

# Combined RCD/MCB Devices PKNM, 1+N-pole MW



- High-quality residual current device / miniature circuit breaker combination, line voltage-independent
- 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
- Wide variety of rated tripping currents
- Rated currents up to 40 A
- Tripping characteristics B, C
- Rated breaking capacity 10 kA



*Powering Business Worldwide*

## Low Voltage Circuit Protection

PKNM protective device

SG13711



### Combined RCD/RCBO Devices PKNM

MW

10 kA, 1+N-pole

Conditionally surge current-proof 250 A, type AC

$I_n/I_{\Delta n}$ (A)	Type Designation	Article No.	Units per package
<b>Characteristic B</b>			
2/0.01	PKNM-2/1N/B/001	235926	1 / 60
4/0.01	PKNM-4/1N/B/001	235957	1 / 60
6/0.01	PKNM-6/1N/B/001	236006	1 / 60
10/0.01	PKNM-10/1N/B/001	236066	1 / 60
13/0.01	PKNM-13/1N/B/001	236127	1 / 60
16/0.01	PKNM-16/1N/B/001	236199	1 / 60
2/0.03	PKNM-2/1N/B/003	235927	1 / 60
4/0.03	PKNM-4/1N/B/003	235956	1 / 60
6/0.03	PKNM-6/1N/B/003	236007	1 / 60
10/0.03	PKNM-10/1N/B/003	236067	1 / 60
13/0.03	PKNM-13/1N/B/003	236128	1 / 60
16/0.03	PKNM-16/1N/B/003	236200	1 / 60
20/0.03	PKNM-20/1N/B/003	236235	1 / 60
25/0.03	PKNM-25/1N/B/003	236265	1 / 60
32/0.03	PKNM-32/1N/B/003	236295	1 / 60
40/0.03	PKNM-40/1N/B/003	236324	1 / 60
2/0.1	PKNM-2/1N/B/01	235928	1 / 60
4/0.1	PKNM-4/1N/B/01	235958	1 / 60
6/0.1	PKNM-6/1N/B/01	236008	1 / 60
10/0.1	PKNM-10/1N/B/01	236068	1 / 60
13/0.1	PKNM-13/1N/B/01	236129	1 / 60
16/0.1	PKNM-16/1N/B/01	236201	1 / 60
20/0.1	PKNM-20/1N/B/01	236236	1 / 60
25/0.1	PKNM-25/1N/B/01	236266	1 / 60
32/0.1	PKNM-32/1N/B/01	236296	1 / 60
40/0.1	PKNM-40/1N/B/01	236325	1 / 60
2/0.3	PKNM-2/1N/B/03	235929	1 / 60
4/0.3	PKNM-4/1N/B/03	235959	1 / 60
6/0.3	PKNM-6/1N/B/03	236009	1 / 60
10/0.3	PKNM-10/1N/B/03	236069	1 / 60
13/0.3	PKNM-13/1N/B/03	236130	1 / 60
16/0.3	PKNM-16/1N/B/03	236202	1 / 60
20/0.3	PKNM-20/1N/B/03	236237	1 / 60
25/0.3	PKNM-25/1N/B/03	236267	1 / 60
32/0.3	PKNM-32/1N/B/03	236297	1 / 60
40/0.3	PKNM-40/1N/B/03	236326	1 / 60

