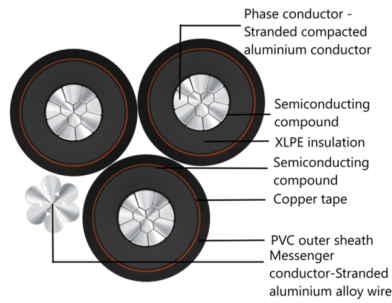


# POLYCAB Aerial Bunched Cable (ABC) 11kV Overhead Power Distribution Cable, 6.35/11KV(E) AC



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 area where underground installation is not possible.

## CHARACTERISTICS

**Voltage Rating**  
6.35/11 KV(E)

**Operation Temperature**  
Max.: 90°C

**Bending Radius**  
10 x Overall diameter

## 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

## NOTES

### Configuration

Three phase system cable with insulated messenger or with bare messenger

## 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**  
21000 V AC

# POLYCAB Aerial Bunched Cable (ABC) 11kV Overhead Power Distribution Cable, 6.35/11KV(E) AC

## 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 50	3.60	20.10	9.11	1487	15.5
3 x 35 + 1 x 50	3.60	21.24	9.11	1660	15.5
3 x 50 + 1 x 70	3.60	22.83	10.77	1969	21.6
3 x 70 + 1 x 70	3.60	24.48	10.77	2266	21.6
3 x 95 + 1 x 80	3.60	26.28	11.49	2647	24.7
3 x 120 + 1 x 95	3.60	27.89	12.55	3027	29.4
3 x 150 + 1 x 125	3.60	29.97	14.36	3585	38.5
3 x 185 + 1 x 125	3.60	31.72	14.36	4020	38.5
3 x 240 + 1 x 150	3.60	34.17	15.75	4750	46.3
3 x 300 + 1 x 185	3.60	36.58	17.49	5547	57.1

### 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
	Phase mm	Messenger mm				
3 x 25 + 1 x 50	3.60	3.60	20.10	16.3	1643	15.5
3 x 35 + 1 x 50	3.60	3.60	21.24	16.3	1816	15.5
3 x 50 + 1 x 70	3.60	3.60	22.83	18.0	2145	21.6
3 x 70 + 1 x 70	3.60	3.60	24.48	18.0	2442	21.6
3 x 95 + 1 x 80	3.60	3.60	26.28	18.7	2832	24.7
3 x 120 + 1 x 95	3.60	3.60	27.89	19.7	3225	29.4
3 x 150 + 1 x 125	3.60	3.60	29.97	21.6	3804	38.5
3 x 185 + 1 x 125	3.60	3.60	31.72	21.6	4240	38.5
3 x 240 + 1 x 150	3.60	3.60	34.17	23.0	4987	46.3
3 x 300 + 1 x 185	3.60	3.60	36.58	24.7	5805	57.1

## Electrical characteristics

### Current carrying capacity and maximum DC conductor resistance.

Document No.: 00207.Rev No.: 00 01-01-2024 / We reserve the rights to make technical changes.

# POLYCAB Aerial Bunched Cable (ABC) 11kV Overhead Power Distribution Cable, 6.35/11KV(E) AC

Construction (Phase + Messenger) n x 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 50	1.2	0.663	0.135	119
3 x 35 + 1 x 50	0.868	0.663	0.129	143
3 x 50 + 1 x 70	0.641	0.474	0.118	171
3 x 70 + 1 x 70	0.443	0.474	0.112	213
3 x 95 + 1 x 80	0.32	0.416	0.107	258
3 x 120 + 1 x 95	0.253	0.349	0.103	298
3 x 150 + 1 x 125	0.206	0.268	0.100	335
3 x 185 + 1 x 125	0.164	0.268	0.0970	384
3 x 240 + 1 x 150	0.125	0.223	0.0935	446
3 x 300 + 1 x 185	0.1	0.181	0.0902	503

## 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