

## TABLE 4D2A Multicore pvc-insulated cables, non armoured (Copper Conductors) BS6004, BS6346, BS7629.

CURRENT-CARRYING CAPACITY (amperes):

 Ambient temperature : 30°C  
 Conductor operating temperature: 70°C

Conductor cross-sectional area 1	Reference Method 4 (enclosed in an insulated wall, etc.)		Reference Method 3 (enclosed in conduit on a wall or ceiling or in trunking)		Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray) or Reference Method 13 (free air)	
	1 two core cable*, single phase a.c. or d.c.	1 three core cable* or 1 single phase a.c. or d.c.	1 two core cable*, single phase a.c. or d.c.	1 three core cable* or 1 four core cable, three phase a.c.	1 two core cable* single phase a.c. or d.c.	1 three core cable* or 1 four core cable, three phase a.c.	1 two core cable*, single phase a.c. or d.c.	1 three core cable* or 1 four core cable, three phase a.c.
	2	3	4	5	6	7	8	9
(mm <sup>2</sup> )	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)
1	11	10	13	11.5	15	13.5	17	14.5
1.5	14	13	16.5	15	19.5	17.5	22	18.5
2.5	18.5	17.5	23	20	27	24	30	25
4	25	23	30	27	36	32	40	34
6	32	29	38	34	46	41	51	43
10	43	39	52	46	63	57	70	60
16	57	52	69	62	85	76	94	80
25	75	68	90	80	112	96	119	101
35	92	83	111	99	138	119	148	126
50	110	99	133	118	168	144	180	153
70	139	125	168	149	213	184	232	196
95	167	150	201	179	258	223	282	238
120	192	172	232	206	299	259	328	276
150	219	196	258	225	344	299	379	319
185	248	223	294	255	392	341	434	364
240	291	261	344	297	461	403	514	430
300	334	298	394	339	530	464	593	497
400	-	-	470	402	634	557	715	597

**NOTES:**

- Where the conductor is to be protected by a semi-enclosed fuse to BS3036, see item 6.2 of the preface to this appendix within the 16th edition regs..
- Circular conductors are assumed for sizes up to and including 16mm<sup>2</sup>. Values for larger sizes relate to shaped conductors and may safely be applied to circular conductors.
- Cables to BS7629 are rated for a conductor operating temperature of 70°C and are therefore included in this table, although the material used for the cable insulation is not pvc.
- \* With or without a protective conductor.

### TABLE 4D2B

VOLTAGE DROP (per ampere per metre)

Conductor operating temperature:

Conductor cross-sectional area 1	Two core cable, d.c. 2	Two core cable, single phase a.c. 3			Three or four core cable, three phase a.c. 4		
(mm <sup>2</sup> )	(mV/A/m)	(mV/A/m)			(mV/A/m)		
1	44	44			38		
1.5	29	29			25		
2.5	18	18			15		
4	11	11			9.5		
6	7.3	7.3			6.4		
10	4.4	4.4			3.8		
16	2.8	2.8			2.4		
		r	x	z	r	x	z
25	1.75	1.75	0.170	1.75	1.50	0.145	1.50
35	1.25	1.25	0.165	1.25	1.10	0.145	1.10
50	0.93	0.93	0.165	0.94	0.80	0.140	0.81
70	0.63	0.63	0.160	0.65	0.55	0.140	0.57
95	0.46	0.47	0.155	0.50	0.41	0.135	0.43
120	0.36	0.38	0.155	0.41	0.33	0.135	0.35
150	0.29	0.30	0.155	0.34	0.26	0.130	0.29
185	0.23	0.25	0.150	0.29	0.21	0.130	0.25
240	0.180	0.190	0.150	0.24	0.165	0.130	0.21
300	0.145	0.155	0.145	0.21	0.135	0.130	0.185
400	0.105	0.115	0.145	0.185	0.100	0.125	0.160

NOTE: Tables 4D2A and 4D2B are extracted from IEE Regs, 16th Edition

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