

Table 4E4A - Current Carrying Capacity in Ampere

Current Rating Chart for Multicore Armoured Thermoplastic Insulated Cables with Copper Conductors at 90°C Operating Temperature

 Extract from the IEE Wiring Regulations, 17th Edition
 30°C Ambient Air Temperature,
 90°C Conductor Operating Temperature,
 20°C Ambient Ground Temperature

Conductor cross-sectional area mm ²	REFERENCE METHOD C - CLIPPED		Method D - Direct or in ducts, in		Method E - In free air or on a	
	1 two-core* cable, single phase A.C or D.C.	1 three-core* or 1 four-core cable, three-phase A.C.	1 two-core* cable, single phase A.C or D.C.	1 three-core* or 1 four-core cable, three-phase A.C.	1 two-core* cable, single phase A.C or D.C.	1 three-core* or 1 four-core cable, three-phase A.C.
1.5	27	23	25	21	29	25
2.5	36	31	33	28	39	33
4	49	42	43	36	52	44
6	62	53	53	44	66	56
10	85	73	71	58	90	78
16	110	94	91	75	115	99
25	146	124	116	96	152	131
35	180	154	139	115	188	162
50	219	187	164	135	228	197
70	279	238	203	167	291	251
95	338	289	239	197	354	304
120	392	335	271	223	410	353
150	451	386	306	251	472	406
185	515	441	343	281	539	463
240	607	520	395	324	636	546
300	698	599	446	365	732	628
400	787	673			847	728

Table 4E4B - Voltage drop per ampere, per metre 70°C conductor operating temperature

Conductor cross-sectional area mm ²	Two-core cable, D.C.	Two-core cable, single phase A.C.				Three or four-core cable, three-phase A.C.		
	mV/A/m	mV/A/m				mV/A/m		
1.5	31	31				27		
2.5	19	19				16		
4	12	12				10		
6	7.9	7.9				6.8		
10	4.7	4.7				4.0		
16	2.9	2.9				2.5		
		r	x	z	r	x	z	
25	1.850	1.850	0.160	1.900	1.600	0.140	1.650	
35	1.350	1.365	0.155	1.365	1.150	0.135	1.150	
50	0.980	0.990	0.155	1.000	0.860	0.135	0.870	
70	0.670	0.670	0.150	0.690	0.590	0.130	0.600	
95	0.490	0.500	0.150	0.520	0.473	0.130	0.450	
120	0.390	0.400	0.145	0.420	0.340	0.130	0.380	
150	0.310	0.320	0.145	0.350	0.280	0.125	0.300	
185	0.250	0.260	0.145	0.290	0.220	0.125	0.260	
240	0.195	0.200	0.140	0.240	0.175	0.125	0.210	
300	0.155	0.160	0.140	0.210	0.140	0.120	0.185	
400	0.120	0.130	0.140	0.190	0.115	0.120	0.165	