



**TABLE 4J4A - Multicore armoured 90 °C thermosetting insulated cables
(ALUMINIUM CONDUCTORS)**

Air Ambient temperature: 30°C
 Ground Ambient temperature: 20 °C
 Conductor operating temperature: 90 °C

CURRENT-CARRYING CAPACITY (amperes)

Conductor cross-sectional area	Reference Method C (clipped direct)		Reference Method E (in free air or on a perforated cable tray etc, horizontal or vertical)		Reference Method D (direct in ground or in ducting in ground, in or around buildings)	
	1 two-core cable, single-phase AC or DC	1 three- or 1 four- core cable, three-phase AC	1 two-core cable, single-phase AC or DC	1 three- or 1 four- core cable, three-phase AC	1 two-core cable, single-phase AC or DC	1 three- or 1 four- core cable, three-phase AC
1 (mm ²)	2 (A)	3 (A)	4 (A)	5 (A)	6 (A)	7 (A)
16	82	71	85	74	71	59
25	108	92	112	98	90	75
35	132	113	138	120	108	90
50	159	137	166	145	128	106
70	201	174	211	185	158	130
95	242	214	254	224	186	154
120		249		264		174
150		284		305		197
185		328		350		220
240		386		418		253
300		441		488		286

NOTES:

1. Where it is intended to connect the cables in this table to equipment or accessories designed to operate at a temperature lower than the maximum operating temperature of the cable. the cables should be rated at the maximum operating temperature of the equipment or accessory (sec Regulation 512.1.5).
2. Where it is intended to group a cable in this table with other cables, the cable should be rated at the lowest of the maximum operating temperatures of any of the cables in the group (see Regulation 512.1.5).

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TABLE 4J4B

Conductor operating temperature: 90 °C

VOLTAGE DROP (per ampere per metre):

Conductor cross sectional area	Two core cable, DC	Two core cable, single phase AC			Three of four core cable, three phase AC		
1	2	3			4		
mm ²	mV/A/m	mV/A/m			mV/A/m		
16	4.8		4.8		4.2		
		R	X	Z	R	X	Z
25	3.1	3.1	0.165	3.1	2.7	0.140	2.7
35	2.2	2.2	0.160	2.2	1.90	0.140	1.95
50	1.60	1.65	0.160	1.65	1.40	0.135	1.45
70	1.10	1.10	0.155	1.15	0.96	0.135	0.97
95	0.82	0.82	0.150	0.84	0.71	0.130	0.72
120					0.56	0.130	0.58
150					0.45	0.130	0.47
185					0.37	0.130	0.39
240					0.28	0.125	0.31
300					0.23	0.125	0.26

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