Miniature Circuit Breakers PLN6, PLN4

- High selectivity between MCB and back-up fuse due to low let-through energy
- Busbar positioning optionally above or below
- Compatible with standard busbar
- Switching toggle in colour designating the rated current
- Meets the requirements of insulation co-ordination, distance between contacts ≥ 4 mm, for safety electrical isolation
- 1-pole breaking capacity $I_{cn\ 1}$ = 3 kA

Accessories:

Auxiliary switch		
for subsequent installation	Z-AHK	248433
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

Busbar:

see capter busbar systems

Connection diagram

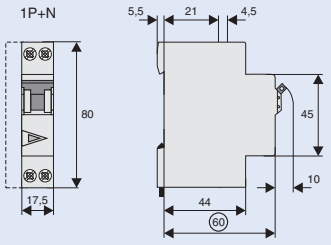
1+N-pole

Technical Data

Electrical	
Design according to	IEC/EN 60898-1
Current test marks as printed onto the device	
Rated voltage	230 VAC
Rated frequency	50/60 Hz
Rated breaking capacity	
PLN6	6 kA
PLN4	4.5 kA
Characteristic	B, C
Back-up fuse	
>6 kA	max. 100 A gL/gG
>4.5 kA	max. 80 A gL/gG
Selectivity class	3
Endurance	≥ 8.000 operating cycles

Mechanical	
Frame size	45 mm
Device height	80 mm
Device width	17,5 mm (1MU for 1+N)
Mounting	quick fastening with 2 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 - 16 mm^2

Dimensions (mm)



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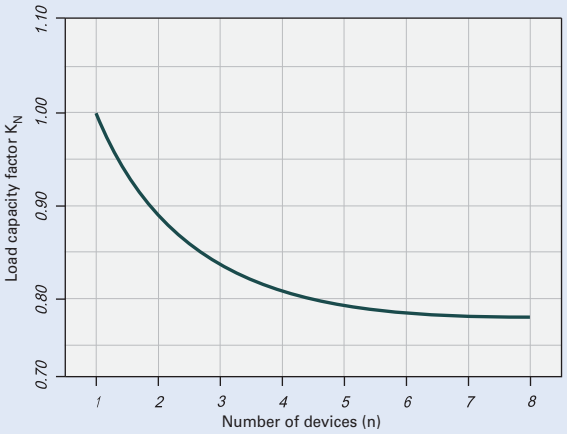
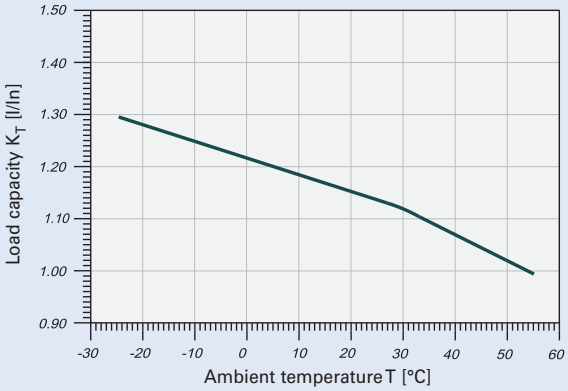
Load capacity PLN6

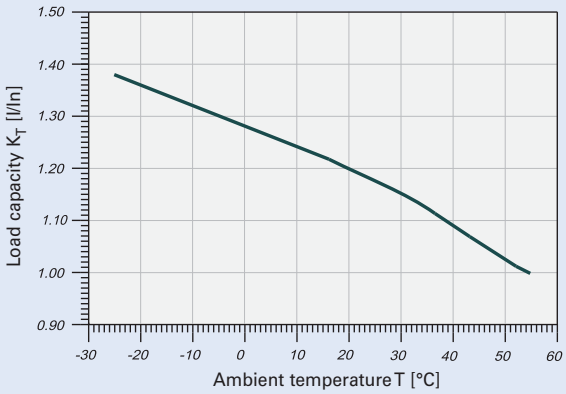
Load capacity in case of MCB block installation