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$I_n/I_{\Delta n}$ (A)	Type Designation	Article No.	Units per package
<b>Characteristic C</b>			
2/0.01	PKNM-2/1N/C/001	235936	1 / 60
4/0.01	PKNM-4/1N/C/001	235966	1 / 60
6/0.01	PKNM-6/1N/C/001	236016	1 / 60
10/0.01	PKNM-10/1N/C/001	236076	1 / 60
13/0.01	PKNM-13/1N/C/001	236139	1 / 60
16/0.01	PKNM-16/1N/C/001	236211	1 / 60
2/0.03	PKNM-2/1N/C/003	235937	1 / 60
4/0.03	PKNM-4/1N/C/003	235967	1 / 60
6/0.03	PKNM-6/1N/C/003	236017	1 / 60
10/0.03	PKNM-10/1N/C/003	236077	1 / 60
13/0.03	PKNM-13/1N/C/003	236140	1 / 60
16/0.03	PKNM-16/1N/C/003	236212	1 / 60
20/0.03	PKNM-20/1N/C/003	236245	1 / 60
25/0.03	PKNM-25/1N/C/003	236275	1 / 60
32/0.03	PKNM-32/1N/C/003	236305	1 / 60
40/0.03	PKNM-40/1N/C/003	236334	1 / 60
2/0.1	PKNM-2/1N/C/01	235938	1 / 60
4/0.1	PKNM-4/1N/C/01	235968	1 / 60
6/0.1	PKNM-6/1N/C/01	236018	1 / 60
10/0.1	PKNM-10/1N/C/01	236078	1 / 60
13/0.1	PKNM-13/1N/C/01	236141	1 / 60
16/0.1	PKNM-16/1N/C/01	236213	1 / 60
20/0.1	PKNM-20/1N/C/01	236246	1 / 60
25/0.1	PKNM-25/1N/C/01	236276	1 / 60
32/0.1	PKNM-32/1N/C/01	236306	1 / 60
40/0.1	PKNM-40/1N/C/01	236335	1 / 60
2/0.3	PKNM-2/1N/C/03	235939	1 / 60
4/0.3	PKNM-4/1N/C/03	235969	1 / 60
6/0.3	PKNM-6/1N/C/03	236019	1 / 60
10/0.3	PKNM-10/1N/C/03	236079	1 / 60
13/0.3	PKNM-13/1N/C/03	236142	1 / 60
16/0.3	PKNM-16/1N/C/03	236214	1 / 60
20/0.3	PKNM-20/1N/C/03	236247	1 / 60
25/0.3	PKNM-25/1N/C/03	236277	1 / 60
32/0.3	PKNM-32/1N/C/03	236307	1 / 60
40/0.3	PKNM-40/1N/C/03	236336	1 / 60

## Low Voltage Circuit Protection

PKNM protective device

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### Combined RCD/RCBO Devices PKNM

MW

10 kA, 1+N-pole

Conditionally surge current-proof 250 A, sensitive to residual pulsating DC, type A

$I_n/I_{\Delta n}$ (A)	Type Designation	Article No.	Units per package
<b>Characteristic B</b>			
2/0.01	PKNM-2/1N/B/001-A	235931	1 / 60
4/0.01	PKNM-4/1N/B/001-A	235961	1 / 60
6/0.01	PKNM-6/1N/B/001-A	236011	1 / 60
10/0.01	PKNM-10/1N/B/001-A	236071	1 / 60
13/0.01	PKNM-13/1N/B/001-A	236132	1 / 60
16/0.01	PKNM-16/1N/B/001-A	236204	1 / 60
2/0.03	PKNM-2/1N/B/003-A	235932	1 / 60
4/0.03	PKNM-4/1N/B/003-A	235962	1 / 60
6/0.03	PKNM-6/1N/B/003-A	236012	1 / 60
10/0.03	PKNM-10/1N/B/003-A	236072	1 / 60
13/0.03	PKNM-13/1N/B/003-A	236133	1 / 60
16/0.03	PKNM-16/1N/B/003-A	236205	1 / 60
20/0.03	PKNM-20/1N/B/003-A	236239	1 / 60
25/0.03	PKNM-25/1N/B/003-A	236269	1 / 60
32/0.03	PKNM-32/1N/B/003-A	236299	1 / 60
40/0.03	PKNM-40/1N/B/003-A	236328	1 / 60
2/0.1	PKNM-2/1N/B/01-A	235933	1 / 60
4/0.1	PKNM-4/1N/B/01-A	235963	1 / 60
6/0.1	PKNM-6/1N/B/01-A	236013	1 / 60
10/0.1	PKNM-10/1N/B/01-A	236073	1 / 60
13/0.1	PKNM-13/1N/B/01-A	236134	1 / 60
16/0.1	PKNM-16/1N/B/01-A	236206	1 / 60
20/0.1	PKNM-20/1N/B/01-A	236240	1 / 60
25/0.1	PKNM-25/1N/B/01-A	236270	1 / 60
32/0.1	PKNM-32/1N/B/01-A	236300	1 / 60
40/0.1	PKNM-40/1N/B/01-A	236329	1 / 60
2/0.3	PKNM-2/1N/B/03-A	235934	1 / 60
4/0.3	PKNM-4/1N/B/03-A	235964	1 / 60
6/0.3	PKNM-6/1N/B/03-A	236014	1 / 60
10/0.3	PKNM-10/1N/B/03-A	236074	1 / 60
13/0.3	PKNM-13/1N/B/03-A	236135	1 / 60
16/0.3	PKNM-16/1N/B/03-A	236207	1 / 60
20/0.3	PKNM-20/1N/B/03-A	236241	1 / 60
25/0.3	PKNM-25/1N/B/03-A	236271	1 / 60
32/0.3	PKNM-32/1N/B/03-A	236301	1 / 60
40/0.3	PKNM-40/1N/B/03-A	236330	1 / 60

