




## Miniature Circuit Breakers PLSM, PLZM MW

- High-quality miniature circuit breakers for commercial and residential applications
- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Rated currents up to 63 A
- Tripping characteristics B, C, D
- Rated breaking capacity 10 kA according to IEC/EN 60898-1

SG67811



# Protective Devices

		Miniature Circuit Breakers PLSM, PLZM		MW
		10 kA, Characteristic B		
		Rated current $I_n$ (A)	Type Designation	Article No. Units per package
 <p>SG48411</p>	<b>1-pole</b>			
	1	PLSM-B1	242165	12 / 120
	1.5	PLSM-B1,5	242166	12 / 120
	1.6	PLSM-B1,6	242167	12 / 120
	2	PLSM-B2	242168	12 / 120
	2.5	PLSM-B2,5	242169	12 / 120
	3	PLSM-B3	242170	12 / 120
	3.5	PLSM-B3,5	242171	12 / 120
	4	PLSM-B4	242172	12 / 120
	5	PLSM-B5	242173	12 / 120
	6	PLSM-B6	242174	12 / 120
	8	PLSM-B8	242175	12 / 120
	10	PLSM-B10	242176	12 / 120
	12	PLSM-B12	242177	12 / 120
	13	PLSM-B13	242178	12 / 120
	15	PLSM-B15	242179	12 / 120
	16	PLSM-B16	242180	12 / 120
	20	PLSM-B20	242181	12 / 120
	25	PLSM-B25	242182	12 / 120
	32	PLSM-B32	242183	12 / 120
40	PLSM-B40	242184	12 / 120	
50	PLSM-B50	242185	12 / 120	
63	PLSM-B63	242186	12 / 120	
 <p>SG49211</p>	<b>1+N-pole, 1.5 Module Units (MU)</b>			
	1	PLSM-B1/1N	242234	8 / 80
	1.5	PLSM-B1,5/1N	242235	8 / 80
	1.6	PLSM-B1,6/1N	242236	8 / 80
	2	PLSM-B2/1N	242237	8 / 80
	2.5	PLSM-B2,5/1N	242238	8 / 80
	3	PLSM-B3/1N	242239	8 / 80
	3.5	PLSM-B3,5/1N	242240	8 / 80
	4	PLSM-B4/1N	242241	8 / 80
	5	PLSM-B5/1N	242242	8 / 80
	6	PLSM-B6/1N	242243	8 / 80
	8	PLSM-B8/1N	242244	8 / 80
	10	PLSM-B10/1N	242245	8 / 80
	12	PLSM-B12/1N	242246	8 / 80
13	PLSM-B13/1N	242247	8 / 80	
15	PLSM-B15/1N	242248	8 / 80	
16	PLSM-B16/1N	242249	8 / 80	
20	PLSM-B20/1N	242250	8 / 80	
25	PLSM-B25/1N	242251	8 / 80	
32	PLSM-B32/1N	242252	8 / 80	
 <p>SG52711</p>	<b>1+N-pole, 2 Module Units (MU)</b>			
	1	PLZM-B1/1N	242295	1 / 60
	1.5	PLZM-B1,5/1N	242296	1 / 60
	1.6	PLZM-B1,6/1N	242297	1 / 60
	2	PLZM-B2/1N	242298	1 / 60
	2.5	PLZM-B2,5/1N	242299	1 / 60
	3	PLZM-B3/1N	242300	1 / 60
	3.5	PLZM-B3,5/1N	242301	1 / 60
	4	PLZM-B4/1N	242302	1 / 60
	5	PLZM-B5/1N	242303	1 / 60
	6	PLZM-B6/1N	242304	1 / 60
	8	PLZM-B8/1N	242305	1 / 60
	10	PLZM-B10/1N	242306	1 / 60
	12	PLZM-B12/1N	242307	1 / 60
13	PLZM-B13/1N	242308	1 / 60	
15	PLZM-B15/1N	242309	1 / 60	
16	PLZM-B16/1N	242310	1 / 60	
20	PLZM-B20/1N	242311	1 / 60	
25	PLZM-B25/1N	242312	1 / 60	
32	PLZM-B32/1N	242313	1 / 60	
40	PLZM-B40/1N	242314	1 / 60	
50	PLZM-B50/1N	242315	1 / 60	
63	PLZM-B63/1N	242316	1 / 60	

xPole

# Protective Devices

SG54811



SG63111



SG65611



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>2-pole</b>			
1	PLSM-B1/2	242364	1 / 60
1.5	PLSM-B1,5/2	242365	1 / 60
1.6	PLSM-B1,6/2	242366	1 / 60
2	PLSM-B2/2	242367	1 / 60
2.5	PLSM-B2,5/2	242368	1 / 60
3	PLSM-B3/2	242369	1 / 60
3.5	PLSM-B3,5/2	242370	1 / 60
4	PLSM-B4/2	242371	1 / 60
5	PLSM-B5/2	242372	1 / 60
6	PLSM-B6/2	242373	1 / 60
8	PLSM-B8/2	242374	1 / 60
10	PLSM-B10/2	242375	1 / 60
12	PLSM-B12/2	242376	1 / 60
13	PLSM-B13/2	242377	1 / 60
15	PLSM-B15/2	242378	1 / 60
16	PLSM-B16/2	242379	1 / 60
20	PLSM-B20/2	242380	1 / 60
25	PLSM-B25/2	242381	1 / 60
32	PLSM-B32/2	242382	1 / 60
40	PLSM-B40/2	242383	1 / 60
50	PLSM-B50/2	242384	1 / 60
63	PLSM-B63/2	242385	1 / 60
<b>3-pole</b>			
1	PLSM-B1/3	242433	1 / 40
1.5	PLSM-B1,5/3	242434	1 / 40
1.6	PLSM-B1,6/3	242435	1 / 40
2	PLSM-B2/3	242436	1 / 40
2.5	PLSM-B2,5/3	242437	1 / 40
3	PLSM-B3/3	242438	1 / 40
3.5	PLSM-B3,5/3	242439	1 / 40
4	PLSM-B4/3	242440	1 / 40
5	PLSM-B5/3	242441	1 / 40
6	PLSM-B6/3	242442	1 / 40
8	PLSM-B8/3	242443	1 / 40
10	PLSM-B10/3	242444	1 / 40
12	PLSM-B12/3	242445	1 / 40
13	PLSM-B13/3	242446	1 / 40
15	PLSM-B15/3	242447	1 / 40
16	PLSM-B16/3	242448	1 / 40
20	PLSM-B20/3	242449	1 / 40
25	PLSM-B25/3	242450	1 / 40
32	PLSM-B32/3	242451	1 / 40
40	PLSM-B40/3	242452	1 / 40
50	PLSM-B50/3	242453	1 / 40
63	PLSM-B63/3	242454	1 / 40
<b>3+N-pole</b>			
1	PLSM-B1/3N	242502	1 / 30
1.5	PLSM-B1,5/3N	242503	1 / 30
1.6	PLSM-B1,6/3N	242504	1 / 30
2	PLSM-B2/3N	242505	1 / 30
2.5	PLSM-B2,5/3N	242506	1 / 30
3	PLSM-B3/3N	242507	1 / 30
3.5	PLSM-B3,5/3N	242508	1 / 30
4	PLSM-B4/3N	242509	1 / 30
5	PLSM-B5/3N	242510	1 / 30
6	PLSM-B6/3N	242511	1 / 30
8	PLSM-B8/3N	242512	1 / 30
10	PLSM-B10/3N	242513	1 / 30
12	PLSM-B12/3N	242514	1 / 30
13	PLSM-B13/3N	242515	1 / 30
15	PLSM-B15/3N	242516	1 / 30
16	PLSM-B16/3N	242517	1 / 30
20	PLSM-B20/3N	242518	1 / 30
25	PLSM-B25/3N	242519	1 / 30
32	PLSM-B32/3N	242520	1 / 30
40	PLSM-B40/3N	242521	1 / 30
50	PLSM-B50/3N	242522	1 / 30
63	PLSM-B63/3N	242523	1 / 30

# Protective Devices

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Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>4-pole</b>			
1	PLSM-B1/4	242571	1 / 30
1.5	PLSM-B1,5/4	242572	1 / 30
1.6	PLSM-B1,6/4	242573	1 / 30
2	PLSM-B2/4	242574	1 / 30
2.5	PLSM-B2,5/4	242575	1 / 30
3	PLSM-B3/4	242576	1 / 30
3.5	PLSM-B3,5/4	242577	1 / 30
4	PLSM-B4/4	242578	1 / 30
5	PLSM-B5/4	242579	1 / 30
6	PLSM-B6/4	242580	1 / 30
8	PLSM-B8/4	242581	1 / 30
10	PLSM-B10/4	242582	1 / 30
12	PLSM-B12/4	242583	1 / 30
13	PLSM-B13/4	242584	1 / 30
15	PLSM-B15/4	242585	1 / 30
16	PLSM-B16/4	242586	1 / 30
20	PLSM-B20/4	242587	1 / 30
25	PLSM-B25/4	242588	1 / 30
32	PLSM-B32/4	242589	1 / 30
40	PLSM-B40/4	242590	1 / 30
50	PLSM-B50/4	242591	1 / 30
63	PLSM-B63/4	242592	1 / 30

**Miniature Circuit Breakers PLSM, PLZM** **MW**  
 10 kA, Characteristic C

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Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>1-pole</b>			
0.16	PLSM-C0,16	242187	12 / 120
0.25	PLSM-C0,25	242188	12 / 120
0.5	PLSM-C0,5	242190	12 / 120
0.75	PLSM-C0,75	242189	12 / 120
1	PLSM-C1	242191	12 / 120
1.5	PLSM-C1,5	242192	12 / 120
1.6	PLSM-C1,6	242193	12 / 120
2	PLSM-C2	242194	12 / 120
2.5	PLSM-C2,5	242195	12 / 120
3	PLSM-C3	242196	12 / 120
3.5	PLSM-C3,5	242197	12 / 120
4	PLSM-C4	242198	12 / 120
5	PLSM-C5	242199	12 / 120
6	PLSM-C6	242200	12 / 120
8	PLSM-C8	242201	12 / 120
10	PLSM-C10	242202	12 / 120
12	PLSM-C12	242203	12 / 120
13	PLSM-C13	242204	12 / 120
15	PLSM-C15	242205	12 / 120
16	PLSM-C16	242206	12 / 120
20	PLSM-C20	242207	12 / 120
25	PLSM-C25	242208	12 / 120
32	PLSM-C32	242209	12 / 120
40	PLSM-C40	242210	12 / 120
50	PLSM-C50	242211	12 / 120
63	PLSM-C63	242212	12 / 120

xPole

# Protective Devices

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Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>1+N-pole, 1.5 MU</b>			
0.16	PLSM-C0,16/1N	242253	8 / 80
0.25	PLSM-C0,25/1N	242254	8 / 80
0.5	PLSM-C0,5/1N	242256	8 / 80
0.75	PLSM-C0,75/1N	242255	8 / 80
1	PLSM-C1/1N	242257	8 / 80
1.5	PLSM-C1,5/1N	242258	8 / 80
1.6	PLSM-C1,6/1N	242259	8 / 80
2	PLSM-C2/1N	242260	8 / 80
2.5	PLSM-C2,5/1N	242261	8 / 80
3	PLSM-C3/1N	242262	8 / 80
3.5	PLSM-C3,5/1N	242263	8 / 80
4	PLSM-C4/1N	242264	8 / 80
5	PLSM-C5/1N	242265	8 / 80
6	PLSM-C6/1N	242266	8 / 80
8	PLSM-C8/1N	242267	8 / 80
10	PLSM-C10/1N	242268	8 / 80
12	PLSM-C12/1N	242269	8 / 80
13	PLSM-C13/1N	242270	8 / 80
15	PLSM-C15/1N	242271	8 / 80
16	PLSM-C16/1N	242272	8 / 80
20	PLSM-C20/1N	242273	8 / 80
25	PLSM-C25/1N	242274	8 / 80
32	PLSM-C32/1N	242275	8 / 80
<b>1+N-pole, 2 MU</b>			
0.16	PLZM-C0,16/1N	242317	1 / 60
0.25	PLZM-C0,25/1N	242318	1 / 60
0.5	PLZM-C0,5/1N	242320	1 / 60
0.75	PLZM-C0,75/1N	242319	1 / 60
1	PLZM-C1/1N	242321	1 / 60
1.5	PLZM-C1,5/1N	242322	1 / 60
1.6	PLZM-C1,6/1N	242323	1 / 60
2	PLZM-C2/1N	242324	1 / 60
2.5	PLZM-C2,5/1N	242325	1 / 60
3	PLZM-C3/1N	242326	1 / 60
3.5	PLZM-C3,5/1N	242327	1 / 60
4	PLZM-C4/1N	242328	1 / 60
5	PLZM-C5/1N	242329	1 / 60
6	PLZM-C6/1N	242330	1 / 60
8	PLZM-C8/1N	242331	1 / 60
10	PLZM-C10/1N	242332	1 / 60
12	PLZM-C12/1N	242333	1 / 60
13	PLZM-C13/1N	242334	1 / 60
15	PLZM-C15/1N	242335	1 / 60
16	PLZM-C16/1N	242336	1 / 60
20	PLZM-C20/1N	242337	1 / 60
25	PLZM-C25/1N	242338	1 / 60
32	PLZM-C32/1N	242339	1 / 60
40	PLZM-C40/1N	242340	1 / 60
50	PLZM-C50/1N	242341	1 / 60
63	PLZM-C63/1N	242342	1 / 60

xPole

# Protective Devices

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Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>2-pole</b>			
0.16	PLSM-C0,16/2	242386	1 / 60
0.25	PLSM-C0,25/2	242387	1 / 60
0.5	PLSM-C0,5/2	242389	1 / 60
0.75	PLSM-C0,75/2	242388	1 / 60
1	PLSM-C1/2	242390	1 / 60
1.5	PLSM-C1,5/2	242391	1 / 60
1.6	PLSM-C1,6/2	242392	1 / 60
2	PLSM-C2/2	242393	1 / 60
2.5	PLSM-C2,5/2	242394	1 / 60
3	PLSM-C3/2	242395	1 / 60
3.5	PLSM-C3,5/2	242396	1 / 60
4	PLSM-C4/2	242397	1 / 60
5	PLSM-C5/2	242398	1 / 60
6	PLSM-C6/2	242399	1 / 60
8	PLSM-C8/2	242400	1 / 60
10	PLSM-C10/2	242401	1 / 60
12	PLSM-C12/2	242402	1 / 60
13	PLSM-C13/2	242403	1 / 60
15	PLSM-C15/2	242404	1 / 60
16	PLSM-C16/2	242405	1 / 60
20	PLSM-C20/2	242406	1 / 60
25	PLSM-C25/2	242407	1 / 60
32	PLSM-C32/2	242408	1 / 60
40	PLSM-C40/2	242409	1 / 60
50	PLSM-C50/2	242410	1 / 60
63	PLSM-C63/2	242411	1 / 60

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<b>3-pole</b>			
0.16	PLSM-C0,16/3	242455	1 / 40
0.25	PLSM-C0,25/3	242456	1 / 40
0.5	PLSM-C0,5/3	242458	1 / 40
0.75	PLSM-C0,75/3	242457	1 / 40
1	PLSM-C1/3	242459	1 / 40
1.5	PLSM-C1,5/3	242460	1 / 40
1.6	PLSM-C1,6/3	242461	1 / 40
2	PLSM-C2/3	242462	1 / 40
2.5	PLSM-C2,5/3	242463	1 / 40
3	PLSM-C3/3	242464	1 / 40
3.5	PLSM-C3,5/3	242465	1 / 40
4	PLSM-C4/3	242466	1 / 40
5	PLSM-C5/3	242467	1 / 40
6	PLSM-C6/3	242468	1 / 40
8	PLSM-C8/3	242469	1 / 40
10	PLSM-C10/3	242470	1 / 40
12	PLSM-C12/3	242471	1 / 40
13	PLSM-C13/3	242472	1 / 40
15	PLSM-C15/3	242473	1 / 40
16	PLSM-C16/3	242474	1 / 40
20	PLSM-C20/3	242475	1 / 40
25	PLSM-C25/3	242476	1 / 40
32	PLSM-C32/3	242477	1 / 40
40	PLSM-C40/3	242478	1 / 40
50	PLSM-C50/3	242479	1 / 40
63	PLSM-C63/3	242480	1 / 40

xPole

# Protective Devices

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Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>3+N-pole</b>			
0.16	PLSM-C0,16/3N	242524	1 / 30
0.25	PLSM-C0,25/3N	242525	1 / 30
0.5	PLSM-C0,5/3N	242527	1 / 30
0.75	PLSM-C0,75/3N	242526	1 / 30
1	PLSM-C1/3N	242528	1 / 30
1.5	PLSM-C1,5/3N	242529	1 / 30
1.6	PLSM-C1,6/3N	242530	1 / 30
2	PLSM-C2/3N	242531	1 / 30
2.5	PLSM-C2,5/3N	242532	1 / 30
3	PLSM-C3/3N	242533	1 / 30
3.5	PLSM-C3,5/3N	242534	1 / 30
4	PLSM-C4/3N	242535	1 / 30
5	PLSM-C5/3N	242536	1 / 30
6	PLSM-C6/3N	242537	1 / 30
8	PLSM-C8/3N	242538	1 / 30
10	PLSM-C10/3N	242539	1 / 30
12	PLSM-C12/3N	242540	1 / 30
13	PLSM-C13/3N	242541	1 / 30
15	PLSM-C15/3N	242542	1 / 30
16	PLSM-C16/3N	242543	1 / 30
20	PLSM-C20/3N	242544	1 / 30
25	PLSM-C25/3N	242545	1 / 30
32	PLSM-C32/3N	242546	1 / 30
40	PLSM-C40/3N	242547	1 / 30
50	PLSM-C50/3N	242548	1 / 30
63	PLSM-C63/3N	242549	1 / 30
<b>4-pole</b>			
0.16	PLSM-C0,16/4	242593	1 / 30
0.25	PLSM-C0,25/4	242594	1 / 30
0.5	PLSM-C0,5/4	242596	1 / 30
0.75	PLSM-C0,75/4	242595	1 / 30
1	PLSM-C1/4	242597	1 / 30
1.5	PLSM-C1,5/4	242598	1 / 30
1.6	PLSM-C1,6/4	242599	1 / 30
2	PLSM-C2/4	242600	1 / 30
2.5	PLSM-C2,5/4	242601	1 / 30
3	PLSM-C3/4	242602	1 / 30
3.5	PLSM-C3,5/4	242603	1 / 30
4	PLSM-C4/4	242604	1 / 30
5	PLSM-C5/4	242605	1 / 30
6	PLSM-C6/4	242606	1 / 30
8	PLSM-C8/4	242607	1 / 30
10	PLSM-C10/4	242608	1 / 30
12	PLSM-C12/4	242609	1 / 30
13	PLSM-C13/4	242610	1 / 30
15	PLSM-C15/4	242611	1 / 30
16	PLSM-C16/4	242612	1 / 30
20	PLSM-C20/4	242613	1 / 30
25	PLSM-C25/4	242614	1 / 30
32	PLSM-C32/4	242615	1 / 30
40	PLSM-C40/4	242616	1 / 30
50	PLSM-C50/4	242617	1 / 30
63	PLSM-C63/4	242618	1 / 30

# Protective Devices

		Miniature Circuit Breakers PLSM, PLZM		MW
		10 kA, Characteristic D		
	Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
 <p>SG48411</p>	<b>1-pole</b>			
	0.5	PLSM-D0,5	242213	12 / 120
	1	PLSM-D1	242214	12 / 120
	1.5	PLSM-D1,5	242215	12 / 120
	1.6	PLSM-D1,6	242216	12 / 120
	2	PLSM-D2	242217	12 / 120
	2.5	PLSM-D2,5	242218	12 / 120
	3	PLSM-D3	242219	12 / 120
	3.5	PLSM-D3,5	242220	12 / 120
	4	PLSM-D4	242221	12 / 120
	5	PLSM-D5	242222	12 / 120
	6	PLSM-D6	242223	12 / 120
	8	PLSM-D8	242224	12 / 120
	10	PLSM-D10	242225	12 / 120
	12	PLSM-D12	242226	12 / 120
	13	PLSM-D13	242227	12 / 120
	15	PLSM-D15	242228	12 / 120
	16	PLSM-D16	242229	12 / 120
	20	PLSM-D20	242230	12 / 120
	25	PLSM-D25	242231	12 / 120
32	PLSM-D32	242232	12 / 120	
40	PLSM-D40	242233	12 / 120	
 <p>SG49211</p>	<b>1+N-pole, 1.5 MU</b>			
	0.5	PLSM-D0,5/1N	242276	8 / 80
	1	PLSM-D1/1N	242277	8 / 80
	1.5	PLSM-D1,5/1N	242278	8 / 80
	1.6	PLSM-D1,6/1N	242279	8 / 80
	2	PLSM-D2/1N	242280	8 / 80
	2.5	PLSM-D2,5/1N	242281	8 / 80
	3	PLSM-D3/1N	242282	8 / 80
	3.5	PLSM-D3,5/1N	242283	8 / 80
	4	PLSM-D4/1N	242284	8 / 80
	5	PLSM-D5/1N	242285	8 / 80
	6	PLSM-D6/1N	242286	8 / 80
	8	PLSM-D8/1N	242287	8 / 80
	10	PLSM-D10/1N	242288	8 / 80
	12	PLSM-D12/1N	242289	8 / 80
13	PLSM-D13/1N	242290	8 / 80	
15	PLSM-D15/1N	242291	8 / 80	
16	PLSM-D16/1N	242292	8 / 80	
20	PLSM-D20/1N	242293	8 / 80	
25	PLSM-D25/1N	242294	8 / 80	
 <p>SG52711</p>	<b>1+N-pole, 2 MU</b>			
	0.5	PLZM-D0,5/1N	242343	1 / 60
	1	PLZM-D1/1N	242344	1 / 60
	1.5	PLZM-D1,5/1N	242345	1 / 60
	1.6	PLZM-D1,6/1N	242346	1 / 60
	2	PLZM-D2/1N	242347	1 / 60
	2.5	PLZM-D2,5/1N	242348	1 / 60
	3	PLZM-D3/1N	242349	1 / 60
	3.5	PLZM-D3,5/1N	242350	1 / 60
	4	PLZM-D4/1N	242351	1 / 60
	5	PLZM-D5/1N	242352	1 / 60
	6	PLZM-D6/1N	242353	1 / 60
	8	PLZM-D8/1N	242354	1 / 60
	10	PLZM-D10/1N	242355	1 / 60
	12	PLZM-D12/1N	242356	1 / 60
	13	PLZM-D13/1N	242357	1 / 60
	15	PLZM-D15/1N	242358	1 / 60
	16	PLZM-D16/1N	242359	1 / 60
20	PLZM-D20/1N	242360	1 / 60	
25	PLZM-D25/1N	242361	1 / 60	
32	PLZM-D32/1N	242362	1 / 60	
40	PLZM-D40/1N	242363	1 / 60	

xPole



# Protective Devices

SG54811



SG63111



SG65611



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>2-pole</b>			
0.5	PLSM-D0,5/2	242412	1 / 60
1	PLSM-D1/2	242413	1 / 60
1.5	PLSM-D1,5/2	242414	1 / 60
1.6	PLSM-D1,6/2	242415	1 / 60
2	PLSM-D2/2	242416	1 / 60
2.5	PLSM-D2,5/2	242417	1 / 60
3	PLSM-D3/2	242418	1 / 60
3.5	PLSM-D3,5/2	242419	1 / 60
4	PLSM-D4/2	242420	1 / 60
5	PLSM-D5/2	242421	1 / 60
6	PLSM-D6/2	242422	1 / 60
8	PLSM-D8/2	242423	1 / 60
10	PLSM-D10/2	242424	1 / 60
12	PLSM-D12/2	242425	1 / 60
13	PLSM-D13/2	242426	1 / 60
15	PLSM-D15/2	242427	1 / 60
16	PLSM-D16/2	242428	1 / 60
20	PLSM-D20/2	242429	1 / 60
25	PLSM-D25/2	242430	1 / 60
32	PLSM-D32/2	242431	1 / 60
40	PLSM-D40/2	242432	1 / 60
<b>3-pole</b>			
0.5	PLSM-D0,5/3	242481	1 / 40
1	PLSM-D1/3	242482	1 / 40
1.5	PLSM-D1,5/3	242483	1 / 40
1.6	PLSM-D1,6/3	242484	1 / 40
2	PLSM-D2/3	242485	1 / 40
2.5	PLSM-D2,5/3	242486	1 / 40
3	PLSM-D3/3	242487	1 / 40
3.5	PLSM-D3,5/3	242488	1 / 40
4	PLSM-D4/3	242489	1 / 40
5	PLSM-D5/3	242490	1 / 40
6	PLSM-D6/3	242491	1 / 40
8	PLSM-D8/3	242492	1 / 40
10	PLSM-D10/3	242493	1 / 40
12	PLSM-D12/3	242494	1 / 40
13	PLSM-D13/3	242495	1 / 40
15	PLSM-D15/3	242496	1 / 40
16	PLSM-D16/3	242497	1 / 40
20	PLSM-D20/3	242498	1 / 40
25	PLSM-D25/3	242499	1 / 40
32	PLSM-D32/3	242500	1 / 40
40	PLSM-D40/3	242501	1 / 40
<b>3+N-pole</b>			
0.5	PLSM-D0,5/3N	242550	1 / 30
1	PLSM-D1/3N	242551	1 / 30
1.5	PLSM-D1,5/3N	242552	1 / 30
1.6	PLSM-D1,6/3N	242553	1 / 30
2	PLSM-D2/3N	242554	1 / 30
2.5	PLSM-D2,5/3N	242555	1 / 30
3	PLSM-D3/3N	242556	1 / 30
3.5	PLSM-D3,5/3N	242557	1 / 30
4	PLSM-D4/3N	242558	1 / 30
5	PLSM-D5/3N	242559	1 / 30
6	PLSM-D6/3N	242560	1 / 30
8	PLSM-D8/3N	242561	1 / 30
10	PLSM-D10/3N	242562	1 / 30
12	PLSM-D12/3N	242563	1 / 30
13	PLSM-D13/3N	242564	1 / 30
15	PLSM-D15/3N	242565	1 / 30
16	PLSM-D16/3N	242566	1 / 30
20	PLSM-D20/3N	242567	1 / 30
25	PLSM-D25/3N	242568	1 / 30
32	PLSM-D32/3N	242569	1 / 30
40	PLSM-D40/3N	242570	1 / 30

xPole

# Protective Devices

SG67811



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>4-pole</b>			
0.5	PLSM-D0,5/4	242619	1 / 30
1	PLSM-D1/4	242620	1 / 30
1.5	PLSM-D1,5/4	242621	1 / 30
1.6	PLSM-D1,6/4	242622	1 / 30
2	PLSM-D2/4	242623	1 / 30
2.5	PLSM-D2,5/4	242624	1 / 30
3	PLSM-D3/4	242625	1 / 30
3.5	PLSM-D3,5/4	242626	1 / 30
4	PLSM-D4/4	242627	1 / 30
5	PLSM-D5/4	242628	1 / 30
6	PLSM-D6/4	242629	1 / 30
8	PLSM-D8/4	242630	1 / 30
10	PLSM-D10/4	242631	1 / 30
12	PLSM-D12/4	242632	1 / 30
13	PLSM-D13/4	242633	1 / 30
15	PLSM-D15/4	242634	1 / 30
16	PLSM-D16/4	242635	1 / 30
20	PLSM-D20/4	242636	1 / 30
25	PLSM-D25/4	242637	1 / 30
32	PLSM-D32/4	242638	1 / 30
40	PLSM-D40/4	242639	1 / 30

xPole

## Miniature Circuit Breakers PLS6, PLZ6 MW

- High-quality miniature circuit breakers for commercial and residential applications
- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Rated currents up to 63 A
- Tripping characteristics B, C, D
- Rated breaking capacity 6 kA according to IEC/EN 60898-1

SG72911



# Protective Devices

## Miniature Circuit Breakers PLS6, PLZ6

MW

6 kA, Characteristic B

SG26911



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>1-pole</b>			
1	PLS6-B1	242640	12 / 120
1.5	PLS6-B1,5	242641	12 / 120
1.6	PLS6-B1,6	242642	12 / 120
2	PLS6-B2	242643	12 / 120
2.5	PLS6-B2,5	242644	12 / 120
3	PLS6-B3	242645	12 / 120
3.5	PLS6-B3,5	242646	12 / 120
4	PLS6-B4	242647	12 / 120
5	PLS6-B5	242648	12 / 120
6	PLS6-B6	242649	12 / 120
8	PLS6-B8	242650	12 / 120
10	PLS6-B10	242651	12 / 120
12	PLS6-B12	242652	12 / 120
13	PLS6-B13	242653	12 / 120
15	PLS6-B15	242654	12 / 120
16	PLS6-B16	242655	12 / 120
20	PLS6-B20	242656	12 / 120
25	PLS6-B25	242657	12 / 120
32	PLS6-B32	242658	12 / 120
40	PLS6-B40	242659	12 / 120
50	PLS6-B50	242660	12 / 120
63	PLS6-B63	242661	12 / 120

SG40111



<b>1+N-pole, 1.5 Module Units (MU)</b>			
1	PLS6-B1/1N	242709	8 / 80
1.5	PLS6-B1,5/1N	242710	8 / 80
1.6	PLS6-B1,6/1N	242711	8 / 80
2	PLS6-B2/1N	242712	8 / 80
2.5	PLS6-B2,5/1N	242713	8 / 80
3	PLS6-B3/1N	242714	8 / 80
3.5	PLS6-B3,5/1N	242715	8 / 80
4	PLS6-B4/1N	242716	8 / 80
5	PLS6-B5/1N	242717	8 / 80
6	PLS6-B6/1N	242718	8 / 80
8	PLS6-B8/1N	242719	8 / 80
10	PLS6-B10/1N	242720	8 / 80
12	PLS6-B12/1N	242721	8 / 80
13	PLS6-B13/1N	242722	8 / 80
15	PLS6-B15/1N	242723	8 / 80
16	PLS6-B16/1N	242724	8 / 80
20	PLS6-B20/1N	242725	8 / 80
25	PLS6-B25/1N	242726	8 / 80
32	PLS6-B32/1N	242727	8 / 80

SG68211



<b>1+N-pole, 2 Module Units (MU)</b>			
1	PLZ6-B1/1N	242770	1 / 60
1.5	PLZ6-B1,5/1N	242771	1 / 60
1.6	PLZ6-B1,6/1N	242772	1 / 60
2	PLZ6-B2/1N	242773	1 / 60
2.5	PLZ6-B2,5/1N	242774	1 / 60
3	PLZ6-B3/1N	242775	1 / 60
3.5	PLZ6-B3,5/1N	242776	1 / 60
4	PLZ6-B4/1N	242777	1 / 60
5	PLZ6-B5/1N	242778	1 / 60
6	PLZ6-B6/1N	242779	1 / 60
8	PLZ6-B8/1N	242780	1 / 60
10	PLZ6-B10/1N	242781	1 / 60
12	PLZ6-B12/1N	242782	1 / 60
13	PLZ6-B13/1N	242783	1 / 60
15	PLZ6-B15/1N	242784	1 / 60
16	PLZ6-B16/1N	242785	1 / 60
20	PLZ6-B20/1N	242786	1 / 60
25	PLZ6-B25/1N	242787	1 / 60
32	PLZ6-B32/1N	242788	1 / 60
40	PLZ6-B40/1N	242789	1 / 60
50	PLZ6-B50/1N	242790	1 / 60
63	PLZ6-B63/1N	242791	1 / 60

