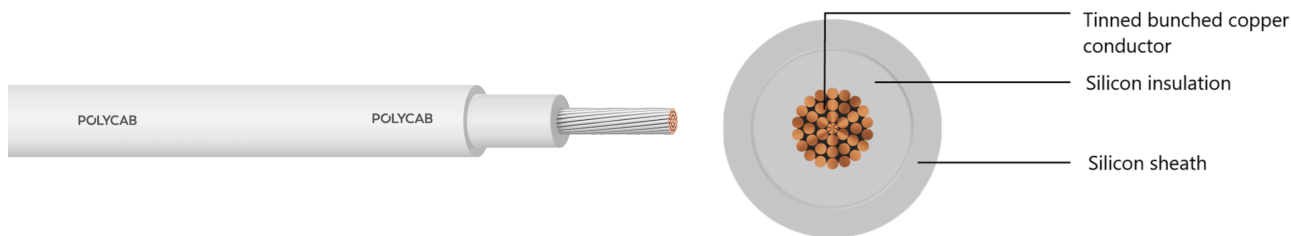


# POLYCAB SiR-S, IS 9968-1

## Rubber power and control Cable, 1100 V



Images not to scale. Follow table for dimensions

### APPLICATION

POLYCAB SiR-S, silicon rubber insulated and silicon rubber sheathed Cable generally conforming to IS 9968-1 is designed to use in flexible wiring, single phase or three phase (earthed or unearthed) system for rated voltage up to and including 1100 V. These cables may be used on DC system for rated voltage grade 1500 V to earth. These cables are suitable to use in high temperature area especially in furnace and windmill generator.

### STANDARD FOLLOWS

IS 8130:2013  
IS 6380:1984\*  
IS 9968:1988

### COMPLIANCE

Conductor resistance test IS 8130  
Insulation resistance IS 6380:1984\*  
Flammability IEC 60332-1-2

### CHARACTERISTICS

#### Voltage Rating

1100 V

#### Operation Temperature

Fixed: -50°C to 180°C

Maximum short circuit temperature 350°C

#### Bending Radii

Fixed installation >12 x Overall Diameter

Occasional >10 x Overall Diameter

### OUR ACCREDITATIONS



### CONSTRUCTION

- Annealed tinned bunched electrolytic grade copper conductor to IS 8130, class 5
- Insulated by silicon rubber compound to IS 6380
- Sheathed with silicone rubber compound SE5 to IS 6380

#### Core Identification

White/Red/Yellow/Blue/Black

#### Test Voltage

3000 V AC

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### WEIGHT AND DIMENSION DATA :

No. of core	Nominal cross sectional area	Insulation thickness	Overall diameter	Weight (Approx.)
	mm <sup>2</sup>	mm	mm	kg/km
1	0.5	1	4.9	28
1	0.75	1	5.1	32
1	1	1	5.3	36
1	1.5	1	5.6	42
1	2.5	1	6.0	55
1	4	1	6.6	73
1	6	1	7.1	96
1	10	1.2	8.7	151
1	16	1.2	9.7	213
1	25	1.4	11.6	318
1	35	1.4	12.8	422
1	50	1.6	14.9	592
1	70	1.6	16.8	801
1	95	1.8	18.9	1066
1	120	1.8	20.7	1319
1	150	2	22.8	1615

### Electrical characteristics

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

Nominal cross sectional area mm <sup>2</sup>	Current rating in air Amp.						Maximum DC conductor resistance 20°C Ω/km
	30°C	60°C	90°C	120°C	150°C	170°C	
0.5	23	20	17	13	9	5	40.1
0.75	30	26	22	17	11	6	26.7
1	35	31	26	20	13	7	20
1.5	44	38	32	25	17	8	13.7
2.5	61	53	45	35	23	12	8.21
4	82	71	60	47	31	16	5.09
6	104	91	77	60	39	20	3.39
10	148	129	108	85	56	28	1.95

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Nominal cross sectional area mm <sup>2</sup>	Current rating in air Amp.						Maximum DC conductor resistance 20°C
	30°C	60°C	90°C	120°C	150°C	170°C	Ω/km
16	197	173	145	114	75	58	1.24
25	263	230	193	151	99	51	0.795
35	327	286	240	188	124	63	0.565
50	413	362	304	238	157	80	0.393
70	531	465	391	306	201	103	0.277
95	623	545	458	359	236	121	0.21
120	738	645	543	425	280	143	0.164
150	850	744	626	491	323	166	0.132

Conductor maximum operating temperature 180°C

### De-rating factor

#### De-rating factor for 180°C insulated cable

Air Temperature	150°C	155°C	160°C	170°C	180°C
De-Rating Factor	1	0.91	0.82	0.58	0.41