

DIMENSIONS

No. Of Cores	Nominal Cross Sectional Area mm ²	Conductor Type	Nominal Thickness Of Insulation mm	Nominal Thickness Of Sheath mm	Nominal Overall Diameter mm	Nominal Weight Kg/Km
1	2.5	RE	0.8	1.4	6.15	62
1	4	RE	1	1.4	7.5	85
1	6	RE	1	1.4	7.5	108
1	10	RM	1	1.4	8.6	155
1	16	RM	1	1.4	9.6	218
1	25	RM	1.2	1.4	11.1	318
1	35	RM	1.2	1.4	12.1	414
1	50	RM	1.4	1.4	13.7	552
1	70	RM	1.4	1.4	15.5	750
1	95	RM	1.6	1.5	17.6	1020
1	120	RM	1.6	1.6	19.3	1259
1	150	RM	1.8	1.6	21	1546
1	185	RM	2	1.7	23.2	1913
1	240	RM	2.2	1.8	26.2	2471
1	300	RM	2.4	2	29.2	3097
2	1.5	RE	0.8	1.8	10	147
2	2.5	RE	0.8	1.8	10.7	179
2	4	RM	1	1.8	13	268
2	6	RM	1	1.8	14.2	337
2	10	RM	1	1.8	16.2	472
2	16	RM	1	1.8	18.2	644
3	1.5	RE	0.8	1.8	10.4	166
3	2.5	RE	0.8	1.8	11.3	212
3	4	RE	1	1.8	13.1	299
3	4	RM	1	1.8	13.8	318
3	6	RE	1	1.8	14.2	380
3	6	RM	1	1.8	15	402
3	10	RM	1	1.8	17.1	570
3	16	RM	1	1.8	19.2	789
3	25	RM	1.2	1.8	22.1	1141
3	35	RM	1.2	1.8	24.1	1462
3	50	RM	1.4	1.8	27.6	1964
3	70	RM	1.6	2.1	36.3	3635
3	95	RM	1.6	2.2	40	4488
4	1.5	RE	0.8	1.8	11.6	198
4	2.5	RE	0.8	1.8	12.1	252
4	4	RE	1	1.8	14	355
4	4	RM	1	1.8	15.1	391
4	6	RE	1	1.8	15.4	465
4	6	RM	1	1.8	16.5	501
4	10	RM	1	1.8	18.6	702
4	16	RM	1	1.8	21.1	992

No. Of Cores	Nominal Cross Sectional Area mm ²	Conductor Type	Nominal Thickness Of Insulation mm	Nominal Thickness Of Sheath mm	Nominal Overall Diameter mm	Nominal Weight Kg/Km
4	25	RM	1.2	1.8	24.2	1431
4	35	RM	1.2	1.8	26.6	1861
4	50	RM	1.4	1.9	30.9	2535
4	70	RM	1.4	2.1	35.1	3441
4	95	RM	1.6	2.2	40.4	4691
4	120	RM	1.6	2.4	44.2	5757
4	150	RM	1.8	2.5	48.5	7095
4	185	RM	2	2.7	53.9	8810
4	240	RM	2.2	2.9	61.1	11400
5	1.5	RE	0.8	1.8	12	232
5	2.5	RE	0.8	1.8	13.1	302
5	4	RE	1	1.8	15.2	428
5	4	RM	1	1.8	16.6	477
5	6	RE	1	1.8	16.5	551
5	6	RM	1	1.8	18.2	618
5	10	RM	1	1.8	20.3	853
5	16	RM	1	1.8	23.1	1212
5	25	RM	1.2	1.8	26.6	1759
7	1.5	RE	0.8	1.8	12.9	280
7	2.5	RE	0.8	1.8	14.1	368
12	1.5	RE	0.8	1.8	16.6	475
12	2.5	RE	0.8	1.8	18.2	628
14	1.5	RE	0.8	1.8	17.1	515
19	1.5	RE	0.8	1.8	18.9	648
19	2.5	RE	0.8	1.8	20.3	843
27	1.5	RE	0.8	1.8	22.6	895