# Protective Devices

SG55411



SG74311



SG73911



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>2-pole</b>			
1	PLS6-B1/2	242839	1 / 60
1.5	PLS6-B1,5/2	242840	1 / 60
1.6	PLS6-B1,6/2	242841	1 / 60
2	PLS6-B2/2	242842	1 / 60
2.5	PLS6-B2,5/2	242843	1 / 60
3	PLS6-B3/2	242844	1 / 60
3.5	PLS6-B3,5/2	242845	1 / 60
4	PLS6-B4/2	242846	1 / 60
5	PLS6-B5/2	242847	1 / 60
6	PLS6-B6/2	242848	1 / 60
8	PLS6-B8/2	242849	1 / 60
10	PLS6-B10/2	242850	1 / 60
12	PLS6-B12/2	242851	1 / 60
13	PLS6-B13/2	242852	1 / 60
15	PLS6-B15/2	242853	1 / 60
16	PLS6-B16/2	242854	1 / 60
20	PLS6-B20/2	242855	1 / 60
25	PLS6-B25/2	242856	1 / 60
32	PLS6-B32/2	242857	1 / 60
40	PLS6-B40/2	242858	1 / 60
50	PLS6-B50/2	242859	1 / 60
63	PLS6-B63/2	242860	1 / 60
<b>3-pole</b>			
1	PLS6-B1/3	242908	1 / 40
1.5	PLS6-B1,5/3	242909	1 / 40
1.6	PLS6-B1,6/3	242910	1 / 40
2	PLS6-B2/3	242911	1 / 40
2.5	PLS6-B2,5/3	242912	1 / 40
3	PLS6-B3/3	242913	1 / 40
3.5	PLS6-B3,5/3	242914	1 / 40
4	PLS6-B4/3	242915	1 / 40
5	PLS6-B5/3	242916	1 / 40
6	PLS6-B6/3	242917	1 / 40
8	PLS6-B8/3	242918	1 / 40
10	PLS6-B10/3	242919	1 / 40
12	PLS6-B12/3	242920	1 / 40
13	PLS6-B13/3	242921	1 / 40
15	PLS6-B15/3	242922	1 / 40
16	PLS6-B16/3	242923	1 / 40
20	PLS6-B20/3	242924	1 / 40
25	PLS6-B25/3	242925	1 / 40
32	PLS6-B32/3	242926	1 / 40
40	PLS6-B40/3	242927	1 / 40
50	PLS6-B50/3	242928	1 / 40
63	PLS6-B63/3	242929	1 / 40
<b>3+N-pole</b>			
1	PLS6-B1/3N	242977	1 / 30
1.5	PLS6-B1,5/3N	242978	1 / 30
1.6	PLS6-B1,6/3N	242979	1 / 30
2	PLS6-B2/3N	242980	1 / 30
2.5	PLS6-B2,5/3N	242981	1 / 30
3	PLS6-B3/3N	242982	1 / 30
3.5	PLS6-B3,5/3N	242983	1 / 30
4	PLS6-B4/3N	242984	1 / 30
5	PLS6-B5/3N	242985	1 / 30
6	PLS6-B6/3N	242986	1 / 30
8	PLS6-B8/3N	242987	1 / 30
10	PLS6-B10/3N	242988	1 / 30
12	PLS6-B12/3N	242989	1 / 30
13	PLS6-B13/3N	242990	1 / 30
15	PLS6-B15/3N	242991	1 / 30
16	PLS6-B16/3N	242992	1 / 30
20	PLS6-B20/3N	242993	1 / 30
25	PLS6-B25/3N	242994	1 / 30
32	PLS6-B32/3N	242995	1 / 30
40	PLS6-B40/3N	242996	1 / 30
50	PLS6-B50/3N	242997	1 / 30
63	PLS6-B63/3N	242998	1 / 30

# Protective Devices

SG72911



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>4-pole</b>			
1	PLS6-B1/4	243046	1 / 30
1.5	PLS6-B1,5/4	243047	1 / 30
1.6	PLS6-B1,6/4	243048	1 / 30
2	PLS6-B2/4	243049	1 / 30
2.5	PLS6-B2,5/4	243050	1 / 30
3	PLS6-B3/4	243051	1 / 30
3.5	PLS6-B3,5/4	243052	1 / 30
4	PLS6-B4/4	243053	1 / 30
5	PLS6-B5/4	243054	1 / 30
6	PLS6-B6/4	243055	1 / 30
8	PLS6-B8/4	243056	1 / 30
10	PLS6-B10/4	243057	1 / 30
12	PLS6-B12/4	243058	1 / 30
13	PLS6-B13/4	243059	1 / 30
15	PLS6-B15/4	243060	1 / 30
16	PLS6-B16/4	243061	1 / 30
20	PLS6-B20/4	243062	1 / 30
25	PLS6-B25/4	243063	1 / 30
32	PLS6-B32/4	243064	1 / 30
40	PLS6-B40/4	243065	1 / 30
50	PLS6-B50/4	243066	1 / 30
63	PLS6-B63/4	243067	1 / 30

**Miniature Circuit Breakers PLS6, PLZ6** **MW**  
6 kA, Characteristic C

SG26911



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>1-pole</b>			
0.16	PLS6-C0,16	242662	12 / 120
0.25	PLS6-C0,25	242663	12 / 120
0.5	PLS6-C0,5	242665	12 / 120
0.75	PLS6-C0,75	242664	12 / 120
1	PLS6-C1	242666	12 / 120
1.5	PLS6-C1,5	242667	12 / 120
1.6	PLS6-C1,6	242668	12 / 120
2	PLS6-C2	242669	12 / 120
2.5	PLS6-C2,5	242670	12 / 120
3	PLS6-C3	242671	12 / 120
3.5	PLS6-C3,5	242672	12 / 120
4	PLS6-C4	242673	12 / 120
5	PLS6-C5	242674	12 / 120
6	PLS6-C6	242675	12 / 120
8	PLS6-C8	242676	12 / 120
10	PLS6-C10	242677	12 / 120
12	PLS6-C12	242678	12 / 120
13	PLS6-C13	242679	12 / 120
15	PLS6-C15	242680	12 / 120
16	PLS6-C16	242681	12 / 120
20	PLS6-C20	242682	12 / 120
25	PLS6-C25	242683	12 / 120
32	PLS6-C32	242684	12 / 120
40	PLS6-C40	242685	12 / 120
50	PLS6-C50	242686	12 / 120
63	PLS6-C63	242687	12 / 120

# Protective Devices

SG40111



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>1+N-pole, 1.5 MU</b>			
0.16	PLS6-C0,16/1N	242728	8 / 80
0.25	PLS6-C0,25/1N	242729	8 / 80
0.5	PLS6-C0,5/1N	242731	8 / 80
0.75	PLS6-C0,75/1N	242730	8 / 80
1	PLS6-C1/1N	242732	8 / 80
1.5	PLS6-C1,5/1N	242733	8 / 80
1.6	PLS6-C1,6/1N	242734	8 / 80
2	PLS6-C2/1N	242735	8 / 80
2.5	PLS6-C2,5/1N	242736	8 / 80
3	PLS6-C3/1N	242737	8 / 80
3.5	PLS6-C3,5/1N	242738	8 / 80
4	PLS6-C4/1N	242739	8 / 80
5	PLS6-C5/1N	242740	8 / 80
6	PLS6-C6/1N	242741	8 / 80
8	PLS6-C8/1N	242742	8 / 80
10	PLS6-C10/1N	242743	8 / 80
12	PLS6-C12/1N	242744	8 / 80
13	PLS6-C13/1N	242745	8 / 80
15	PLS6-C15/1N	242746	8 / 80
16	PLS6-C16/1N	242747	8 / 80
20	PLS6-C20/1N	242748	8 / 80
25	PLS6-C25/1N	242749	8 / 80
32	PLS6-C32/1N	242750	8 / 80

SG58211



<b>1+N-pole, 2 MU</b>			
0.16	PLZ6-C0,16/1N	242792	1 / 60
0.25	PLZ6-C0,25/1N	242793	1 / 60
0.5	PLZ6-C0,5/1N	242795	1 / 60
0.75	PLZ6-C0,75/1N	242794	1 / 60
1	PLZ6-C1/1N	242796	1 / 60
1.5	PLZ6-C1,5/1N	242797	1 / 60
1.6	PLZ6-C1,6/1N	242798	1 / 60
2	PLZ6-C2/1N	242799	1 / 60
2.5	PLZ6-C2,5/1N	242800	1 / 60
3	PLZ6-C3/1N	242801	1 / 60
3.5	PLZ6-C3,5/1N	242802	1 / 60
4	PLZ6-C4/1N	242803	1 / 60
5	PLZ6-C5/1N	242804	1 / 60
6	PLZ6-C6/1N	242805	1 / 60
8	PLZ6-C8/1N	242806	1 / 60
10	PLZ6-C10/1N	242807	1 / 60
12	PLZ6-C12/1N	242808	1 / 60
13	PLZ6-C13/1N	242809	1 / 60
15	PLZ6-C15/1N	242810	1 / 60
16	PLZ6-C16/1N	242811	1 / 60
20	PLZ6-C20/1N	242812	1 / 60
25	PLZ6-C25/1N	242813	1 / 60
32	PLZ6-C32/1N	242814	1 / 60
40	PLZ6-C40/1N	242815	1 / 60
50	PLZ6-C50/1N	242816	1 / 60
63	PLZ6-C63/1N	242817	1 / 60

# Protective Devices

SG55411



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>2-pole</b>			
0.16	PLS6-C0,16/2	242861	1 / 60
0.25	PLS6-C0,25/2	242862	1 / 60
0.5	PLS6-C0,5/2	242864	1 / 60
0.75	PLS6-C0,75/2	242863	1 / 60
1	PLS6-C1/2	242865	1 / 60
1.5	PLS6-C1,5/2	242866	1 / 60
1.6	PLS6-C1,6/2	242867	1 / 60
2	PLS6-C2/2	242868	1 / 60
2.5	PLS6-C2,5/2	242869	1 / 60
3	PLS6-C3/2	242870	1 / 60
3.5	PLS6-C3,5/2	242871	1 / 60
4	PLS6-C4/2	242872	1 / 60
5	PLS6-C5/2	242873	1 / 60
6	PLS6-C6/2	242874	1 / 60
8	PLS6-C8/2	242875	1 / 60
10	PLS6-C10/2	242876	1 / 60
12	PLS6-C12/2	242877	1 / 60
13	PLS6-C13/2	242878	1 / 60
15	PLS6-C15/2	242879	1 / 60
16	PLS6-C16/2	242880	1 / 60
20	PLS6-C20/2	242881	1 / 60
25	PLS6-C25/2	242882	1 / 60
32	PLS6-C32/2	242883	1 / 60
40	PLS6-C40/2	242884	1 / 60
50	PLS6-C50/2	242885	1 / 60
63	PLS6-C63/2	242886	1 / 60

SG74311



<b>3-pole</b>			
0.16	PLS6-C0,16/3	242930	1 / 40
0.25	PLS6-C0,25/3	242931	1 / 40
0.5	PLS6-C0,5/3	242933	1 / 40
0.75	PLS6-C0,75/3	242932	1 / 40
1	PLS6-C1/3	242934	1 / 40
1.5	PLS6-C1,5/3	242935	1 / 40
1.6	PLS6-C1,6/3	242936	1 / 40
2	PLS6-C2/3	242937	1 / 40
2.5	PLS6-C2,5/3	242938	1 / 40
3	PLS6-C3/3	242939	1 / 40
3.5	PLS6-C3,5/3	242940	1 / 40
4	PLS6-C4/3	242941	1 / 40
5	PLS6-C5/3	242942	1 / 40
6	PLS6-C6/3	242943	1 / 40
8	PLS6-C8/3	242944	1 / 40
10	PLS6-C10/3	242945	1 / 40
12	PLS6-C12/3	242946	1 / 40
13	PLS6-C13/3	242947	1 / 40
15	PLS6-C15/3	242948	1 / 40
16	PLS6-C16/3	242949	1 / 40
20	PLS6-C20/3	242950	1 / 40
25	PLS6-C25/3	242951	1 / 40
32	PLS6-C32/3	242952	1 / 40
40	PLS6-C40/3	242953	1 / 40
50	PLS6-C50/3	242954	1 / 40
63	PLS6-C63/3	242955	1 / 40

xPole



# Protective Devices

SG73911






SG72911



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>3+N-pole</b>			
0.16	PLS6-C0,16/3N	242999	1 / 30
0.25	PLS6-C0,25/3N	243000	1 / 30
0.5	PLS6-C0,5/3N	243002	1 / 30
0.75	PLS6-C0,75/3N	243001	1 / 30
1	PLS6-C1/3N	243003	1 / 30
1.5	PLS6-C1,5/3N	243004	1 / 30
1.6	PLS6-C1,6/3N	243005	1 / 30
2	PLS6-C2/3N	243006	1 / 30
2.5	PLS6-C2,5/3N	243007	1 / 30
3	PLS6-C3/3N	243008	1 / 30
3.5	PLS6-C3,5/3N	243009	1 / 30
4	PLS6-C4/3N	243010	1 / 30
5	PLS6-C5/3N	243011	1 / 30
6	PLS6-C6/3N	243012	1 / 30
8	PLS6-C8/3N	243013	1 / 30
10	PLS6-C10/3N	243014	1 / 30
12	PLS6-C12/3N	243015	1 / 30
13	PLS6-C13/3N	243016	1 / 30
15	PLS6-C15/3N	243017	1 / 30
16	PLS6-C16/3N	243018	1 / 30
20	PLS6-C20/3N	243019	1 / 30
25	PLS6-C25/3N	243020	1 / 30
32	PLS6-C32/3N	243021	1 / 30
40	PLS6-C40/3N	243022	1 / 30
50	PLS6-C50/3N	243023	1 / 30
63	PLS6-C63/3N	243024	1 / 30
<b>4-pole</b>			
0.16	PLS6-C0,16/4	243068	1 / 30
0.25	PLS6-C0,25/4	243069	1 / 30
0.5	PLS6-C0,5/4	243071	1 / 30
0.75	PLS6-C0,75/4	243070	1 / 30
1	PLS6-C1/4	243072	1 / 30
1.5	PLS6-C1,5/4	243073	1 / 30
1.6	PLS6-C1,6/4	243074	1 / 30
2	PLS6-C2/4	243075	1 / 30
2.5	PLS6-C2,5/4	243076	1 / 30
3	PLS6-C3/4	243077	1 / 30
3.5	PLS6-C3,5/4	243078	1 / 30
4	PLS6-C4/4	243079	1 / 30
5	PLS6-C5/4	243080	1 / 30
6	PLS6-C6/4	243081	1 / 30
8	PLS6-C8/4	243082	1 / 30
10	PLS6-C10/4	243083	1 / 30
12	PLS6-C12/4	243084	1 / 30
13	PLS6-C13/4	243085	1 / 30
15	PLS6-C15/4	243086	1 / 30
16	PLS6-C16/4	243087	1 / 30
20	PLS6-C20/4	243088	1 / 30
25	PLS6-C25/4	243089	1 / 30
32	PLS6-C32/4	243090	1 / 30
40	PLS6-C40/4	243091	1 / 30
50	PLS6-C50/4	243092	1 / 30
63	PLS6-C63/4	243093	1 / 30

# Protective Devices

		<b>Miniature Circuit Breakers PLS6, PLZ6</b>		<b>MW</b>
		6 kA, Characteristic D		
		Rated current $I_n$ (A)	Type Designation	Article No. Units per package
 <p>SG26911</p>	<b>1-pole</b>			
	1	PLS6-D1	242689	12 / 120
	1.5	PLS6-D1,5	242690	12 / 120
	1.6	PLS6-D1,6	242691	12 / 120
	2	PLS6-D2	242692	12 / 120
	2.5	PLS6-D2,5	242693	12 / 120
	3	PLS6-D3	242694	12 / 120
	3.5	PLS6-D3,5	242695	12 / 120
	4	PLS6-D4	242696	12 / 120
	5	PLS6-D5	242697	12 / 120
	6	PLS6-D6	242698	12 / 120
	8	PLS6-D8	242699	12 / 120
	10	PLS6-D10	242700	12 / 120
	12	PLS6-D12	242701	12 / 120
	13	PLS6-D13	242702	12 / 120
	15	PLS6-D15	242703	12 / 120
	16	PLS6-D16	242704	12 / 120
	20	PLS6-D20	242705	12 / 120
	25	PLS6-D25	242706	12 / 120
	32	PLS6-D32	242707	12 / 120
40	PLS6-D40	242708	12 / 120	
 <p>SG40111</p>	<b>1+N-pole, 1.5 MU</b>			
	0.5	PLS6-D0,5/1N	242751	8 / 80
	1	PLS6-D1/1N	242752	8 / 80
	1.5	PLS6-D1,5/1N	242753	8 / 80
	1.6	PLS6-D1,6/1N	242754	8 / 80
	2	PLS6-D2/1N	242755	8 / 80
	2.5	PLS6-D2,5/1N	242756	8 / 80
	3	PLS6-D3/1N	242757	8 / 80
	3.5	PLS6-D3,5/1N	242758	8 / 80
	4	PLS6-D4/1N	242759	8 / 80
	5	PLS6-D5/1N	242760	8 / 80
	6	PLS6-D6/1N	242761	8 / 80
	8	PLS6-D8/1N	242762	8 / 80
	10	PLS6-D10/1N	242763	8 / 80
	12	PLS6-D12/1N	242764	8 / 80
	13	PLS6-D13/1N	242765	8 / 80
	15	PLS6-D15/1N	242766	8 / 80
16	PLS6-D16/1N	242767	8 / 80	
20	PLS6-D20/1N	242768	8 / 80	
25	PLS6-D25/1N	242769	8 / 80	
 <p>SG58211</p>	<b>1+N-pole, 2 MU</b>			
	0.5	PLZ6-D0,5/1N	242818	1 / 60
	1	PLZ6-D1/1N	242819	1 / 60
	1.5	PLZ6-D1,5/1N	242820	1 / 60
	1.6	PLZ6-D1,6/1N	242821	1 / 60
	2	PLZ6-D2/1N	242822	1 / 60
	2.5	PLZ6-D2,5/1N	242823	1 / 60
	3	PLZ6-D3/1N	242824	1 / 60
	3.5	PLZ6-D3,5/1N	242825	1 / 60
	4	PLZ6-D4/1N	242826	1 / 60
	5	PLZ6-D5/1N	242827	1 / 60
	6	PLZ6-D6/1N	242828	1 / 60
	8	PLZ6-D8/1N	242829	1 / 60
	10	PLZ6-D10/1N	242830	1 / 60
	12	PLZ6-D12/1N	242831	1 / 60
	13	PLZ6-D13/1N	242832	1 / 60
	15	PLZ6-D15/1N	242833	1 / 60
	16	PLZ6-D16/1N	242834	1 / 60
	20	PLZ6-D20/1N	242835	1 / 60
	25	PLZ6-D25/1N	242836	1 / 60
32	PLZ6-D32/1N	242837	1 / 60	
40	PLZ6-D40/1N	242838	1 / 60	

xPole

# Protective Devices

SG55411



SG74311



SG73911



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>2-pole</b>			
0.5	PLS6-D0,5/2	242887	1 / 60
1	PLS6-D1/2	242888	1 / 60
1.5	PLS6-D1,5/2	242889	1 / 60
1.6	PLS6-D1,6/2	242890	1 / 60
2	PLS6-D2/2	242891	1 / 60
2.5	PLS6-D2,5/2	242892	1 / 60
3	PLS6-D3/2	242893	1 / 60
3.5	PLS6-D3,5/2	242894	1 / 60
4	PLS6-D4/2	242895	1 / 60
5	PLS6-D5/2	242896	1 / 60
6	PLS6-D6/2	242897	1 / 60
8	PLS6-D8/2	242898	1 / 60
10	PLS6-D10/2	242899	1 / 60
12	PLS6-D12/2	242900	1 / 60
13	PLS6-D13/2	242901	1 / 60
15	PLS6-D15/2	242902	1 / 60
16	PLS6-D16/2	242903	1 / 60
20	PLS6-D20/2	242904	1 / 60
25	PLS6-D25/2	242905	1 / 60
32	PLS6-D32/2	242906	1 / 60
40	PLS6-D40/2	242907	1 / 60
<b>3-pole</b>			
0.5	PLS6-D0,5/3	242956	1 / 40
1	PLS6-D1/3	242957	1 / 40
1.5	PLS6-D1,5/3	242958	1 / 40
1.6	PLS6-D1,6/3	242959	1 / 40
2	PLS6-D2/3	242960	1 / 40
2.5	PLS6-D2,5/3	242961	1 / 40
3	PLS6-D3/3	242962	1 / 40
3.5	PLS6-D3,5/3	242963	1 / 40
4	PLS6-D4/3	242964	1 / 40
5	PLS6-D5/3	242965	1 / 40
6	PLS6-D6/3	242966	1 / 40
8	PLS6-D8/3	242967	1 / 40
10	PLS6-D10/3	242968	1 / 40
12	PLS6-D12/3	242969	1 / 40
13	PLS6-D13/3	242970	1 / 40
15	PLS6-D15/3	242971	1 / 40
16	PLS6-D16/3	242972	1 / 40
20	PLS6-D20/3	242973	1 / 40
25	PLS6-D25/3	242974	1 / 40
32	PLS6-D32/3	242975	1 / 40
40	PLS6-D40/3	242976	1 / 40
<b>3+N-pole</b>			
0.5	PLS6-D0,5/3N	243025	1 / 30
1	PLS6-D1/3N	243026	1 / 30
1.5	PLS6-D1,5/3N	243027	1 / 30
1.6	PLS6-D1,6/3N	243028	1 / 30
2	PLS6-D2/3N	243029	1 / 30
2.5	PLS6-D2,5/3N	243030	1 / 30
3	PLS6-D3/3N	243031	1 / 30
3.5	PLS6-D3,5/3N	243032	1 / 30
4	PLS6-D4/3N	243033	1 / 30
5	PLS6-D5/3N	243034	1 / 30
6	PLS6-D6/3N	243035	1 / 30
8	PLS6-D8/3N	243036	1 / 30
10	PLS6-D10/3N	243037	1 / 30
12	PLS6-D12/3N	243038	1 / 30
13	PLS6-D13/3N	243039	1 / 30
15	PLS6-D15/3N	243040	1 / 30
16	PLS6-D16/3N	243041	1 / 30
20	PLS6-D20/3N	243042	1 / 30
25	PLS6-D25/3N	243043	1 / 30
32	PLS6-D32/3N	243044	1 / 30
40	PLS6-D40/3N	243045	1 / 30

# Protective Devices

SG72911



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>4-pole</b>			
0.5	PLS6-D0,5/4	243094	1 / 30
1	PLS6-D1/4	243095	1 / 30
1.5	PLS6-D1,5/4	243096	1 / 30
1.6	PLS6-D1,6/4	243097	1 / 30
2	PLS6-D2/4	243098	1 / 30
2.5	PLS6-D2,5/4	243099	1 / 30
3	PLS6-D3/4	243100	1 / 30
3.5	PLS6-D3,5/4	243101	1 / 30
4	PLS6-D4/4	243102	1 / 30
5	PLS6-D5/4	243103	1 / 30
6	PLS6-D6/4	243104	1 / 30
8	PLS6-D8/4	243105	1 / 30
10	PLS6-D10/4	243106	1 / 30
12	PLS6-D12/4	243107	1 / 30
13	PLS6-D13/4	243108	1 / 30
15	PLS6-D15/4	243109	1 / 30
16	PLS6-D16/4	243110	1 / 30
20	PLS6-D20/4	243111	1 / 30
25	PLS6-D25/4	243112	1 / 30
32	PLS6-D32/4	243113	1 / 30
40	PLS6-D40/4	243114	1 / 30

## Miniature Circuit Breakers PLS4, PLZ4 MW

- High-quality miniature circuit breakers for residential applications
- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Rated currents up to 63 A
- Tripping characteristics B, C
- Rated breaking capacity 4.5 kA according to IEC/EN 60898-1

SG36011



# Protective Devices

## Miniature Circuit Breakers PLS4, PLZ4

MW

4.5 kA, Characteristic B

SG28411



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
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### 1-pole

1	PLS4-B1	243141	12 / 120
1.5	PLS4-B1,5	243142	12 / 120
1.6	PLS4-B1,6	243143	12 / 120
2	PLS4-B2	243144	12 / 120
2.5	PLS4-B2,5	243145	12 / 120
3	PLS4-B3	243146	12 / 120
3.5	PLS4-B3,5	243147	12 / 120
4	PLS4-B4	243148	12 / 120
5	PLS4-B5	243149	12 / 120
6	PLS4-B6	243150	12 / 120
8	PLS4-B8	243151	12 / 120
10	PLS4-B10	243152	12 / 120
12	PLS4-B12	243153	12 / 120
13	PLS4-B13	243154	12 / 120
15	PLS4-B15	243155	12 / 120
16	PLS4-B16	243156	12 / 120
20	PLS4-B20	243157	12 / 120
25	PLS4-B25	243158	12 / 120
32	PLS4-B32	243159	12 / 120
40	PLS4-B40	243160	12 / 120
50	PLS4-B50	243161	12 / 120
63	PLS4-B63	243162	12 / 120

SG20711



### 1+N-pole, 2 Module Units (MU)

1	PLZ4-B1/1N	243189	1 / 60
1.5	PLZ4-B1,5/1N	243190	1 / 60
1.6	PLZ4-B1,6/1N	243191	1 / 60
2	PLZ4-B2/1N	243192	1 / 60
2.5	PLZ4-B2,5/1N	243193	1 / 60
3	PLZ4-B3/1N	243194	1 / 60
3.5	PLZ4-B3,5/1N	243195	1 / 60
4	PLZ4-B4/1N	243196	1 / 60
5	PLZ4-B5/1N	243197	1 / 60
6	PLZ4-B6/1N	243198	1 / 60
8	PLZ4-B8/1N	243199	1 / 60
10	PLZ4-B10/1N	243200	1 / 60
12	PLZ4-B12/1N	243201	1 / 60
13	PLZ4-B13/1N	243202	1 / 60
15	PLZ4-B15/1N	243203	1 / 60
16	PLZ4-B16/1N	243204	1 / 60
20	PLZ4-B20/1N	243205	1 / 60
25	PLZ4-B25/1N	243206	1 / 60
32	PLZ4-B32/1N	243207	1 / 60
40	PLZ4-B40/1N	243208	1 / 60
50	PLZ4-B50/1N	243209	1 / 60
63	PLZ4-B63/1N	243210	1 / 60

xPole

# Protective Devices

SG22911



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>2-pole</b>			
1	PLS4-B1/2	243237	1 / 60
1.5	PLS4-B1,5/2	243238	1 / 60
1.6	PLS4-B1,6/2	243239	1 / 60
2	PLS4-B2/2	243240	1 / 60
2.5	PLS4-B2,5/2	243241	1 / 60
3	PLS4-B3/2	243242	1 / 60
3.5	PLS4-B3,5/2	243243	1 / 60
4	PLS4-B4/2	243244	1 / 60
5	PLS4-B5/2	243245	1 / 60
6	PLS4-B6/2	243246	1 / 60
8	PLS4-B8/2	243247	1 / 60
10	PLS4-B10/2	243248	1 / 60
12	PLS4-B12/2	243249	1 / 60
13	PLS4-B13/2	243250	1 / 60
15	PLS4-B15/2	243251	1 / 60
16	PLS4-B16/2	243252	1 / 60
20	PLS4-B20/2	243253	1 / 60
25	PLS4-B25/2	243254	1 / 60
32	PLS4-B32/2	243255	1 / 60
40	PLS4-B40/2	243256	1 / 60
50	PLS4-B50/2	243257	1 / 60
63	PLS4-B63/2	243258	1 / 60

SG31411



<b>3-pole</b>			
1	PLS4-B1/3	243285	1 / 40
1.5	PLS4-B1,5/3	243286	1 / 40
1.6	PLS4-B1,6/3	243287	1 / 40
2	PLS4-B2/3	243288	1 / 40
2.5	PLS4-B2,5/3	243289	1 / 40
3	PLS4-B3/3	243290	1 / 40
3.5	PLS4-B3,5/3	243291	1 / 40
4	PLS4-B4/3	243292	1 / 40
5	PLS4-B5/3	243293	1 / 40
6	PLS4-B6/3	243294	1 / 40
8	PLS4-B8/3	243295	1 / 40
10	PLS4-B10/3	243296	1 / 40
12	PLS4-B12/3	243297	1 / 40
13	PLS4-B13/3	243298	1 / 40
15	PLS4-B15/3	243299	1 / 40
16	PLS4-B16/3	243300	1 / 40
20	PLS4-B20/3	243301	1 / 40
25	PLS4-B25/3	243302	1 / 40
32	PLS4-B32/3	243303	1 / 40
40	PLS4-B40/3	243304	1 / 40
50	PLS4-B50/3	243305	1 / 40
63	PLS4-B63/3	243306	1 / 40

SG35211



<b>3+N-pole</b>			
1	PLS4-B1/3N	243333	1 / 30
1.5	PLS4-B1,5/3N	243334	1 / 30
1.6	PLS4-B1,6/3N	243335	1 / 30
2	PLS4-B2/3N	243336	1 / 30
2.5	PLS4-B2,5/3N	243337	1 / 30
3	PLS4-B3/3N	243338	1 / 30
3.5	PLS4-B3,5/3N	243339	1 / 30
4	PLS4-B4/3N	243340	1 / 30
5	PLS4-B5/3N	243341	1 / 30
6	PLS4-B6/3N	243342	1 / 30
8	PLS4-B8/3N	243343	1 / 30
10	PLS4-B10/3N	243344	1 / 30
12	PLS4-B12/3N	243345	1 / 30
13	PLS4-B13/3N	243346	1 / 30
15	PLS4-B15/3N	243347	1 / 30
16	PLS4-B16/3N	243348	1 / 30
20	PLS4-B20/3N	243349	1 / 30
25	PLS4-B25/3N	243350	1 / 30
32	PLS4-B32/3N	243351	1 / 30
40	PLS4-B40/3N	243352	1 / 30
50	PLS4-B50/3N	243353	1 / 30
63	PLS4-B63/3N	243354	1 / 30

# Protective Devices

SG37111



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>4-pole</b>			
1	PLS4-B1/4	243381	1 / 30
1.5	PLS4-B1,5/4	243382	1 / 30
1.6	PLS4-B1,6/4	243383	1 / 30
2	PLS4-B2/4	243384	1 / 30
2.5	PLS4-B2,5/4	243385	1 / 30
3	PLS4-B3/4	243386	1 / 30
3.5	PLS4-B3,5/4	243387	1 / 30
4	PLS4-B4/4	243388	1 / 30
5	PLS4-B5/4	243389	1 / 30
6	PLS4-B6/4	243390	1 / 30
8	PLS4-B8/4	243391	1 / 30
10	PLS4-B10/4	243392	1 / 30
12	PLS4-B12/4	243393	1 / 30
13	PLS4-B13/4	243394	1 / 30
15	PLS4-B15/4	243395	1 / 30
16	PLS4-B16/4	243396	1 / 30
20	PLS4-B20/4	243397	1 / 30
25	PLS4-B25/4	243398	1 / 30
32	PLS4-B32/4	243399	1 / 30
40	PLS4-B40/4	243400	1 / 30
50	PLS4-B50/4	243401	1 / 30
63	PLS4-B63/4	243402	1 / 30

**Miniature Circuit Breakers PLS4, PLZ4** **MW**  
4.5 kA, Characteristic C

SG28411



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>1-pole</b>			
0.16	PLS4-C0,16	243163	12 / 120
0.25	PLS4-C0,25	243164	12 / 120
0.5	PLS4-C0,5	243166	12 / 120
0.75	PLS4-C0,75	243165	12 / 120
1	PLS4-C1	243167	12 / 120
1.5	PLS4-C1,5	243168	12 / 120
1.6	PLS4-C1,6	243169	12 / 120
2	PLS4-C2	243170	12 / 120
2.5	PLS4-C2,5	243171	12 / 120
3	PLS4-C3	243172	12 / 120
3.5	PLS4-C3,5	243173	12 / 120
4	PLS4-C4	243174	12 / 120
5	PLS4-C5	243175	12 / 120
6	PLS4-C6	243176	12 / 120
8	PLS4-C8	243177	12 / 120
10	PLS4-C10	243178	12 / 120
12	PLS4-C12	243179	12 / 120
13	PLS4-C13	243180	12 / 120
15	PLS4-C15	243181	12 / 120
16	PLS4-C16	243182	12 / 120
20	PLS4-C20	243183	12 / 120
25	PLS4-C25	243184	12 / 120
32	PLS4-C32	243185	12 / 120
40	PLS4-C40	243186	12 / 120
50	PLS4-C50	243187	12 / 120
63	PLS4-C63	243188	12 / 120

xPole



# Protective Devices

SG20711



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>1+N-pole, 2MU</b>			
0.16	PLZ4-C0,16/1N	243211	1 / 60
0.25	PLZ4-C0,25/1N	243212	1 / 60
0.5	PLZ4-C0,5/1N	243214	1 / 60
0.75	PLZ4-C0,75/1N	243213	1 / 60
1	PLZ4-C1/1N	243215	1 / 60
1.5	PLZ4-C1,5/1N	243216	1 / 60
1.6	PLZ4-C1,6/1N	243217	1 / 60
2	PLZ4-C2/1N	243218	1 / 60
2.5	PLZ4-C2,5/1N	243219	1 / 60
3	PLZ4-C3/1N	243220	1 / 60
3.5	PLZ4-C3,5/1N	243221	1 / 60
4	PLZ4-C4/1N	243222	1 / 60
5	PLZ4-C5/1N	243223	1 / 60
6	PLZ4-C6/1N	243224	1 / 60
8	PLZ4-C8/1N	243225	1 / 60
10	PLZ4-C10/1N	243226	1 / 60
12	PLZ4-C12/1N	243227	1 / 60
13	PLZ4-C13/1N	243228	1 / 60
15	PLZ4-C15/1N	243229	1 / 60
16	PLZ4-C16/1N	243230	1 / 60
20	PLZ4-C20/1N	243231	1 / 60
25	PLZ4-C25/1N	243232	1 / 60
32	PLZ4-C32/1N	243233	1 / 60
40	PLZ4-C40/1N	243234	1 / 60
50	PLZ4-C50/1N	243235	1 / 60
63	PLZ4-C63/1N	243236	1 / 60

