

TABLE 4H3A Single core 70°C armoured thermoplastic insulated cables (non magnetic armour) (Aluminium Conductors)

CURRENT-CARRYING CAPACITY (amperes):

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

Conductors cross-sectional area	Reference Method C (clipped direct) touching		Reference Method F (in free air or on a perforated cable tray, horizontal or vertical)								
	2 cables single-phase a.c. or d.c. flat	3 or 4 cables, three-phase a.c. flat	touching			spaced by one cable diameter					
			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, d.c.		2 cables, single-phase a.c.		3 or 4 cables, three-phase a.c.	
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)
50	143	133	152	141	131	167	157	168	159	169	155
70	183	168	194	178	168	214	202	212	200	213	196
95	221	202	234	214	205	261	247	259	245	255	236
120	255	233	270	246	238	303	288	299	285	293	272
150	294	267	310	282	275	349	333	340	323	335	312
185	334	303	352	319	315	400	382	389	371	379	354
240	393	354	413	374	372	472	452	457	437	443	415
300	452	405	474	427	430	545	523	520	498	505	475
380	518	452	543	479	497	638	613	583	559	551	518
480	586	501	616	534	568	742	715	655	629	604	568
600	658	550	692	589	642	859	828	724	696	656	618
740	728	596	769	642	715	986	952	802	770	707	666
960	819	651	868	706	808	1171	1133	866	832	770	726
1200	893	692	952	756	880	1360	1317	938	902	822	774

VOLTAGE DROP (per ampere per metre)

TABLE 4H3B

Conductor operating temperature: 70°C

Conductor cross-sectional area	2 cables d.c.	Reference Methods C & F (clipped direct, on tray or in free air)														
		2 cables, single-phase a.c.						3 or 4 cables, three-phase a.c.								
		touching			spaced*			trefoil & touching			flat & touching			flat & spaced*		
1	2	3			4			5			6			7		
		(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)		
		r	x	z	r	x	z	r	x	z	r	x	z	r	x	z
50	1.55	1.55	0.23	1.55	1.55	0.31	1.55	1.35	0.195	1.35	1.35	0.27	1.35	1.30	0.34	1.35
70	1.05	1.05	0.22	1.10	1.05	0.30	1.10	0.92	0.190	0.93	0.93	0.26	0.96	0.95	0.33	1.00
95	0.77	0.78	0.21	0.81	0.81	0.29	0.86	0.68	0.185	0.70	0.70	0.25	0.75	0.73	0.32	0.80
120	0.61	0.62	0.21	0.66	0.65	0.29	0.71	0.54	0.180	0.57	0.57	0.25	0.62	0.60	0.32	0.68
150	0.49	0.50	0.20	0.54	0.53	0.28	0.60	0.44	0.175	0.47	0.46	0.24	0.52	0.50	0.31	0.58
185	0.39	0.41	0.195	0.45	0.44	0.28	0.52	0.35	0.170	0.39	0.38	0.24	0.45	0.42	0.30	0.51
240	0.30	0.32	0.190	0.37	0.34	0.27	0.44	0.28	0.165	0.32	0.30	0.23	0.38	0.33	0.29	0.44
300	0.24	0.26	0.185	0.32	0.28	0.26	0.39	0.22	0.160	0.27	0.24	0.23	0.34	0.28	0.29	0.40
380	0.190	0.22	0.185	0.28	0.26	0.25	0.36	0.185	0.155	0.24	0.22	0.22	0.32	0.27	0.26	0.38
480	0.150	0.180	0.180	0.25	0.22	0.25	0.33	0.155	0.155	0.22	0.195	0.22	0.29	0.24	0.25	0.35
600	0.120	0.150	0.175	0.23	0.195	0.24	0.31	0.130	0.150	0.20	0.170	0.21	0.27	0.21	0.24	0.32
740	0.097	0.135	0.170	0.22	0.180	0.23	0.29	0.115	0.145	0.185	0.160	0.20	0.26	0.200	0.22	0.30
960	0.075	0.115	0.160	0.20	0.165	0.21	0.27	0.100	0.140	0.175	0.150	0.185	0.24	0.190	0.195	0.27
1200	0.060	0.110	0.155	0.190	0.160	0.180	0.24	0.094	0.140	0.170	0.145	0.160	0.22	0.185	0.165	0.25

NOTE: * Spacings larger than one cable diameter will result in larger volt drop.

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