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$I_n/I_{\Delta n}$ (A)	Type Designation	Article No.	Units per package
<b>Characteristic C</b>			
2/0.01	PKNM-2/1N/C/001-A	235941	1 / 60
4/0.01	PKNM-4/1N/C/001-A	235971	1 / 60
6/0.01	PKNM-6/1N/C/001-A	236021	1 / 60
10/0.01	PKNM-10/1N/C/001-A	236081	1 / 60
13/0.01	PKNM-13/1N/C/001-A	236144	1 / 60
16/0.01	PKNM-16/1N/C/001-A	236216	1 / 60
2/0.03	PKNM-2/1N/C/003-A	235942	1 / 60
4/0.03	PKNM-4/1N/C/003-A	235972	1 / 60
6/0.03	PKNM-6/1N/C/003-A	236022	1 / 60
10/0.03	PKNM-10/1N/C/003-A	236082	1 / 60
13/0.03	PKNM-13/1N/C/003-A	236145	1 / 60
16/0.03	PKNM-16/1N/C/003-A	236217	1 / 60
20/0.03	PKNM-20/1N/C/003-A	236249	1 / 60
25/0.03	PKNM-25/1N/C/003-A	236279	1 / 60
32/0.03	PKNM-32/1N/C/003-A	236309	1 / 60
40/0.03	PKNM-40/1N/C/003-A	236338	1 / 60
2/0.1	PKNM-2/1N/C/01-A	235943	1 / 60
4/0.1	PKNM-4/1N/C/01-A	235973	1 / 60
6/0.1	PKNM-6/1N/C/01-A	236023	1 / 60
10/0.1	PKNM-10/1N/C/01-A	236083	1 / 60
13/0.1	PKNM-13/1N/C/01-A	236146	1 / 60
16/0.1	PKNM-16/1N/C/01-A	236218	1 / 60
20/0.1	PKNM-20/1N/C/01-A	236250	1 / 60
25/0.1	PKNM-25/1N/C/01-A	236280	1 / 60
32/0.1	PKNM-32/1N/C/01-A	236310	1 / 60
40/0.1	PKNM-40/1N/C/01-A	236339	1 / 60
2/0.3	PKNM-2/1N/C/03-A	235944	1 / 60
4/0.3	PKNM-4/1N/C/03-A	235974	1 / 60
6/0.3	PKNM-6/1N/C/03-A	236024	1 / 60
10/0.3	PKNM-10/1N/C/03-A	236084	1 / 60
13/0.3	PKNM-13/1N/C/03-A	236147	1 / 60
16/0.3	PKNM-16/1N/C/03-A	236219	1 / 60
20/0.3	PKNM-20/1N/C/03-A	236251	1 / 60
25/0.3	PKNM-25/1N/C/03-A	236281	1 / 60
32/0.3	PKNM-32/1N/C/03-A	236311	1 / 60
40/0.3	PKNM-40/1N/C/03-A	236340	1 / 60

# Low Voltage Circuit Protection

PKNM protective device

## Combined RCD/MCB Devices PKNM

MW

10 kA, 1+N-pole

Surge current-proof 3 kA, type G (ÖVE E 8601)

SG13711



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$I_n/I_{\Delta n}$ (A)	Type Designation	Article No.	Units per package
<b>Characteristic B</b>			
13/0.03	PKNM-13/1N/B/003-G	236137	1 / 60
16/0.03	PKNM-16/1N/B/003-G	236209	1 / 60
20/0.03	PKNM-20/1N/B/003-G	236243	1 / 60
25/0.03	PKNM-25/1N/B/003-G	236273	1 / 60
32/0.03	PKNM-32/1N/B/003-G	236303	1 / 60
40/0.03	PKNM-40/1N/B/003-G	236332	1 / 60
13/0.3	PKNM-13/1N/B/03-G	236138	1 / 60
16/0.3	PKNM-16/1N/B/03-G	236210	1 / 60
20/0.3	PKNM-20/1N/B/03-G	236244	1 / 60
25/0.3	PKNM-25/1N/B/03-G	236274	1 / 60
32/0.3	PKNM-32/1N/B/03-G	236304	1 / 60
40/0.3	PKNM-40/1N/B/03-G	236333	1 / 60