SG22911



<b>2-pole</b>			
0.16	PLS4-C0,16/2	243259	1 / 60
0.25	PLS4-C0,25/2	243260	1 / 60
0.5	PLS4-C0,5/2	243262	1 / 60
0.75	PLS4-C0,75/2	243261	1 / 60
1	PLS4-C1/2	243263	1 / 60
1.5	PLS4-C1,5/2	243264	1 / 60
1.6	PLS4-C1,6/2	243265	1 / 60
2	PLS4-C2/2	243266	1 / 60
2.5	PLS4-C2,5/2	243267	1 / 60
3	PLS4-C3/2	243268	1 / 60
3.5	PLS4-C3,5/2	243269	1 / 60
4	PLS4-C4/2	243270	1 / 60
5	PLS4-C5/2	243271	1 / 60
6	PLS4-C6/2	243272	1 / 60
8	PLS4-C8/2	243273	1 / 60
10	PLS4-C10/2	243274	1 / 60
12	PLS4-C12/2	243275	1 / 60
13	PLS4-C13/2	243276	1 / 60
15	PLS4-C15/2	243277	1 / 60
16	PLS4-C16/2	243278	1 / 60
20	PLS4-C20/2	243279	1 / 60
25	PLS4-C25/2	243280	1 / 60
32	PLS4-C32/2	243281	1 / 60
40	PLS4-C40/2	243282	1 / 60
50	PLS4-C50/2	243283	1 / 60
63	PLS4-C63/2	243284	1 / 60

# Protective Devices

SG31411



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>3-pole</b>			
0.16	PLS4-C0,16/3	243307	1 / 40
0.25	PLS4-C0,25/3	243308	1 / 40
0.5	PLS4-C0,5/3	243310	1 / 40
0.75	PLS4-C0,75/3	243309	1 / 40
1	PLS4-C1/3	243311	1 / 40
1.5	PLS4-C1,5/3	243312	1 / 40
1.6	PLS4-C1,6/3	243313	1 / 40
2	PLS4-C2/3	243314	1 / 40
2.5	PLS4-C2,5/3	243315	1 / 40
3	PLS4-C3/3	243316	1 / 40
3.5	PLS4-C3,5/3	243317	1 / 40
4	PLS4-C4/3	243318	1 / 40
5	PLS4-C5/3	243319	1 / 40
6	PLS4-C6/3	243320	1 / 40
8	PLS4-C8/3	243321	1 / 40
10	PLS4-C10/3	243322	1 / 40
12	PLS4-C12/3	243323	1 / 40
13	PLS4-C13/3	243324	1 / 40
15	PLS4-C15/3	243325	1 / 40
16	PLS4-C16/3	243326	1 / 40
20	PLS4-C20/3	243327	1 / 40
25	PLS4-C25/3	243328	1 / 40
32	PLS4-C32/3	243329	1 / 40
40	PLS4-C40/3	243330	1 / 40
50	PLS4-C50/3	243331	1 / 40
63	PLS4-C63/3	243332	1 / 40

SG35211



<b>3+N-pole</b>			
0.16	PLS4-C0,16/3N	243355	1 / 30
0.25	PLS4-C0,25/3N	243356	1 / 30
0.5	PLS4-C0,5/3N	243358	1 / 30
0.75	PLS4-C0,75/3N	243357	1 / 30
1	PLS4-C1/3N	243359	1 / 30
1.5	PLS4-C1,5/3N	243360	1 / 30
1.6	PLS4-C1,6/3N	243361	1 / 30
2	PLS4-C2/3N	243362	1 / 30
2.5	PLS4-C2,5/3N	243363	1 / 30
3	PLS4-C3/3N	243364	1 / 30
3.5	PLS4-C3,5/3N	243365	1 / 30
4	PLS4-C4/3N	243366	1 / 30
5	PLS4-C5/3N	243367	1 / 30
6	PLS4-C6/3N	243368	1 / 30
8	PLS4-C8/3N	243369	1 / 30
10	PLS4-C10/3N	243370	1 / 30
12	PLS4-C12/3N	243371	1 / 30
13	PLS4-C13/3N	243372	1 / 30
15	PLS4-C15/3N	243373	1 / 30
16	PLS4-C16/3N	243374	1 / 30
20	PLS4-C20/3N	243375	1 / 30
25	PLS4-C25/3N	243376	1 / 30
32	PLS4-C32/3N	243377	1 / 30
40	PLS4-C40/3N	243378	1 / 30
50	PLS4-C50/3N	243379	1 / 30
63	PLS4-C63/3N	243380	1 / 30

xPole

# Protective Devices

SG37111



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>4-pole</b>			
0.16	PLS4-C0,16/4	243403	1 / 30
0.25	PLS4-C0,25/4	243404	1 / 30
0.5	PLS4-C0,5/4	243406	1 / 30
0.75	PLS4-C0,75/4	243405	1 / 30
1	PLS4-C1/4	243407	1 / 30
1.5	PLS4-C1,5/4	243408	1 / 30
1.6	PLS4-C1,6/4	243409	1 / 30
2	PLS4-C2/4	243410	1 / 30
2.5	PLS4-C2,5/4	243411	1 / 30
3	PLS4-C3/4	243412	1 / 30
3.5	PLS4-C3,5/4	243413	1 / 30
4	PLS4-C4/4	243414	1 / 30
5	PLS4-C5/4	243415	1 / 30
6	PLS4-C6/4	243416	1 / 30
8	PLS4-C8/4	243417	1 / 30
10	PLS4-C10/4	243418	1 / 30
12	PLS4-C12/4	243419	1 / 30
13	PLS4-C13/4	243420	1 / 30
15	PLS4-C15/4	243421	1 / 30
16	PLS4-C16/4	243422	1 / 30
20	PLS4-C20/4	243423	1 / 30
25	PLS4-C25/4	243424	1 / 30
32	PLS4-C32/4	243425	1 / 30
40	PLS4-C40/4	243426	1 / 30
50	PLS4-C50/4	243427	1 / 30
63	PLS4-C63/4	243428	1 / 30

xPole

## Miniature Circuit Breakers PLS6-DC MW

- High-quality miniature circuit breakers for DC-applications
- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Rated currents up to 50 A
- Tripping characteristic C
- Rated breaking capacity 10 kA according to IEC/EN 60947-2
- Up to 250 V DC per pole

SG45311



# Protective Devices

## Miniature Circuit Breaker PLS6-DC for direct current application MW 10 kA, Characteristic C

SG45311



Rated current $I_n$ (A)	Type Designation	Article No.	Units per package
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### 1-pole

1	PLS6-C1-DC	243115	12 / 120
2	PLS6-C2-DC	243116	12 / 120
3	PLS6-C3-DC	243117	12 / 120
4	PLS6-C4-DC	243118	12 / 120
6	PLS6-C6-DC	243119	12 / 120
10	PLS6-C10-DC	243120	12 / 120
13	PLS6-C13-DC	243121	12 / 120
16	PLS6-C16-DC	243122	12 / 120
20	PLS6-C20-DC	243123	12 / 120
25	PLS6-C25-DC	243124	12 / 120
32	PLS6-C32-DC	243125	12 / 120
40	PLS6-C40-DC	243126	12 / 120
50	PLS6-C50-DC	243127	12 / 120

SG55411



### 2-pole

1	PLS6-C1/2-DC	243128	1 / 60
2	PLS6-C2/2-DC	243129	1 / 60
3	PLS6-C3/2-DC	243130	1 / 60
4	PLS6-C4/2-DC	243131	1 / 60
6	PLS6-C6/2-DC	243132	1 / 60
10	PLS6-C10/2-DC	243133	1 / 60
13	PLS6-C13/2-DC	243134	1 / 60
16	PLS6-C16/2-DC	243135	1 / 60
20	PLS6-C20/2-DC	243136	1 / 60
25	PLS6-C25/2-DC	243137	1 / 60
32	PLS6-C32/2-DC	243138	1 / 60
40	PLS6-C40/2-DC	243139	1 / 60
50	PLS6-C50/2-DC	243140	1 / 60

xPole

## Miniature Circuit Breakers PL7

- High-quality miniature circuit breakers for commercial and residential applications
- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Rated currents up to 63 A
- Tripping characteristics B, C, D
- Rated breaking capacity 10 kA according to IEC/EN 60898-1

SG06511



# Protective Devices

## Miniature Circuit Breakers PL7

10 kA, Characteristic B

SG06211



SG06311



SG06411



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>1-pole</b>			
1	PL7-B1/1	165052	12/120
1.5	PL7-B1,5/1	165048	12/120
1.6	PL7-B1,6/1	165049	12/120
2	PL7-B2/1	264839	12/120
2.5	PL7-B2,5/1	165053	12/120
3	PL7-B3/1	165055	12/120
3.5	PL7-B3,5/1	165054	12/120
4	PL7-B4/1	264850	12/120
5	PL7-B5/1	165056	12/120
6	PL7-B6/1	262673	12/120
8	PL7-B8/1	165057	12/120
10	PL7-B10/1	262674	12/120
12	PL7-B12/1	165050	12/120
13	PL7-B13/1	262675	12/120
15	PL7-B15/1	165051	12/120
16	PL7-B16/1	262676	12/120
20	PL7-B20/1	262677	12/120
25	PL7-B25/1	262678	12/120
32	PL7-B32/1	262679	12/120
40	PL7-B40/1	262690	12/120
50	PL7-B50/1	262691	12/120
63	PL7-B63/1	262692	12/120
<b>1+N-pole</b>			
1	PL7-B1/1N	165214	8/80
1.5	PL7-B1,5/1N	165212	8/80
1.6	PL7-B1,6/1N	165213	8/80
2	PL7-B2/1N	165218	8/80
2.5	PL7-B2,5/1N	165217	8/80
3	PL7-B3/1N	165220	8/80
3.5	PL7-B3,5/1N	165219	8/80
4	PL7-B4/1N	165221	8/80
5	PL7-B5/1N	165222	8/80
6	PL7-B6/1N	262727	8/80
8	PL7-B8/1N	165223	8/80
10	PL7-B10/1N	262728	8/80
12	PL7-B12/1N	165215	8/80
13	PL7-B13/1N	262729	8/80
15	PL7-B15/1N	165216	8/80
16	PL7-B16/1N	262740	8/80
20	PL7-B20/1N	262741	8/80
25	PL7-B25/1N	262742	8/80
32	PL7-B32/1N	262743	8/80
<b>2-pole</b>			
1	PL7-B1/2	165079	6/60
1.5	PL7-B1,5/2	165077	6/60
1.6	PL7-B1,6/2	165078	6/60
2	PL7-B2/2	165083	6/60
2.5	PL7-B2,5/2	165082	6/60
3	PL7-B3/2	165085	6/60
3.5	PL7-B3,5/2	165084	6/60
4	PL7-B4/2	165086	6/60
5	PL7-B5/2	165087	6/60
6	PL7-B6/2	262761	6/60
8	PL7-B8/2	165088	6/60
10	PL7-B10/2	262762	6/60
12	PL7-B12/2	165080	6/60
13	PL7-B13/2	262764	6/60
15	PL7-B15/2	165081	6/60
16	PL7-B16/2	262765	6/60
20	PL7-B20/2	262766	6/60
25	PL7-B25/2	262767	6/60
32	PL7-B32/2	262768	6/60
40	PL7-B40/2	262769	6/60
50	PL7-B50/2	263350	6/60
63	PL7-B63/2	263351	6/60

xPole

# Protective Devices

SG06511



SG06711



SG06611



Rated Current I <sub>n</sub> (A)	Type Designation	Article No.	Units per package
<b>3-pole</b>			
1	PL7-B1/3	165112	4/40
1.5	PL7-B1,5/3	165110	4/40
1.6	PL7-B1,6/3	165111	4/40
2	PL7-B2/3	165116	4/40
2.5	PL7-B2,5/3	165115	4/40
3	PL7-B3/3	165118	4/40
3.5	PL7-B3,5/3	165117	4/40
4	PL7-B4/3	116709	4/40
5	PL7-B5/3	165119	4/40
6	PL7-B6/3	263386	4/40
8	PL7-B8/3	165120	4/40
10	PL7-B10/3	263387	4/40
12	PL7-B12/3	165113	4/40
13	PL7-B13/3	263388	4/40
15	PL7-B15/3	165114	4/40
16	PL7-B16/3	263389	4/40
20	PL7-B20/3	263390	4/40
25	PL7-B25/3	263391	4/40
32	PL7-B32/3	263392	4/40
40	PL7-B40/3	263393	4/40
50	PL7-B50/3	263400	4/40
63	PL7-B63/3	263401	4/40
<b>3+N-pole</b>			
1	PL7-B1/3N	165251	3/30
1.5	PL7-B1,5/3N	165249	3/30
1.6	PL7-B1,6/3N	165250	3/30
2	PL7-B2/3N	165255	3/30
2.5	PL7-B2,5/3N	165254	3/30
3	PL7-B3/3N	165257	3/30
3.5	PL7-B3,5/3N	165256	3/30
4	PL7-B4/3N	165258	3/30
5	PL7-B5/3N	165259	3/30
6	PL7-B6/3N	263982	3/30
8	PL7-B8/3N	165260	3/30
10	PL7-B10/3N	263983	3/30
12	PL7-B12/3N	165252	3/30
13	PL7-B13/3N	263984	3/30
15	PL7-B15/3N	165253	3/30
16	PL7-B16/3N	263985	3/30
20	PL7-B20/3N	263986	3/30
25	PL7-B25/3N	263987	3/30
32	PL7-B32/3N	263988	3/30
40	PL7-B40/3N	263989	3/30
50	PL7-B50/3N	263990	3/30
63	PL7-B63/3N	263991	3/30
<b>4-pole</b>			
1	PL7-B1/4	165146	3/30
1.5	PL7-B1,5/4	165144	3/30
1.6	PL7-B1,6/4	165145	3/30
2	PL7-B2/4	165153	3/30
2.5	PL7-B2,5/4	165152	3/30
3	PL7-B3/4	165157	3/30
3.5	PL7-B3,5/4	165156	3/30
4	PL7-B4/4	165159	3/30
5	PL7-B5/4	165161	3/30
6	PL7-B6/4	165163	3/30
8	PL7-B8/4	165165	3/30
10	PL7-B10/4	165147	3/30
12	PL7-B12/4	165148	3/30
13	PL7-B13/4	165149	3/30
15	PL7-B15/4	165150	3/30
16	PL7-B16/4	165151	3/30
20	PL7-B20/4	165154	3/30
25	PL7-B25/4	165155	3/30
32	PL7-B32/4	165158	3/30
40	PL7-B40/4	165160	3/30
50	PL7-B50/4	165162	3/30
63	PL7-B63/4	165164	3/30

xPole



# Protective Devices

## Miniature Circuit Breakers PL7

10 kA, Characteristic C

SG06211



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>1-pole</b>			
0.16	PL7-C0,16/1	262693	12/120
0.25	PL7-C0,25/1	262694	12/120
0.5	PL7-C0,5/1	262695	12/120
0.75	PL7-C0,75/1	262696	12/120
1	PL7-C1/1	262697	12/120
1.5	PL7-C1,5/1	165058	12/120
1.6	PL7-C1,6/1	262698	12/120
2	PL7-C2/1	262699	12/120
2.5	PL7-C2,5/1	165061	12/120
3	PL7-C3/1	165063	12/120
3.5	PL7-C3,5/1	165062	12/120
4	PL7-C4/1	262700	12/120
5	PL7-C5/1	165064	12/120
6	PL7-C6/1	262701	12/120
8	PL7-C8/1	165065	12/120
10	PL7-C10/1	262702	12/120
12	PL7-C12/1	165059	12/120
13	PL7-C13/1	262703	12/120
15	PL7-C15/1	165060	12/120
16	PL7-C16/1	262704	12/120
20	PL7-C20/1	262705	12/120
25	PL7-C25/1	262706	12/120
32	PL7-C32/1	262707	12/120
40	PL7-C40/1	262708	12/120
50	PL7-C50/1	262709	12/120
63	PL7-C63/1	262710	12/120

SG06311



<b>1+N-pole</b>			
0.16	PL7-C0,16/1N	165224	8/80
0.25	PL7-C0,25/1N	165225	8/80
0.5	PL7-C0,5/1N	165226	8/80
0.75	PL7-C0,75/1N	165227	8/80
1	PL7-C1/1N	165230	8/80
1,5	PL7-C1,5/1N	165228	8/80
1.6	PL7-C1,6/1N	165229	8/80
2	PL7-C2/1N	262744	8/80
2.5	PL7-C2,5/1N	165233	8/80
3	PL7-C3/1N	165235	8/80
3.5	PL7-C3,5/1N	165234	8/80
4	PL7-C4/1N	262745	8/80
5	PL7-C5/1N	165236	8/80
6	PL7-C6/1N	262746	8/80
8	PL7-C8/1N	165237	8/80
10	PL7-C10/1N	262747	8/80
12	PL7-C12/1N	165231	8/80
13	PL7-C13/1N	262748	8/80
15	PL7-C15/1N	165232	8/80
16	PL7-C16/1N	262749	8/80
20	PL7-C20/1N	262750	8/80
25	PL7-C25/1N	262751	8/80
32	PL7-C32/1N	262752	8/80

xPole

# Protective Devices

SG06411



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>2-pole</b>			
0.16	PL7-C0,16/2	165089	6/60
0.25	PL7-C0,25/2	165090	6/60
0.5	PL7-C0,5/2	263352	6/60
0.75	PL7-C0,75/2	165091	6/60
1	PL7-C1/2	263353	6/60
1.5	PL7-C1,5/2	165092	6/60
1.6	PL7-C1,6/2	165093	6/60
2	PL7-C2/2	263354	6/60
2.5	PL7-C2,5/2	165096	6/60
3	PL7-C3/2	165098	6/60
3.5	PL7-C3,5/2	165097	6/60
4	PL7-C4/2	263355	6/60
5	PL7-C5/2	165099	6/60
6	PL7-C6/2	263356	6/60
8	PL7-C8/2	165100	6/60
10	PL7-C10/2	263357	6/60
12	PL7-C12/2	165094	6/60
13	PL7-C13/2	263358	6/60
15	PL7-C15/2	165095	6/60
16	PL7-C16/2	263359	6/60
20	PL7-C20/2	263360	6/60
25	PL7-C25/2	263361	6/60
32	PL7-C32/2	263362	6/60
40	PL7-C40/2	263363	6/60
50	PL7-C50/2	263364	6/60
63	PL7-C63/2	263365	6/60

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<b>3-pole</b>			
0.16	PL7-C0,16/3	165121	4/40
0.25	PL7-C0,25/3	165122	4/40
0.5	PL7-C0,5/3	263402	4/40
0.75	PL7-C0,75/3	165123	4/40
1	PL7-C1/3	263403	4/40
1.5	PL7-C1,5/3	165124	4/40
1.6	PL7-C1,6/3	165125	4/40
2	PL7-C2/3	263404	4/40
2.5	PL7-C2,5/3	165128	4/40
3	PL7-C3/3	165130	4/40
3.5	PL7-C3,5/3	165129	4/40
4	PL7-C4/3	263405	4/40
5	PL7-C5/3	165131	4/40
6	PL7-C6/3	263406	4/40
8	PL7-C8/3	165132	4/40
10	PL7-C10/3	263407	4/40
12	PL7-C12/3	165126	4/40
13	PL7-C13/3	263408	4/40
15	PL7-C15/3	165127	4/40
16	PL7-C16/3	263409	4/40
20	PL7-C20/3	263410	4/40
25	PL7-C25/3	263411	4/40
32	PL7-C32/3	263412	4/40
40	PL7-C40/3	263413	4/40
50	PL7-C50/3	263414	4/40
63	PL7-C63/3	263415	4/40

xPole

# Protective Devices

SG06711



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>3+N-pole</b>			
0.16	PL7-C0,16/3N	165261	3/30
0.25	PL7-C0,25/3N	165262	3/30
0.5	PL7-C0,5/3N	165263	3/30
0.75	PL7-C0,75/3N	165264	3/30
1	PL7-C1/3N	165267	3/30
1.5	PL7-C1,5/3N	165265	3/30
1.6	PL7-C1,6/3N	165266	3/30
2	PL7-C2/3N	165271	3/30
2.5	PL7-C2,5/3N	165270	3/30
3	PL7-C3/3N	165273	3/30
3.5	PL7-C3,5/3N	165272	3/30
4	PL7-C4/3N	165274	3/30
5	PL7-C5/3N	165275	3/30
6	PL7-C6/3N	263992	3/30
8	PL7-C8/3N	165276	3/30
10	PL7-C10/3N	263993	3/30
12	PL7-C12/3N	165268	3/30
13	PL7-C13/3N	263994	3/30
15	PL7-C15/3N	165269	3/30
16	PL7-C16/3N	263995	3/30
20	PL7-C20/3N	263996	3/30
25	PL7-C25/3N	263997	3/30
32	PL7-C32/3N	263998	3/30
40	PL7-C40/3N	263999	3/30
50	PL7-C50/3N	264000	3/30
63	PL7-C63/3N	264001	3/30

SG06611



<b>4-pole</b>			
0.16	PL7-C0,16/4	165166	3/30
0.25	PL7-C0,25/4	165167	3/30
0.5	PL7-C0,5/4	165168	3/30
0.75	PL7-C0,75/4	165169	3/30
1	PL7-C1/4	165172	3/30
1.5	PL7-C1,5/4	165170	3/30
1.6	PL7-C1,6/4	165171	3/30
2	PL7-C2/4	165178	3/30
2.5	PL7-C2,5/4	165177	3/30
3	PL7-C3/4	165182	3/30
3.5	PL7-C3,5/4	165181	3/30
4	PL7-C4/4	165184	3/30
5	PL7-C5/4	165186	3/30
6	PL7-C6/4	165188	3/30
8	PL7-C8/4	165190	3/30
10	PL7-C10/4	165173	3/30
12	PL7-C12/4	165174	3/30
13	PL7-C13/4	165175	3/30
15	PL7-C15/4	165176	3/30
16	PL7-C16/4	107329	3/30
20	PL7-C20/4	165179	3/30
25	PL7-C25/4	165180	3/30
32	PL7-C32/4	165183	3/30
40	PL7-C40/4	165185	3/30
50	PL7-C50/4	165187	3/30
63	PL7-C63/4	165189	3/30

xPole

# Protective Devices

## Miniature Circuit Breakers PL7

10 kA, Characteristic D

SG06211



SG06311



SG06411



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>1-pole</b>			
0.5	PL7-D0,5/1	165066	12/120
1	PL7-D1/1	165071	12/120
1.5	PL7-D1,5/1	165067	12/120
1.6	PL7-D1,6/1	165068	12/120
2	PL7-D2/1	262711	12/120
2.5	PL7-D2,5/1	165072	12/120
3	PL7-D3/1	165074	12/120
3.5	PL7-D3,5/1	165073	12/120
4	PL7-D4/1	262712	12/120
5	PL7-D5/1	165075	12/120
6	PL7-D6/1	262713	12/120
8	PL7-D8/1	165076	12/120
10	PL7-D10/1	262714	12/120
12	PL7-D12/1	165069	12/120
13	PL7-D13/1	262715	12/120
15	PL7-D15/1	165070	12/120
16	PL7-D16/1	262716	12/120
20	PL7-D20/1	262717	12/120
25	PL7-D25/1	262718	12/120
32	PL7-D32/1	262719	12/120
40	PL7-D40/1	262720	12/120
<b>1+N-pole</b>			
0.5	PL7-D0,5/1N	165238	8/80
1	PL7-D1/1N	165241	8/80
1.5	PL7-D1,5/1N	165239	8/80
1.6	PL7-D1,6/1N	165240	8/80
2	PL7-D2/1N	262753	8/80
2.5	PL7-D2,5/1N	165244	8/80
3	PL7-D3/1N	165246	8/80
3.5	PL7-D3,5/1N	165245	8/80
4	PL7-D4/1N	262754	8/80
5	PL7-D5/1N	165247	8/80
6	PL7-D6/1N	262755	8/80
8	PL7-D8/1N	165248	8/80
10	PL7-D10/1N	262756	8/80
12	PL7-D12/1N	165242	8/80
13	PL7-D13/1N	262757	8/80
15	PL7-D15/1N	165243	8/80
16	PL7-D16/1N	262758	8/80
20	PL7-D20/1N	262759	8/80
25	PL7-D25/1N	262760	8/80
<b>2-pole</b>			
0.5	PL7-D0,5/2	165101	6/60
1	PL7-D1/2	108184	6/60
1.5	PL7-D1,5/2	165102	6/60
1.6	PL7-D1,6/2	165103	6/60
2	PL7-D2/2	263366	6/60
2.5	PL7-D2,5/2	165106	6/60
3	PL7-D3/2	108185	6/60
3.5	PL7-D3,5/2	165107	6/60
4	PL7-D4/2	263367	6/60
5	PL7-D5/2	165108	6/60
6	PL7-D6/2	263368	6/60
8	PL7-D8/2	165109	6/60
10	PL7-D10/2	263369	6/60
12	PL7-D12/2	165104	6/60
13	PL7-D13/2	263380	6/60
15	PL7-D15/2	165105	6/60
16	PL7-D16/2	263381	6/60
20	PL7-D20/2	263382	6/60
25	PL7-D25/2	263383	6/60
32	PL7-D32/2	263384	6/60
40	PL7-D40/2	263385	6/60

xPole

# Protective Devices

SG06511



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>3-pole</b>			
0.5	PL7-D0,5/3	165133	4/40
1	PL7-D1/3	165136	4/40
1.5	PL7-D1,5/3	165134	4/40
1.6	PL7-D1,6/3	165135	4/40
2	PL7-D2/3	263416	4/40
2.5	PL7-D2,5/3	165139	4/40
3	PL7-D3/3	165141	4/40
3.5	PL7-D3,5/3	165140	4/40
4	PL7-D4/3	263417	4/40
5	PL7-D5/3	165142	4/40
6	PL7-D6/3	263418	4/40
8	PL7-D8/3	165143	4/40
10	PL7-D10/3	263419	4/40
12	PL7-D12/3	165137	4/40
13	PL7-D13/3	263420	4/40
15	PL7-D15/3	165138	4/40
16	PL7-D16/3	263421	4/40
20	PL7-D20/3	263422	4/40
25	PL7-D25/3	263423	4/40
32	PL7-D32/3	263424	4/40
40	PL7-D40/3	263425	4/40

SG06711



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>3+N-pole</b>			
0.5	PL7-D0,5/3N	165277	3/30
1	PL7-D1/3N	165280	3/30
1.5	PL7-D1,5/3N	165278	3/30
1.6	PL7-D1,6/3N	165279	3/30
2	PL7-D2/3N	165284	3/30
2.5	PL7-D2,5/3N	165283	3/30
3	PL7-D3/3N	165286	3/30
3.5	PL7-D3,5/3N	165285	3/30
4	PL7-D4/3N	165287	3/30
5	PL7-D5/3N	165288	3/30
6	PL7-D6/3N	264002	3/30
8	PL7-D8/3N	165289	3/30
10	PL7-D10/3N	264003	3/30
12	PL7-D12/3N	165281	3/30
13	PL7-D13/3N	264004	3/30
15	PL7-D15/3N	165282	3/30
16	PL7-D16/3N	264005	3/30
20	PL7-D20/3N	264006	3/30
25	PL7-D25/3N	264007	3/30
32	PL7-D32/3N	264008	3/30
40	PL7-D40/3N	264009	3/30

SG06611



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>4-pole</b>			
0.5	PL7-D0,5/4	165191	3/30
1	PL7-D1/4	165194	3/30
1.5	PL7-D1,5/4	165192	3/30
1.6	PL7-D1,6/4	165193	3/30
2	PL7-D2/4	165201	3/30
2.5	PL7-D2,5/4	165200	3/30
3	PL7-D3/4	165205	3/30
3.5	PL7-D3,5/4	165204	3/30
4	PL7-D4/4	165207	3/30
5	PL7-D5/4	165209	3/30
6	PL7-D6/4	165210	3/30
8	PL7-D8/4	165211	3/30
10	PL7-D10/4	165195	3/30
12	PL7-D12/4	165196	3/30
13	PL7-D13/4	165197	3/30
15	PL7-D15/4	165198	3/30
16	PL7-D16/4	165199	3/30
20	PL7-D20/4	165202	3/30
25	PL7-D25/4	165203	3/30
32	PL7-D32/4	165206	3/30
40	PL7-D40/4	165208	3/30

xPole

## Miniature Circuit Breakers PL6

- High-quality miniature circuit breakers for commercial and residential applications
- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Rated currents up to 63 A
- Tripping characteristics B, C, D
- Rated breaking capacity 6 kA according to IEC/EN 60898-1

