conductor produced in-house from state-of-the art machine

Messenger conductor: Stranded circular or compacted heat-treated aluminium magnesium alloy wire

Street light conductor: Stranded aluminium conductor

Insulation:

Phase conductor: in-house developed compounded XLPE

Messenger conductor: in-house developed compounded XLPE (optional)

Street light conductor: in-house developed compounded XLPE

Polycab assures the highest quality standard in every product by having stringent quality control with requisite testing which are applied at every single stage from raw material to finished goods.

The construction is based on the application and requirement of the user against IS 14255.

POLYCAB Aerial Bunched Cable (ABC)
Overhead Power Distribution Cable, 1100 V

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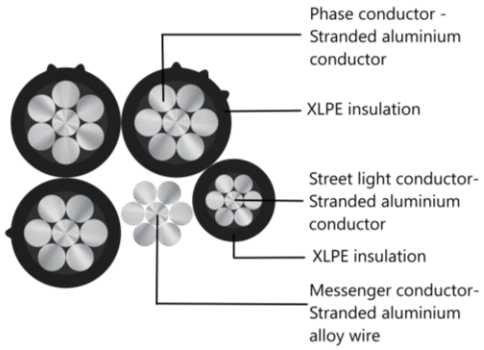

Application

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.

Voltage Rating

1100 V

Operation Temperature

Max.: 90˚C

Configuration

Single phase or three phase system cable with or without street light conductor

Construction

- Phase conductor
  - Stranded compacted aluminium conductor to IS 8130, Class 2
  - Insulated with in-housed developed compounded XLPE (Cross linked polyethylene)
- Messenger conductor
  - Stranded circular or compacted heat-treated aluminium-magnesium alloy wire to IS 398 (part 4)
  - Insulated with in-housed developed compounded XLPE (if required)
- Streetlight conductor
  - Stranded aluminium conductor to IS 8130, class 2
  - Insulated with in-housed developed compounded XLPE

Core Identification

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

Bending Radius

10 x Overall diameter

Standard and References

IS 8130:2013
IS 398 (Part 4)
IS 14255:1995

Test Voltage

3000 V AC

Compliance

Conductor resistance	IS 8130
Insulation resistance	IS 14255:1995
Elongation test	IS 14255:1995
Water absorption test	IS 14255:1995
Tensile test	IS 14255:1995

Approval

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB Aerial Bunched Cable (ABC)

Overhead Power Distribution Cable, 1100 V

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
1 x16 +1 x 25	1.20	7.53	6.45	139	7
3 x16 +1 x 25	1.20	7.53	6.45	278	7
1 x25 +1 x 25	1.20	8.85	6.45	170	7
3 x25 +1 x 25	1.20	8.85	6.45	371	7
1 x35 +1 x 25	1.20	10.00	6.45	202	7
3 x35 +1 x 25	1.20	10.00	6.45	466	7
1 x50 +1 x 35	1.50	12.05	7.60	286	9.8
3 x50 +1 x 35	1.50	12.05	7.60	667	9.8
1 x70 +1 x 50	1.50	13.73	9.05	391	14
3 x70 +1 x 50	1.50	13.73	9.05	899	14
1 x95 +1 x 70	1.50	15.52	10.77	526	19.7
3 x95 +1 x 70	1.50	15.52	10.77	1191	19.7

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
	Phase mm	Messenger mm				
1 x16 +1 x 25	1.20	1.20	7.5	8.9	7	7
3 x16 +1 x 25	1.20	1.20	7.5	8.9	7	7
1 x25 +1 x 25	1.20	1.20	8.9	8.9	7	7
3 x25 +1 x 25	1.20	1.20	8.9	8.9	7	7
1 x35 +1 x 25	1.20	1.20	10.0	8.9	7	7
3 x35 +1 x 25	1.20	1.20	10.0	8.9	7	7
1 x50 +1 x 35	1.50	1.20	12.0	10.0	9.8	9.8
3 x50 +1 x 35	1.50	1.20	12.0	10.0	9.8	9.8
1 x70 +1 x 50	1.50	1.50	13.7	12.0	14	14
3 x70 +1 x 50	1.50	1.50	13.7	12.0	14	14
1 x95 +1 x 70	1.50	1.50	15.5	13.8	19.7	19.7
3 x95 +1 x 70	1.50	1.50	15.5	13.8	19.7	19.7

POLYCAB Aerial Bunched Cable (ABC)

Overhead Power Distribution Cable, 1100 V

Phase Conductor + Messenger(Bare) + Street Light							
Construction n x mm²	Insulation thickness mm		Phase conductor Overall diameter mm	messenger Overall diameter mm	Street light Overall diameter mm	Weight (Approx.)	Minimum Breaking load of messenger
	Phase mm	Street light					
3 x16 +1 x 25+1 x 16	1.2	1.2	7.5	6.5	7.5	7.0	7.0
3 x25 +1 x 25+1 x 16	1.2	1.2	8.9	6.5	7.5	7.0	7.0
3 x35 +1 x 25+1 x 16	1.2	1.2	10.0	6.5	7.5	7.0	7.0
3 x50 +1 x 35+1 x 16	1.5	1.2	12.0	7.6	7.5	9.8	9.8
3 x70 +1 x 50+1 x 16	1.5	1.2	13.7	9.0	7.5	14.0	14.0
3 x95 +1 x 70+1 x 16	1.5	1.2	15.5	10.8	7.5	19.7	19.7

Phase Conductor + Messenger(Insulated) + Street Light								
Construction n x mm²	Insulation thickness mm			Phase conductor Overall diameter mm	messenger Overall diameter mm	Street light Overall diameter mm	Weight (Approx.)	Minimum Breaking load of messenger
	Phase mm	Messenger	Street light					
3 x16 +1 x 25+1 x 16	1.2	1.2	1.2	7.5	8.9	7.5	240	7.0
3 x25 +1 x 25+1 x 16	1.2	1.2	1.2	8.9	8.9	7.5	379	7.0
3 x35 +1 x 25+1 x 16	1.2	1.2	1.2	10.0	8.9	7.5	271	7.0
3 x50 +1 x 35+1 x 16	1.5	1.2	1.2	12.0	10.0	7.5	472	9.8
3 x70 +1 x 50+1 x 16	1.5	1.5	1.2	13.7	12.0	7.5	302	14.0
3 x95 +1 x 70+1 x 16	1.5	1.5	1.2	15.5	13.8	7.5	567	19.7

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		
16	1.91	1.38	0.0834	72
25	1.2	1.38	0.0791	98
35	0.868	1.38	0.0765	119
50	0.641	0.986	0.0772	145
70	0.443	0.689	0.0748	185
95	0.32	0.492	0.0728	235

De-Rating Factor

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