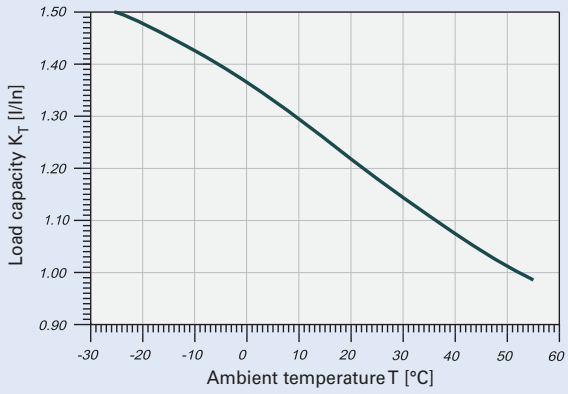
Current carrying capacity at ambient temperature (I_n = 2-13 A)



Current carrying capacity at ambient temperature (I_n = 16-25 A)



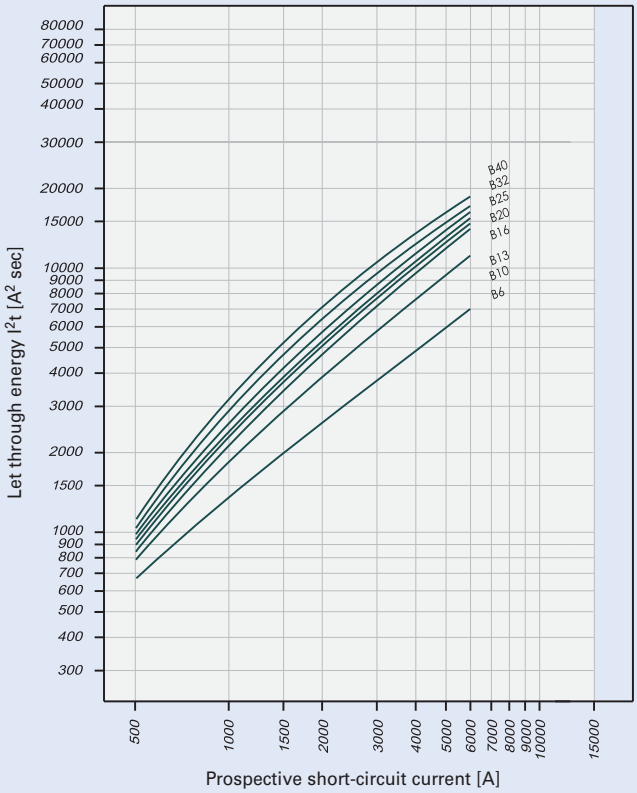
Current carrying capacity at ambient temperature (I_n = 32, 40 A)



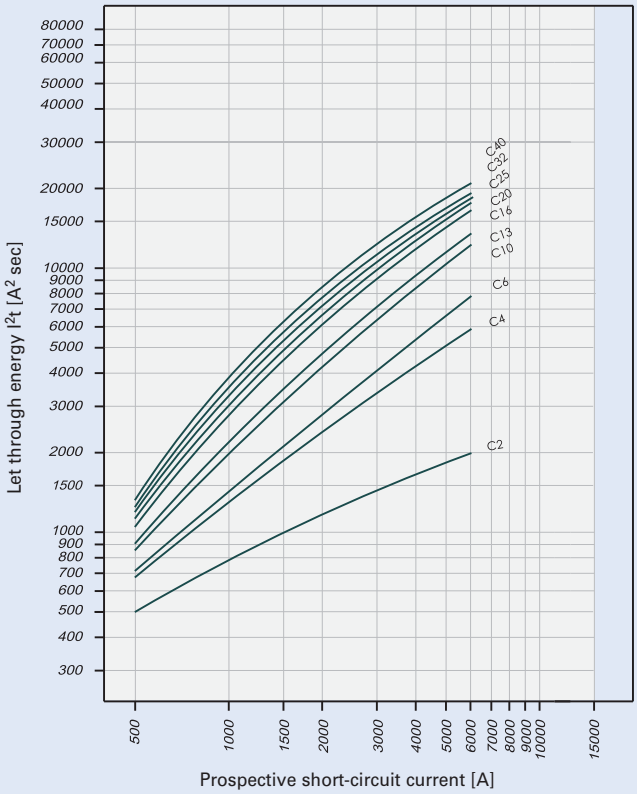
Permitted permanent load at ambient temperature T (°C) with n devices: $I_{DL} = I_n K_T(T) K_N(N)$.