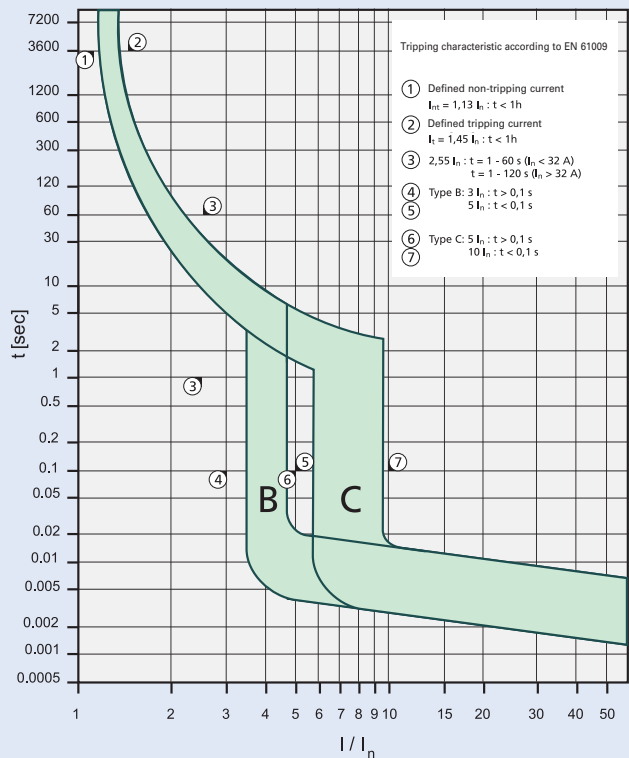
$I_n/I_{\Delta n}$ (A)	Type Designation	Article No.	Units per package
<b>Characteristic C</b>			
13/0.03	PKNM-13/1N/C/003-G	236149	1 / 60
16/0.03	PKNM-16/1N/C/003-G	236221	1 / 60
20/0.03	PKNM-20/1N/C/003-G	236253	1 / 60
25/0.03	PKNM-25/1N/C/003-G	236283	1 / 60
32/0.03	PKNM-32/1N/C/003-G	236313	1 / 60
40/0.03	PKNM-40/1N/C/003-G	236342	1 / 60
13/0.3	PKNM-13/1N/C/03-G	236150	1 / 60
16/0.3	PKNM-16/1N/C/03-G	236222	1 / 60
20/0.3	PKNM-20/1N/C/03-G	236254	1 / 60
25/0.3	PKNM-25/1N/C/03-G	236284	1 / 60
32/0.3	PKNM-32/1N/C/03-G	236314	1 / 60
40/0.3	PKNM-40/1N/C/03-G	236343	1 / 60

### Load Capacity PKNM-../1N/

Effect of ambient temperature (MCB component)

$I_n$ [A]	Ambient temperature T [°C]								
	-25	-20	-10	0	10	20	30	35	40
2	2.5	2.4	2.3	2.2	2.2	2.1	2.0	2.0	1.9
4	4.9	4.8	4.7	4.5	4.3	4.2	4.0	3.9	3.9
5	6.2	6.0	5.8	5.6	5.4	5.2	5.0	4.9	4.8
6	7.4	7.2	7.0	6.7	6.5	6.3	6.0	5.9	5.8
8	9.9	9.6	9.3	9.0	8.7	8.4	8.0	7.9	7.7
10	12	12	12	11	11	10	10	9.9	9.7
12	15	14	14	13	13	13	12	12	12
13	16	16	15	15	14	14	13	13	13
15	19	18	17	17	16	16	15	15	15
16	20	19	19	18	17	17	16	16	15
20	25	24	23	22	22	21	20	20	19
25	31	30	29	28	27	26	25	25	24
32	40	38	37	36	35	33	32	32	31
40	49	48	47	45	43	42	40	39	39

