

De-rating factors for bunched circuits of single or multi-core cables in air or wiring enclosures

Item No	Arrangement of cables (see Notes 1 & 21)	Derating factors																	
		Number of circuits																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Bunched in air	1	0.87	0.75	0.72	0.7	0.67												
2	Bunched on a surface or enclosed	1	0.8	0.7	0.66	0.6	0.57	0.54	0.52	0.6	0.43	0.45	0.43	0.41	0.39	0.33			
3	Touching	1	0.85	0.79	0.75	0.73	0.72	0.72	0.71	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
4	Single layer on floor or ceiling	Spaced (see Notes 5 & 61)	1	0.94	0.9		0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
5	Touching	0.95	0.81	0.72	0.68	0.66	0.64	0.63	0.62	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
6	Single layer under ceiling	Spaced (see Notes 5 & 61)	0.95	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85

NOTES:

- 1 Where the cables are grouped in a way that they are not uniformly distributed, the derating factors may be higher.
- 1 Earthing conductors are not included in the number of circuits.
- 1 These factors are based on uniform groups of cables, equally loaded. In accordance with Clause 3.5.2.2 (c) and Figure 1.
- 1 These factors are applicable to numbers of circuits comprising the following:
  - 0 Groups of two, three or four single-core cables.
  - 0 Multi-core cables.
  - 0 Cables passing more than once through the same group of cables or wiring enclosures and wiring enclosures.
- 1 'Spaced' means a clearance of one cable diameter between cable surfaces of adjacent cables. Where the cables concerned are not of the same size, the spacing will be based on the largest cable diameter in the adjacent groups.
- 1 No derating factor is applicable for the minimum spacings specified in Clause 3.5.2.2 (c) and Figure 1.

All De-Rating factors can be accessed via the Help appendix within the software. Just select the correct de-rating value and enter into the cable design input parameter box

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Rating factors for variations in ambient temperature for cable, wiring enclosures and wiring enclosures

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to account when considering the derating factors may be higher.