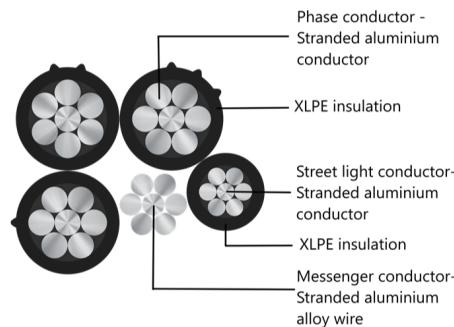


# POLYCAT Aerial Bunched Cable (ABC) 1.1kV Overhead Power Distribution Cable, 1100 V

**POLYCAT**  
IDEAS. CONNECTED.



Images not to scale. Follow table for dimensions

## APPLICATION

POLYCAT 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

1100 V

### 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 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 &	No identification mark
Messenger (if insulated)	

### Test Voltage

3000 V AC

## STANDARD FOLLOWS

IS 8130:2013

IS 398 (Part 4)

IS 14255:1995

## 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

## OUR ACCREDITATIONS



## APPROVAL



## NOTES

**Configuration :** Single phase or three phase system cable with or without street light conductor

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## Overhead Power Distribution Cable, 1100 V

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### WEIGHT & DIMENSION DATA :

#### Phase Conductor + Messenger(Bare)

Construction n x mm <sup>2</sup>	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 mm <sup>2</sup>	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

# POLYCAT Aerial Bunched Cable (ABC) 1.1kV Overhead Power Distribution Cable, 1100 V

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Construction n x mm <sup>2</sup>	Insulation thickness mm		Phase conductor Overall diameter mm	messenger Overall diameter mm	Weight (Approx.)	Minimum Breaking load of messenger
	Phase mm	Messenger mm				
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

## Phase Conductor + Messenger(Bare) + Street Light

Construction n x mm <sup>2</sup>	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 mm <sup>2</sup>	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

# POLYCAT Aerial Bunched Cable (ABC) 1.1kV

## Overhead Power Distribution Cable, 1100 V

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### Electrical characteristics

Current carrying capacity and maximum DC conductor resistance.

Nominal cross sectional area mm <sup>2</sup>	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