### Tripping Characteristic PKNM-../1N/, Characteristics B a. C



## Short Circuit Selectivity PKNM-./1N/ towards DII-DIV fuse link

In case of short circuit, there is selectivity between the combined RCD/MCB devices PKNM-./1N/ 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\***)

PKNM	DII-DIV 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>	2.2	8.5	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>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.2	3.7	10.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.7	1.0	2.9	6.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8		<0.5 <sup>1)</sup>	0.6	1.0	2.4	5.1	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10			0.6	0.9	1.9	3.3	7.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13			0.5	0.7	1.6	2.8	5.7	9.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
16				0.7	1.4	2.4	4.4	7.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
20					1.3	2.2	4.0	6.3	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
25					1.3	2.1	3.8	5.8	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
32						2.0	3.5	5.2	9.5	10.0 <sup>2)</sup>
40							3.1	4.5	8.1	10.0 <sup>2)</sup>

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

PKNM	DII-DIV 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>	1.7	6.0	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>	0.7	1.3	4.2	8.5	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	1.1	3.6	7.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
6		<0.5 <sup>1)</sup>	0.6	1.0	2.9	5.8	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8		<0.5 <sup>1)</sup>	<0.5	0.9	2.5	4.8	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10			<0.5	0.7	1.5	2.6	5.3	9.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13					1.4	2.3	4.6	7.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
16					1.2	1.8	3.4	5.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
20					1.2	1.7	3.1	5.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
25						1.6	2.9	4.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
32							2.3	3.4	7.7	10.0 <sup>2)</sup>
40								2.9	6.2	10.0 <sup>2)</sup>

## Short Circuit Selectivity PKNM-./1N/ towards D01-D03 fuse link

In case of short circuit, there is selectivity between the combined RCD/MCB devices PKNM-./1N/ 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\***)

PKNM	D01-D03 gL/gG									
	$I_n$ [A]	10	16	20	25	35	50	63	80	100
2	<0.5 <sup>1)</sup>	0.7	1.6	3.3	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	0.9	2.9	10.0	10.0 <sup>2)</sup>	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	2.4	8.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8			0.6	0.8	2.0	6.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10			0.5	0.8	1.6	3.7	6.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13			0.6	0.7	1.4	3.0	4.7	9.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
16				0.6	1.2	2.6	3.9	7.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
20					1.2	2.5	3.6	6.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
25					1.2	2.3	3.3	5.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
32						2.3	3.1	5.1	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
40							2.8	4.5	9.5	10.0 <sup>2)</sup>

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

PKNM	D01-D03 gL/gG									
	$I_n$ [A]	10	16	20	25	35	50	63	80	100
2	<0.5 <sup>1)</sup>	0.5	0.5	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>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.9	3.4	9.5	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>	<0.5 <sup>1)</sup>	0.9	2.9	8.0	10.0 <sup>2)</sup>	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>	0.8	2.3	6.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
8			<0.5	0.7	2.1	5.5	9.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
10			<0.5	0.6	1.3	2.9	4.5	8.9	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13					1.2	2.5	3.9	7.6	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
16					1.0	2.1	3.0	5.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
20					1.0	2.0	2.7	5.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
25						1.9	2.6	4.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
32							2.1	3.4	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
40								3.0	8.7	10.0 <sup>2)</sup>

## Short Circuit Selectivity PKNM-./1N/ towards NH-00 fuse link

In case of short circuit, there is selectivity between the combined RCD/MCB devices PKNM-./1N/ 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\***)

PKNM	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>	1.1	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>	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	0.9	1.6	2.8	4.4	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>	10.0 <sup>2)</sup>
6	<0.5 <sup>1)</sup>	0.5	0.8	1.4	2.2	3.3	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>	10.0 <sup>2)</sup>
8	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.0	1.9	2.8	5.3	7.8	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		<0.5 <sup>1)</sup>	0.7	0.9	1.5	2.1	3.4	4.3	7.3	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13		<0.5 <sup>1)</sup>	0.6	0.8	1.4	1.8	2.8	3.6	5.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
16			0.6	0.7	1.2	1.5	2.4	3.0	4.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
20				0.7	1.1	1.5	2.2	2.8	4.2	9.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
25				0.7	1.1	1.4	2.1	2.6	4.0	8.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
32					1.0	1.4	2.0	2.5	3.7	7.1	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
40						2.3	3.4	6.2	8.8	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>