SG62211



# Protective Devices

## Miniature Circuit Breakers PL6

6 kA, Characteristic B

SG45411



SG51411



SG51511



Rated Current I <sub>n</sub> (A)	Type Designation	Article No.	Units per package
<b>1-pole</b>			
1	PL6-B1/1	164740	12/120
1.5	PL6-B1,5/1	164736	12/120
1.6	PL6-B1,6/1	164737	12/120
2	PL6-B2/1	286516	12/120
2.5	PL6-B2,5/1	164741	12/120
3	PL6-B3/1	164743	12/120
3.5	PL6-B3,5/1	164742	12/120
4	PL6-B4/1	286517	12/120
5	PL6-B5/1	164744	12/120
6	PL6-B6/1	286518	12/120
8	PL6-B8/1	164745	12/120
10	PL6-B10/1	286519	12/120
12	PL6-B12/1	164738	12/120
13	PL6-B13/1	286520	12/120
15	PL6-B15/1	164739	12/120
16	PL6-B16/1	286521	12/120
20	PL6-B20/1	286522	12/120
25	PL6-B25/1	286523	12/120
32	PL6-B32/1	286524	12/120
40	PL6-B40/1	286525	12/120
50	PL6-B50/1	286526	12/120
63	PL6-B63/1	286527	12/120
<b>1+N-pole</b>			
1	PL6-B1/1N	164903	8/80
1.5	PL6-B1,5/1N	164901	8/80
1.6	PL6-B1,6/1N	164902	8/80
2	PL6-B2/1N	164907	8/80
2.5	PL6-B2,5/1N	164906	8/80
3	PL6-B3/1N	164911	8/80
3.5	PL6-B3,5/1N	164910	8/80
4	PL6-B4/1N	164913	8/80
5	PL6-B5/1N	164914	8/80
6	PL6-B6/1N	106025	8/80
8	PL6-B8/1N	164915	8/80
10	PL6-B10/1N	106026	8/80
12	PL6-B12/1N	164904	8/80
13	PL6-B13/1N	106027	8/80
15	PL6-B15/1N	164905	8/80
16	PL6-B16/1N	106028	8/80
20	PL6-B20/1N	164908	8/80
25	PL6-B25/1N	164909	8/80
32	PL6-B32/1N	164912	8/80
<b>2-pole</b>			
1	PL6-B1/2	164803	6/60
1.5	PL6-B1,5/2	164801	6/60
1.6	PL6-B1,6/2	164802	6/60
2	PL6-B2/2	286550	6/60
2.5	PL6-B2,5/2	164806	6/60
3	PL6-B3/2	164808	6/60
3.5	PL6-B3,5/2	164807	6/60
4	PL6-B4/2	286551	6/60
5	PL6-B5/2	164809	6/60
6	PL6-B6/2	286552	6/60
8	PL6-B8/2	164810	6/60
10	PL6-B10/2	286553	6/60
12	PL6-B12/2	164804	6/60
13	PL6-B13/2	286554	6/60
15	PL6-B15/2	164805	6/60
16	PL6-B16/2	286555	6/60
20	PL6-B20/2	286556	6/60
25	PL6-B25/2	286557	6/60
32	PL6-B32/2	286558	6/60
40	PL6-B40/2	286559	6/60
50	PL6-B50/2	286560	6/60
63	PL6-B63/2	286561	6/60

xPole

# Protective Devices

SG62211



SG64711



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>3-pole</b>			
1	PL6-B1/3	164868	4/40
1.5	PL6-B1,5/3	164866	4/40
1.6	PL6-B1,6/3	164867	4/40
2	PL6-B2/3	286584	4/40
2.5	PL6-B2,5/3	164871	4/40
3	PL6-B3/3	164873	4/40
3.5	PL6-B3,5/3	164872	4/40
4	PL6-B4/3	286585	4/40
5	PL6-B5/3	164874	4/40
6	PL6-B6/3	286586	4/40
8	PL6-B8/3	164875	4/40
10	PL6-B10/3	286587	4/40
12	PL6-B12/3	164869	4/40
13	PL6-B13/3	286588	4/40
15	PL6-B15/3	164870	4/40
16	PL6-B16/3	286589	4/40
20	PL6-B20/3	286590	4/40
25	PL6-B25/3	286591	4/40
32	PL6-B32/3	286592	4/40
40	PL6-B40/3	286593	4/40
50	PL6-B50/3	286594	4/40
63	PL6-B63/3	286595	4/40
<b>3+N-pole</b>			
1	PL6-B1/3N	165002	3/30
1.5	PL6-B1,5/3N	165000	3/30
1.6	PL6-B1,6/3N	165001	3/30
2	PL6-B2/3N	165007	3/30
2.5	PL6-B2,5/3N	165006	3/30
3	PL6-B3/3N	165009	3/30
3.5	PL6-B3,5/3N	165008	3/30
4	PL6-B4/3N	165010	3/30
5	PL6-B5/3N	165011	3/30
6	PL6-B6/3N	106035	3/30
8	PL6-B8/3N	165012	3/30
10	PL6-B10/3N	106036	3/30
12	PL6-B12/3N	165003	3/30
13	PL6-B13/3N	165004	3/30
15	PL6-B15/3N	165005	3/30
16	PL6-B16/3N	106037	3/30
20	PL6-B20/3N	106038	3/30
25	PL6-B25/3N	106039	3/30
32	PL6-B32/3N	106040	3/30
40	PL6-B40/3N	106041	3/30
50	PL6-B50/3N	106903	3/30
63	PL6-B63/3N	106904	3/30
<b>4-pole</b>			
1	PL6-B1/4	166489	3/30
1.5	PL6-B1,5/4	166487	3/30
1.6	PL6-B1,6/4	166488	3/30
2	PL6-B2/4	166496	3/30
2.5	PL6-B2,5/4	166495	3/30
3	PL6-B3/4	166499	3/30
4	PL6-B4/4	166501	3/30
5	PL6-B5/4	166503	3/30
6	PL6-B6/4	166505	3/30
8	PL6-B8/4	166507	3/30
10	PL6-B10/4	166490	3/30
12	PL6-B12/4	166491	3/30
13	PL6-B13/4	166492	3/30
15	PL6-B15/4	166493	3/30
16	PL6-B16/4	166494	3/30
20	PL6-B20/4	166497	3/30
25	PL6-B25/4	166498	3/30
32	PL6-B32/4	166500	3/30
40	PL6-B40/4	166502	3/30
50	PL6-B50/4	166504	3/30
63	PL6-B63/4	166506	3/30

xPole



# Protective Devices

## Miniature Circuit Breakers PL6

6 kA, Characteristic C

SG45411



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>1-pole</b>			
0.16	PL6-C0,16/1	164746	12/120
0.25	PL6-C0,25/1	164747	12/120
0.5	PL6-C0,5/1	164748	12/120
0.75	PL6-C0,75/1	164749	12/120
1	PL6-C1/1	164754	12/120
1.5	PL6-C1,5/1	164750	12/120
1.6	PL6-C1,6/1	164751	12/120
2	PL6-C2/1	286528	12/120
2.5	PL6-C2,5/1	164755	12/120
3	PL6-C3/1	164757	12/120
3.5	PL6-C3,5/1	164756	12/120
4	PL6-C4/1	286529	12/120
5	PL6-C5/1	164758	12/120
6	PL6-C6/1	286530	12/120
8	PL6-C8/1	164759	12/120
10	PL6-C10/1	286531	12/120
12	PL6-C12/1	164752	12/120
13	PL6-C13/1	286532	12/120
15	PL6-C15/1	164753	12/120
16	PL6-C16/1	286533	12/120
20	PL6-C20/1	286534	12/120
25	PL6-C25/1	286535	12/120
32	PL6-C32/1	286536	12/120
40	PL6-C40/1	286537	12/120
50	PL6-C50/1	286538	12/120
63	PL6-C63/1	286539	12/120

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<b>1+N-pole</b>			
0.16	PL6-C0,16/1N	164916	8/80
0.25	PL6-C0,25/1N	164917	8/80
0.5	PL6-C0,5/1N	164918	8/80
0.75	PL6-C0,75/1N	164919	8/80
1	PL6-C1/1N	164922	8/80
1.5	PL6-C1,5/1N	164920	8/80
1.6	PL6-C1,6/1N	164921	8/80
2	PL6-C2/1N	106029	8/80
2.5	PL6-C2,5/1N	164925	8/80
3	PL6-C3/1N	164929	8/80
3.5	PL6-C3,5/1N	164928	8/80
4	PL6-C4/1N	106030	8/80
5	PL6-C5/1N	164931	8/80
6	PL6-C6/1N	106031	8/80
8	PL6-C8/1N	164932	8/80
10	PL6-C10/1N	106032	8/80
12	PL6-C12/1N	164923	8/80
13	PL6-C13/1N	106033	8/80
15	PL6-C15/1N	164924	8/80
16	PL6-C16/1N	106034	8/80
20	PL6-C20/1N	164926	8/80
25	PL6-C25/1N	164927	8/80
32	PL6-C32/1N	164930	8/80

xPole

# Protective Devices

SG51511



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>2-pole</b>			
0.16	PL6-C0,16/2	164811	6/60
0.25	PL6-C0,25/2	164812	6/60
0.5	PL6-C0,5/2	164813	6/60
0.75	PL6-C0,75/2	164814	6/60
1	PL6-C1/2	164817	6/60
1.5	PL6-C1,5/2	164815	6/60
1.6	PL6-C1,6/2	164816	6/60
2	PL6-C2/2	286562	6/60
2.5	PL6-C2,5/2	164820	6/60
3	PL6-C3/2	164822	6/60
3.5	PL6-C3,5/2	164821	6/60
4	PL6-C4/2	286563	6/60
5	PL6-C5/2	164823	6/60
6	PL6-C6/2	286564	6/60
8	PL6-C8/2	164824	6/60
10	PL6-C10/2	286565	6/60
12	PL6-C12/2	164818	6/60
13	PL6-C13/2	286566	6/60
15	PL6-C15/2	164819	6/60
16	PL6-C16/2	286567	6/60
20	PL6-C20/2	286568	6/60
25	PL6-C25/2	286569	6/60
32	PL6-C32/2	286570	6/60
40	PL6-C40/2	286571	6/60
50	PL6-C50/2	286572	6/60
63	PL6-C63/2	286573	6/60

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<b>3-pole</b>			
0.16	PL6-C0,16/3	164876	4/40
0.25	PL6-C0,25/3	164877	4/40
0.5	PL6-C0,5/3	164878	4/40
0.75	PL6-C0,75/3	164879	4/40
1	PL6-C1/3	164882	4/40
1.5	PL6-C1,5/3	164880	4/40
1.6	PL6-C1,6/3	164881	4/40
2	PL6-C2/3	286596	4/40
2.5	PL6-C2,5/3	164885	4/40
3	PL6-C3/3	164887	4/40
3.5	PL6-C3,5/3	164886	4/40
4	PL6-C4/3	286597	4/40
5	PL6-C5/3	164888	4/40
6	PL6-C6/3	286598	4/40
8	PL6-C8/3	164889	4/40
10	PL6-C10/3	286599	4/40
12	PL6-C12/3	164883	4/40
13	PL6-C13/3	286600	4/40
15	PL6-C15/3	164884	4/40
16	PL6-C16/3	286601	4/40
20	PL6-C20/3	286602	4/40
25	PL6-C25/3	286603	4/40
32	PL6-C32/3	286604	4/40
40	PL6-C40/3	286605	4/40
50	PL6-C50/3	286606	4/40
63	PL6-C63/3	286607	4/40

xPole

# Protective Devices

SG64711



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>3+N-pole</b>			
0.16	PL6-C0,16/3N	165013	3/30
0.25	PL6-C0,25/3N	165014	3/30
0.5	PL6-C0,5/3N	165015	3/30
0.75	PL6-C0,75/3N	165016	3/30
1	PL6-C1/3N	165019	3/30
1.5	PL6-C1,5/3N	165017	3/30
1.6	PL6-C1,6/3N	165018	3/30
2	PL6-C2/3N	106905	3/30
2.5	PL6-C2,5/3N	165022	3/30
3	PL6-C3/3N	165024	3/30
3.5	PL6-C3,5/3N	165023	3/30
4	PL6-C4/3N	106906	3/30
5	PL6-C5/3N	165025	3/30
6	PL6-C6/3N	106907	3/30
8	PL6-C8/3N	165026	3/30
10	PL6-C10/3N	106908	3/30
12	PL6-C12/3N	165020	3/30
13	PL6-C13/3N	106909	3/30
15	PL6-C15/3N	165021	3/30
16	PL6-C16/3N	106910	3/30
20	PL6-C20/3N	106911	3/30
25	PL6-C25/3N	106912	3/30
32	PL6-C32/3N	106913	3/30
40	PL6-C40/3N	106914	3/30
50	PL6-C50/3N	106915	3/30
63	PL6-C63/3N	106916	3/30
<b>4-pole</b>			
0.16	PL6-C0,16/4	166508	3/30
0.25	PL6-C0,25/4	166509	3/30
0.5	PL6-C0,5/4	166510	3/30
0.75	PL6-C0,75/4	166511	3/30
1	PL6-C1/4	166514	3/30
1.5	PL6-C1,5/4	166512	3/30
1.6	PL6-C1,6/4	166513	3/30
2	PL6-C2/4	166521	3/30
2.5	PL6-C2,5/4	166520	3/30
3	PL6-C3/4	166525	3/30
3.5	PL6-C3,5/4	166524	3/30
4	PL6-C4/4	166527	3/30
5	PL6-C5/4	166529	3/30
6	PL6-C6/4	166531	3/30
8	PL6-C8/4	166533	3/30
10	PL6-C10/4	166515	3/30
12	PL6-C12/4	166516	3/30
13	PL6-C13/4	166517	3/30
15	PL6-C15/4	166518	3/30
16	PL6-C16/4	166519	3/30
20	PL6-C20/4	166522	3/30
25	PL6-C25/4	166523	3/30
32	PL6-C32/4	166526	3/30
40	PL6-C40/4	166528	3/30
50	PL6-C50/4	166530	3/30
63	PL6-C63/4	166532	3/30

xPole

# Protective Devices

## Miniature Circuit Breakers PL6

6 kA, Characteristic D

SG45411



Rated Current I <sub>n</sub> (A)	Type Designation	Article No.	Units per package
<b>1-pole</b>			
0.5	PL6-D0,5/1	164760	12/120
1	PL6-D1/1	164765	12/120
1.5	PL6-D1,5/1	164761	12/120
1.6	PL6-D1,6/1	164762	12/120
2	PL6-D2/1	286540	12/120
2.5	PL6-D2,5/1	164766	12/120
3	PL6-D3/1	164768	12/120
3.5	PL6-D3,5/1	164767	12/120
4	PL6-D4/1	286541	12/120
5	PL6-D5/1	164769	12/120
6	PL6-D6/1	286542	12/120
8	PL6-D8/1	164770	12/120
10	PL6-D10/1	286543	12/120
12	PL6-D12/1	164763	12/120
13	PL6-D13/1	286544	12/120
15	PL6-D15/1	164764	12/120
16	PL6-D16/1	286545	12/120
20	PL6-D20/1	286546	12/120
25	PL6-D25/1	286547	12/120
32	PL6-D32/1	286548	12/120
40	PL6-D40/1	286549	12/120

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<b>1+N-pole</b>			
0.5	PL6-D0,5/1N	164933	8/80
1	PL6-D1/1N	164936	8/80
1.5	PL6-D1,5/1N	164934	8/80
1.6	PL6-D1,6/1N	164935	8/80
2	PL6-D2/1N	164943	8/80
2.5	PL6-D2,5/1N	164942	8/80
3	PL6-D3/1N	164947	8/80
3.5	PL6-D3,5/1N	164946	8/80
4	PL6-D4/1N	164948	8/80
5	PL6-D5/1N	164949	8/80
6	PL6-D6/1N	164950	8/80
8	PL6-D8/1N	164951	8/80
10	PL6-D10/1N	164937	8/80
12	PL6-D12/1N	164938	8/80
13	PL6-D13/1N	164939	8/80
15	PL6-D15/1N	164940	8/80
16	PL6-D16/1N	164941	8/80
20	PL6-D20/1N	164944	8/80
25	PL6-D25/1N	164945	8/80

SG51511



<b>2-pole</b>			
0.5	PL6-D0,5/2	164825	6/60
1	PL6-D1/2	164828	6/60
1.5	PL6-D1,5/2	164826	6/60
1.6	PL6-D1,6/2	164827	6/60
2	PL6-D2/2	286574	6/60
2.5	PL6-D2,5/2	164831	6/60
3	PL6-D3/2	164833	6/60
3.5	PL6-D3,5/2	164832	6/60
4	PL6-D4/2	286575	6/60
5	PL6-D5/2	164834	6/60
6	PL6-D6/2	286576	6/60
8	PL6-D8/2	164835	6/60
10	PL6-D10/2	286577	6/60
12	PL6-D12/2	164829	6/60
13	PL6-D13/2	286578	6/60
15	PL6-D15/2	164830	6/60
16	PL6-D16/2	286579	6/60
20	PL6-D20/2	286580	6/60
25	PL6-D25/2	286581	6/60
32	PL6-D32/2	286582	6/60
40	PL6-D40/2	286583	6/60

xPole

# Protective Devices

SG62211



SG64711



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>3-pole</b>			
0.5	PL6-D0,5/3	164890	4/40
1	PL6-D1/3	164893	4/40
1.5	PL6-D1,5/3	164891	4/40
1.6	PL6-D1,6/3	164892	4/40
2	PL6-D2/3	286608	4/40
2.5	PL6-D2,5/3	164896	4/40
3	PL6-D3/3	164898	4/40
3.5	PL6-D3,5/3	164897	4/40
4	PL6-D4/3	286609	4/40
5	PL6-D5/3	164899	4/40
6	PL6-D6/3	286610	4/40
8	PL6-D8/3	164900	4/40
10	PL6-D10/3	286611	4/40
12	PL6-D12/3	164894	4/40
13	PL6-D13/3	286612	4/40
15	PL6-D15/3	164895	4/40
16	PL6-D16/3	286613	4/40
20	PL6-D20/3	286614	4/40
25	PL6-D25/3	286615	4/40
32	PL6-D32/3	286616	4/40
40	PL6-D40/3	286617	4/40
<b>3+N-pole</b>			
0.5	PL6-B0,5/3N	165027	3/30
1	PL6-B1/3N	165030	3/30
1.5	PL6-B1,5/3N	165028	3/30
1.6	PL6-B1,6/3N	165029	3/30
2	PL6-B2/3N	165037	3/30
2.5	PL6-B2,5/3N	165036	3/30
3	PL6-B3/3N	165041	3/30
3.5	PL6-B3,5/3N	165040	3/30
4	PL6-B4/3N	165043	3/30
5	PL6-B5/3N	165045	3/30
6	PL6-B6/3N	165046	3/30
8	PL6-B8/3N	165047	3/30
10	PL6-B10/3N	165031	3/30
12	PL6-B12/3N	165032	3/30
13	PL6-B13/3N	165033	3/30
15	PL6-B15/3N	165034	3/30
16	PL6-B16/3N	165035	3/30
20	PL6-B20/3N	165038	3/30
25	PL6-B25/3N	165039	3/30
32	PL6-B32/3N	165042	3/30
40	PL6-B40/3N	165044	3/30
<b>4-pole</b>			
0.5	PL6-B0,5/4	166534	3/30
1	PL6-B1/4	166537	3/30
1.5	PL6-B1,5/4	166535	3/30
1.6	PL6-B1,6/4	166536	3/30
2	PL6-B2/4	166544	3/30
2.5	PL6-B2,5/4	166543	3/30
3	PL6-B3/4	166548	3/30
3.5	PL6-B3,5/4	166547	3/30
4	PL6-B4/4	166550	3/30
5	PL6-B5/4	166552	3/30
6	PL6-B6/4	166553	3/30
8	PL6-B8/4	166554	3/30
10	PL6-B10/4	166538	3/30
12	PL6-B12/4	166539	3/30
13	PL6-B13/4	166540	3/30
15	PL6-B15/4	166541	3/30
16	PL6-B16/4	166542	3/30
20	PL6-B20/4	166545	3/30
25	PL6-B25/4	166546	3/30
32	PL6-B32/4	166549	3/30
40	PL6-B40/4	166551	3/30

xPole

## Miniature Circuit Breakers PL7-DC

- High-quality miniature circuit breakers for DC-applications
- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Rated currents up to 50 A
- Tripping characteristic C
- Rated breaking capacity 10 kA according to IEC/EN 60947-2
- Up to 250 V DC per pole

xPole

SG06211



# Protective Devices

## Miniature Circuit Breakers PL7-DC for AC/DC

10 kA, Characteristic C

SG06211



SG06411



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
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### 1-pole

1	PL7-C1/1-DC	264851	12/120
2	PL7-C2/1-DC	264883	12/120
3	PL7-C3/1-DC	264884	12/120
4	PL7-C4/1-DC	264885	12/120
6	PL7-C6/1-DC	264886	12/120
10	PL7-C10/1-DC	264887	12/120
13	PL7-C13/1-DC	264888	12/120
16	PL7-C16/1-DC	264889	12/120
20	PL7-C20/1-DC	264890	12/120
25	PL7-C25/1-DC	264891	12/120
32	PL7-C32/1-DC	264892	12/120
40	PL7-C40/1-DC	264893	12/120
50	PL7-C50/1-DC	264894	12/120

### 2-pole

1	PL7-C1/2-DC	264895	6/60
2	PL7-C2/2-DC	264896	6/60
3	PL7-C3/2-DC	264897	6/60
4	PL7-C4/2-DC	264898	6/60
6	PL7-C6/2-DC	264899	6/60
10	PL7-C10/2-DC	264900	6/60
13	PL7-C13/2-DC	264901	6/60
16	PL7-C16/2-DC	264902	6/60
20	PL7-C20/2-DC	264903	6/60
25	PL7-C25/2-DC	264904	6/60
32	PL7-C32/2-DC	264905	6/60
40	PL7-C40/2-DC	264906	6/60
50	PL7-C50/2-DC	264907	6/60

xPole

## Miniature Circuit Breakers PL4

- High-quality miniature circuit breakers for commercial and residential applications
- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Rated currents up to 63 A
- Tripping characteristics B, C
- Rated breaking capacity 4.5 kA according to IEC/EN 60898-1

SG62211





# Protective Devices

## Miniature Circuit Breakers PL4

4.5 kA, Characteristic B

SG45411



SG51511



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
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### 1-pole

1	PL4-B1/1	164711	12/120
1,5	PL4-B1,5/1	164706	12/120
1,6	PL4-B1,6/1	164707	12/120
2	PL4-B2/1	164713	12/120
2,5	PL4-B2,5/1	164712	12/120
3	PL4-B3/1	164715	12/120
3,5	PL4-B3,5/1	164714	12/120
4	PL4-B4/1	164716	12/120
5	PL4-B5/1	164717	12/120
6	PL4-B6/1	293113	12/120
8	PL4-B8/1	164718	12/120
10	PL4-B10/1	293114	12/120
12	PL4-B12/1	164708	12/120
13	PL4-B13/1	164709	12/120
15	PL4-B15/1	164710	12/120
16	PL4-B16/1	293115	12/120
20	PL4-B20/1	293116	12/120
25	PL4-B25/1	293117	12/120
32	PL4-B32/1	293118	12/120
40	PL4-B40/1	293119	12/120
50	PL4-B50/1	293120	12/120
63	PL4-B63/1	293121	12/120

### 2-pole

1	PL4-B1/2	164773	6/60
1,5	PL4-B1,5/2	164771	6/60
1,6	PL4-B1,6/2	164772	6/60
2	PL4-B2/2	164778	6/60
2,5	PL4-B2,5/2	164777	6/60
3	PL4-B3/2	164780	6/60
3,5	PL4-B3,5/2	164779	6/60
4	PL4-B4/2	164781	6/60
5	PL4-B5/2	164782	6/60
6	PL4-B6/2	293131	6/60
8	PL4-B8/2	164783	6/60
10	PL4-B10/2	293132	6/60
12	PL4-B12/2	164774	6/60
13	PL4-B13/2	164775	6/60
15	PL4-B15/2	164776	6/60
16	PL4-B16/2	293133	6/60
20	PL4-B20/2	293134	6/60
25	PL4-B25/2	293135	6/60
32	PL4-B32/2	293136	6/60
40	PL4-B40/2	293137	6/60
50	PL4-B50/2	293138	6/60
63	PL4-B63/2	293139	6/60

xPole

# Protective Devices

SG62211



Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>3-pole</b>			
1	PL4-B1/3	164838	4/40
1,5	PL4-B1,5/3	164836	4/40
1,6	PL4-B1,6/3	164837	4/40
2	PL4-B2/3	164843	4/40
2,5	PL4-B2,5/3	164842	4/40
3	PL4-B3/3	164845	4/40
3,5	PL4-B3,5/3	164844	4/40
4	PL4-B4/3	164846	4/40
5	PL4-B5/3	164847	4/40
6	PL4-B6/3	293149	4/40
8	PL4-B8/3	164848	4/40
10	PL4-B10/3	293150	4/40
12	PL4-B12/3	164839	4/40
13	PL4-B13/3	164840	4/40
15	PL4-B15/3	164841	4/40
16	PL4-B16/3	293151	4/40
20	PL4-B20/3	293152	4/40
25	PL4-B25/3	293153	4/40
32	PL4-B32/3	293154	4/40
40	PL4-B40/3	293155	4/40
50	PL4-B50/3	293156	4/40
63	PL4-B63/3	293157	4/40

SG64711



<b>3+N-pole</b>			
1	PL4-B1/3N	164954	1/30
1,5	PL4-B1,5/3N	164952	1/30
1,6	PL4-B1,6/3N	164953	1/30
2	PL4-B2/3N	164961	1/30
2,5	PL4-B2,5/3N	164960	1/30
3	PL4-B3/3N	164965	1/30
3,5	PL4-B3,5/3N	164964	1/30
4	PL4-B4/3N	164967	1/30
5	PL4-B5/3N	164969	1/30
6	PL4-B6/3N	164971	1/30
8	PL4-B8/3N	164973	1/30
10	PL4-B10/3N	164955	1/30
12	PL4-B12/3N	164956	1/30
13	PL4-B13/3N	164957	1/30
15	PL4-B15/3N	164958	1/30
16	PL4-B16/3N	164959	1/30
20	PL4-B20/3N	164962	1/30
25	PL4-B25/3N	164963	1/30
32	PL4-B32/3N	164966	1/30
40	PL4-B40/3N	164968	1/30
50	PL4-B50/3N	164970	1/30
63	PL4-B63/3N	164972	1/30

xPole

# Protective Devices

Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>4-pole</b>			
1	PL4-B1/4	166441	1/30
1,5	PL4-B1,5/4	166439	1/30
1,6	PL4-B1,6/4	166440	1/30
2	PL4-B2/4	166448	1/30
2,5	PL4-B2,5/4	166447	1/30
3	PL4-B3/4	166452	1/30
3,5	PL4-B3,5/4	166451	1/30
4	PL4-B4/4	166454	1/30
5	PL4-B5/4	166456	1/30
6	PL4-B6/4	166458	1/30
8	PL4-B8/4	166460	1/30
10	PL4-B10/4	166442	1/30
12	PL4-B12/4	166443	1/30
13	PL4-B13/4	166444	1/30
15	PL4-B15/4	166445	1/30
16	PL4-B16/4	166446	1/30
20	PL4-B20/4	166449	1/30
25	PL4-B25/4	166450	1/30
32	PL4-B32/4	166453	1/30
40	PL4-B40/4	166455	1/30
50	PL4-B50/4	166457	1/30
63	PL4-B63/4	166459	1/30

## Miniature Circuit Breakers PL4 4.5 kA, Characteristic C

Rated Current $I_n$ (A)	Type Designation	Article No.	Units per package
<b>1-pole</b>			
0,16	PL4-C0,16/1	164719	12/120
0,25	PL4-C0,25/1	164720	12/120
0,5	PL4-C0,5/1	164721	12/120
0,75	PL4-C0,75/1	164722	12/120
1	PL4-C1/1	164728	12/120
1,5	PL4-C1,5/1	164723	12/120
1,6	PL4-C1,6/1	164724	12/120
2	PL4-C2/1	164730	12/120
2,5	PL4-C2,5/1	164729	12/120
3	PL4-C3/1	164732	12/120
3,5	PL4-C3,5/1	164731	12/120
4	PL4-C4/1	164733	12/120
5	PL4-C5/1	164734	12/120
6	PL4-C6/1	293122	12/120
8	PL4-C8/1	164735	12/120
10	PL4-C10/1	293123	12/120
12	PL4-C12/1	164725	12/120
13	PL4-C13/1	164726	12/120
15	PL4-C15/1	164727	12/120
16	PL4-C16/1	293124	12/120
20	PL4-C20/1	293125	12/120
25	PL4-C25/1	293126	12/120
32	PL4-C32/1	293127	12/120
40	PL4-C40/1	293128	12/120
50	PL4-C50/1	293129	12/120
63	PL4-C63/1	293130	12/120

SG45411



xPole

# Protective Devices

SG51511



Rated Current I <sub>n</sub> (A)	Type Designation	Article No.	Units per package
<b>2-pole</b>			
0,16	PL4-C0,16/2	164784	6/60
0,25	PL4-C0,25/2	164785	6/60
0,5	PL4-C0,5/2	164786	6/60
0,75	PL4-C0,75/2	164787	6/60
1	PL4-C1/2	164790	6/60
1,5	PL4-C1,5/2	164788	6/60
1,6	PL4-C1,6/2	164789	6/60
2	PL4-C2/2	164795	6/60
2,5	PL4-C2,5/2	164794	6/60
3	PL4-C3/2	164797	6/60
3,5	PL4-C3,5/2	164796	6/60
4	PL4-C4/2	164798	6/60
5	PL4-C5/2	164799	6/60
6	PL4-C6/2	293140	6/60
8	PL4-C8/2	164800	6/60
10	PL4-C10/2	293141	6/60
12	PL4-C12/2	164791	6/60
13	PL4-C13/2	164792	6/60
15	PL4-C15/2	164793	6/60
16	PL4-C16/2	293142	6/60
20	PL4-C20/2	293143	6/60
25	PL4-C25/2	293144	6/60
32	PL4-C32/2	293145	6/60
40	PL4-C40/2	293146	6/60
50	PL4-C50/2	293147	6/60
63	PL4-C63/2	293148	6/60

SG62211



<b>3-pole</b>			
0,16	PL4-C0,16/3	164849	4/40
0,25	PL4-C0,25/3	164850	4/40
0,5	PL4-C0,5/3	164851	4/40
0,75	PL4-C0,75/3	164852	4/40
1	PL4-C1/3	164855	4/40
1,5	PL4-C1,5/3	164853	4/40
1,6	PL4-C1,6/3	164854	4/40
2	PL4-C2/3	164860	4/40
2,5	PL4-C2,5/3	164859	4/40
3	PL4-C3/3	164862	4/40
3,5	PL4-C3,5/3	164861	4/40
4	PL4-C4/3	164863	4/40
5	PL4-C5/3	164864	4/40
6	PL4-C6/3	293158	4/40
8	PL4-C8/3	164865	4/40
10	PL4-C10/3	293159	4/40
12	PL4-C12/3	164856	4/40
13	PL4-C13/3	164857	4/40
15	PL4-C15/3	164858	4/40
16	PL4-C16/3	293160	4/40
20	PL4-C20/3	293161	4/40
25	PL4-C25/3	293162	4/40
32	PL4-C32/3	293163	4/40
40	PL4-C40/3	293164	4/40
50	PL4-C50/3	293165	4/40
63	PL4-C63/3	293166	4/40

xPole

# Protective Devices

SG64711



Rated Current I <sub>n</sub> (A)	Type Designation	Article No.	Units per package
<b>3+N-pole</b>			
0,16	PL4-C0,16/3N	164974	1/30
0,25	PL4-C0,25/3N	164975	1/30
0,5	PL4-C0,5/3N	164976	1/30
0,75	PL4-C0,75/3N	164977	1/30
1	PL4-C1/3N	164980	1/30
1,5	PL4-C1,5/3N	164978	1/30
1,6	PL4-C1,6/3N	164979	1/30
2	PL4-C2/3N	164987	1/30
2,5	PL4-C2,5/3N	164986	1/30
3	PL4-C3/3N	164991	1/30
3,5	PL4-C3,5/3N	164990	1/30
4	PL4-C4/3N	164993	1/30
5	PL4-C5/3N	164995	1/30
6	PL4-C6/3N	164997	1/30
8	PL4-C8/3N	164999	1/30
10	PL4-C10/3N	164981	1/30
12	PL4-C12/3N	164982	1/30
13	PL4-C13/3N	164983	1/30
15	PL4-C15/3N	164984	1/30
16	PL4-C16/3N	164985	1/30
20	PL4-C20/3N	164988	1/30
25	PL4-C25/3N	164989	1/30
32	PL4-C32/3N	164992	1/30
40	PL4-C40/3N	164994	1/30
50	PL4-C50/3N	164996	1/30
63	PL4-C63/3N	164998	1/30
<b>4-pole</b>			
0,16	PL4-C0,16/4	166461	1/30
0,25	PL4-C0,25/4	166462	1/30
0,5	PL4-C0,5/4	166463	1/30
0,75	PL4-C0,75/4	166464	1/30
1	PL4-C1/4	166467	1/30
1,5	PL4-C1,5/4	166465	1/30
1,6	PL4-C1,6/4	166466	1/30
2	PL4-C2/4	166474	1/30
2,5	PL4-C2,5/4	166473	1/30
3	PL4-C3/4	166478	1/30
3,5	PL4-C3,5/4	166477	1/30
4	PL4-C4/4	166480	1/30
5	PL4-C5/4	166482	1/30
6	PL4-C6/4	166484	1/30
8	PL4-C8/4	166486	1/30
10	PL4-C10/4	166468	1/30
12	PL4-C12/4	166469	1/30
13	PL4-C13/4	166470	1/30
15	PL4-C15/4	166471	1/30
16	PL4-C16/4	166472	1/30
20	PL4-C20/4	166475	1/30
25	PL4-C25/4	166476	1/30
32	PL4-C32/4	166479	1/30
40	PL4-C40/4	166481	1/30
50	PL4-C50/4	166483	1/30
63	PL4-C63/4	166485	1/30

xPole

# Protective Devices

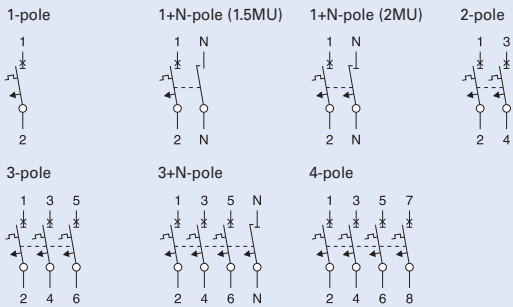
## Miniature Circuit Breakers PLS..., PLZ...

