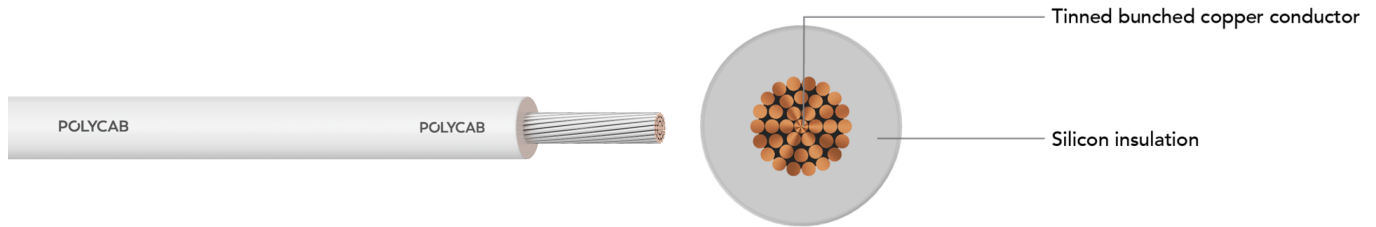


# POLYCAB SiR, IS 9968-1

## Rubber power and control Cable, 1100 V AC



Images not to scale. Follow table for dimensions

### APPLICATION

POLYCAB SiR IS 9968-1, silicon rubber insulated unsheathed generally conforming to IS 9968-1 is designed to use in heat resistant area 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 1500V to earth.

### 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

**Test Voltage**  
3000 V AC

### 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

### OUR ACCREDITATIONS



### CONSTRUCTION

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

**Core Identification**  
White/Red/Yellow/Blue/Black

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### WEIGHT & 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	2.91	12
1	0.75	1	3.12	15
1	1	1	3.29	18
1	1.5	1	3.56	23
1	2.5	1	4.02	34
1	4	1	4.56	50
1	6	1	5.13	70
1	10	1.2	6.48	116
1	16	1.2	7.52	174
1	25	1.4	9.18	266
1	35	1.4	10.38	364
1	50	1.6	12.27	519
1	70	1.6	13.95	712
1	95	1.8	16.14	964
1	120	1.8	17.68	1199
1	150	2	19.61	1475

### 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
	30°C	60°C	90°C	120°C	150°C	170°C	Ω/km
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	52	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
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

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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	
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

