



T: 01246 455565
F: 01246 455244
W: www.reconelectrical.co.uk
E: sales@reconelectrical.co.uk

Current Carrying Capacity (Amps) of Cables (Copper Conductors)

Single core 70⁰c thermoplastic insulated cables (e.g. PVC Singles), non-armoured with or without sheath. All values assume an ambient temperature of 30⁰c and a conductor operating temperature of 70⁰c.

Conductor CSA	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 F (in free air or on a perforated cable tray horizontal or vertical)				
							Touching			Spaced by one diameter	
										2 cables, 1ph ac or dc flat 3 cables, 3ph ac flat	
	2 cables, 1ph ac or dc	3 or 4 cables, 3ph ac	2 cables, 1ph ac or dc	3 or 4 cables, 3ph ac	2 cables, 1ph ac or dc	3 or 4 cables, 3ph ac	2 cables, 1ph ac or dc flat	3 cables, 3ph ac flat	3 cables, 3ph ac trefoil	Horizontal	Vertical
1mm ²	11	10.5	13.5	12	15.5	14					
1.5mm ²	14.5	13.5	17.5	15.5	20	18					
2.5mm ²	20	18	24	21	27	25					
4mm ²	26	24	32	28	37	33					
6mm ²	34	31	41	36	47	43					
10mm ²	46	42	57	50	65	59					
16mm ²	61	56	76	68	87	79					
25mm ²	80	73	101	89	114	104	131	114	110	146	130
35mm ²	99	89	125	110	141	129	162	143	137	181	162

Units 1-6 Ambrose Buildings, Broombank Road, Chesterfield, Derbyshire, S41 9QJ
VAT Reg: 598 6371 75 Company Reg: 3191383

Table 4D2A – Multicore 70⁰c thermoplastic insulated & thermoplastic sheathed cables (e.g. PVC T&E), non-armoured. All values assume an ambient temperature of 30⁰c and a conductor operating temperature of 70⁰c.

Conductor CSA	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, horizontal or vertical)	
	1 two core cable*, 1ph ac or dc	1 three core cable* or 1 four core cable, 3ph ac	1 two core cable*, 1ph ac or dc	1 three core cable* or 1 four core cable, 3ph ac	1 two core cable*, 1ph ac or dc	1 three core cable* or 1 four core cable, 3ph ac	1 two core cable*, 1ph ac or dc	1 three core cable* or 1 four core cable, 3ph ac
1mm ²	11	10	13	11.5	15	13.5	17	14.5
1.5mm ²	14	13	16.5	15	19.5	17.5	22	18.5
2.5mm ²	18.5	17.5	23	20	27	24	30	25
4mm ²	25	23	30	27	36	32	40	34
6mm ²	32	29	38	34	46	41	51	43
10mm ²	43	39	52	46	63	57	70	60
16mm ²	57	52	69	62	85	76	94	80

*with or without a protective conductor

Multicore 70⁰c armoured thermoplastic insulated cables (e.g. SWA cable). All values assume that air ambient temperature of 30⁰c, ground ambient temperature of 20⁰c & conductor operating temperature of 70⁰c.

Conductor CSA	Reference Method C (clipped direct)		Reference Method E (in free air or on a perforated cable tray, horizontal or vertical)		Reference Method D (direct in ground or in ducting in ground, in or around buildings)	
	1 two core cable, 1ph ac or dc	1 three core cable or 1 four core cable, 3ph ac	1 two core cable, 1ph ac or dc	1 three core cable or 1 four core cable, 3ph ac	1 two core cable, 1ph ac or dc	1 three core cable or 1 four core cable, 3ph ac
1.5mm ²	21	18	22	19	22	18
2.5mm ²	28	25	31	26	29	24
4mm ²	38	33	41	35	37	30
6mm ²	49	42	53	45	46	38
10mm ²	67	58	72	62	60	50
16mm ²	89	77	97	83	78	64
25mm ²	118	102	128	110	99	82
35mm ²	145	125	157	135	119	98
50mm ²	175	151	190	163	140	116
70mm ²	222	192	241	207	173	143
95mm ²	269	231	291	251	204	169

Flexible cords, non-armoured

Conductor CSA (mm ²)	Current carrying capacity		Max. supported weight (Kg) See Regs 522.7.2 & 559.6.1.5
	1ph ac	3ph ac	
0.5mm ²	3	3	2
0.75mm ²	6	6	3
1mm ²	10	10	5
1.25mm ²	13	-	5
1.5mm ²	16	16	5
2.5mm ²	25	20	5
4mm ²	32	25	5