- High selectivity between MCB and back-up fuse due to low let-through energy
- Compatible with standard busbar
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- Meets the requirements of insulation co-ordination, distance between contacts  $\geq 4$  mm, for secure isolation
- Suitable for applications up to 48 V DC (use PLS6-DC for higher DC voltages)

### Accessories:

Auxiliary switch for subsequent installation	ZP-IHK	286052
Tripping signal contact for subsequent installation	ZP-NHK	248437
Remote control and automatic switching device	Z-FW/LP	248296
Shunt trip release	ZP-ASA/..	248438, 248439
Undervoltage release	Z-USA/..	248288-248291
Compact enclosure	KLV-TC-2	276240
	KLV-TC-4	276241
Additional terminal 35mm <sup>2</sup>	Z-HA-EK/35	263960
Switching interlock	Z-IS/SPE-1TE	274418

### Connection diagrams



### Technical Data

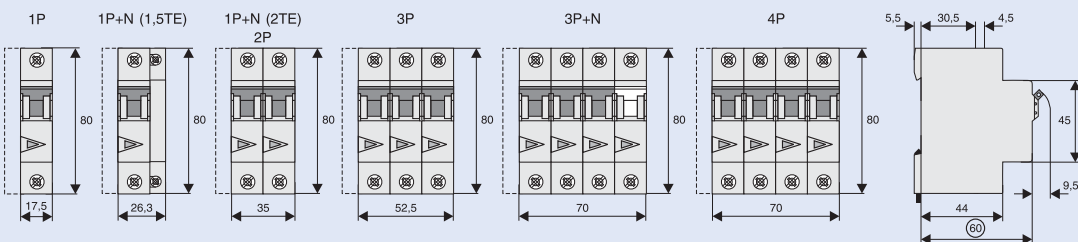
#### Electrical

Design according to	IEC/EN 60898-1
Current test marks as printed onto the device	
Rated voltage	AC: 230/400V DC: 48V (per pole, max. 2 poles)
Rated frequency	50/60 Hz
Rated breaking capacity according to IEC/EN 60898-1	
PLSM, PLZM	10 kA
PLS6, PLZ6	6 kA
PLS4, PLZ4	4.5 kA
Characteristic	B, C, D
Back-up fuse	
PLSM	max. 125 A gL
PLS6	max. 100 A gL
PLS4	max. 80 A gL
Selectivity class	3
Rated peak withstand voltage $U_{imp}$	4 kV (1.2/50 $\mu$ s)
Endurance	electrical comp. $\geq 4,000$ operating cycles mechanical comp. $\geq 20,000$ operating cycles
Line voltage connection	optional (above/below)

#### Mechanical

Frame size	45 mm
Device height	80 mm
Device width	17.5 mm per pole (1MU) 26.3 mm: device 1P+N (1.5MU)
Mounting	quick fastening with 3 lock-in positions on DIN rail IEC/EN 60715
Degree of protection	IP20
Upper and lower terminals	open mouthed/lift terminals
Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Terminal capacity	1-25 mm <sup>2</sup> (1p+N, 1.5MU)
Terminal fastening torque	1-25 mm <sup>2</sup> / 1-2x10 mm <sup>2</sup> (N)
(1p+N, 1.5MU)	2-2.4 Nm 2-2.4 Nm / 1,2-1,5 Nm (N)
Busbar thickness	0.8 - 2 mm (except N 0.5 MU)
Mounting	independent of position

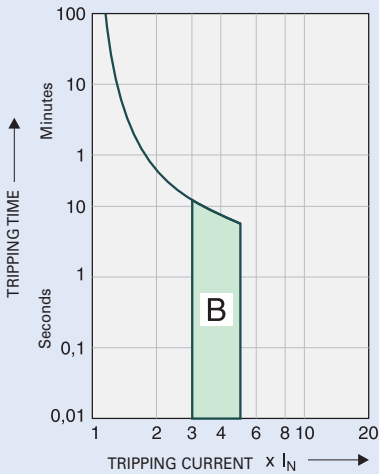
### Dimensions (mm)



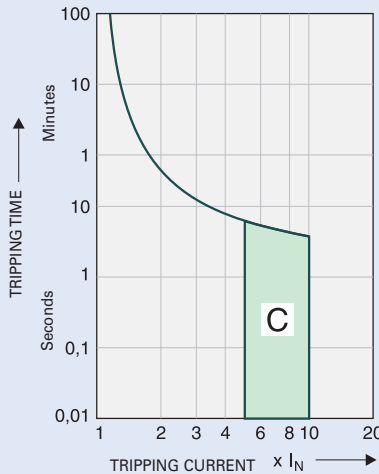
# Protective Devices

## Tripping Characteristics (IEC/EN 60898-1)

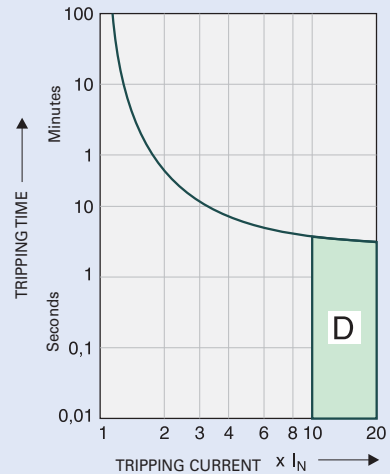
Tripping characteristic B



Tripping characteristic C



Tripping characteristic D



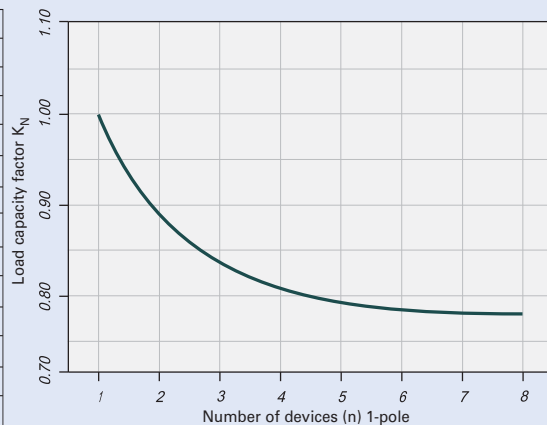
Quick-acting (B), slow (C), very slow (D)

## Effect of the Ambient Temperature on Thermal Tripping Behaviour

Adjusted rated current values according to the ambient temperature

I <sub>n</sub> [A]	Ambient temperature T [°C]															
	-25	-20	-10	0	10	20	30	35	40	45	50	55	60	65	70	75
0.16	0.20	0.19	0.19	0.18	0.17	0.17	0.16	0.16	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.13
0.25	0.31	0.30	0.29	0.28	0.27	0.26	0.25	0.25	0.24	0.24	0.23	0.23	0.22	0.22	0.21	0.21
0.5	0.61	0.60	0.58	0.56	0.54	0.52	0.50	0.49	0.48	0.47	0.46	0.45	0.44	0.43	0.42	0.41
0.75	0.92	0.90	0.87	0.84	0.81	0.78	0.75	0.74	0.73	0.71	0.69	0.68	0.66	0.65	0.64	0.62
1	1.2	1.2	1.2	1.1	1.1	1.0	1.0	0.99	0.97	0.95	0.93	0.90	0.89	0.87	0.85	0.83
1.5	1.8	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.3	1.2
1.6	2.0	1.9	1.9	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.3
2	2.4	2.4	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.7	1.7	1.7
2.5	3.1	3.0	2.9	2.8	2.7	2.6	2.5	2.5	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.1
3	3.7	3.6	3.5	3.4	3.3	3.1	3.0	3.0	2.9	2.8	2.8	2.7	2.7	2.6	2.5	2.5
3.5	4.3	4.2	4.1	3.9	3.8	3.7	3.5	3.4	3.4	3.3	3.2	3.2	3.1	3.0	3.0	2.9
4	4.9	4.8	4.7	4.5	4.3	4.2	4.0	3.9	3.9	3.8	3.7	3.6	3.5	3.5	3.4	3.3
5	6.1	6.0	5.8	5.6	5.4	5.2	5.0	4.9	4.8	4.7	4.6	4.5	4.4	4.3	4.2	4.1
6	7.3	7.2	7.0	6.7	6.5	6.3	6.0	5.9	5.8	5.7	5.6	5.4	5.3	5.2	5.1	5.0
8	9.8	9.6	9.3	9.0	8.7	8.4	8.0	7.9	7.7	7.6	7.4	7.2	7.1	6.9	6.8	6.6
10	12	12	12	11	11	10	10	9.9	9.7	9.5	9.3	9.0	8.9	8.7	8.5	8.3
12	15	14	14	13	13	13	12	12	12	11	11	11	11	10	10	10
13	16	16	15	15	14	14	13	13	13	12	12	12	12	11	11	11
15	18	18	17	17	16	16	15	15	15	14	14	14	13	13	13	12
16	20	19	19	18	17	17	16	16	15	15	15	14	14	14	14	13
20	24	24	23	22	22	21	20	20	19	19	19	18	18	17	17	17
25	31	30	29	28	27	26	25	25	24	24	23	23	22	22	21	21
32	39	38	37	36	35	33	32	32	31	30	30	29	28	28	27	26
40	49	48	47	45	43	42	40	39	39	38	37	36	35	35	34	33
50	61	60	58	56	54	52	50	49	48	47	46	45	44	43	42	41
63	77	76	73	71	68	66	63	62	61	60	58	57	56	55	53	52

## Load Capacity of Series Connected Miniature Circuit Breakers



## Effect of Power Frequency

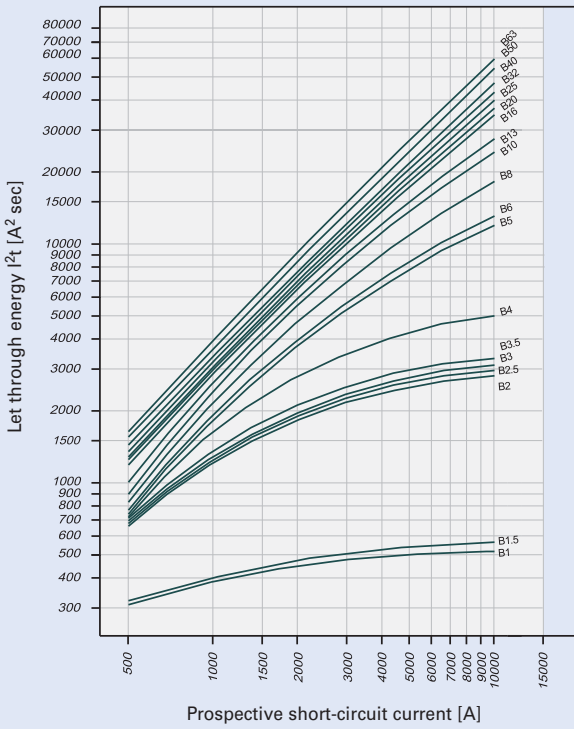
Effect of power frequency on the tripping behaviour I<sub>MA</sub> of the quick release

I <sub>MA</sub> (f)/I <sub>MA</sub> (50Hz) [%]	Power frequency f [Hz]						
	16 <sup>2/3</sup>	50	60	100	200	300	400
	91	100	101	106	115	134	141

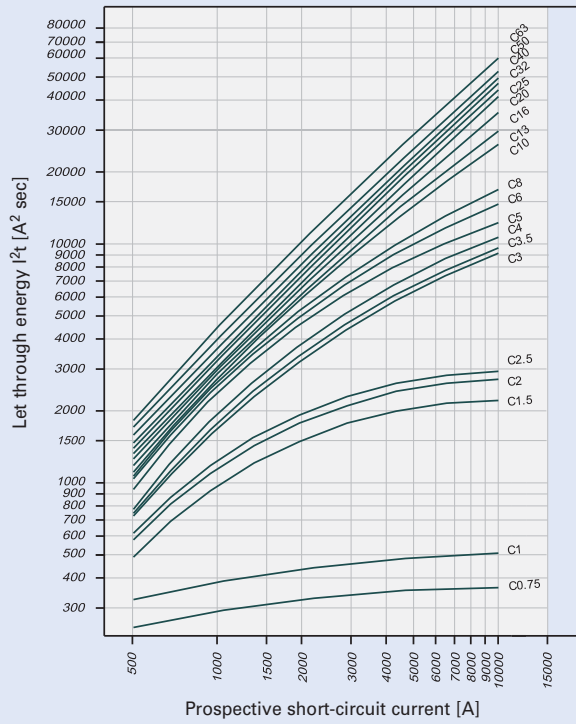
# Protective Devices

## Let-through Energy PLSM

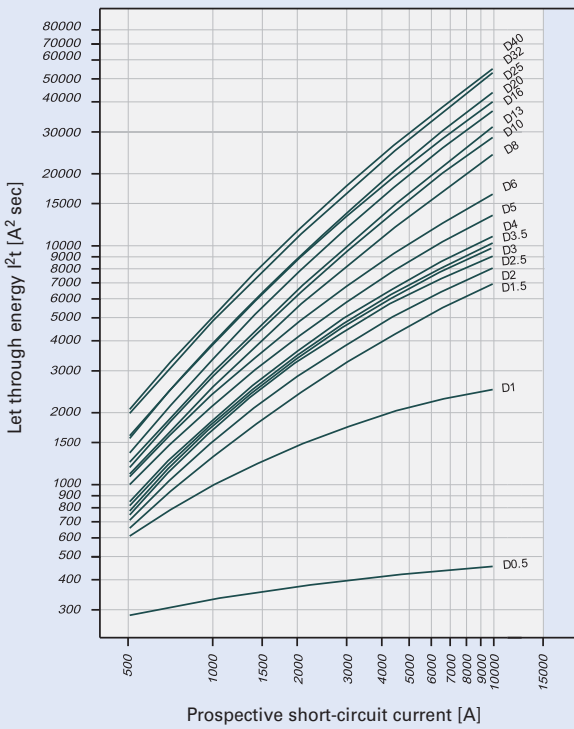
Let-through energy PLSM, characteristic B, 1-pole



Let-through energy PLSM, characteristic C, 1-pole



Let-through energy PLSM, characteristic D, 1-pole



xPole



# Protective Devices

## Short Circuit Selectivity PLSM towards DII-DIV fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers PLSM and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



Short circuit selectivity **characteristic B** towards fuse link **DII-DIV\***

PLSM $I_n$ [A]	DII-DIV gL/gG									
	10	16	20	25	35	50	63	80	100	
1.0	<0.5 <sup>1)</sup>	1.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	1.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.4	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.3	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	3.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.0	3.5	8.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.6	0.9	1.8	3.2	7.4	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8		<0.5 <sup>1)</sup>	0.5	0.8	1.6	2.6	5.2	8.3	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10			0.5	0.8	1.4	2.2	3.9	6.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13			0.5	0.7	1.3	2.0	3.6	5.4	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
16				0.6	1.2	1.9	3.2	4.6	8.4	10.0 <sup>2)</sup>
20					1.2	1.8	3.1	4.4	7.8	10.0 <sup>2)</sup>
25					1.2	1.8	3.0	4.2	7.3	10.0 <sup>2)</sup>
32						1.7	2.8	3.9	6.8	10.0 <sup>2)</sup>
40							2.7	3.8	6.5	10.0 <sup>2)</sup>
50							2.5	3.5	5.7	10.0 <sup>2)</sup>
63									5.3	10.0 <sup>2)</sup>

Short circuit selectivity **characteristic C** towards fuse link **DII-DIV\***

PLSM $I_n$ [A]	DII-DIV gL/gG									
	10	16	20	25	35	50	63	80	100	
0.75	1.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.0	<0.5 <sup>1)</sup>	1.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.0	2.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.4	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	0.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.2	4.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	1.8	3.6	9.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.7	1.5	2.7	7.3	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.5	0.6	1.4	2.4	5.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.3	2.2	4.7	8.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10			<0.5 <sup>1)</sup>	0.6	1.3	2.0	3.6	5.4	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13					1.3	1.9	3.3	5.0	9.4	10.0 <sup>2)</sup>
16					1.2	1.8	3.2	4.4	8.0	10.0 <sup>2)</sup>
20					1.2	1.8	3.1	4.1	7.0	10.0 <sup>2)</sup>
25						1.7	2.8	3.8	6.5	10.0 <sup>2)</sup>
32							2.7	3.7	6.2	10.0 <sup>2)</sup>
40								3.5	5.9	10.0 <sup>2)</sup>
50									5.5	10.0 <sup>2)</sup>
63										10.0 <sup>2)</sup>

Short circuit selectivity **characteristic D** towards fuse link **DII-DIV\***

PLSM $I_n$ [A]	DII-DIV gL/gG									
	10	16	20	25	35	50	63	80	100	
0.5	0.5	3.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.0	2.4	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.2	3.5	7.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	2.8	5.8	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.4	2.3	4.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.3	4.3	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.1	4.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
4		<0.5 <sup>1)</sup>	0.6	0.9	2.0	3.8	9.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	0.5	0.7	1.7	3.1	7.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
6			0.5	0.7	1.5	2.6	5.3	9.1	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8			<0.5 <sup>1)</sup>	0.7	1.4	2.2	3.9	6.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10				0.7	1.2	1.9	3.4	5.0	9.5	10.0 <sup>2)</sup>
13					1.2	1.8	3.2	4.6	8.6	10.0 <sup>2)</sup>
16					1.6	2.7	4.0	7.4	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
20					1.5	2.5	3.5	6.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
25						2.4	3.4	6.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
32							2.8	5.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
40								4.8	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>

1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s$  = rated breaking capacity  $I_{cn}$  of the MCB

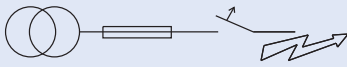
no selectivity

# Protective Devices

## Short Circuit Selectivity PLSM towards D01-D03 fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers PLSM and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



Short circuit selectivity **characteristic B** towards fuse link **D01-D03\***)

PLSM	D01-D03 gL/gG									
	$I_n$ [A]	10	16	20	25	35	50	63	80	100
1.0	<0.5 <sup>1)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	4.1	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	1.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.9	7.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.9	2.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	0.5	0.8	1.7	4.0	7.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.5	0.8	1.6	3.6	6.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8			0.5	0.8	1.4	2.8	4.3	8.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10			0.5	0.7	1.3	2.4	3.4	6.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13			<0.5 <sup>1)</sup>	0.7	1.2	2.3	3.2	5.3	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
16				0.6	1.1	2.2	2.9	4.6	10.0	10.0
20					1.1	2.1	2.8	4.4	9.3	9.3
25					1.1	2.0	2.7	4.2	8.7	8.7
32						2.0	2.6	4.0	8.0	8.0
40							2.5	3.8	7.5	7.5
50							2.3	3.4	6.7	6.7
63									6.2	6.2

Short circuit selectivity **characteristic D** towards fuse link **D01-D03\***)

PLSM	D01-D03 gL/gG									
	$I_n$ [A]	10	16	20	25	35	50	63	80	100
0.5	<0.5 <sup>1)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.3	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.8	9.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	2.2	6.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	1.9	5.4	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	1.8	4.8	9.3	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	1.7	4.7	8.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
4		<0.5 <sup>1)</sup>	0.5	0.7	1.7	4.6	7.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.5	3.5	5.8	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
6			<0.5 <sup>1)</sup>	0.5	1.3	2.9	4.5	9.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8			<0.5 <sup>1)</sup>	0.5	1.2	2.4	3.5	6.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10				0.5	1.1	2.2	3.0	5.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13					1.1	2.1	2.9	4.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
16						1.9	2.6	3.9	9.0	9.0
20						1.7	2.3	3.5	8.0	8.0
25							2.2	3.4	7.5	7.5
32								2.9	6.0	6.0
40									5.7	5.7

Short circuit selectivity **characteristic C** towards fuse link **D01-D03\***)

PLSM	D01-D03 gL/gG									
	$I_n$ [A]	10	16	20	25	35	50	63	80	100
0.75	<0.5 <sup>1)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.0	<0.5 <sup>1)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	0.5	0.6	0.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.9	5.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.8	4.7	9.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.6	4.0	7.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	1.3	3.1	5.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.7	4.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.5	4.0	8.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10			<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.3	3.1	5.4	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13					1.1	2.2	3.0	4.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
16					1.1	2.1	2.8	4.4	9.5	9.5
20					1.0	2.0	2.6	4.0	8.3	8.3
25						1.9	2.5	3.8	7.8	7.8
32							2.5	3.7	7.3	7.3
40								3.5	7.0	7.0
50									6.5	6.5
63										

1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s$  = rated breaking capacity  $I_{cn}$  of the MCB

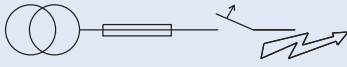
no selectivity

# Protective Devices

## Short Circuit Selectivity PLSM towards NH-00 Fuses

In case of short circuit, there is selectivity between the miniature circuit breakers PLSM and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



Short circuit selectivity **characteristic B** towards fuse link **NH-00\***)

PLSM	NH-00 gL/gG											
$I_n$ [A]	16	20	25	32	35	40	50	63	80	100	125	160
1.0	0.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.5	0.8	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	0.5	1.0	2.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	0.5	1.0	2.3	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	0.5	0.9	2.1	8.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	0.5	0.9	1.8	5.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.3	2.3	4.3	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.6	2.2	3.6	4.8	8.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
6	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.5	2.0	3.3	4.3	7.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	1.3	1.7	2.6	3.3	5.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10		<0.5 <sup>1)</sup>	0.6	0.9	1.2	1.5	2.2	2.7	4.0	9.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13		<0.5 <sup>1)</sup>	0.6	0.8	1.1	1.4	2.1	2.6	3.8	7.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
16			0.5	0.7	1.0	1.3	1.9	2.4	3.4	6.4	9.3	10.0 <sup>2)</sup>
20				0.7	1.0	1.3	1.9	2.4	3.3	6.0	8.7	10.0 <sup>2)</sup>
25				0.7	1.0	1.3	1.8	2.3	3.2	5.7	8.0	10.0 <sup>2)</sup>
32					0.9	1.2	1.7	2.2	3.1	5.4	7.6	10.0 <sup>2)</sup>
40								2.1	3.0	5.1	7.2	10.0 <sup>2)</sup>
50								1.9	2.8	4.7	6.6	9.5
63										4.4	6.3	8.6

Short circuit selectivity **characteristic D** towards fuse link **NH-00\***)

PLSM	NH-00 gL/gG											
$I_n$ [A]	16	20	25	32	35	40	50	63	80	100	125	160
0.5	2.1	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.0	<0.5 <sup>1)</sup>	0.6	1.4	4.3	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.9	1.6	2.7	4.0	8.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.3	2.1	3.1	6.0	8.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.2	1.8	2.6	4.8	6.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.7	2.4	4.3	6.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.7	2.4	4.2	5.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.0	1.6	2.2	3.8	5.2	10.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	0.6	0.9	1.4	1.9	3.2	4.1	7.1	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.5	0.8	1.2	1.6	2.6	3.3	5.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8			0.5	0.8	1.1	1.5	2.2	2.7	4.1	8.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10			0.5	0.7	1.0	1.3	1.9	2.5	3.6	7.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13				1.0	1.3	1.9	2.3	3.4	6.5	9.5	10.0 <sup>2)</sup>	
16					1.1	1.6	2.0	3.0	5.5	8.0	10.0 <sup>2)</sup>	
20						1.4	1.8	2.8	5.0	7.5	10.0 <sup>2)</sup>	
25							1.8	2.7	4.8	7.0	10.0 <sup>2)</sup>	
32								2.4	4.1	6.2	9.3	
40									4.0	6.0	9.0	

Short circuit selectivity **characteristic C** towards fuse link **NH-00\***)

PLSM	NH-00 gL/gG											
$I_n$ [A]	16	20	25	32	35	40	50	63	80	100	125	160
0.75	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.0	0.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	0.6	1.3	4.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	0.6	1.0	2.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	0.5	1.0	2.1	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.2	1.8	2.6	4.7	6.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.7	2.4	4.2	6.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.0	1.5	2.1	3.6	5.0	10.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	1.2	1.7	2.8	3.8	8.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
6	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.8	1.2	1.5	2.5	3.3	5.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.8	1.1	1.5	2.3	2.9	4.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10			0.5	0.7	1.0	1.4	2.0	2.5	3.8	8.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13				1.0	1.3	1.9	2.4	3.6	7.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
16					1.0	1.3	1.8	2.3	3.3	6.0	8.8	10.0 <sup>2)</sup>
20					1.0	1.2	1.7	2.2	3.2	5.5	7.7	10.0 <sup>2)</sup>
25						1.6	2.1	3.0	5.2	7.3	10.0 <sup>2)</sup>	
32							2.1	2.9	5.0	7.0	10.0 <sup>2)</sup>	
40								2.8	4.8	6.7	10.0	
50									4.5	6.3	9.5	
63										5.9	8.4	

1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s =$  rated breaking capacity  $I_{cn}$  of the MCB

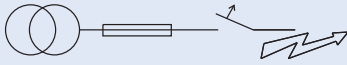
no selectivity

# Protective Devices

## Short Circuit Selectivity PLSM towards cylindrical fuse links

In case of short circuit, there is selectivity between the miniature circuit breakers PLSM and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



Short circuit selectivity **characteristic B** towards fuse links **CH10x38 gG, CH14x51 gG, CH22x58 gG**\*)

PLSM	CH10x38 gG				CH15x51 gG					CH22x58 gG								
	16	20	25	32	20	25	32	40	50	16	20	25	32	40	50	63	80	100
$I_n$ [A]	16	20	25	32	20	25	32	40	50	16	20	25	32	40	50	63	80	100
1	0.5	>10	>10	>10	>10	>10	>10	>10	>10	1.2	>10	>10	>10	>10	>10	>10	>10	>10
2	<0.5	0.6	1.2	3.6	0.5	1.0	5.2	>10	>10	<0.5	0.5	1.1	>10	>10	>10	>10	>10	>10
3	<0.5	0.5	0.8	1.4	0.5	0.9	3.7	>10	>10	<0.5	0.5	1.0	8.0	>10	>10	>10	>10	>10
4	<0.5	<0.5	0.7	1.2	<0.5	0.7	1.7	4.0	>10	<0.5	<0.5	0.8	2.3	5.1	>10	>10	>10	>10
6	<0.5	<0.5	0.6	0.9	<0.5	0.7	1.3	2.0	2.7	<0.5	<0.5	0.7	1.5	2.2	2.6	5.6	10	>10
10	<0.5	<0.5	0.6	0.9	<0.5	0.6	1.1	1.5	2.0	<0.5	<0.5	0.6	1.2	1.6	1.9	3.2	4.8	9.0
13	<0.5	<0.5	0.6	0.8	<0.5	0.6	1.0	1.4	1.9	<0.5	<0.5	0.6	1.2	1.5	1.7	3.0	4.3	7.7
16		<0.5	0.5	0.8	<0.5	0.5	1.0	1.4	1.8		<0.5	0.5	1.1	1.4	1.6	2.7	3.8	6.3
20			0.5	0.8		<0.5	0.9	1.3	1.6			0.5	1.1	1.4	1.6	2.6	3.7	6.0
25				0.7			0.9	1.3	1.6				1.0	1.3	1.5	2.5	3.5	5.6
32								1.2	1.5					1.3	1.5	2.4	3.3	5.2
40									1.5						1.4	2.3	3.2	5.0
50																2.1	2.9	4.5
63																	2.8	4.2

no selectivity

Short circuit selectivity **characteristic C** towards fuse links **CH10x38 gG, CH14x51 gG, CH22x58 gG**\*)


PLSM	CH10x38 gG				CH15x51 gG					CH22x58 gG								
	16	20	25	32	20	25	32	40	50	16	20	25	32	40	50	63	80	100
$I_n$ [A]	16	20	25	32	20	25	32	40	50	16	20	25	32	40	50	63	80	100
0.5	1.9	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10
1	<0.5	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10
2	<0.5	0.6	1.2	3.6	0.5	1.0	4.5	>10	>10	<0.5	0.6	1.1	>10	>10	>10	>10	>10	>10
3	<0.5	0.5	0.8	1.4	<0.5	0.7	1.4	2.4	3.7	<0.5	<0.5	0.8	1.8	2.7	3.5	9.3	>10	>10
4	<0.5	<0.5	0.7	1.2	<0.5	0.7	1.2	2.0	2.9	<0.5	<0.5	0.7	1.5	2.2	2.7	6.7	>10	>10
6	<0.5	<0.5	0.6	0.9	<0.5	<0.5	1.0	1.4	2.0	<0.5	<0.5	0.6	1.1	1.6	1.9	4.2	7.0	>10
10	<0.5	<0.5	0.5	0.8	<0.5	<0.5	0.9	1.3	1.7	<0.5	<0.5	0.6	1.1	1.5	1.8	2.9	4.1	7.5
13	<0.5	<0.5	0.5	0.8	<0.5	<0.5	0.9	1.3	1.7	<0.5	<0.5	0.5	1.0	1.4	1.7	2.7	3.8	6.5
16		<0.5	0.5	0.8	<0.5	<0.5	0.8	1.2	1.6		<0.5	<0.5	1.0	1.3	1.5	2.6	3.5	5.8
20			<0.5	0.7		<0.5	0.8	1.2	1.5			<0.5	0.9	1.2	1.4	2.5	3.3	5.4
25				0.7			0.8	1.1	1.4				0.9	1.2	1.4	2.3	3.2	5.0
32								1.1	1.4					1.1	1.3	2.2	3.0	4.8
40									1.3						1.2	2.0	2.8	4.6
50																1.9	2.6	4.2
63																	2.3	3.7

no selectivity

# Protective Devices

Short circuit selectivity **characteristic D** towards fuse links **CH10x38 gG, CH14x51 gG, CH22x58 gG\***)

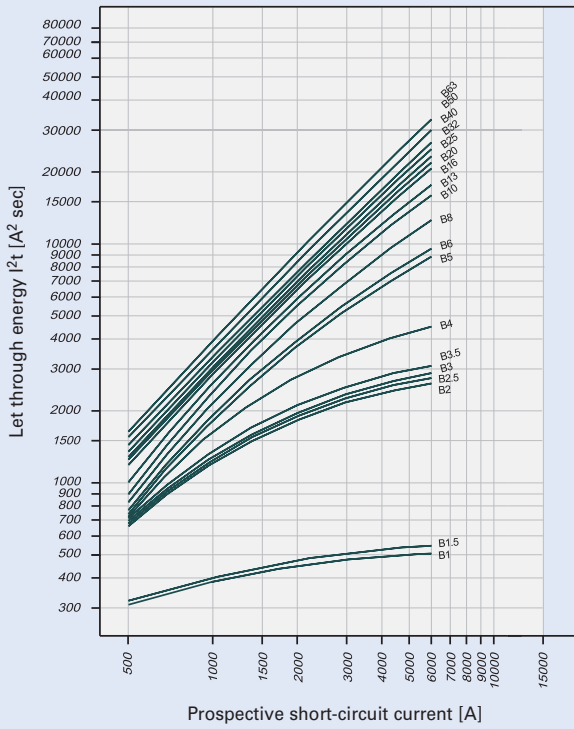
PLSM	CH10x38 gG				CH15x51 gG					CH22x58 gG								
	16	20	25	32	20	25	32	40	50	16	20	25	32	40	50	63	80	100
<b>0.5</b>	0.9	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10
<b>1</b>	<0.5	>10	>10	>10	>10	>10	>10	>10	>10	<0.5	0.6	1.5	>10	>10	>10	>10	>10	>10
<b>2</b>	<0.5	0.5	0.6	1.6	<0.5	1.0	1.7	>10	>10	<0.5	0.5	0.8	2.1	3.3	4.3	>10	>10	>10
<b>3</b>	<0.5	<0.5	0.8	1.3	<0.5	0.7	1.4	2.4	3.4	<0.5	<0.5	0.7	1.7	2.5	3.2	8.2	>10	>10
<b>4</b>	<0.5	<0.5	0.7	1.2	<0.5	0.7	1.3	2.0	3.1	<0.5	<0.5	0.7	1.6	2.3	3.0	7.0	>10	>10
<b>6</b>	<0.5	<0.5	0.6	1.0	<0.5	<0.5	1.0	1.6	2.0	<0.5	<0.5	0.6	1.3	1.7	2.1	4.2	7.0	>10
<b>10</b>	<0.5	<0.5	0.6	0.8	<0.5	<0.5	0.9	1.3	1.7	<0.5	<0.5	0.5	1.1	1.4	1.6	2.8	4.1	7.1
<b>13</b>	<0.5	<0.5	0.5	0.8	<0.5	<0.5	0.9	1.3	1.6	<0.5	<0.5	0.5	1.0	1.4	1.6	2.7	3.8	6.5
<b>16</b>		<0.5	0.5	0.7	<0.5	<0.5	0.8	1.1	1.4		<0.5	<0.5	1.0	1.2	1.4	2.3	3.2	5.5
<b>20</b>			<0.5	0.7		<0.5	0.7	1.0	1.3			<0.5	0.8	1.1	1.3	2.1	2.9	4.6
<b>25</b>				0.7			0.7	1.0	1.2				0.8	1.0	1.2	2.0	2.8	4.0
<b>32</b>														0.9	1.0	1.7	2.3	3.8
<b>40</b>															1.0	2.0	2.2	3.6

 no selectivity

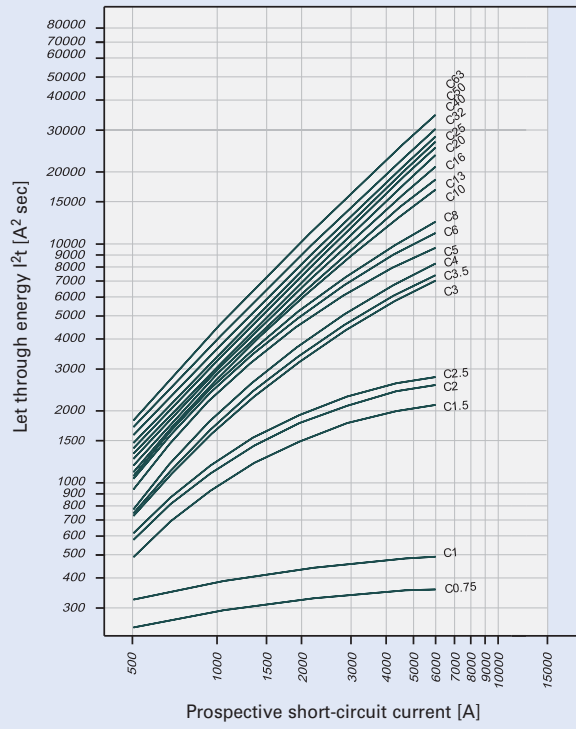
# Protective Devices

## Let-through Energy PLS6

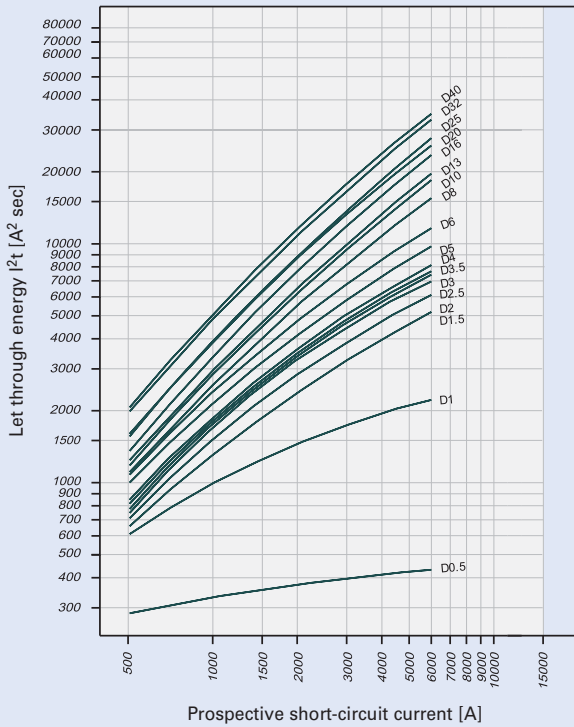
Let-through energy PLS6, characteristic B, 1-pole