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

PKNM	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	2.6	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>	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>	0.9	1.8	3.2	4.8	8.7	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>
5	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.8	1.6	2.7	4.1	7.2	9.7	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>
6	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.3	2.2	3.3	5.9	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>
8	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.6	1.1	1.9	2.8	5.0	6.7	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			0.5	0.8	1.2	1.7	2.7	3.4	5.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
13					1.1	1.5	2.3	2.9	4.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
16					1.0	1.3	1.8	2.3	3.7	8.7	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
20					0.9	1.1	1.7	2.2	3.4	8.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
25						1.6	2.1	3.2	7.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
32							1.7	2.6	5.3	9.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
40								2.4	4.5	7.5	10.0 <sup>2)</sup>	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 RCD/MCB device
- Darker areas: no selectivity

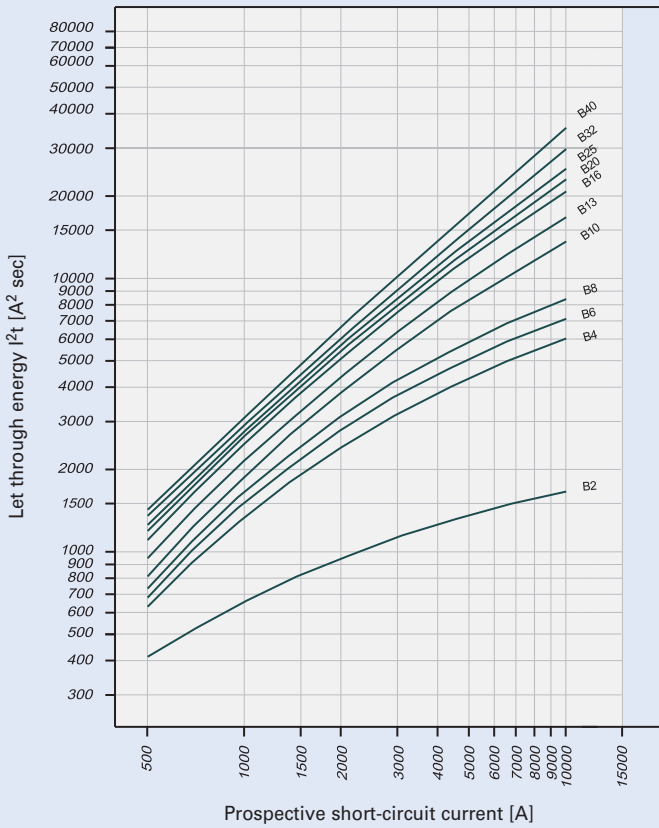


# Low Voltage Circuit Protection

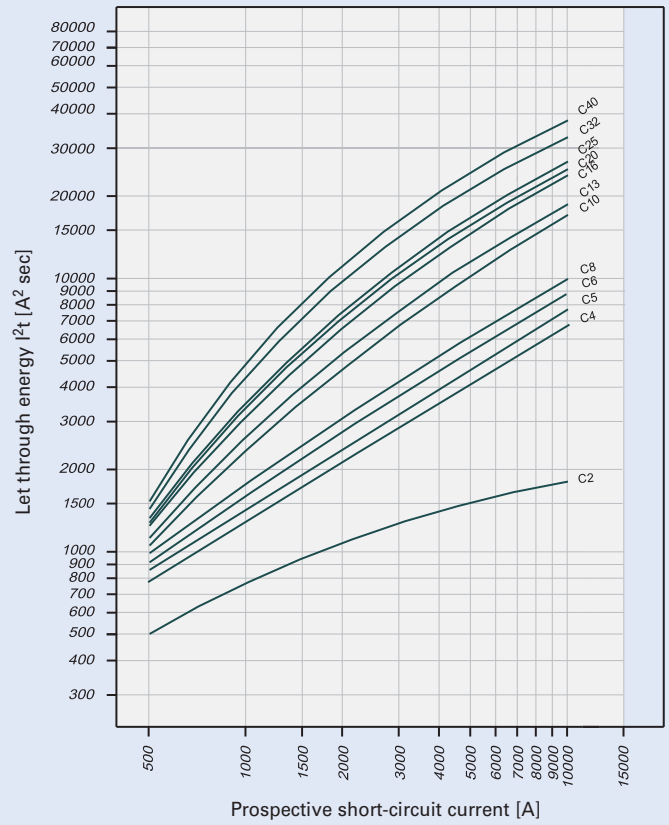
PKNM protective device

## Let-through Energy PKNM-./1N/

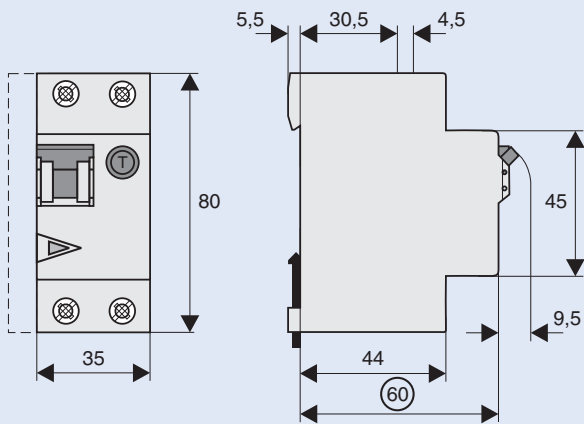
Let-through energy PKNM, characteristic B, 1+N-pole



Let-through energy PKNM, characteristic C, 1+N-pole

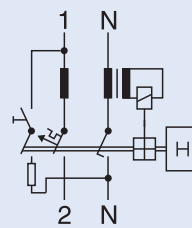


## Dimensions (mm)



## Connection diagram

### 1+N-pole





## Combined RCD/MCB Devices PKNM, 1+N-pole

- Combined RCD/MCB device
- Line voltage-independent tripping
- Compatible with standard busbar
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- Free terminal space despite installed busbar
- Guide for secure terminal connection
- Switching toggle (MCB component) in colour designating the rated current
- Contact position indicator red - green
