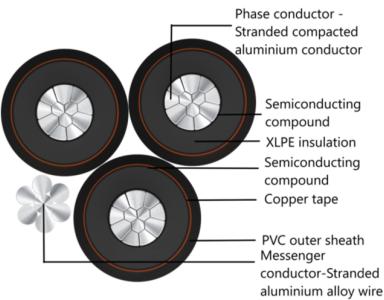


# POLYCAT Aerial Bunched Cable (ABC) 33kV Overhead Power Distribution Cable, 19/33KV(E) AC

**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 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



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

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

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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		
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-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