

Table 13-61

Maximum permissible cable and line lengths

Copper conductor, insulation PVC or rubber (as in Supplement 5 to VDE 0100)

Fuse, duty class gG as per IEC 60 269-1 ( $\Delta$  VDE 0636 Part 10)

Nominal voltage of the installation: 400 Volt, 50 Hz

Tripping after 5 s or after the permissible short-circuit temperature is reached

Conductor nominal cross- section mm <sup>2</sup>	Rated current of protection device A	Minimum short-circuit current A	Loop impedance before the protection device mΩ								
			10	50	100	200	300	400	500	600	700
			Maximum permissible length $l_{max}$								
			m	m	m	m	m	m	m	m	m
1.5	6	27	270	269	267	264	261	258	255	252	249
	10	47	155	154	152	149	146	143	140	137	134
	16	65	112	111	109	106	103	100	97	94	91
	20	126	58	57	55	52	49	46	43	40	36
	25	135	54	53	51	48	45	42	39	36	32
2.5	10	47	253	251	249	244	239	234	229	224	219
	16	65	183	181	178	173	169	164	159	154	148
	20	85	139	138	135	130	125	120	115	110	105
	25	110	108	106	103	98	93	88	93	78	73
	32	165	72	70	67	63	57	52	47	42	36
4	16	65	297	294	290	282	274	266	258	250	241
	20	85	227	224	220	212	204	196	187	179	171
	25	110	175	172	168	160	152	144	135	127	118
	32	150	128	125	121	113	105	96	88	79	71
	40	190	101	98	94	86	77	69	60	51	42
	50	280	68	65	61	53	45	36	27	18	8
6	20	85	342	337	331	319	307	294	282	270	257
	25	110	264	259	253	241	229	216	204	191	178
	32	150	193	188	182	170	158	145	132	119	106
	40	190	152	147	141	129	116	104	91	77	64
	50	260	111	106	100	87	75	62	48	35	20
	63	330	87	82	76	64	57	38	24	10	0
10	25	110	441	433	423	403	382	361	340	319	298
	32	150	323	315	305	284	264	242	221	199	178
	40	190	255	246	236	216	195	173	152	130	107
	50	260	185	177	167	146	125	103	81	58	34
	63	320	150	142	132	111	89	67	44	20	0
	80	440	108	100	90	69	46	23	0	0	0
16	32	150	512	499	483	450	417	384	350	315	280
	40	190	404	391	374	341	308	274	240	205	169
	50	260	294	281	265	231	198	163	127	91	54
	63	320	238	225	209	175	141	106	69	32	0
	80	440	172	159	143	109	73	37	0	0	0
	100	580	130	117	100	65	29	0	0	0	0

Table 13-62

Maximum permissible cable and line lengths

Copper conductor, insulation PVC, XLPE or EPR (as in Supplement 5 to VDE 0100)

Fuse, duty class gG as per IEC 60 269-1 ( $\Delta$  VDE 0636 Part 10)

Nominal voltage of the installation: 400 Volt, 50 Hz

Tripping after 5 s or after the permissible short-circuit temperature is reached

Conductor nominal cross- section mm <sup>2</sup>	Rated current of protection device A	Minimum short-circuit current A	Loop impedance before the protection device in mΩ				
			10	50	100	200	300
			Maximum permissible length $l_{max}$ m				
25	63	320	374	354	328	275	221
	80	440	271	250	224	170	115
	100	580	204	183	157	102	46
	125	750	157	136	109	54	0
	160	930	125	104	77	21	0
35	80	440	372	343	307	233	157
	100	580	280	251	215	140	52
	125	750	215	186	149	73	0
	160	930	172	143	106	28	0
	200	1350	116	87	49	0	0
	250	1600	97	67	29	0	0
50	100	580	376	337	288	187	83
	125	750	289	249	200	97	0
	160	930	231	191	141	38	0
	200	1350	156	116	65	0	0
	250	1600	130	90	39	0	0
70	125	750	408	352	281	136	0
	160	930	326	270	199	53	0
	200	1350	220	164	92	0	0
	250	1600	184	127	54	0	0
	315	2200	130	73	0	0	0
95	160	930	438	361	265	70	0
	200	1350	296	219	122	0	0
	250	1600	246	169	72	0	0
	315	2200	174	97	0	0	0
	400	2750	135	58	0	0	0
120	200	1350	362	267	148	0	0
	250	1600	302	207	88	0	0
	315	2200	213	118	0	0	0
	400	2750	165	70	0	0	0
150	200	1350	426	314	174	0	0
	250	1600	355	243	103	0	0
	315	2200	250	139	0	0	0
	400	2750	195	83	0	0	0
	500	3900	129	17	0	0	0