- Comprehensive range of accessories suitable for subsequent installation
- Type -A: Protects against special forms of residual pulsating DC which have not been smoothed
- Type -G: 10 ms time delay in order to avoid unwanted tripping (e.g. during thunderstorms). Compulsory in Austria for any circuit where personal injury or damage to property may occur in case of unwanted tripping (§12.1.6 ÖVE/ÖNORME 8001-1).

Accessories:		
Auxiliary switch for subsequent installation		
	ZP-IHK	286052
	ZP-WHK	286053
Tripping signal switch for subsequent installation		
	ZP-NHK	248437
Shunt trip release	ZP-ASA/..	248438, 248439
Tripping module	Z-KAM	248294
Terminal cover cap	KLV-TC-2	276240
Additional terminal 35mm <sup>2</sup>	Z-HA-EK/35	263960
Switching interlock	IS/SPE-1TE	101911

## Technical Data

Electrical		Mechanical	
Design according to	IEC/EN 61009	Frame size	45 mm
Current test marks as printed onto the device		Device height	80 mm
Tripping		Device width	35 mm (2MU)
line voltage-independent	instantaneous 250A (8/20fÊs) surge current-proof; Type G 10 ms delay 3kA (8/20fÊs) surge current-proof	Mounting	3-position DIN rail clip, permits removal from existing busbar system
Rated voltage U <sub>e</sub>	230 V; 50 Hz	Upper and lower terminals	open mouthed/lift terminals
Operational voltage range	196-253 V	Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Rated tripping current I <sub>f</sub> φ <sub>n</sub>	10, 30, 100, 300 mA	Terminal capacity	1 - 25 mm <sup>2</sup>
Rated non-tripping current I <sub>f</sub> φ <sub>no</sub>	0.5 I <sub>f</sub> φ <sub>n</sub>	Busbar thickness	0.8 - 2 mm
Sensitivity	AC and pulsating DC	Degree of protection switch	IP20
Selectivity class	3	Degree of protection, built-in	IP40
Rated breaking capacity	10 kA	Tripping temperature	-25°C to +40°C
Rated current	2 - 40 A	Storage- and transport temperature	-35°C to +60°C
Rated peak withstand voltage U <sub>imp</sub> Characteristic	4 kV (1.2/50fÊs) B, C	Resistance to climatic conditions	acc. to IEC/EN 61009
Maximum back-up fuse (short circuit)	100 A gL (>10 kA)		
Endurance	electrical comp. > 4,000 operating cycles mechanical comp. > 20,000 operating cycles		