Let-through energy PLN6

Maximum let-through energy PLN6, characteristic B



Maximum let-through energy PLN6, characteristic C



Detemined according to EN 60898-1.

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Short Circuit Selectivity PLN6

In case of short circuit, there is selectivity between the miniature circuit breakers PLN6-.../B,C 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 **PLN6-B/C** towards fuse link **DII-DIV***)*

	DII-DIV gL/gG						
	20	**25**	**35**	**50**	**63**	**80**	**100**
PLN6-B6/1N	0.7	1.2	2.9	4.5	6.0[2]	6.0[2]	6.0[2]
PLN6-B10/1N	0.6	0.9	1.9	3.1	5.7	6.0[2]	6.0[2]
PLN6-B13/1N	0.5	0.7	1.5	2.5	4.5	6.0[2]	6.0[2]
PLN6-B16/1N	0.5	0.7	1.4	2.3	4.3	6.0[2]	6.0[2]
PLN6-B20/1N	0.5	0.7	1.4	2.2	4.0	6.0[2]	6.0[2]
PLN6-B25/1N	0.5	0.6	1.3	2.0	3.8	5.8	6.0[2]
PLN6-B32/1N	0.5	0.6	1.2	1.8	3.4	5.5	6.0[2]
PLN6-B40/1N	<0.5[1]	0.6	1.1	1.7	3.1	5.0	6.0[2]
PLN6-C2/1N	1.5	3.8	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]
PLN6-C4/1N	0.7	1.2	3.3	6.0[2]	6.0[2]	6.0[2]	6.0[2]
PLN6-C6/1N	0.7	1.1	2.6	4.5	6.0[2]	6.0[2]	6.0[2]
PLN6-C10/1N	0.5	0.8	1.7	2.8	5.2	6.0[2]	6.0[2]
PLN6-C13/1N	0.5	0.7	1.5	2.5	4.5	6.0[2]	6.0[2]
PLN6-C16/1N	0.5	0.6	1.2	2.0	3.6	5.6	6.0[2]
PLN6-C20/1N	0.5	0.6	1.2	1.8	3.3	5.1	6.0[2]
PLN6-C25/1N	<0.5[1]	0.6	1.1	1.7	3.0	4.8	6.0[2]
PLN6-C32/1N	<0.5[1]	0.6	1.0	1.6	2.8	4.5	6.0[2]
PLN6-C40/1N	<0.5[1]	0.6	1.0	1.5	2.6	4.0	6.0[2]

