

Current rating according to IEC 204-1 / VDE 0298-4 / VDE 0100

cross section mm ²	group 1		group 2		group 3	
	copper cond. A	protect. fuse A	copper cond. A	protect. fuse A	copper cond. A	protect. fuse A
0,05	0,7		1		1	
0,14	1,4		2		2,8	
0,25	2,8		4,5		5	
0,34	4		6		7,5	
0,50	6		7,5		10	
0,75	9		12	6	15	10
1,00	11	6	15	10	19	10
1,50	16,5	16	16,5	16	21	20
2,50	21	20	22	20	29	25
4,00	28	25	30	25	39	35
6,00	36	35	38	35	51	50
10,00	49	40	53	50	70	63
16,00	65	63	72	63	94	80
25,00	85	80	94	80	125	100
35,00	105	100	118	100	154	125
50,00	126	125	142	125	198	160
70,00	160	160	181	160	245	200
95,00	193	160	219	200	292	250
120,00	223	200	253	250	344	315
150,00			335	250	391	315
185,00			382	315	448	400
240,00			453	400	528	400
300,00			504	400	608	500
400,00					726	630

Group 1

One or more single core cables laid in duct, e.g. PVC sheathed single cores H03V... / H05V... / H07V...

Group 2

Multi core cables, e.g. sheathed cables, flexible cables, metal clad wiring cables in open or ventilated ducts.

Group 3

Single core cables, laid in open air with a space between the cores at least equal to the cable diameter, as well as single core wiring in switching and distribution systems and rail line distributing systems.

Current rating of insulated cables and not laid in the ground at ambient temperature over 30°C (extract from VDE 0100 part 523, table 3)			Current rating of cables with enhanced thermal stability at ambient temperature over 55°C (extract from VDE 0100 part 523, table 4)		
ambient temperature	rubber insulation permissible temp. at the cond. 60°C	PVC insulation perm. temp. at the cond. 70°C	Ambient temperature of cables at permissible temp. at the cond. 100°C	permissible temp. at the cond. 180°C	current load of the above table
°C	%	%	°C	°C	%
from 30 to 35	91	92	from 55 to 65	from 55 to 145	100
from 35 to 40	82	87	from 65 to 70	from 145 to 150	92
from 40 to 45	71	79	from 70 to 75	from 150 to 155	85
from 45 to 50	58	71	from 75 to 80	from 155 to 160	75
from 50 to 55	41	61	from 80 to 85	from 160 to 165	65
			from 85 to 90	from 165 to 170	53
			from 90 to 95	from 170 to 175	38

The values listed in the tables are estimates only and are taken in a simplified form of VDE 0298 part 4, or constitute an extract of the VDE 0100 part 430 and part 523. In borderline cases, the local regulations have to take into consideration. Furthermore, for industrial machinery are valid the provisions according to VDE 0113 part 1 (EN 60204 part 1), for telecommunications and information systems to VDE 0891 part 1, for telecommunication overhead cables according to VDE 0891 part 8 and for flat cables according to VDE 0891 part 10. General provisions and recommended values refer to the VDE 0298 part 2 and part 4.

Current rating, from 1.50 to 120.00 mm² (in group 3 to 35.00 mm²) according to VDE 0100 part 430 at an ambient temperature at + 30 ° C.