



SINOTHERM

High Temperature 180°C Silicone Flexible Cable 0.6/1kV

APPLICATION

- ~ Switchboard & cubical wiring
- ~ Transformer and Capacitor cabling
- ~ high output floodlights
- ~ Chemical & ceramic industry
- ~ Injection moulding & extruders
- ~ Steelworks/ hot strip rolling mills
- ~ Foundries & cooking plants
- ~ Heating appliances
- ~ Motor rewinders

OPERATING TEMPERATURE

- Minimum and maximum permissible ambient temperature -55°C
+180°C
- Maximum permissible conductor temperature 180°C
- Maximum permissible short circuit temperature 350°C
- Minimum ambient temperature for optimum fully flexible operation -40°C

MINIMUM BENDING RADII

The following minimum bending radii must be observed to ensure operating reliability. These are applicable for both sub-zero and elevated temperatures.

- Fixed Installation 4 x cable diameter
- When freely flexing 5 x cable diameter

CURRENT CARRYING CAPACITY

At ambient temperatures up to 150°C SINOTHERM cables can be loaded according to Table 1. The table below this, is applicable for higher temperatures:

Conductor Size	0.75	1.0	1.5	2.5	4	6	10	16	25	35	50	70	95
Amps	15	19	24	32	42	54	73	98	129	158	198	245	292
Ambient temp. up to °C								150	150	160	165	170	175
Current capacity as a % of values above								100	91	82	71	58	41

DESIGN

SINOTHERM cables consist of fine stranded copper conductors laid up to provide a flexible design. Silicone insulation offers high resistance to increased ambient temperatures, however with a low mechanical resistance to cuts and tearing.

RESISTANCE TO CHEMICALS

Occasional slight exposure to oil and grease is permitted but the cables must not lie continually in oil or grease. They must be protected against fuels and solvents by suitable insulation. In accordance with AS 3178 the single core 0.6/1kV SINOTHERM carries the SECV Approval No.89516V.

VOLTAGE RATING

- Rated Voltage:
- Single Core U₀/U = 0.6/1kV
- Multi Core & Glass Braided U₀/U =300/500V
- AC test voltage = 2.5kV

CORE COLOUR IDENTIFICATION

2 Core - blue, brown
 3 Core - blue, brown, green/yellow
 4 Core - blue, brown, black, green/yellow
 5 Core - blue, brown, black, green/yellow, black
 A single core 660V is available in a range of colours for control wiring in black, red, pink, green/yellow, blue, orange, brown, white and grey.
 Coloured Sinotherm Conductors tinned to AS 1125.

No. of Cores x Conductor Size	Part No.	Approx No. of Strands x Max. Stand Dia	Diameter of bare conductor	Cable Overall Diameter		Cable Weight
				min. mm	max mm	
1 x 1.5	5DR3 514	30 x 0.26	1.8	2.9	3.9	20
1 x 2.5	5DR3 515	50 x 0.26	2.6	3.5	4.6	30
1 x 4	5DR3 516	56 x 0.31	3.2	4.2	5.2	50
1 x 6	5DR3 517	84 x 0.31	3.9	4.8	6.7	65
1 x 10	5DR3 518	80 x 0.41	5.1	6.2	8.0	115
1 x 16	5DR3 520	126 x 0.41	6.3	7.2	9.3	180
1 x 25	5DR3 521	196 x 0.41	7.8	8.7	11.4	275
1 x 35	5DR3 522	276 x 0.41	9.2	10.0	13.4	365
1 x 50	5DR3 523	396 x 0.41	11.0	11.8	15.4	520
1 x 70	5DR3 524	360 x 0.541	13.1	13.5	17.9	710
1 x 95	5DR3 525	475 x 0.51	15.1	15.4	20.0	930

SINOTHERM

High Temperature 180°C Multi core 500V

SIEMENS

Flexible cables



No. of Cores x Conductor Size	Part No.	Approx No. of Strands x Max. Stand Dia	Diameter of bare conductor	Cable Overall Diameter		Cable Weight
				min. mm	max mm	
mm ²		mm	mm			kg.km
2 x 0.75	5DR5 228-4	24 x 0.21	1.2	6	7.2	52
2 x 1	5DR5 238-4	32 x 0.21	1.4	6.4	7.8	59
2 x 1.5	5DR5 248-4	30 x 0.26	1.7	7.6	9	81
2 x 2.5	5DR5 258-4	50 x 0.26	2.2	9	10.5	125
2 x 4	5DR5 268-4	56 x 0.31	3.1	10	12.03	180
3 x 0.75	5DR5 328-4	24 x 0.21	1.2	6.6	7.8	62
3 x 1	5DR5 338-4	32 x 0.21	1.4	6.8	8.2	77
3 x 1.5	5DR5 348-4	30 x 0.26	1.7	8.0	9.6	98
3 x 2.5	5DR5 358-4	50 x 0.26	2.2	9.6	11.5	150
3 x 4*	5DR5 368-4	56 x 0.31	3.1	11	13	225
4 x 0.75	5DR5 428-4	24 x 0.21	1.2	7.2	8.4	80
4 x 1*	5DR5 438-4	32 x 0.21	1.4	7.6	8.8	94
4 x 1.5	5DR5 448-4	30 x 0.26	1.7	9	10.5	125
4 x 2.5	5DR5 458-4	50 x 0.26	2.2	10.5	12.5	185
4 x 4	5DR5 468-4	56 x 0.31	3.1	12	14	290
5 x 1.5	5DR5 548-4	30 x 0.26	1.7	9.8	11.5	155
7 x 1.5	5DR5 793-4	30 x 0.26	1.7	10.2	12.9	195
12 x 1.5*	5DR5 794-4	30 x 0.26	1.7	13.5	15.5	315

SINOTHERM

High Temperature 180°C Glass Fibre Braid 500V



No. of Cores x Conductor Size	Part No.	Approx No. of Strands x Max. Stand Dia	Diameter of bare conductor	Cable Overall Diameter		Cable Weight
				min. mm	max mm	
mm ²		mm	mm			kg.km
1 x 0.75	5DR4 021-5	24 x 0.21	1.2	2.6	3.6	17
1 x 1	5DR4 031-5	32 x 0.21	1.4	2.7	3.8	20
1 x 1.5	5DR4 041-5	30 x 0.26	1.7	3.2	4.3	27
1 x 2.5	5DR4 051-5	50 x 0.26	2.2	3.8	5.0	39
1 x 4	5DR4 061-5	56 x 0.31	3.1	4.3	5.6	54
1 x 6	5DR4 071-5	84 x 0.31	3.8	4.8	6.2	75
1 x 10	5DR4 101-5	80 x 0.41	5.0	6.0	8.2	130
1 x 16	5DR4 121-5	126 x 0.41	6.3	8.1	9.6	200
1 x 25	5DR4 131-4	196 x 0.41	8.0	9.7	12.0	305
1 x 35	5DR4 141-4	276 x 0.41	9.2	11.6	13.0	420
1 x 50	5DR4 151-4	396 x 0.41	11.0	13.5	16	595
1 x 70	5DR4 161-4	360 x 0.51	13.9	15.6	18	825
1 x 95*	5DR4 171-4	475 x 0.51	15.2	17.7	21	1075