

## TABLE 4D2A Multicore 70°C thermoplastic insulated & thermoplastic sheathed cables, non armoured (Copper Conductors)

CURRENT-CARRYING CAPACITY (amperes):

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

Conductor cross-sectional area	Reference Method A (enclosed in conduit in thermally insulating wall, etc.)		Reference Method B (enclosed in conduit on a wall or in trunking etc)		Reference Method C (clipped direct)		Reference Method E (in free air or on a perforated cable tray etc horizontal or vertical)		
	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.	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	2	3	4	5	6	7	8	9	
(mm <sup>2</sup> )	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	* With or without a protective conductor
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	

## VOLTAGE DROP (per ampere per metre) TABLE 4D2B Conductor operating temperature: 70°C

Conductor cross-sectional area	Two core cable, d.c.	Two core cable, single phase a.c.			Three or four core cable, three phase a.c.		
1	2	3			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

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