

Current ratings (general) for flexible cables, for non-existing cable types in the previous tables

The indicated values stated in the following table considered as guiding values in an abbreviate form, extracted from DIN VDE 0298 part 4 and DIN VDE 0100 part 430. In critical situation the DIN VDE recommendations should be considered.

For industrial machines the DIN VDE 0113, part 1 (EN 60204 part 1/IEC 204-1) is valid; for telephone and information systems DIN VDE 0891 part 1; for telephone aerial cables DIN VDE 0891 part 8 and for flat cables DIN VDE 0891 part 10. General terms and recommended values are contained in DIN VDE 0298 part 2 and part 4.

Power rating values for 1,5–120 mm² (group 3 up to 35 mm²) according to DIN VDE 0100 part 430 at an ambient temperature up to 30°C

Nominal cross-section mm ²	group 1		group 2		group 3	
	power rating	protective fuse	power rating	protective fuse	power rating	protective fuse
	A	A	A	A	A	A
0,05	1	–	1	–	2	–
0,14	2	–	2	–	3,5	–
0,25	4	–	4,5	–	6	–
0,34	6	–	6	–	9	–
0,5	9	–	9	–	12	–
0,75	12	–	12	10	15	10
1	15	10	15	10	19	16
1,5	18	16	18	16	24	20
2,5	26	25	26	25	32	25
4	34	25	34	25	42	35
6	44	35	44	35	54	50
10	61	50	61	50	73	63
16	82	80	82	63	98	80
25	108	100	108	80	129	100
35	135	125	135	100	158	125
50	168	160	168	125	198	160
70	207	200	207	160	245	200
95	250	250	250	200	292	250
120	292	250	292	250	344	315
150	335	315	335	315	391	355
185	382	355	382	355	448	400
240	–	–	453	425	528	500
300	–	–	523	500	608	600
400	–	–	–	–	726	630

group 1 One or more single core cables and insulated wires laid in duct i.e. PVC-sheathed single cores H 03V./H 05V./H 07V. according to VDE 0281.

group 2 Multi core cables, i.e. light PVC-sheathed cables, flexible cables, metal-clad wiring cables in open or ventilated conduits.

group 3 Single core cables, laid open in air with a spacing at least equal to cable diameter, such as single core wirings for switch- and distribution cabinets and rail line distributors.

Conversion factors*) for deviating ambient temperatures:

Ambient temperature over 30°C

Ambient temperature °C	Conversion factors, applied to the above current ratings table	
	Rubber insulation Permissible operating temp. at conductor Conversion factors up to 60°C	PVC insulation Permissible operating temp. at conductor Conversion factors up to 70°C
over 30 to 35	0,91	0,94
over 35 to 40	0,82	0,87
over 40 to 45	0,71	0,79
over 45 to 50	0,58	0,71
over 50 to 55	0,41	0,61
over 55 to 60	–	0,50
over 60 to 65	–	0,35

Ambient temperature over 50°C (heat-resistance)

Conversion factors, applied to the above current ratings table			
Permissible operating temperature at conductor Conversion factors up to 90°C		Permissible operating temperature at conductor Conversion factors up to 110°C	
over 50 to 55	0,94	over 50 to 55	1,00
over 55 to 60	0,87	over 55 to 60	1,00
over 60 to 65	0,79	over 60 to 65	1,00
over 65 to 70	0,71	over 65 to 70	1,00
over 70 to 75	0,61	over 70 to 75	1,00
over 75 to 80	0,50	over 75 to 80	1,00
over 80 to 85	0,35	over 80 to 85	0,91
over 85 to 90	–	over 85 to 90	0,82
		over 90 to 95	0,71
		over 95 to 100	0,58
		over 100 to 105	0,41
		over 105 to 110	–

* Further informations see page T 32.