

## Current rating of wires in accordance with EN 50355

### ■ Current rating of copper wires in free air for SINGLE CORE CABLES

Current rating (A)			
Class of temperatures	90°C	120°C	150°C
Standards	EN50264 EN 50306	EN 50382	EN 50382
Cross section (mm <sup>2</sup> )			
0.5	14	-	-
0.75	16	-	-
1	20	24.5	28.1
1.5	25	31	35.2
2.5	33	40	46.5
4	46	57	64.7
6	60	74	84
10	85	105	119
16	110	136	154
25	150	185	198
35	190	235	244
50	240	297	303
70	300	371	422
95	360	445	506
120	425	526	598
150	490	606	689
185	560	693	788
240	675	835	950
300	775	959	1091
400	950	1117	1337

### ■ Derating coefficient for MULTICORE CABLES in free air

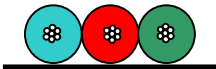
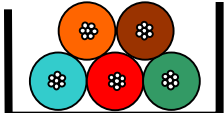
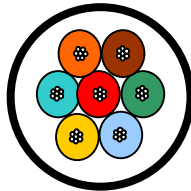
Derating coefficient	
Number of cores	2 to 4
Derating coefficient (K <sub>2</sub> )	0.8

## Current rating of wires in accordance with EN 50355

### Derating coefficient for working temperatures higher than 45°C k1

Derating coefficient (K1)			
Class of temperatures (C)	90°C	120°C	150°C
<b>Ambient temperature (T)</b>			
55°C	0.88	0.93	0.95
65°C	0.75	0.86	0.90
75°C	0.58	0.77	0.85
85°C	0.33	0.68	0.79
95°C	-	0.58	0.72
105°C	-	0.45	0.65
115°C	-	0.26	0.58
125°C	-	-	0.49
135°C	-	-	0.38
145°C	-	-	0.22

### Derating coefficient (EN standard) for cables in accordance with installation rules (K2)

Derating coefficient (K2)				
Number of cores loaded	Type of installation	On open clamp <u>In one layer</u> Type b	In clamp In two layers Type c	In closed tube Type d
				
1	-	1.0		0.76
4	Lain close each other or in b	0.78	0.71	0.56
	In bundle	0.78	0.71	0.56
5 to 8	Lain close each other	0.74	0.52	0.40
	In bundle	0.74	0.52	0.40
9 to 12	In bundle	0.73	0.45	0.34
13 to 16	In bundle	0.72	0.41	0.31
17 and mores	In bundle	0.71	0.38	0.29

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Calculation I cable : > I load / k1 x k2 x k3 x k4 see EN guide to use