



D1 = Diameter over insulation d = Diameter of armour wire D2 = Diameter over outer sheath

Electrical and physical properties of single core stranded copper conductors, PVC Insulated, PVC bedded, AWA PVC's heated 600 / 1000 V cables manufactured to SANS 1507-3

## Technical Data

### 4mm Multicore Cables

No of Cores	Electrical Properties					Physical Properties			
	Current Rating			Impedance	Capacitance	Nominal Diameters			Mass
	Ground	Ducts	Air			(mm)			
(A)	(A)	(A)	(Ω/km)	(nF/lm)	D1	d	D2	(kg/km)	
2	50	41	41	5,5171	487	10,2	1,25	16,3	597
3	42	34	35	5,5171	487	10,9	1,25	17,0	669
4	42	34	35	5,5171	487	12,3	1,25	18,4	764
5	35	28	29	5,5171	487	13,6	1,25	19,7	884
6	33	27	28	5,5171	487	14,9	1,25	21,0	961
7	31	25	26	5,5171	487	14,9	1,25	21,0	986
8	29	24	25	5,5171	487	18,1	1,25	24,2	1079
10	27	22	24	5,5171	477	20,2	1,60	27,0	1251
12	25	20	22	5,5171	434	20,4	1,60	28,2	1211
14	23	19	21	5,5171	434	22,8	1,60	29,6	1885
19	21	16	19	5,5171	434	24,9	2,00	32,5	2282

### 6mm Multicore Cables

No of Cores	Electrical Properties					Physical Properties			
	Current Rating			Impedance	Capacitance	Nominal Diameters			Mass
	Ground	Ducts	Air			(mm)			
(A)	(A)	(A)	(Ω/km)	(nF/lm)	D1	d	D2	(kg/km)	
2	62	51	53	3,6868	556	11,8	1,25	17,4	684
3	53	43	45	3,6868	556	12,6	1,25	18,4	791
4	53	43	45	3,6868	556	13,9	1,25	19,7	911

### Sustained Current Rating Factors for Non-Standard Conditions for both PVDAC and Multicore LV PVC Cables

Maximum Conductor Temperature (°C)	Ground Temperature (°C)				Maximum Conductor Temperature (°C)	Air Temperature (°C)			
	25	30	35	40		30	35	40	45
70	1,00	0,94	0,88	0,82	70	1,00	0,94	0,87	0,79

Depth of Laying (mm)	Direct in Ground
500	1,00
800	0,96
1000	0,94
1250	0,92
1500	0,90

### Current Rating Factors for Grouping of Multicore Cables Installed Horizontally in Air

No of Cables in group	Direct in ground				
	Axial Spacing (mm)				
	Touching	150	300	450	600
2	0,81	0,87	0,91	0,93	0,94
3	0,70	0,78	0,84	0,87	0,90
4	0,63	0,74	0,81	0,86	0,89
5	0,59	0,70	0,78	0,83	0,87
6	0,55	0,67	0,76	0,82	0,86

No of Cables	2	3	5	6	9
Condition	Derating Factor				
Cables touching	0,86	0,81	0,75	0,74	0,72
Clearance D* between cables	0,91	0,89	0,87	0,87	0,85

\* Note: - D is overall diameter of one cable