Let-through energy PLS6, characteristic C, 1-pole



Let-through energy PLS6, characteristic D, 1-pole



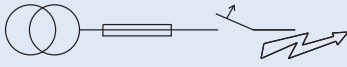
xPole

# Protective Devices

## Short Circuit Selectivity PLS6 towards DII-DIV fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers PLS6 and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



Short circuit selectivity **characteristic B** towards fuse link **DII-DIV\***

PLS6	DII-DIV gL/gG								
$I_n$ [A]	10	16	20	25	35	50	63	80	100
1.0	<0.5 <sup>1)</sup>	1.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	1.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	3.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.0	3.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.6	0.9	1.8	3.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
8		<0.5 <sup>1)</sup>	0.5	0.8	1.6	2.6	5.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
10			0.5	0.8	1.4	2.2	3.9	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
13			0.5	0.7	1.3	2.0	3.6	5.4	6.0 <sup>2)</sup>
16				0.6	1.2	1.9	3.2	4.6	6.0 <sup>2)</sup>
20					1.2	1.8	3.1	4.4	6.0 <sup>2)</sup>
25					1.2	1.8	3.0	4.2	6.0 <sup>2)</sup>
32						1.7	2.8	3.9	6.0 <sup>2)</sup>
40							2.7	3.8	6.0 <sup>2)</sup>
50							2.5	3.5	5.7
63									5.3

Short circuit selectivity **characteristic C** towards fuse link **DII-DIV\***

PLS6	DII-DIV gL/gG									
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
0.75	1.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
1.0	<0.5 <sup>1)</sup>	1.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
1.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.0	2.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	0.9	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.2	4.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	1.8	3.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.7	1.5	2.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
6		<0.5 <sup>1)</sup>	0.5	0.6	1.4	2.4	5.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
8		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.3	2.2	4.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
10			<0.5 <sup>1)</sup>	0.6	1.3	2.0	3.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
13					1.3	1.9	3.3	5.0	6.0 <sup>2)</sup>	
16						1.2	1.8	3.2	4.4	6.0 <sup>2)</sup>
20						1.2	1.8	3.1	4.1	6.0 <sup>2)</sup>
25							1.7	2.8	3.8	6.0 <sup>2)</sup>
32								2.7	3.7	6.0 <sup>2)</sup>
40									3.5	5.9
50										5.5
63										

Short circuit selectivity **characteristic D** towards fuse link **DII-DIV\***

PLS6	DII-DIV gL/gG								
$I_n$ [A]	10	16	20	25	35	50	63	80	100
0.5	0.5	3.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
1.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.0	2.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.2	3.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	2.8	5.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.4	2.3	4.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.3	4.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.1	4.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
4		<0.5 <sup>1)</sup>	0.6	0.9	2.0	3.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	0.5	0.7	1.7	3.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
6			0.5	0.7	1.5	2.6	5.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
8			<0.5 <sup>1)</sup>	0.7	1.4	2.2	3.9	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
10				0.7	1.2	1.9	3.4	5.0	6.0 <sup>2)</sup>
13					1.2	1.8	3.2	4.6	6.0 <sup>2)</sup>
16						1.6	2.7	4.0	6.0 <sup>2)</sup>
20						1.5	2.5	3.5	6.0 <sup>2)</sup>
25							2.4	3.4	6.0 <sup>2)</sup>
32								2.8	5.0
40									4.8

1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s$  = rated breaking capacity  $I_{cn}$  of the MCB

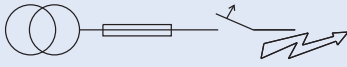
no selectivity

# Protective Devices

## Short Circuit Selectivity PLS6 towards D01-D03 fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers PLS6 and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



Short circuit selectivity **characteristic B** towards fuse link **D01-D03\***

PLS6	D01-D03 gL/gG								
$I_n$ [A]	10	16	20	25	35	50	63	80	100
1.0	<0.5 <sup>1)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	4.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	1.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.9	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.9	2.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	0.5	0.8	1.7	4.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.5	0.8	1.6	3.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
8			0.5	0.8	1.4	2.8	4.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
10			0.5	0.7	1.3	2.4	3.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
13			<0.5 <sup>1)</sup>	0.7	1.2	2.3	3.2	5.3	6.0 <sup>2)</sup>
16				0.6	1.1	2.2	2.9	4.6	6.0 <sup>2)</sup>
20					1.1	2.1	2.8	4.4	6.0 <sup>2)</sup>
25					1.1	2.0	2.7	4.2	6.0 <sup>2)</sup>
32						2.0	2.6	4.0	6.0 <sup>2)</sup>
40							2.5	3.8	6.0 <sup>2)</sup>
50							2.3	3.4	6.0 <sup>2)</sup>
63									6.0 <sup>2)</sup>

Short circuit selectivity **characteristic C** towards fuse link **D01-D03\***

PLS6	D01-D03 gL/gG								
$I_n$ [A]	10	16	20	25	35	50	63	80	100
0.75	<0.5 <sup>1)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
1.0	<0.5 <sup>1)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	0.5	0.6	0.9	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.9	5.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.8	4.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.6	4.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	1.3	3.1	5.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.7	4.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
8		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.5	4.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
10			<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.3	3.1	5.4	6.0 <sup>2)</sup>
13					1.1	2.2	3.0	4.9	6.0 <sup>2)</sup>
16					1.1	2.1	2.8	4.4	6.0 <sup>2)</sup>
20					1.0	2.0	2.6	4.0	6.0 <sup>2)</sup>
25						1.9	2.5	3.8	6.0 <sup>2)</sup>
32							2.5	3.7	6.0 <sup>2)</sup>
40								3.5	6.0 <sup>2)</sup>
50									6.0 <sup>2)</sup>
63									

Short circuit selectivity **characteristic D** towards fuse link **D01-D03\***

PLS6	D01-D03 gL/gG								
$I_n$ [A]	10	16	20	25	35	50	63	80	100
0.5	<0.5 <sup>1)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
1.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	2.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	1.9	5.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	1.8	4.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	1.7	4.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
4		<0.5 <sup>1)</sup>	0.5	0.7	1.7	4.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.5	3.5	5.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
6			<0.5 <sup>1)</sup>	0.5	1.3	2.9	4.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
8			<0.5 <sup>1)</sup>	0.5	1.2	2.4	3.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
10				0.5	1.1	2.2	3.0	5.0	6.0 <sup>2)</sup>
13					1.1	2.1	2.9	4.6	6.0 <sup>2)</sup>
16						1.9	2.6	3.9	6.0 <sup>2)</sup>
20						1.7	2.3	3.5	6.0 <sup>2)</sup>
25							2.2	3.4	6.0 <sup>2)</sup>
32								2.9	6.0 <sup>2)</sup>
40									5.7

1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s$  = rated breaking capacity  $I_{cn}$  of the MCB

no selectivity



# Protective Devices

## Short Circuit Selectivity PLS6 towards NH-00 Fuses

In case of short circuit, there is selectivity between the miniature circuit breakers PLS6 and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



Short circuit selectivity **characteristic B** towards fuse link **NH-00\***)

PLS6	NH-00 gL/gG												
$I_n$ [A]	16	20	25	32	35	40	50	63	80	100	125	160	
1.0	0.9	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
1.5	0.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
2.0	<0.5 <sup>1)</sup>	0.5	1.0	2.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
2.5	<0.5 <sup>1)</sup>	0.5	1.0	2.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
3.0	<0.5 <sup>1)</sup>	0.5	0.9	2.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
3.5	<0.5 <sup>1)</sup>	0.5	0.9	1.8	5.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.3	2.3	4.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.6	2.2	3.6	4.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
6	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.5	2.0	3.3	4.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
8	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	1.3	1.7	2.6	3.3	5.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
10		<0.5 <sup>1)</sup>	0.6	0.9	1.2	1.5	2.2	2.7	4.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
13		<0.5 <sup>1)</sup>	0.6	0.8	1.1	1.4	2.1	2.6	3.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
16			0.5	0.7	1.0	1.3	1.9	2.4	3.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
20				0.7	1.0	1.3	1.9	2.4	3.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
25				0.7	1.0	1.3	1.8	2.3	3.2	5.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
32					0.9	1.2	1.7	2.2	3.1	5.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
40								2.1	3.0	5.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
50								1.9	2.8	4.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
63									4.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>		

Short circuit selectivity **characteristic D** towards fuse link **NH-00\***)

PLS6	NH-00 gL/gG												
$I_n$ [A]	16	20	25	32	35	40	50	63	80	100	125	160	
0.5	2.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
1.0	<0.5 <sup>1)</sup>	0.6	1.4	4.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
1.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.9	1.6	2.7	4.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.3	2.1	3.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.2	1.8	2.6	4.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.7	2.4	4.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.7	2.4	4.2	5.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.0	1.6	2.2	3.8	5.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
5		<0.5 <sup>1)</sup>	0.6	0.9	1.4	1.9	3.2	4.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
6		<0.5 <sup>1)</sup>	0.5	0.8	1.2	1.6	2.6	3.3	5.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
8			0.5	0.8	1.1	1.5	2.2	2.7	4.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
10			0.5	0.7	1.0	1.3	1.9	2.5	3.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
13				1.0	1.3	1.9	2.3	3.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
16					1.1	1.6	2.0	3.0	5.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
20						1.4	1.8	2.8	5.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
25							1.8	2.7	4.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
32								2.4	4.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
40									4.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	

Short circuit selectivity **characteristic C** towards fuse link **NH-00\***)

PLS6	NH-00 gL/gG												
$I_n$ [A]	16	20	25	32	35	40	50	63	80	100	125	160	
0.75	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
1.0	0.9	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
1.5	<0.5 <sup>1)</sup>	0.6	1.3	4.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
2.0	<0.5 <sup>1)</sup>	0.6	1.0	2.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
2.5	<0.5 <sup>1)</sup>	0.5	1.0	2.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.2	1.8	2.6	4.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.7	2.4	4.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.0	1.5	2.1	3.6	5.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	1.2	1.7	2.8	3.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
6	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.8	1.2	1.5	2.5	3.3	5.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
8	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.8	1.1	1.5	2.3	2.9	4.9	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
10			0.5	0.7	1.0	1.4	2.0	2.5	3.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
13				1.0	1.3	1.9	2.4	3.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
16					1.0	1.3	1.8	2.3	3.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
20						1.0	1.2	1.7	2.2	3.2	5.5	6.0 <sup>2)</sup>	
25							1.6	2.1	3.0	5.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
32								2.1	2.9	5.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
40									2.8	4.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
50										4.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
63											5.9	6.0 <sup>2)</sup>	

1) Selectivity limit current  $I_s$  under 0.5 kA

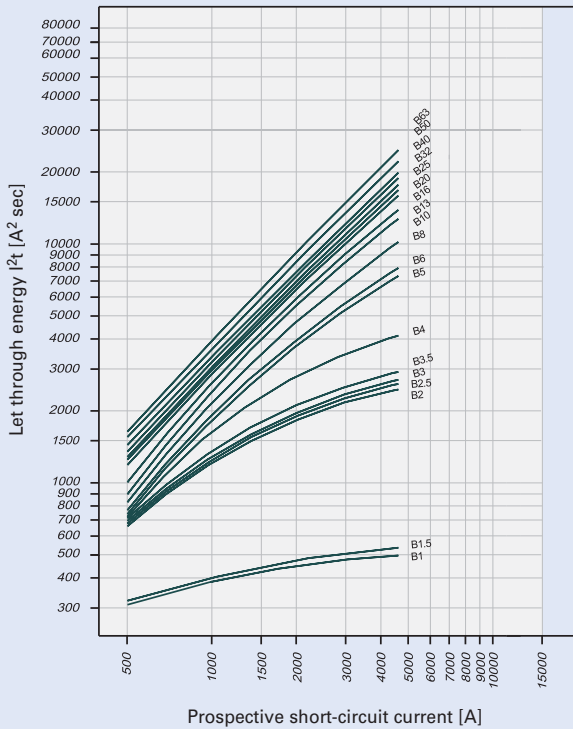
2) Selectivity limit current  $I_s =$  rated breaking capacity  $I_{cn}$  of the MCB

no selectivity

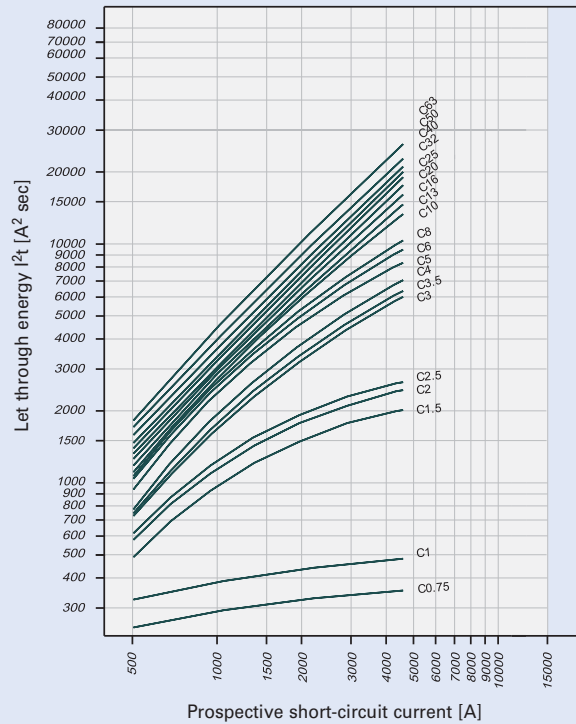
# Protective Devices

## Let-through Energy PLS4

Let-through energy PLS4, characteristic B, 1-pole



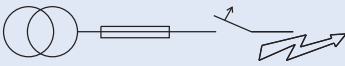
Let-through energy PLS4, characteristic C, 1-pole



## Short Circuit Selectivity PLS4 towards DII-DIV fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers PLS4 and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s =$  rated breaking capacity  $I_{cn}$  of the MCB

no selectivity

Short circuit selectivity **characteristic B** towards fuse link **DII-DIV\***

PLS4 $I_n$ [A]	DII-DIV gL/gG									
	10	16	20	25	35	50	63	80	100	
1.0	<0.5 <sup>1)</sup>	1.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	1.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.0	3.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.6	0.9	1.8	3.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
8		<0.5 <sup>1)</sup>	0.5	0.8	1.6	2.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
10			0.5	0.8	1.4	2.2	3.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
13			0.5	0.7	1.3	2.0	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
16				0.6	1.2	1.9	3.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
20					1.2	1.8	3.1	4.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
25					1.2	1.8	3.0	4.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
32						1.7	2.8	3.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
40							2.7	3.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
50							2.5	3.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
63									4.5 <sup>2)</sup>	4.5 <sup>2)</sup>

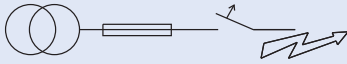
Short circuit selectivity **characteristic C** towards fuse link **DII-DIV\***

PLS4 $I_n$ [A]	DII-DIV gL/gG									
	10	16	20	25	35	50	63	80	100	
0.75	1.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.0	<0.5 <sup>1)</sup>	1.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.0	2.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	0.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	1.8	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.7	1.5	2.7	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.5	0.6	1.4	2.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
8		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.3	2.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
10			<0.5 <sup>1)</sup>	0.6	1.3	2.0	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
13					1.3	1.9	3.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
16					1.2	1.8	3.2	4.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
20					1.2	1.8	3.1	4.1	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
25						1.7	2.8	3.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
32							2.7	3.7	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
40								3.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
50									4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
63										4.5 <sup>2)</sup>

# Protective Devices

In case of short circuit, there is selectivity between the miniature circuit breakers PLS4 and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s$  = rated breaking capacity  $I_{cn}$  of the MCB

no selectivity

## Short Circuit Selectivity PLS4 towards D01-D03 fuse link

Short circuit selectivity **characteristic B** towards fuse link **D01-D03\***)

PLS4 $I_n$ [A]	D01-D03 gL/gG									
	10	16	20	25	35	50	63	80	100	
1.0	<0.5 <sup>1)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	4.1	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	1.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.9	2.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	0.5	0.8	1.7	4.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.5	0.8	1.6	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
8			0.5	0.8	1.4	2.8	4.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
10			0.5	0.7	1.3	2.4	3.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
13			<0.5 <sup>1)</sup>	0.7	1.2	2.3	3.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
16				0.6	1.1	2.2	2.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
20					1.1	2.1	2.8	4.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
25					1.1	2.0	2.7	4.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
32						2.0	2.6	4.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
40							2.5	3.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
50							2.3	3.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
63									4.5 <sup>2)</sup>	4.5 <sup>2)</sup>

Short circuit selectivity **characteristic C** towards fuse link **D01-D03\***)

PLS4 $I_n$ [A]	D01-D03 gL/gG									
	10	16	20	25	35	50	63	80	100	
0.75	<0.5 <sup>1)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.0	<0.5 <sup>1)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	0.5	0.6	0.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.6	4.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	1.3	3.1	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.7	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
8		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.5	4.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
10			<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.3	3.1	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
13					1.1	2.2	3.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
16					1.1	2.1	2.8	4.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
20					1.0	2.0	2.6	4.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
25						1.9	2.5	3.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
32							2.5	3.7	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
40								3.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
50									4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
63										4.5 <sup>2)</sup>

## Short Circuit Selectivity PLS4 towards NH-00 fuse link

Short circuit selectivity **characteristic B** towards fuse link **NH-00\***)

PLS4 $I_n$ [A]	NH-00 gL/gG											
	16	20	25	32	35	40	50	63	80	100	125	160
1.0	0.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.5	0.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	0.5	1.0	2.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	0.5	1.0	2.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	0.5	0.9	2.1	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	0.5	0.9	1.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.3	2.3	4.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.6	2.2	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
6	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.5	2.0	3.3	4.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
8	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	1.3	1.7	2.6	3.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
10		<0.5 <sup>1)</sup>	0.6	0.9	1.2	1.5	2.2	2.7	4.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
13		<0.5 <sup>1)</sup>	0.6	0.8	1.1	1.4	2.1	2.6	3.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
16			0.5	0.7	1.0	1.3	1.9	2.4	3.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
20				0.7	1.0	1.3	1.9	2.4	3.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
25					0.7	1.0	1.3	1.8	2.3	3.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
32						0.9	1.2	1.7	2.2	3.1	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
40							2.1	3.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
50							1.9	2.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
63								4.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>

Short circuit selectivity **characteristic C** towards fuse link **NH-00\***)

PLS4 $I_n$ [A]	NH-00 gL/gG											
	16	20	25	32	35	40	50	63	80	100	125	160
0.75	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.0	0.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	0.6	1.3	4.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	0.6	1.0	2.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	0.5	1.0	2.1	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.2	1.8	2.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.7	2.4	4.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.0	1.5	2.1	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	1.2	1.7	2.8	3.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
6	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.8	1.2	1.5	2.5	3.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
8	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.8	1.1	1.5	2.3	2.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
10			0.5	0.7	1.0	1.4	2.0	2.5	3.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
13					1.0	1.3	1.9	2.4	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
16					1.0	1.3	1.8	2.3	3.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
20						1.0	1.2	1.7	2.2	3.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
25							1.6	2.1	3.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
32								2.1	2.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
40									2.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
50										4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
63											4.5 <sup>2)</sup>	4.5 <sup>2)</sup>

# Protective Devices

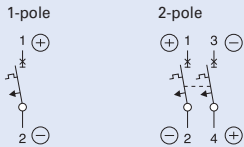
## Miniature Circuit Breakers PLS6-DC

- High selectivity between MCB and back-up fuse due to low let-through energy
- Compatible with standard busbar
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- Meets the requirements of insulation co-ordination, distance between contacts  $\geq 4$  mm, for secure isolation
- Rated breaking capacity 10 kA according to IEC/EN 60947-2
- Rated voltage up to 250 V (per pole),  $\tau = 4$  ms
- Take into account polarity!

### Accessories:

Auxiliary switch for subsequent installation	ZP-IHK	286052
Tripping signal contact for subsequent installation	ZP-NHK	248437
Remote control and automatic switching device	Z-FW/LP	248296
Shunt trip release	Z-ASA/..	248438, 248439
Undervoltage release	Z-USA/..	248288-248291
Compact enclosure	KLV-TC-2	276240
	KLV-TC-4	276241
Additional terminal 35mm <sup>2</sup>	Z-HA-EK/35	263960
Switching interlock	Z-IS/SPE-1TE	274418

### Connection diagrams



## Technical Data

### Electrical

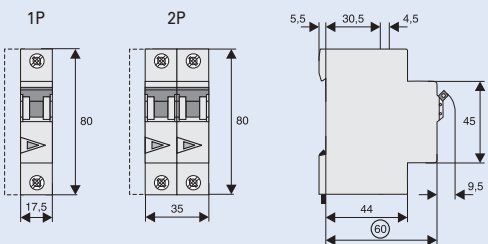
Design according to	IEC/EN 60947-2
Current test marks as printed onto the device	
Rated voltage DC	1-2 A type: 220V (per pole) 3-50 A types: 250V (per pole)
Rated breaking capacity according to IEC/EN 60947-2	10 kA
Characteristic	C
Back-up fuse	max. 100 A gL
Selectivity class	3
Rated peak withstand voltage $U_{imp}$	4 kV (1.2/50 $\mu$ s)
Endurance electrical comp.	$\geq 4,000$ operating cycles
mechanical comp.	$\geq 20,000$ operating cycles
Line voltage connection	optional (above/below)

### Mechanical

Frame size	45 mm
Device height	80 mm
Device width	17.5 mm per pole (1MU)
Mounting	quick fastening with 3 lock-in positions on DIN rail IEC/EN 60715
Degree of protection	IP20
Upper and lower terminals	open mouthed/lift terminals
Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Terminal capacity	1-25 mm <sup>2</sup>
Terminal fastening torque	2-2.4 Nm
Busbar thickness	0.8 - 2 mm
Mounting	independent of position

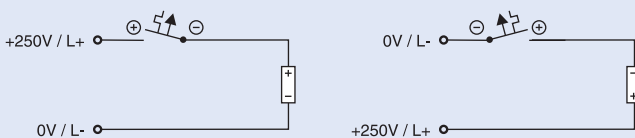
Note: not for PV string protection!

## Dimensions (mm)

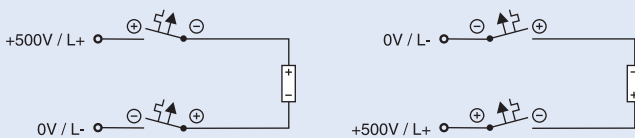


## Connection examples

Connection example at 250V=, 1-pole



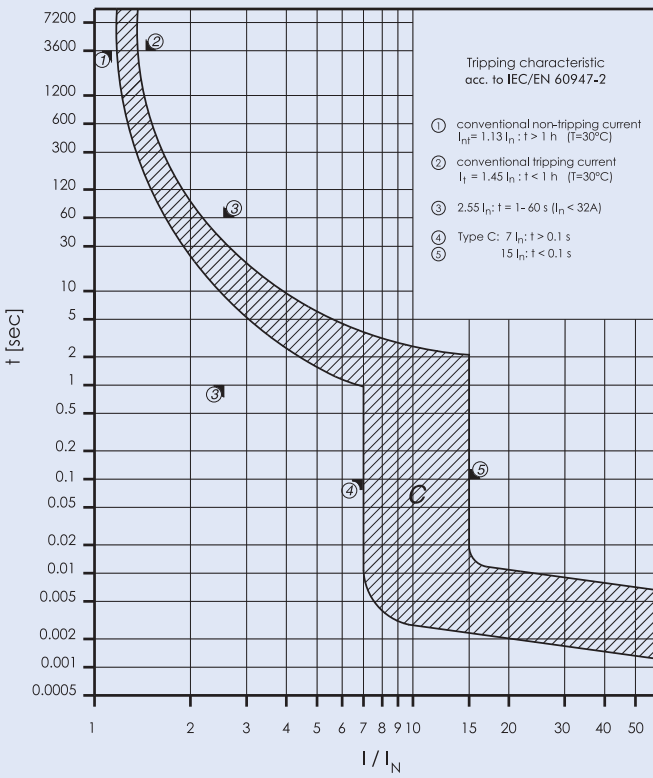
Connection example at 500V=, 2-pole



# Protective Devices

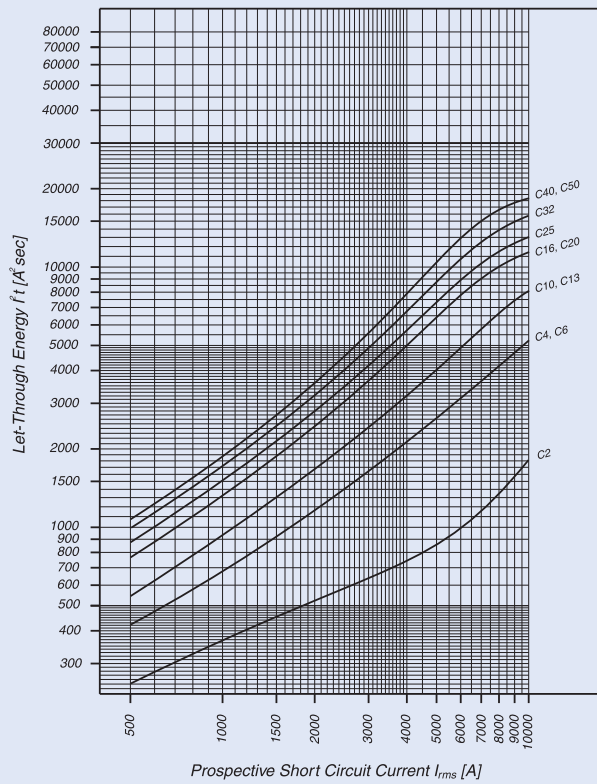
## Tripping characteristic PLS6-DC

Type C



## Let-through Energy PLS6-DC

Type C, 250 V d.c.,  $\tau = 5 \text{ ms}$  (acc. to IEC/EN 60947-2)



xPole

# Protective Devices

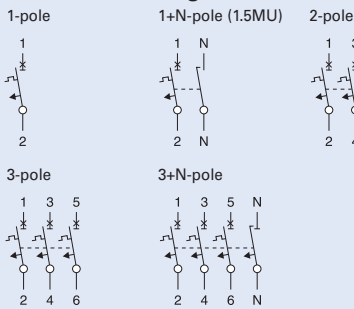
## Miniature Circuit Breakers PL7

- High selectivity between MCB and back-up fuse due to low let-through energy
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- Meets the requirements of insulation co-ordination, distance between contacts  $\geq 4$  mm, for secure isolation
- Suitable for applications up to 48 V DC (use PL7-DC for higher DC voltages)

### Accessories:

Auxiliary switch for subsequent installation	ZP-IHK	286052
	ZP-WHK	286053
Tripping signal contact for subsequent installation	ZP-NHK	248437
Remote control and automatic switching device	Z-FW/LP	248296
Shunt trip release	Z-ASA/..	248438, 248439
Undervoltage release	Z-USA/..	248288-248291
Compact enclosure	KLV-TC-2	276240
	KLV-TC-4	276241
Additional terminal 35mm <sup>2</sup>	Z-HA-EK/35	263960
Switching interlock	Z-IS/SPE-1TE	274418

### Connection diagrams



### Technical Data

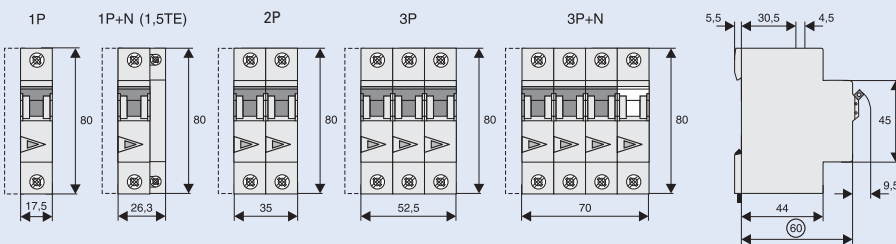
#### Electrical

Design according to	IEC/EN 60898-1
Current test marks as printed onto the device	
Rated voltage	AC: 230/400V DC: 48V (per pole, max. 2 poles)
Rated frequency	50/60 Hz
Rated breaking capacity IEC/EN 60898-1	10 kA
Characteristic	B, C, D
Back-up fuse	max. 125 A gL
Selectivity class	3
Rated peak withstand voltage $U_{imp}$	4 kV (1.2/50 $\mu$ s)
Endurance electrical comp.	$\geq 4,000$ operating cycles
mechanical comp.	$\geq 20,000$ operating cycles
Line voltage connection	optional (above/below)

#### Mechanical

Frame size	45 mm
Device height	80 mm
Device width	17.5 mm per pole (1MU) 26.3 mm: device 1P+N (1.5MU)
Mounting	quick fastening with 3 lock-in positions on DIN rail IEC/EN 60715
Degree of protection	IP20
Upper and lower terminals	open mouthed/lift terminals
Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Terminal capacity (1p+N, 1.5MU)	1-25 mm <sup>2</sup> 1-25 mm <sup>2</sup> / 1-2x10 mm <sup>2</sup> (N)
Terminal fastening torque (1p+N, 1.5MU)	2-2.4 Nm / 1,2-1,5 Nm (N)
Busbar thickness	0.8 - 2 mm (except N 0.5 MU)
Mounting	independent of position

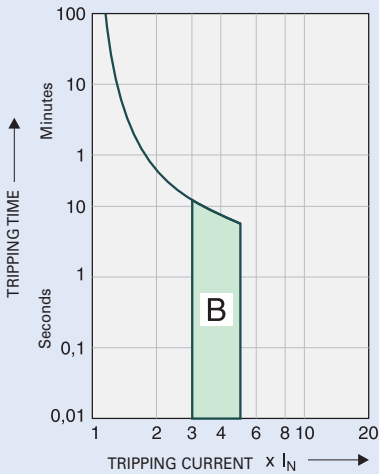
### Dimensions (mm)



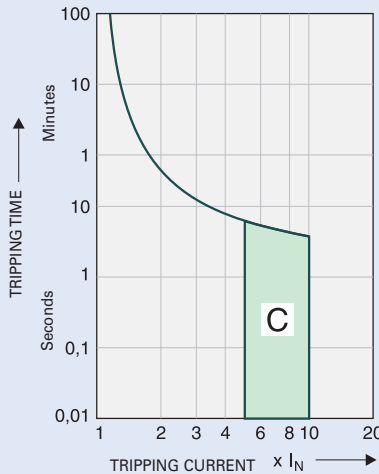
# Protective Devices

## Tripping Characteristics (IEC/EN 60898-1)

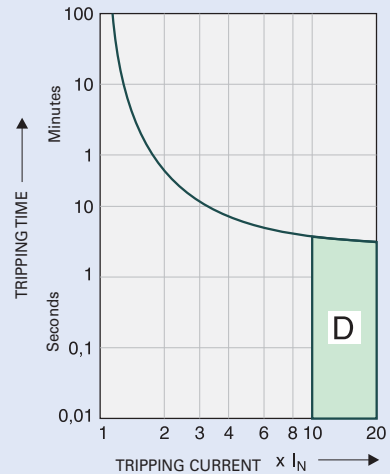
Tripping characteristic B



Tripping characteristic C



Tripping characteristic D



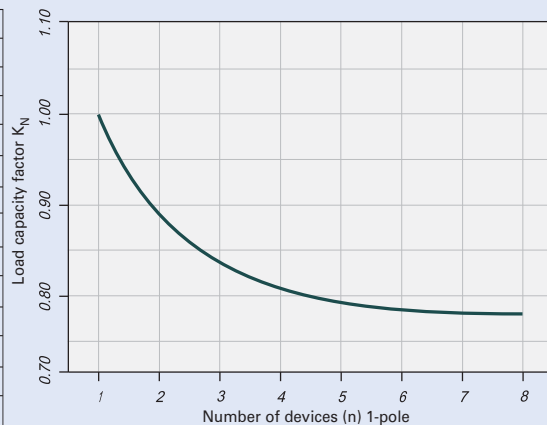
Quick-acting (B), slow (C), very slow (D)