RE = round conductor, RM = stranded conductor, SM = sectional conductor

CONDUCTORS

Class 1 Solid Conductors for Single Core and Multi-Core Cables

Nominal Cross Sectional Area mm ²	Maximum Resistance Of Conductor At 20°C	
	Circular, Annealed Copper Conductor	
	Plain Wires ohms/km	
1.5	12.1	
2.5	7.41	
4	4.61	
6	3.08	
10	1.83	
16	1.15	
25	0.727	
35	0.524	
50	0.387	
70	0.268	
95	0.193	
120	0.153	
150	0.124	
185	0.101	
240	0.0775	
300	0.062	

Class 2 Stranded Conductors for Single Core and Multi-Core Cables

Nominal Cross Sectional Area mm ²	Minimum No. Of Wires In Conductor						Maximum Resistance Of Conductor At 20°C
	Circular		Circular Compacted		Shaped		Annealed Copper Conductor Plain wires ohms/km
	Cu	Al	Cu	Al	Cu	Al	
1.5	7	-	6	-	-	-	12.1
2.5	7	-	6	-	-	-	7.41
4	7	-	6	-	-	-	4.61
6	7	-	6	-	-	-	3.08
10	7	7	6	6	-	-	1.83
16	7	7	6	6	-	-	1.15
25	7	7	6	6	6	6	0.727
35	7	7	6	6	6	6	0.524
50	19	19	6	6	6	6	0.387
70	19	19	12	12	12	12	0.268
95	19	19	15	15	15	15	0.193
120	37	37	18	15	18	15	0.153
150	37	37	18	15	18	15	0.124
185	37	37	30	30	30	30	0.0991
240	37	37	34	30	34	30	0.0754
300	61	61	34	30	34	30	0.0601

The above table is in accordance with BS EN 60228 (previously BS 6360)

ELECTRICAL CHARACTERISTICS

Current Carrying Capacity

No. Of Cores	Nominal Cross Sectional Area mm ²	Conductor Type	Current Carrying Capacity	
			In Duct Amps	In Air Amps
1	2.5	RE	-	26
1	4	RE	-	57
1	6	RE	-	57
1	10	RM	-	78
1	16	RM	127	103
1	25	RM	163	137
1	35	RM	195	169
1	50	RM	230	206
1	70	RM	282	261
1	95	RM	336	321
1	120	RM	382	374
1	150	RM	428	428
1	185	RM	483	414
1	240	RM	561	590
1	300	RM	632	678
2	1.5	RE	32	20
2	2.5	RE	42	27
2	4	RM	54	37
2	6	RM	68	48
2	10	RM	90	66
2	16	RM	116	89
3	1.5	RE	26	18
3	2.5	RE	34	25
3	4	RE	44	34
3	4	RM	44	34
3	6	RE	56	43
3	6	RM	56	43
3	10	RM	75	60
3	16	RM	98	80
3	25	RM	128	106
3	35	RM	157	131
3	50	RM	185	159
3	95	RM	275	244
3	120	RM	313	282
4	1.5	RE	26	18
4	2.5	RE	34	25
4	4	RE	44	34
4	4	RM	44	34
4	6	RE	56	43
4	6	RM	56	43
4	10	RM	75	60
4	16	RM	98	80

No. Of Cores	Nominal Cross Sectional Area mm ²	Conductor Type	Current Carrying Capacity	
			In Duct Amps	In Air Amps
4	25	RM	128	106
4	35	RM	157	131
4	50	RM	185	159
4	70	RM	252	247
4	95	RM	303	305
4	120	RM	313	282
4	150	RM	390	407
4	185	RM	399	371
4	240	RM	464	436
5	1.5	RE	24	18
5	2.5	RE	34	25
5	4	RE	44	34
5	4	RM	44	34
5	6	RE	56	43
5	6	RM	56	43
5	10	RM	75	60
5	16	RM	98	80
5	25	RM	128	106
7	1.5	RE	15	12
7	2.5	RE	20	16
12	1.5	RE	12	9
12	2.5	RE	16	13
14	1.5	RE	12	9
19	1.5	RE	10	8
19	2.5	RE	13.6	11.3
27	1.5	RE	12	9

Ambient Temperature: 30°C

Depth of Laying: 0.5m

Ground Temperature: 15°C

Thermal Resistivity of Soil: 12km/w

DE-RATING FACTORS

AIR TEMPERATURE	20°C	25°C	30°C	35°C	40°C	45°C	50°C
DE-RATING FACTOR	1.12	1.07	1.00	0.94	0.87	0.79	0.71