

Table 4E1A

Single-Core 90°C Thermosetting Insulated Cables, Non-Armoured, with or without Sheath

Current-carrying Capacity (amperes):

Ambient Temperature: 30°C
Conductor Operating Temperature: 90°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) Spaced by one cable diameter		Reference Method F (in free air or on a perforated cable tray etc horizontal or vertical etc.)			Reference Method G (in free air)	
							Touching			Spaced by one cable diameter	
	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three-phase a.c.	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three-phase a.c.	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, three-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. flat	3 cables, three-phase a.c. flat	3 cables, three-phase a.c. trefoil	2 cables, single-phase a.c. or d.c. or 3 cables three-phase a.c. flat	
										Horizontal	Vertical
1	2	3	4	5	6	7	8	9	10	11	12
(mm ²)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)
1	14	13	17	15	19	17.5	–	–	–	–	–
1.5	19	17	23	20	25	23	–	–	–	–	–
2.5	26	23	31	28	34	31	–	–	–	–	–
4	35	31	42	37	46	41	–	–	–	–	–
6	45	40	54	48	59	54	–	–	–	–	–
10	61	54	75	66	81	74	–	–	–	–	–
16	81	73	100	88	109	99	–	–	–	–	–
25	106	95	133	117	143	130	161	141	135	182	161
35	131	117	164	144	176	161	200	176	169	226	201

50	158	141	198	175	228	209	242	216	207	275	246
70	200	179	253	222	293	268	310	279	268	353	318
95	241	216	306	269	355	326	377	342	328	430	389
120	278	249	354	312	413	379	437	400	383	500	454
150	318	285	393	342	476	4036	504	464	444	577	527
185	362	324	449	384	545	500	575	533	510	661	605
240	424	380	528	450	644	590	679	634	607	781	719
300	486	435	603	514	743	681	783	736	703	902	833
400	–	–	683	584	868	793	940	868	823	1,085	1,008
500	–	–	783	666	990	904	1,083	998	946	1,253	1,169
630	–	–	900	764	1,130	1,033	1,254	1,151	1,088	1,454	1,362
800	–	–	–	–	1,288	1,179	1,358	1,275	1,214	1,581	1,485
1,000	–	–	–	–	1,443	1,323	1,520	1,436	1,349	1,775	1,671

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 (see 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).
3. For cables having flexible conductors see section 2.4 of this appendix for adjustment factors for current-carrying capacity and voltage drop.