## Effect of the Ambient Temperature on Thermal Tripping Behaviour

Adjusted rated current values according to the ambient temperature

I <sub>n</sub> [A]	Ambient temperature T [°C]															
	-25	-20	-10	0	10	20	30	35	40	45	50	55	60	65	70	75
0.16	0.20	0.19	0.19	0.18	0.17	0.17	0.16	0.16	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.13
0.25	0.31	0.30	0.29	0.28	0.27	0.26	0.25	0.25	0.24	0.24	0.23	0.23	0.22	0.22	0.21	0.21
0.5	0.61	0.60	0.58	0.56	0.54	0.52	0.50	0.49	0.48	0.47	0.46	0.45	0.44	0.43	0.42	0.41
0.75	0.92	0.90	0.87	0.84	0.81	0.78	0.75	0.74	0.73	0.71	0.69	0.68	0.66	0.65	0.64	0.62
1	1.2	1.2	1.2	1.1	1.1	1.0	1.0	0.99	0.97	0.95	0.93	0.90	0.89	0.87	0.85	0.83
1.5	1.8	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.3	1.2	1.2
1.6	2.0	1.9	1.9	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.4	1.4	1.4	1.4	1.3	1.3
2	2.4	2.4	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.7	1.7	1.7
2.5	3.1	3.0	2.9	2.8	2.7	2.6	2.5	2.5	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.1
3	3.7	3.6	3.5	3.4	3.3	3.1	3.0	3.0	2.9	2.8	2.8	2.7	2.7	2.6	2.5	2.5
3.5	4.3	4.2	4.1	3.9	3.8	3.7	3.5	3.4	3.4	3.3	3.2	3.2	3.1	3.0	3.0	2.9
4	4.9	4.8	4.7	4.5	4.3	4.2	4.0	3.9	3.9	3.8	3.7	3.6	3.5	3.5	3.4	3.3
5	6.1	6.0	5.8	5.6	5.4	5.2	5.0	4.9	4.8	4.7	4.6	4.5	4.4	4.3	4.2	4.1
6	7.3	7.2	7.0	6.7	6.5	6.3	6.0	5.9	5.8	5.7	5.6	5.4	5.3	5.2	5.1	5.0
8	9.8	9.6	9.3	9.0	8.7	8.4	8.0	7.9	7.7	7.6	7.4	7.2	7.1	6.9	6.8	6.6
10	12	12	12	11	11	10	10	9.9	9.7	9.5	9.3	9.0	8.9	8.7	8.5	8.3
12	15	14	14	13	13	13	12	12	12	11	11	11	11	10	10	10
13	16	16	15	15	14	14	13	13	13	12	12	12	12	11	11	11
15	18	18	17	17	16	16	15	15	15	14	14	14	13	13	13	12
16	20	19	19	18	17	17	16	16	15	15	14	14	14	14	14	13
20	24	24	23	22	22	21	20	20	19	19	19	18	18	17	17	17
25	31	30	29	28	27	26	25	25	24	24	23	23	22	22	21	21
32	39	38	37	36	35	33	32	32	31	30	30	29	28	28	27	26
40	49	48	47	45	43	42	40	39	39	38	37	36	35	35	34	33
50	61	60	58	56	54	52	50	49	48	47	46	45	44	43	42	41
63	77	76	73	71	68	66	63	62	61	60	58	57	56	55	53	52

## Load Capacity of Series Connected Miniature Circuit Breakers



## Effect of Power Frequency

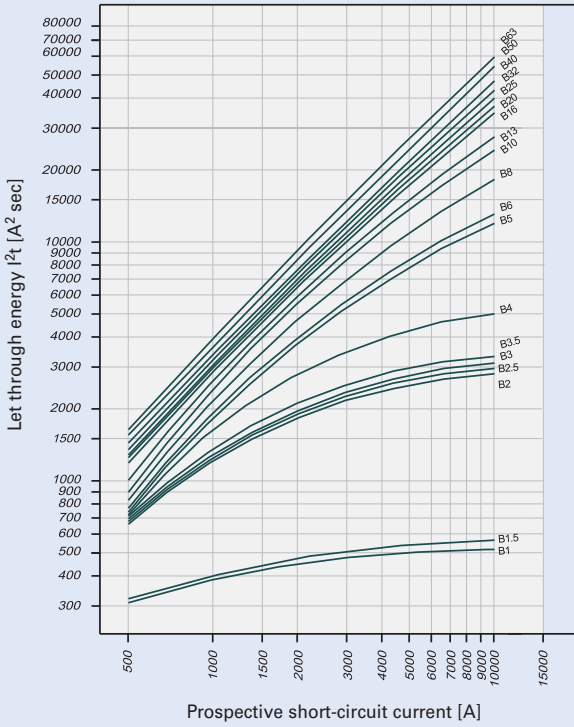
Effect of power frequency on the tripping behaviour I<sub>MA</sub> of the quick release

	Power frequency f [Hz]						
	16 <sup>2/3</sup>	50	60	100	200	300	400
I <sub>MA</sub> (f)/I <sub>MA</sub> (50Hz) [%]	91	100	101	106	115	134	141

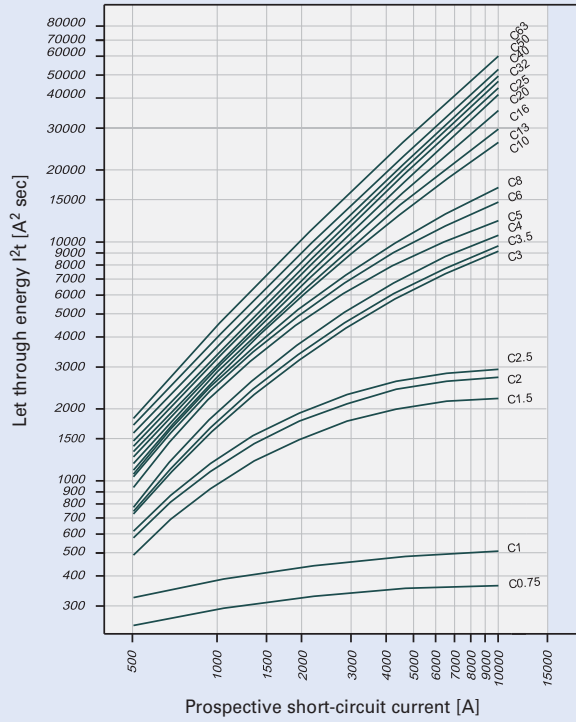
# Protective Devices

## Let-through Energy PL7

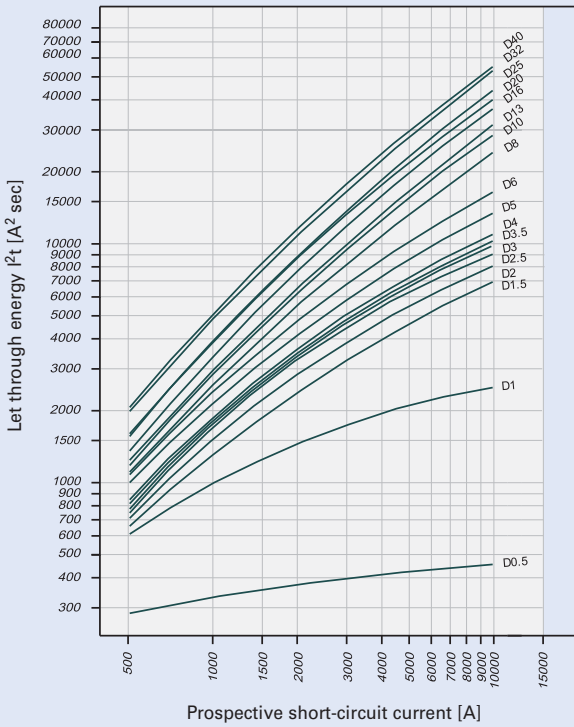
Let-through energy PL7, characteristic B, 1-pole



Let-through energy PL7, characteristic C, 1-pole



Let-through energy PL7, characteristic D, 1-pole



xPole



# Protective Devices

## Short Circuit Selectivity PL7 towards DII-DIV fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers PL7 and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



Short circuit selectivity **characteristic B** towards fuse link **DII-DIV\***)

PL7	DII-DIV gL/gG									
	10	16	20	25	35	50	63	80	100	
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
2	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	3.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.0	3.5	8.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
6		<0.5 <sup>1)</sup>	0.6	0.9	1.8	3.2	7.4	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
8		<0.5 <sup>1)</sup>	0.5	0.8	1.6	2.6	5.2	8.3	10.0 <sup>2)</sup>	
10			0.5	0.8	1.4	2.2	3.9	6.0	10.0 <sup>2)</sup>	
13			0.5	0.7	1.3	2.0	3.6	5.4	10.0 <sup>2)</sup>	
16				0.6	1.2	1.9	3.2	4.6	8.4	
20					1.2	1.8	3.1	4.4	7.8	
25					1.2	1.8	3.0	4.2	7.3	
32						1.7	2.8	3.9	6.8	
40							2.7	3.8	6.5	
50							2.5	3.5	5.7	
63									5.3	

Short circuit selectivity **characteristic C** towards fuse link **DII-DIV\***)

PL7	DII-DIV gL/gG									
	10	16	20	25	35	50	63	80	100	
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
0.75	1.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
1.0	<0.5 <sup>1)</sup>	1.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
1.6	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.0	2.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
2	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	1.8	3.6	9.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.7	1.5	2.7	7.3	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
6		<0.5 <sup>1)</sup>	0.5	0.6	1.4	2.4	5.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
8		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.3	2.2	4.7	8.7	10.0 <sup>2)</sup>	
10			<0.5 <sup>1)</sup>	0.6	1.3	2.0	3.6	5.4	10.0 <sup>2)</sup>	
13					1.3	1.9	3.3	5.0	9.4	
16						1.2	1.8	3.2	4.4	
20						1.2	1.8	3.1	4.1	
25							1.7	2.8	3.8	
32								2.7	3.7	
40									3.5	
50									5.5	
63										

Short circuit selectivity **characteristic D** towards fuse link **DII-DIV\***)

PL7	DII-DIV gL/gG									
	10	16	20	25	35	50	63	80	100	
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
2	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	2.8	5.8	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
4		<0.5 <sup>1)</sup>	0.6	0.9	2.0	3.8	9.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
5		<0.5 <sup>1)</sup>	0.5	0.7	1.7	3.1	7.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
6			0.5	0.7	1.5	2.6	5.3	9.1	10.0 <sup>2)</sup>	
8			<0.5 <sup>1)</sup>	0.7	1.4	2.2	3.9	6.0	10.0 <sup>2)</sup>	
10				0.7	1.2	1.9	3.4	5.0	9.5	
13					1.2	1.8	3.2	4.6	8.6	
16						1.6	2.7	4.0	7.4	
20						1.5	2.5	3.5	6.7	
25							2.4	3.4	6.2	
32								2.8	5.0	
40									4.8	

1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s =$  rated breaking capacity  $I_{cn}$  of the MCB

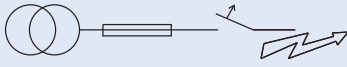
no selectivity

# Protective Devices

## Short Circuit Selectivity PL7 towards D01-D03 fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers PL7 and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



Short circuit selectivity **characteristic B** towards fuse link **D01-D03\***)

PL7	D01-D03 gL/gG									
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
2	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.9	2.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	0.5	0.8	1.7	4.0	7.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
6		<0.5 <sup>1)</sup>	0.5	0.8	1.6	3.6	6.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
8			0.5	0.8	1.4	2.8	4.3	8.2	10.0 <sup>2)</sup>	
10			0.5	0.7	1.3	2.4	3.4	6.0	10.0 <sup>2)</sup>	
13			<0.5 <sup>1)</sup>	0.7	1.2	2.3	3.2	5.3	10.0 <sup>2)</sup>	
16				0.6	1.1	2.2	2.9	4.6	10.0	
20					1.1	2.1	2.8	4.4	9.3	
25					1.1	2.0	2.7	4.2	8.7	
32						2.0	2.6	4.0	8.0	
40							2.5	3.8	7.5	
50							2.3	3.4	6.7	
63									6.2	

Short circuit selectivity **characteristic C** towards fuse link **D01-D03\***)

PL7	D01-D03 gL/gG									
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
0.75	<0.5 <sup>1)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.0	<0.5 <sup>1)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.6	<0.5 <sup>1)</sup>	0.5	0.6	0.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.6	4.0	7.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
5		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	1.3	3.1	5.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
6		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.7	4.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
8		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.5	4.0	8.6	10.0 <sup>2)</sup>	
10			<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.3	3.1	5.4	10.0 <sup>2)</sup>	
13					1.1	2.2	3.0	4.9	10.0 <sup>2)</sup>	
16					1.1	2.1	2.8	4.4	9.5	
20					1.0	2.0	2.6	4.0	8.3	
25						1.9	2.5	3.8	7.8	
32							2.5	3.7	7.3	
40								3.5	7.0	
50									6.5	
63										

Short circuit selectivity **characteristic D** towards fuse link **D01-D03\***)

PL7	D01-D03 gL/gG									
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
4		<0.5 <sup>1)</sup>	0.5	0.7	1.7	4.6	7.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
5		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.5	3.5	5.8	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
6			<0.5 <sup>1)</sup>	0.5	1.3	2.9	4.5	9.0	10.0 <sup>2)</sup>	
8			<0.5 <sup>1)</sup>	0.5	1.2	2.4	3.5	6.0	10.0 <sup>2)</sup>	
10				0.5	1.1	2.2	3.0	5.0	10.0 <sup>2)</sup>	
13					1.1	2.1	2.9	4.6	10.0 <sup>2)</sup>	
16						1.9	2.6	3.9	9.0	
20						1.7	2.3	3.5	8.0	
25							2.2	3.4	7.5	
32								2.9	6.0	
40									5.7	

1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s$  = rated breaking capacity  $I_{cn}$  of the MCB

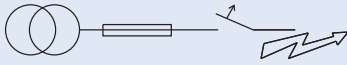
no selectivity

# Protective Devices

## Short Circuit Selectivity PL7 towards NH-00 Fuses

In case of short circuit, there is selectivity between the miniature circuit breakers PL7 and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



Short circuit selectivity **characteristic B** towards fuse link **NH-00\***

PL7	NH-00 gL/gG											
$I_n$ [A]	16	20	25	32	35	40	50	63	80	100	125	160
2	<0.5 <sup>1)</sup>	0.5	1.0	2.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.3	2.3	4.3	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.6	2.2	3.6	4.8	8.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
6	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.5	2.0	3.3	4.3	7.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	1.3	1.7	2.6	3.3	5.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10		<0.5 <sup>1)</sup>	0.6	0.9	1.2	1.5	2.2	2.7	4.0	9.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13		<0.5 <sup>1)</sup>	0.6	0.8	1.1	1.4	2.1	2.6	3.8	7.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
16			0.5	0.7	1.0	1.3	1.9	2.4	3.4	6.4	9.3	10.0 <sup>2)</sup>
20				0.7	1.0	1.3	1.9	2.4	3.3	6.0	8.7	10.0 <sup>2)</sup>
25				0.7	1.0	1.3	1.8	2.3	3.2	5.7	8.0	10.0 <sup>2)</sup>
32					0.9	1.2	1.7	2.2	3.1	5.4	7.6	10.0 <sup>2)</sup>
40								2.1	3.0	5.1	7.2	10.0 <sup>2)</sup>
50								1.9	2.8	4.7	6.6	9.5
63										4.4	6.3	8.6

Short circuit selectivity **characteristic C** towards fuse link **NH-00\***

PL7	NH-00 gL/gG											
$I_n$ [A]	16	20	25	32	35	40	50	63	80	100	125	160
0.75	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.0	0.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
1.6	<0.5 <sup>1)</sup>	0.6	1.3	4.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
2	<0.5 <sup>1)</sup>	0.6	1.0	2.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.0	1.5	2.1	3.6	5.0	10.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	1.2	1.7	2.8	3.8	8.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
6	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.8	1.2	1.5	2.5	3.3	5.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.8	1.1	1.5	2.3	2.9	4.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10			0.5	0.7	1.0	1.4	2.0	2.5	3.8	8.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13					1.0	1.3	1.9	2.4	3.6	7.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
16						1.0	1.3	1.8	2.3	3.3	6.0	8.8
20							1.0	1.2	1.7	2.2	3.2	5.5
25								1.6	2.1	3.0	5.2	7.3
32									2.1	2.9	5.0	7.0
40										2.8	4.8	6.7
50											4.5	6.3
63												5.9

Short circuit selectivity **characteristic D** towards fuse link **NH-00\***

PL7	NH-00 gL/gG											
$I_n$ [A]	16	20	25	32	35	40	50	63	80	100	125	160
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.0	1.6	2.2	3.8	5.2	10.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	0.6	0.9	1.4	1.9	3.2	4.1	7.1	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.5	0.8	1.2	1.6	2.6	3.3	5.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8			0.5	0.8	1.1	1.5	2.2	2.7	4.1	8.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10			0.5	0.7	1.0	1.3	1.9	2.5	3.6	7.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13					1.0	1.3	1.9	2.3	3.4	6.5	9.5	10.0 <sup>2)</sup>
16						1.1	1.6	2.0	3.0	5.5	8.0	10.0 <sup>2)</sup>
20							1.4	1.8	2.8	5.0	7.5	10.0 <sup>2)</sup>
25								1.8	2.7	4.8	7.0	10.0 <sup>2)</sup>
32									2.4	4.1	6.2	9.3
40										4.0	6.0	9.0

1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s$  = rated breaking capacity  $I_{cn}$  of the MCB

no selectivity

# Protective Devices

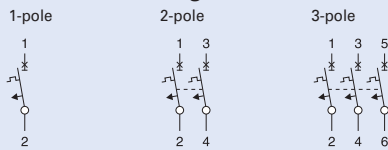
## Miniature Circuit Breakers PL6

- High selectivity between MCB and back-up fuse due to low let-through energy
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- Meets the requirements of insulation co-ordination, distance between contacts  $\geq 4$  mm, for secure isolation
- Suitable for applications up to 48 V DC

### Accessories:

Auxiliary switch for subsequent installation	ZP-IHK	286052
	ZP-WHK	286053
Tripping signal contact for subsequent installation	ZP-NHK	248437
Remote control and automatic switching device	Z-FW/LP	248296
Shunt trip release	ZP-ASA/..	248438, 248439
Undervoltage release	Z-USA/..	248288-248291
Compact enclosure	KLV-TC-2	276240
	KLV-TC-4	276241
Additional terminal 35mm <sup>2</sup>	Z-HA-EK/35	263960
Switching interlock	Z-IS/SPE-1TE	274418

### Connection diagrams



## Technical Data

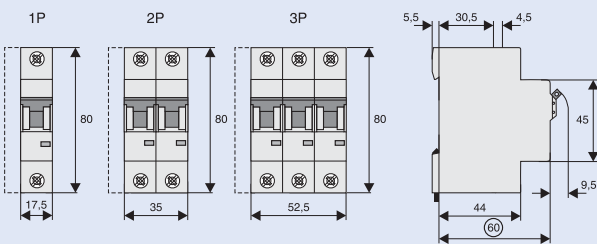
### Electrical

Design according to	IEC/EN 60898-1
Current test marks as printed onto the device	
Rated voltage	AC: 230/400V DC: 48V (per pole, max. 2 poles)
Rated frequency	50/60 Hz
Rated breaking capacity IEC/EN 60898-1	6 kA
Characteristic	B, C, D
Back-up fuse	max. 100 A gL
Selectivity class	3
Rated peak withstand voltage $U_{imp}$	4 kV (1.2/50 $\mu$ s)
Endurance electrical comp.	$\geq 4,000$ operating cycles
mechanical comp.	$\geq 20,000$ operating cycles
Line voltage connection	optional (above/below)
Min. voltage	12 V AC/DC

### Mechanical

Frame size	45 mm
Device height	80 mm
Device width	17.5 mm per pole (1MU)
Mounting	quick fastening with 3 lock-in positions on DIN rail IEC/EN 60715
Degree of protection	IP20
Upper and lower terminals	open mouthed/lift terminals
Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Terminal capacity	1-25 mm <sup>2</sup>
Terminal fastening torque	2-2.4 Nm
Busbar thickness	0.8 - 2 mm
Mounting	independent of position

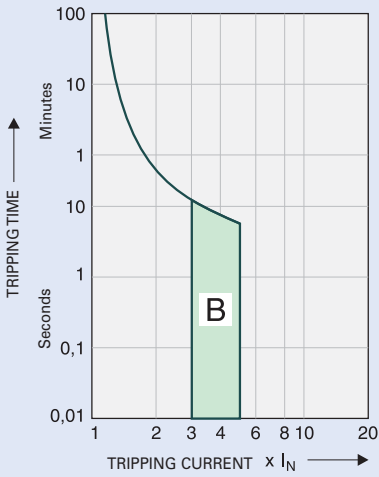
## Dimensions (mm)



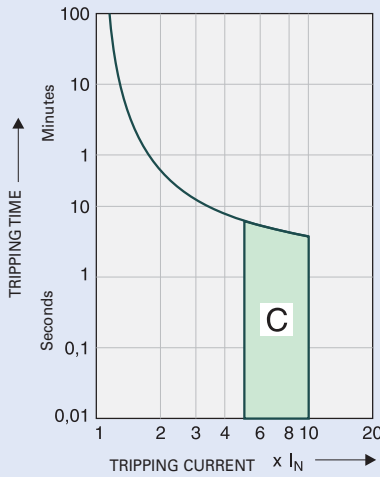
# Protective Devices

## Tripping Characteristics (IEC/EN 60898-1)

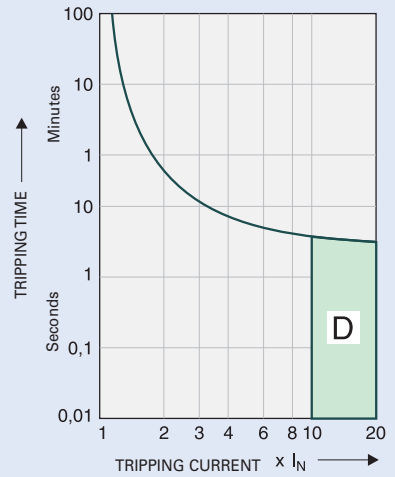
Tripping characteristic B



Tripping characteristic C



Tripping characteristic D



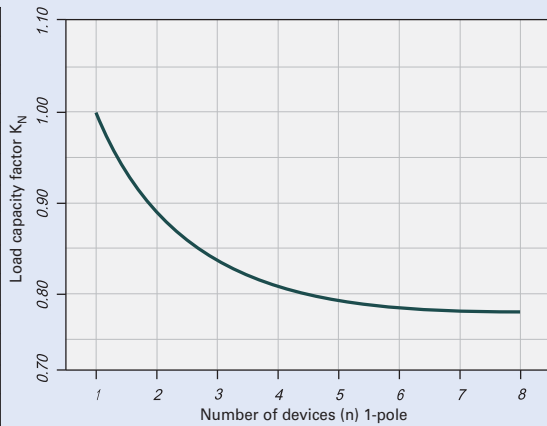
Quick-acting (B), slow (C), very slow (D)

## Effect of the Ambient Temperature on Thermal Tripping Behaviour

Adjusted rated current values according to the ambient temperature

I <sub>n</sub> [A]	Ambient temperature T [°C]															
	-25	-20	-10	0	10	20	30	35	40	45	50	55	60	65	70	75
0.16	0.20	0.19	0.19	0.18	0.17	0.17	0.16	0.16	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.13
0.25	0.31	0.30	0.29	0.28	0.27	0.26	0.25	0.25	0.24	0.24	0.23	0.23	0.22	0.22	0.21	0.21
0.5	0.61	0.60	0.58	0.56	0.54	0.52	0.50	0.49	0.48	0.47	0.46	0.45	0.44	0.43	0.42	0.41
0.75	0.92	0.90	0.87	0.84	0.81	0.78	0.75	0.74	0.73	0.71	0.69	0.68	0.66	0.65	0.64	0.62
1	1.2	1.2	1.2	1.1	1.1	1.0	1.0	0.99	0.97	0.95	0.93	0.90	0.89	0.87	0.85	0.83
1.5	1.8	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.3	1.2	1.2
1.6	2.0	1.9	1.9	1.8	1.7	1.7	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.3	1.3
2	2.4	2.4	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.7	1.7	1.7
2.5	3.1	3.0	2.9	2.8	2.7	2.6	2.5	2.5	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.1
3	3.7	3.6	3.5	3.4	3.3	3.1	3.0	3.0	2.9	2.8	2.8	2.7	2.7	2.6	2.5	2.5
3.5	4.3	4.2	4.1	3.9	3.8	3.7	3.5	3.4	3.4	3.3	3.2	3.2	3.1	3.0	3.0	2.9
4	4.9	4.8	4.7	4.5	4.3	4.2	4.0	3.9	3.9	3.8	3.7	3.6	3.5	3.5	3.4	3.3
5	6.1	6.0	5.8	5.6	5.4	5.2	5.0	4.9	4.8	4.7	4.6	4.5	4.4	4.3	4.2	4.1
6	7.3	7.2	7.0	6.7	6.5	6.3	6.0	5.9	5.8	5.7	5.6	5.4	5.3	5.2	5.1	5.0
8	9.8	9.6	9.3	9.0	8.7	8.4	8.0	7.9	7.7	7.6	7.4	7.2	7.1	6.9	6.8	6.6
10	12	12	12	11	11	10	10	9.9	9.7	9.5	9.3	9.0	8.9	8.7	8.5	8.3
12	15	14	14	13	13	13	12	12	12	11	11	11	11	10	10	10
13	16	16	15	15	14	14	13	13	13	12	12	12	12	11	11	11
15	18	18	17	17	16	16	15	15	15	14	14	14	13	13	13	12
16	20	19	19	18	17	17	16	16	15	15	15	14	14	14	14	13
20	24	24	23	22	22	21	20	20	19	19	19	18	18	17	17	17
25	31	30	29	28	27	26	25	25	24	24	23	23	22	22	21	21
32	39	38	37	36	35	33	32	32	31	30	30	29	28	28	27	26
40	49	48	47	45	43	42	40	39	39	38	37	36	35	35	34	33
50	61	60	58	56	54	52	50	49	48	47	46	45	44	43	42	41
63	77	76	73	71	68	66	63	62	61	60	58	57	56	55	53	52

## Load Capacity of Series Connected Miniature Circuit Breakers



## Effect of Power Frequency

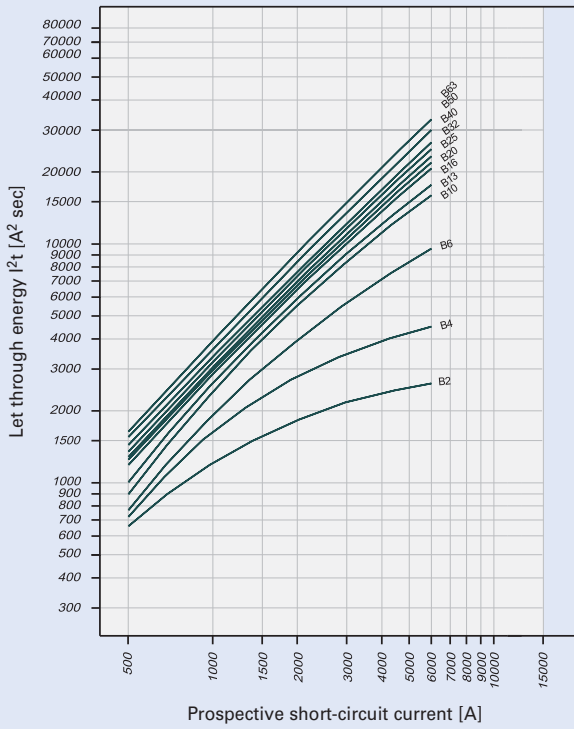
Effect of power frequency on the tripping behaviour I<sub>MA</sub> of the quick release

	Power frequency f [Hz]						
	16 <sup>2/3</sup>	50	60	100	200	300	400
I <sub>MA</sub> (f)/I <sub>MA</sub> (50Hz) [%]	91	100	101	106	115	134	141

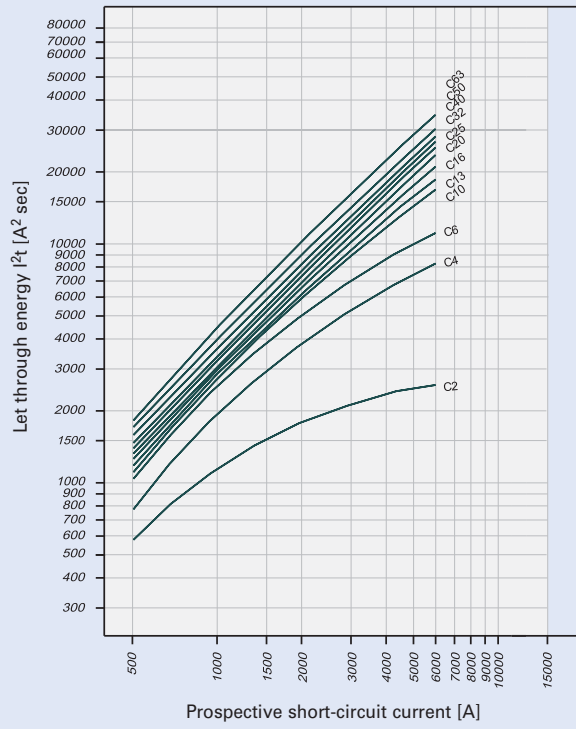
# Protective Devices

## Let-through Energy PL6

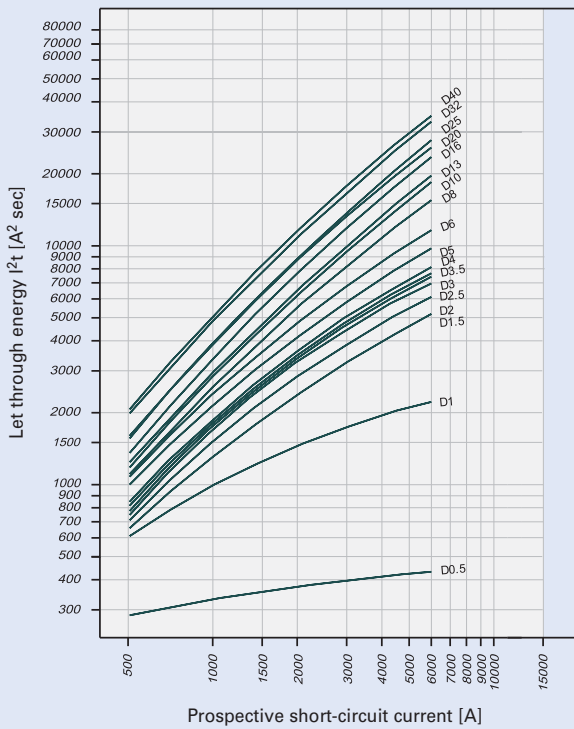
Let-through energy PL6, characteristic B, 1-pole



Let-through energy PL6, characteristic C, 1-pole



Let-through energy PL6, characteristic D, 1-pole



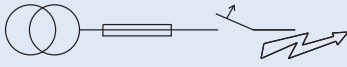
xPole

# Protective Devices

## Short Circuit Selectivity PL6 towards DII-DIV fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers PL6 and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



Short circuit selectivity **characteristic B** towards fuse link **DII-DIV\***)

PL6	DII-DIV gL/gG									
	10	16	20	25	35	50	63	80	100	
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
2	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	3.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.0	3.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
6		<0.5 <sup>1)</sup>	0.6	0.9	1.8	3.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
8		<0.5 <sup>1)</sup>	0.5	0.8	1.6	2.6	5.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
10			0.5	0.8	1.4	2.2	3.9	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
13			0.5	0.7	1.3	2.0	3.6	5.4	6.0 <sup>2)</sup>	
16				0.6	1.2	1.9	3.2	4.6	6.0 <sup>2)</sup>	
20					1.2	1.8	3.1	4.4	6.0 <sup>2)</sup>	
25					1.2	1.8	3.0	4.2	6.0 <sup>2)</sup>	
32						1.7	2.8	3.9	6.0 <sup>2)</sup>	
40							2.7	3.8	6.0 <sup>2)</sup>	
50							2.5	3.5	5.7	
63									5.3	

Short circuit selectivity **characteristic C** towards fuse link **DII-DIV\***)