*Short circuit selectivity **PLN6-B/C** towards fuse link **D01-D03***)*

	D01-D03 gL/gG						
	20	**25**	**35**	**50**	**63**	**80**	**100**
PLN6-B6/1N	0.6	0.9	2.5	5.5	6.0[2]	6.0[2]	6.0[2]
PLN6-B10/1N	0.5	0.8	1.6	3.4	5.0	6.0[2]	6.0[2]
PLN6-B13/1N	0.5	0.7	1.3	2.7	4.0	6.0[2]	6.0[2]
PLN6-B16/1N	0.5	0.6	1.3	2.5	3.8	6.0[2]	6.0[2]
PLN6-B20/1N	<0.5[1]	0.6	1.3	2.4	3.6	6.0[2]	6.0[2]
PLN6-B25/1N	<0.5[1]	0.6	1.2	2.3	3.3	5.8	6.0[2]
PLN6-B32/1N	<0.5[1]	0.6	1.1	2.1	3.0	5.5	6.0[2]
PLN6-B40/1N	<0.5[1]	0.6	1.0	2.0	2.8	4.9	6.0[2]
PLN6-C2/1N	1.1	2.0	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]
PLN6-C4/1N	0.6	0.9	2.7	6.0[2]	6.0[2]	6.0[2]	6.0[2]
PLN6-C6/1N	0.6	0.9	2.3	5.0	6.0[2]	6.0[2]	6.0[2]
PLN6-C10/1N	0.5	0.7	1.5	3.0	4.5	6.0[2]	6.0[2]
PLN6-C13/1N	0.5	0.7	1.3	2.7	4.0	6.0[2]	6.0[2]
PLN6-C16/1N	<0.5[1]	0.6	1.1	2.2	3.1	5.5	6.0[2]
PLN6-C20/1N	<0.5[1]	0.6	1.1	2.1	2.9	5.2	6.0[2]
PLN6-C25/1N	<0.5[1]	0.5	1.0	2.0	2.7	4.8	6.0[2]
PLN6-C32/1N	<0.5[1]	0.5	1.0	1.9	2.6	4.5	6.0[2]
PLN6-C40/1N	<0.5[1]	0.5	0.9	1.7	2.3	4.0	6.0[2]

*Short circuit selectivity **PLN6-B/C** towards fuse link **NH-00***)*

	NH-00 gL/gG								
	20	**25**	**32**	**35**	**40**	**50**	**63**	**80**	**100**
PLN6-B6/1N	0.5	0.9	1.5	2.3	3.2	4.9	6.0[2]	6.0[2]	6.0[2]
PLN6-B10/1N	<0.5[1]	0.7	1.2	1.5	2.0	3.1	3.9	5.9	6.0[2]
PLN6-B13/1N	<0.5[1]	0.6	1.0	1.3	1.7	2.5	3.1	4.6	6.0[2]
PLN6-B16/1N	<0.5[1]	0.6	1.0	1.3	1.6	2.4	2.9	4.5	6.0[2]
PLN6-B20/1N	<0.5[1]	0.5	0.9	1.3	1.5	2.3	2.8	4.3	6.0[2]
PLN6-B25/1N	<0.5[1]	0.5	0.9	1.1	1.4	2.1	2.6	4.0	6.0[2]
PLN6-B32/1N	<0.5[1]	0.5	0.8	1.0	1.3	1.9	2.4	3.6	6.0[2]
PLN6-B40/1N	<0.5[1]	0.5	0.8	0.9	1.1	1.7	2.2	3.3	6.0[2]
PLN6-C2/1N	0.7	2.1	6.0	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]
PLN6-C4/1N	0.5	0.9	1.6	2.6	3.7	6.0	6.0[2]	6.0[2]	6.0[2]
PLN6-C6/1N	0.5	0.8	1.4	2.1	2.9	4.5	5.7	6.0[2]	6.0[2]
PLN6-C10/1N	<0.5[1]	0.6	1.0	1.4	1.9	2.8	3.5	5.2	6.0[2]
PLN6-C13/1N	<0.5[1]	0.6	0.9	1.3	1.7	2.5	3.1	4.7	6.0[2]
PLN6-C16/1N	<0.5[1]	0.5	0.7	1.0	1.3	2.0	2.5	3.8	6.0[2]
PLN6-C20/1N	<0.5[1]	0.5	0.7	0.9	1.2	1.8	2.3	3.5	6.0[2]
PLN6-C25/1N	<0.5[1]	0.5	0.7	0.9	1.1	1.6	2.1	3.3	6.0[2]
PLN6-C32/1N	<0.5[1]	<0.5[1]	0.6	0.8	1.1	1.5	2.0	3.1	6.0[2]
PLN6-C40/1N	<0.5[1]	<0.5[1]	0.6	0.8	1.0	1.4	1.9	2.9	6.0[2]

[1] Selectivity limit current I_s under 0.5 kA
[2] Selectivity limit current I_s = rated breaking capacity I_{cn} of the MCB