PL6	DII-DIV gL/gG									
	10	16	20	25	35	50	63	80	100	
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
2	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	1.8	3.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.7	1.5	2.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
6		<0.5 <sup>1)</sup>	0.5	0.6	1.4	2.4	5.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
8		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.3	2.2	4.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
10			<0.5 <sup>1)</sup>	0.6	1.3	2.0	3.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
13					1.3	1.9	3.3	5.0	6.0 <sup>2)</sup>	
16						1.2	1.8	3.2	4.4	
20						1.2	1.8	3.1	4.1	
25							1.7	2.8	3.8	
32								2.7	3.7	
40									3.5	
50									5.5	

Short circuit selectivity **characteristic D** towards fuse link **DII-DIV\***)

PL6	DII-DIV gL/gG									
	10	16	20	25	35	50	63	80	100	
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
2	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	2.8	5.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
4		<0.5 <sup>1)</sup>	0.6	0.9	2.0	3.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
5		<0.5 <sup>1)</sup>	0.5	0.7	1.7	3.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
6			0.5	0.7	1.5	2.6	5.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
8			<0.5 <sup>1)</sup>	0.7	1.4	2.2	3.9	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
10				0.7	1.2	1.9	3.4	5.0	6.0 <sup>2)</sup>	
13					1.2	1.8	3.2	4.6	6.0 <sup>2)</sup>	
16						1.6	2.7	4.0	6.0 <sup>2)</sup>	
20						1.5	2.5	3.5	6.0 <sup>2)</sup>	
25							2.4	3.4	6.0 <sup>2)</sup>	
32								2.8	5.0	
40									4.8	

1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s$  = rated breaking capacity  $I_{cn}$  of the MCB

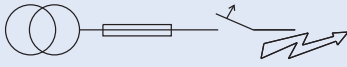
no selectivity

# Protective Devices

## Short Circuit Selectivity PL6 towards D01-D03 fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers PL6 and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



Short circuit selectivity **characteristic B** towards fuse link **D01-D03\***)

PL6	D01-D03 gL/gG									
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
2	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.9	2.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	0.5	0.8	1.7	4.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.5	0.8	1.6	3.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
8			0.5	0.8	1.4	2.8	4.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
10			0.5	0.7	1.3	2.4	3.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
13			<0.5 <sup>1)</sup>	0.7	1.2	2.3	3.2	5.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
16				0.6	1.1	2.2	2.9	4.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
20					1.1	2.1	2.8	4.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
25					1.1	2.0	2.7	4.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
32						2.0	2.6	4.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
40							2.5	3.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
50							2.3	3.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
63									6.0 <sup>2)</sup>	6.0 <sup>2)</sup>

Short circuit selectivity **characteristic C** towards fuse link **D01-D03\***)

PL6	D01-D03 gL/gG									
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
2	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.6	4.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	1.3	3.1	5.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.7	4.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
8		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.5	4.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
10			<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.3	3.1	5.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
13					1.1	2.2	3.0	4.9	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
16						1.1	2.1	2.8	4.4	6.0 <sup>2)</sup>
20						1.0	2.0	2.6	4.0	6.0 <sup>2)</sup>
25							1.9	2.5	3.8	6.0 <sup>2)</sup>
32								2.5	3.7	6.0 <sup>2)</sup>
40									3.5	6.0 <sup>2)</sup>
50										6.0 <sup>2)</sup>

Short circuit selectivity **characteristic D** towards fuse link **D01-D03\***)

PL6	D01-D03 gL/gG									
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
2	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	2.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
4		<0.5 <sup>1)</sup>	0.5	0.7	1.7	4.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.5	3.5	5.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
6			<0.5 <sup>1)</sup>	0.5	1.3	2.9	4.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
8			<0.5 <sup>1)</sup>	0.5	1.2	2.4	3.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
10				0.5	1.1	2.2	3.0	5.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
13					1.1	2.1	2.9	4.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
16						1.9	2.6	3.9	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
20						1.7	2.3	3.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
25							2.2	3.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
32								2.9	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>
40									5.7	6.0 <sup>2)</sup>

1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s$  = rated breaking capacity  $I_{cn}$  of the MCB

no selectivity



# Protective Devices

## Short Circuit Selectivity PL6 towards NH-00 Fuses

In case of short circuit, there is selectivity between the miniature circuit breakers PL6 and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



Short circuit selectivity **characteristic B** towards fuse link **NH-00\***

PL6	NH-00 gL/gG												
$I_n$ [A]	16	20	25	32	35	40	50	63	80	100	125	160	
2	<0.5 <sup>1)</sup>	0.5	1.0	2.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.3	2.3	4.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.6	2.2	3.6	4.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
6	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.5	2.0	3.3	4.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
8	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	1.3	1.7	2.6	3.3	5.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
10	<0.5 <sup>1)</sup>	0.6	0.9	1.2	1.5	2.2	2.7	4.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>		
13	<0.5 <sup>1)</sup>	0.6	0.8	1.1	1.4	2.1	2.6	3.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>		
16			0.5	0.7	1.0	1.3	1.9	2.4	3.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
20				0.7	1.0	1.3	1.9	2.4	3.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
25				0.7	1.0	1.3	1.8	2.3	3.2	5.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
32					0.9	1.2	1.7	2.2	3.1	5.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
40								2.1	3.0	5.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
50								1.9	2.8	4.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
63										4.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	

Short circuit selectivity **characteristic C** towards fuse link **NH-00\***

PL6	NH-00 gL/gG												
$I_n$ [A]	16	20	25	32	35	40	50	63	80	100	125	160	
2	<0.5 <sup>1)</sup>	0.6	1.0	2.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.0	1.5	2.1	3.6	5.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	1.2	1.7	2.8	3.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
6	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.8	1.2	1.5	2.5	3.3	5.7	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
8	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.8	1.1	1.5	2.3	2.9	4.9	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
10			0.5	0.7	1.0	1.4	2.0	2.5	3.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
13					1.0	1.3	1.9	2.4	3.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
16						1.0	1.3	1.8	2.3	3.3	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
20							1.0	1.2	1.7	2.2	3.2	5.5	
25								1.6	2.1	3.0	5.2	6.0 <sup>2)</sup>	
32									2.1	2.9	5.0	6.0 <sup>2)</sup>	
40										2.8	4.8	6.0 <sup>2)</sup>	
50											4.5	6.0 <sup>2)</sup>	
63												5.9	

Short circuit selectivity **characteristic D** towards fuse link **NH-00\***

PL6	NH-00 gL/gG												
$I_n$ [A]	16	20	25	32	35	40	50	63	80	100	125	160	
2	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.3	2.1	3.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.0	1.6	2.2	3.8	5.2	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
5		<0.5 <sup>1)</sup>	0.6	0.9	1.4	1.9	3.2	4.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
6		<0.5 <sup>1)</sup>	0.5	0.8	1.2	1.6	2.6	3.3	5.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
8			0.5	0.8	1.1	1.5	2.2	2.7	4.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
10			0.5	0.7	1.0	1.3	1.9	2.5	3.6	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
13					1.0	1.3	1.9	2.3	3.4	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
16						1.1	1.6	2.0	3.0	5.5	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
20							1.4	1.8	2.8	5.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
25								1.8	2.7	4.8	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
32									2.4	4.1	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	
40										4.0	6.0 <sup>2)</sup>	6.0 <sup>2)</sup>	

1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s =$  rated breaking capacity  $I_{cn}$  of the MCB

no selectivity

# Protective Devices

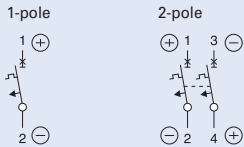
## Miniature Circuit Breakers PL7-DC

- High selectivity between MCB and back-up fuse due to low let-through energy
- Compatible with standard busbar
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- Meets the requirements of insulation co-ordination, distance between contacts  $\geq 4$  mm, for secure isolation
- Rated breaking capacity 10 kA according to IEC/EN 60947-2
- Rated voltage up to 250 V (per pole),  $\tau = 4$  ms
- Take into account polarity!

### Accessories:

Auxiliary switch for subsequent installation	ZP-IHK	286052
Tripping signal contact for subsequent installation	ZP-NHK	248437
Remote control and automatic switching device	Z-FW/LP	248296
Shunt trip release	Z-ASA/..	248438, 248439
Undervoltage release	Z-USA/..	248288-248291
Compact enclosure	KLV-TC-2	276240
	KLV-TC-4	276241
Additional terminal 35mm <sup>2</sup>	Z-HA-EK/35	263960
Switching interlock	Z-IS/SPE-1TE	274418

### Connection diagrams



## Technical Data

### Electrical

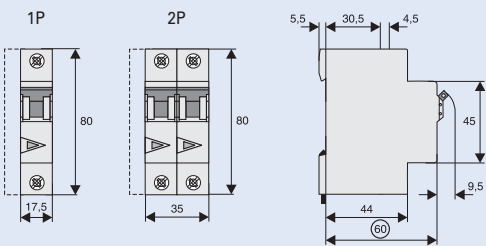
Design according to	IEC/EN 60947-2
Current test marks as printed onto the device	
Rated voltage DC	1-2 A type: 220V (per pole) 3-50 A types: 250V (per pole)
Rated breaking capacity according to IEC/EN 60947-2	10 kA
Characteristic	C
Back-up fuse	max. 100 A gL
Selectivity class	3
Rated peak withstand voltage $U_{imp}$	4 kV (1.2/50 $\mu$ s)
Endurance electrical comp.	$\geq 4,000$ operating cycles
mechanical comp.	$\geq 20,000$ operating cycles
Line voltage connection	optional (above/below)

### Mechanical

Frame size	45 mm
Device height	80 mm
Device width	17.5 mm per pole (1MU)
Mounting	quick fastening with 3 lock-in positions on DIN rail IEC/EN 60715
Degree of protection	IP20
Upper and lower terminals	open mouthed/lift terminals
Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Terminal capacity	1-25 mm <sup>2</sup>
Terminal fastening torque	2-2.4 Nm
Busbar thickness	0.8 - 2 mm
Mounting	independent of position

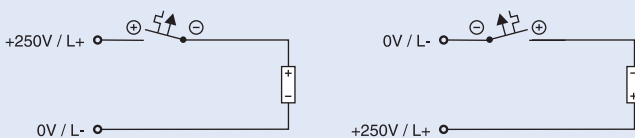
Note: not for PV string protection!

## Dimensions (mm)

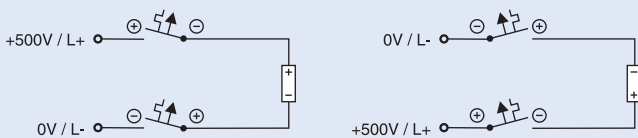


## Connection examples

### Connection example at 250V=, 1-pole



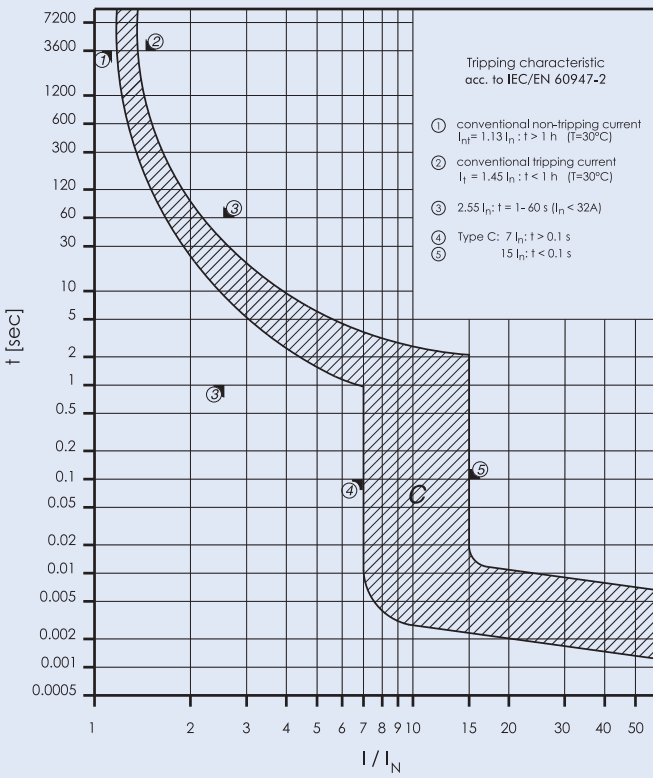
### Connection example at 500V=, 2-pole



# Protective Devices

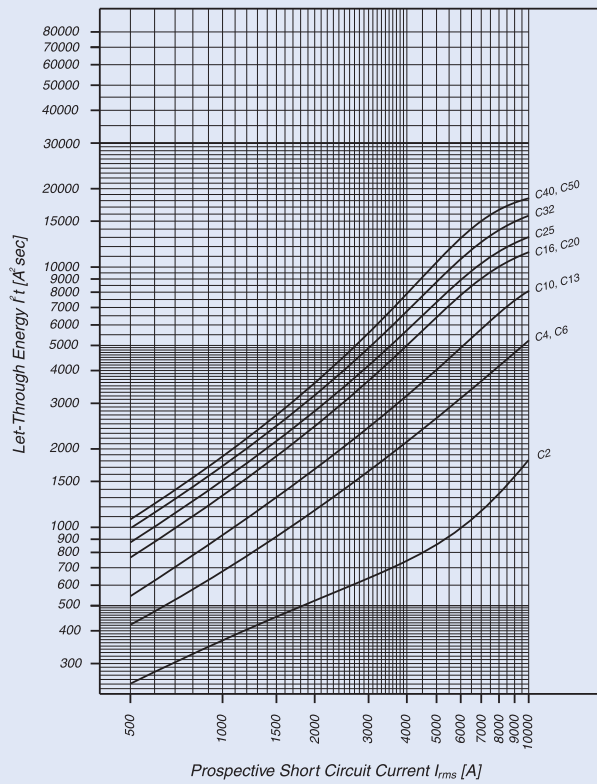
## Tripping characteristic PL7-DC

Type C



## Let-through Energy PL7-DC

Type C, 250 V d.c.,  $\tau = 5 \text{ ms}$  (acc. to IEC/EN 60947-2)



# Protective Devices

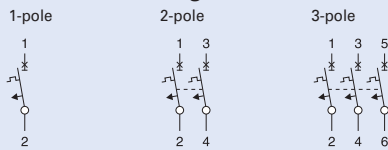
## Miniature Circuit Breakers PL4

- High selectivity between MCB and back-up fuse due to low let-through energy
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- Meets the requirements of insulation co-ordination, distance between contacts  $\geq 4$  mm, for secure isolation
- Suitable for applications up to 48 V DC

### Accessories:

Auxiliary switch for subsequent installation	ZP-IHK	286052
	ZP-WHK	286053
Tripping signal contact for subsequent installation	ZP-NHK	248437
Remote control and automatic switching device	Z-FW/LP	248296
Shunt trip release	ZP-ASA/..	248438, 248439
Undervoltage release	Z-USA/..	248288-248291
Compact enclosure	KLV-TC-2	276240
	KLV-TC-4	276241
Additional terminal 35mm <sup>2</sup>	Z-HA-EK/35	263960
Switching interlock	Z-IS/SPE-1TE	274418

### Connection diagrams



### Technical Data

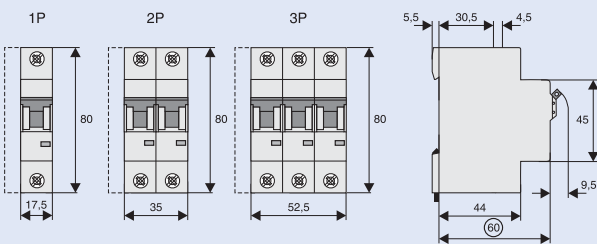
#### Electrical

Design according to	IEC/EN 60898-1
Current test marks as printed onto the device	
Rated voltage	AC: 230/400V DC: 48V (per pole, max. 2 poles)
Rated frequency	50/60 Hz
Rated breaking capacity IEC/EN 60898-1	4.5 kA
Characteristic	B, C, D
Back-up fuse	max. 100 A gL
Selectivity class	3
Rated peak withstand voltage $U_{imp}$	4 kV (1.2/50 $\mu$ s)
Endurance electrical comp.	$\geq 4,000$ operating cycles
mechanical comp.	$\geq 20,000$ operating cycles
Line voltage connection	optional (above/below)
Min. voltage	12 V AC/DC

#### Mechanical

Frame size	45 mm
Device height	80 mm
Device width	17.5 mm per pole (1MU)
Mounting	quick fastening with 3 lock-in positions on DIN rail IEC/EN 60715
Degree of protection	IP20
Upper and lower terminals	open mouthed/lift terminals
Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Terminal capacity	1-25 mm <sup>2</sup>
Terminal fastening torque	2-2.4 Nm
Busbar thickness	0.8 - 2 mm
Mounting	independent of position

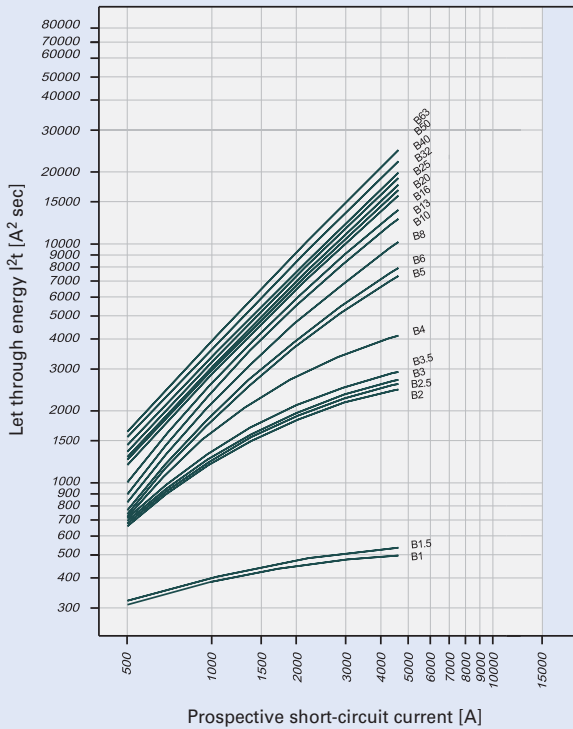
### Dimensions (mm)



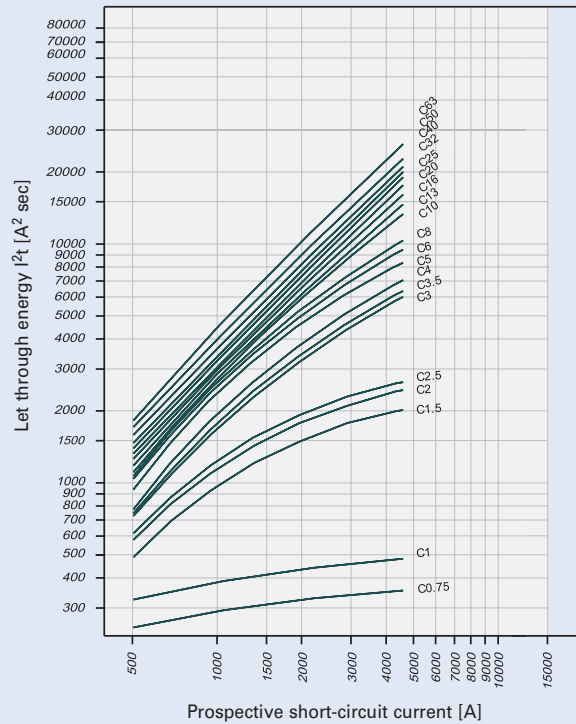
# Protective Devices

## Let-through Energy PL4

Let-through energy PL4, characteristic B, 1-pole



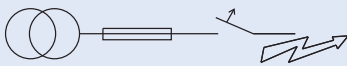
Let-through energy PL4, characteristic C, 1-pole



## Short Circuit Selectivity PL4 towards DII-DIV fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers PL4 and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s$  = rated breaking capacity  $I_{cn}$  of the MCB

no selectivity

Short circuit selectivity **characteristic B** towards fuse link **DII-DIV\***

PL4	DII-DIV gL/gG									
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
1.0	<0.5 <sup>1)</sup>	1.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	1.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.0	3.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.6	0.9	1.8	3.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
8		<0.5 <sup>1)</sup>	0.5	0.8	1.6	2.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
10			0.5	0.8	1.4	2.2	3.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
13			0.5	0.7	1.3	2.0	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
16				0.6	1.2	1.9	3.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
20					1.2	1.8	3.1	4.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
25					1.2	1.8	3.0	4.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
32						1.7	2.8	3.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
40							2.7	3.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
50							2.5	3.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
63									4.5 <sup>2)</sup>	4.5 <sup>2)</sup>

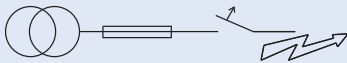
Short circuit selectivity **characteristic C** towards fuse link **DII-DIV\***

PL4	DII-DIV gL/gG									
$I_n$ [A]	10	16	20	25	35	50	63	80	100	
0.75	1.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.0	<0.5 <sup>1)</sup>	1.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.0	2.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	0.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.9	2.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	1.8	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.7	1.5	2.7	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.5	0.6	1.4	2.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
8		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.3	2.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
10			<0.5 <sup>1)</sup>	0.6	1.3	2.0	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
13					1.3	1.9	3.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
16					1.2	1.8	3.2	4.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
20					1.2	1.8	3.1	4.1	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
25						1.7	2.8	3.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
32							2.7	3.7	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
40								3.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
50									4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
63										4.5 <sup>2)</sup>

# Protective Devices

In case of short circuit, there is selectivity between the miniature circuit breakers PL4 and the upstream fuses up to the specified values of the selectivity limit current  $I_s$  [kA] (i. e. in case of short-circuit currents  $I_{ks}$  under  $I_s$ , only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).

\*) basically in accordance with EN 60898-1 D.5.2.b



1) Selectivity limit current  $I_s$  under 0.5 kA

2) Selectivity limit current  $I_s$  = rated breaking capacity  $I_{cn}$  of the MCB

no selectivity

## Short Circuit Selectivity PL4 towards D01-D03 fuse link

Short circuit selectivity **characteristic B** towards fuse link **D01-D03\***)

PL4 $I_n$ [A]	D01-D03 gL/gG								
	10	16	20	25	35	50	63	80	100
1.0	<0.5 <sup>1)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	4.1	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	1.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.9	2.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	0.5	0.8	1.7	4.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.5	0.8	1.6	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
8			0.5	0.8	1.4	2.8	4.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
10			0.5	0.7	1.3	2.4	3.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
13			<0.5 <sup>1)</sup>	0.7	1.2	2.3	3.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
16				0.6	1.1	2.2	2.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
20					1.1	2.1	2.8	4.4	4.5 <sup>2)</sup>
25					1.1	2.0	2.7	4.2	4.5 <sup>2)</sup>
32						2.0	2.6	4.0	4.5 <sup>2)</sup>
40							2.5	3.8	4.5 <sup>2)</sup>
50							2.3	3.4	4.5 <sup>2)</sup>
63									4.5 <sup>2)</sup>

Short circuit selectivity **characteristic C** towards fuse link **D01-D03\***)

PL4 $I_n$ [A]	D01-D03 gL/gG								
	10	16	20	25	35	50	63	80	100
0.75	<0.5 <sup>1)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.0	<0.5 <sup>1)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	0.5	0.6	0.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.7	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.6	4.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
5		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	1.3	3.1	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.7	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
8		<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.5	4.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
10			<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	1.2	2.3	3.1	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
13					1.1	2.2	3.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
16					1.1	2.1	2.8	4.4	4.5 <sup>2)</sup>
20					1.0	2.0	2.6	4.0	4.5 <sup>2)</sup>
25						1.9	2.5	3.8	4.5 <sup>2)</sup>
32							2.5	3.7	4.5 <sup>2)</sup>
40								3.5	4.5 <sup>2)</sup>
50									4.5 <sup>2)</sup>
63									

## Short Circuit Selectivity PL4 towards NH-00 fuse link

Short circuit selectivity **characteristic B** towards fuse link **NH-00\***)

PL4 $I_n$ [A]	NH-00 gL/gG											
	16	20	25	32	35	40	50	63	80	100	125	160
1.0	0.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.5	0.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	0.5	1.0	2.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	0.5	1.0	2.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	0.5	0.9	2.1	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	0.5	0.9	1.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.3	2.3	4.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.6	2.2	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
6	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.5	2.0	3.3	4.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
8	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.0	1.3	1.7	2.6	3.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
10		<0.5 <sup>1)</sup>	0.6	0.9	1.2	1.5	2.2	2.7	4.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
13		<0.5 <sup>1)</sup>	0.6	0.8	1.1	1.4	2.1	2.6	3.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
16			0.5	0.7	1.0	1.3	1.9	2.4	3.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
20				0.7	1.0	1.3	1.9	2.4	3.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
25					0.7	1.0	1.3	1.8	2.3	3.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
32						0.9	1.2	1.7	2.2	3.1	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
40								2.1	3.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
50								1.9	2.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
63									4.4	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>

Short circuit selectivity **characteristic C** towards fuse link **NH-00\***)

PL4 $I_n$ [A]	NH-00 gL/gG											
	16	20	25	32	35	40	50	63	80	100	125	160
0.75	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.0	0.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
1.5	<0.5 <sup>1)</sup>	0.6	1.3	4.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.0	<0.5 <sup>1)</sup>	0.6	1.0	2.5	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
2.5	<0.5 <sup>1)</sup>	0.5	1.0	2.1	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.0	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.2	1.8	2.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
3.5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.1	1.7	2.4	4.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.0	1.5	2.1	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	0.8	1.2	1.7	2.8	3.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
6	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.8	1.2	1.5	2.5	3.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
8	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.5	0.8	1.1	1.5	2.3	2.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
10			0.5	0.7	1.0	1.4	2.0	2.5	3.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
13					1.0	1.3	1.9	2.4	3.6	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
16					1.0	1.3	1.8	2.3	3.3	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
20						1.0	1.2	1.7	2.2	3.2	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
25							1.6	2.1	3.0	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
32								2.1	2.9	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
40									2.8	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
50										4.5 <sup>2)</sup>	4.5 <sup>2)</sup>	4.5 <sup>2)</sup>
63											4.5 <sup>2)</sup>	4.5 <sup>2)</sup>

# Protective Devices

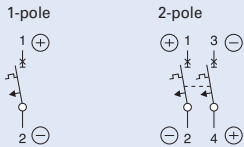
## Miniature Circuit Breakers PL6-DC

- High selectivity between MCB and back-up fuse due to low let-through energy
- Compatible with standard busbar
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- Meets the requirements of insulation co-ordination, distance between contacts  $\geq 4$  mm, for secure isolation
- Rated breaking capacity 10 kA according to IEC/EN 60947-2
- Rated voltage up to 250 V (per pole),  $\tau = 4$  ms
- Take into account polarity!

### Accessories:

Auxiliary switch for subsequent installation	ZP-IHK	286052
Tripping signal contact for subsequent installation	ZP-NHK	248437
Remote control and automatic switching device	Z-FW/LP	248296
Shunt trip release	ZP-ASA/..	248438, 248439
Undervoltage release	Z-USA/..	248288-248291
Compact enclosure	KLV-TC-2	276240
	KLV-TC-4	276241
Additional terminal 35mm <sup>2</sup>	Z-HA-EK/35	263960
Switching interlock	Z-IS/SPE-1TE	274418

### Connection diagrams



## Technical Data

### Electrical

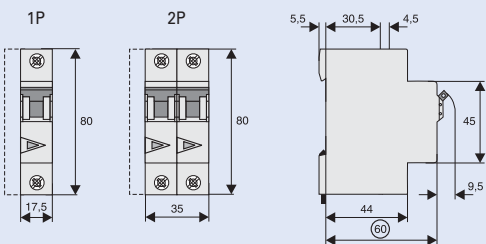
Design according to	IEC/EN 60947-2
Current test marks as printed onto the device	
Rated voltage DC	1-2 A type: 220V (per pole) 3-50 A types: 250V (per pole)
Rated breaking capacity according to IEC/EN 60947-2	6 kA
Characteristic	C
Back-up fuse	max. 100 A gL
Selectivity class	3
Rated peak withstand voltage $U_{imp}$	4 kV (1.2/50 $\mu$ s)
Endurance electrical comp.	$\geq 4,000$ operating cycles
mechanical comp.	$\geq 20,000$ operating cycles
Line voltage connection	optional (above/below)

### Mechanical

Frame size	45 mm
Device height	80 mm
Device width	17.5 mm per pole (1MU)
Mounting	quick fastening with 3 lock-in positions on DIN rail IEC/EN 60715
Degree of protection	IP20
Upper and lower terminals	open mouthed/lift terminals
Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Terminal capacity	1-25 mm <sup>2</sup>
Terminal fastening torque	2-2.4 Nm
Busbar thickness	0.8 - 2 mm
Mounting	independent of position

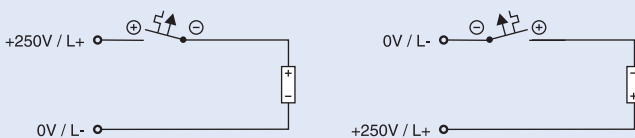
Note: not for PV string protection!

## Dimensions (mm)

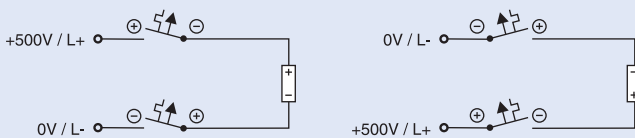


## Connection examples

### Connection example at 250V=, 1-pole



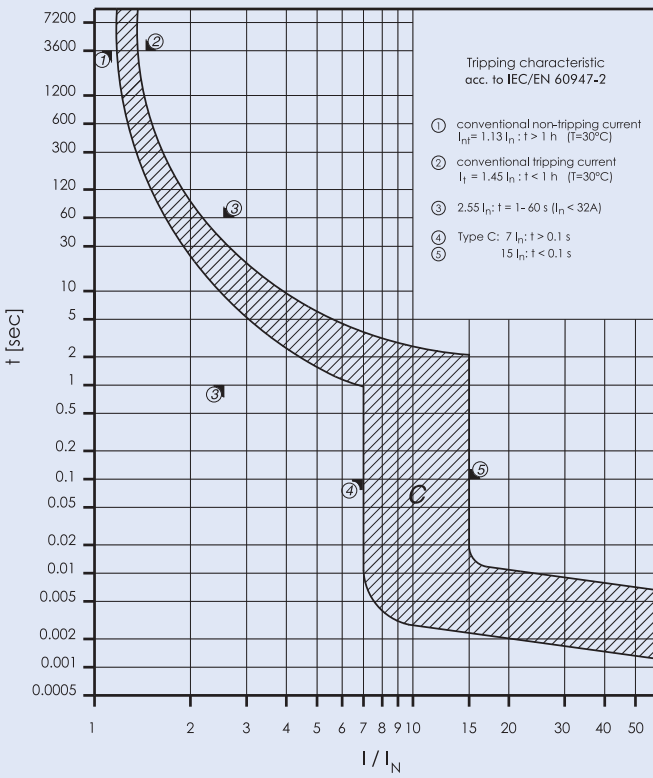
### Connection example at 500V=, 2-pole



# Protective Devices

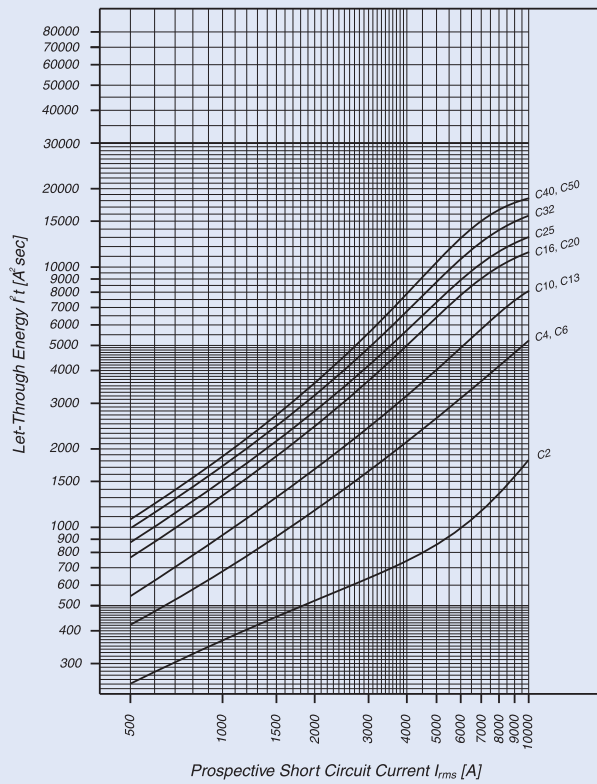
## Tripping characteristic PL6-DC

Type C



## Let-through Energy PL6-DC

Type C, 250 V d.c.,  $\tau = 5 \text{ ms}$  (acc. to IEC/EN 60947-2)



xPole