

SG13711



## Description

- High-quality residual current device / miniature circuit breaker combination, line voltage-independent
- Increased protection in applications with 1-phase frequency converter due to the detection of mixed frequencies (type F)
- Reduction of nuisance tripping (type F, G, or G/A) thanks to
  - time delayed tripping
  - increased current withstand capability > 3 kA
- Higher load rating with DC residual currents up to 10 mA (type F)
- 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 can be mounted subsequently
- Wide variety of rated tripping currents
- Rated currents up to 40 A
- Tripping characteristics B, C
- Rated breaking capacity 10 kA

$I_n/I_{\Delta n}$ (A)	Type Designation	Article No.	Units per package
---------------------------	---------------------	-------------	----------------------

**Type F**

**10 kA, 1+N-pole**  
**Selective + surge current-proof 3 kA, sensitive to residual pulsating DC, type F**

SG13711



**Characteristic B**

13/003	PKNM-13/1N/B/003-F	193572	1/60
16/003	PKNM-16/1N/B/003-F	193573	1/60
20/003	PKNM-20/1N/B/003-F	193574	1/60
25/003	PKNM-25/1N/B/003-F	193581	1/60
32/003	PKNM-32/1N/B/003-F	193582	1/60
40/003	PKNM-40/1N/B/003-F	193583	1/60
13/03	PKNM-13/1N/B/03-F	193587	1/60
16/03	PKNM-16/1N/B/03-F	193588	1/60
20/03	PKNM-20/1N/B/03-F	193589	1/60
25/03	PKNM-25/1N/B/03-F	193596	1/60
32/03	PKNM-32/1N/B/03-F	193597	1/60
40/03	PKNM-40/1N/B/03-F	193598	1/60
13/01	PKNM-13/1N/B/01-F	193602	1/60
16/01	PKNM-16/1N/B/01-F	193603	1/60
20/01	PKNM-20/1N/B/01-F	193604	1/60
25/01	PKNM-25/1N/B/01-F	193611	1/60
32/01	PKNM-32/1N/B/01-F	193612	1/60
40/01	PKNM-40/1N/B/01-F	193613	1/60

SG13711



**Characteristic C**

13/003	PKNM-13/1N/C/003-F	193575	1/60
16/003	PKNM-16/1N/C/003-F	193576	1/60
20/003	PKNM-20/1N/C/003-F	193577	1/60
25/003	PKNM-25/1N/C/003-F	193584	1/60
32/003	PKNM-32/1N/C/003-F	193585	1/60
40/003	PKNM-40/1N/C/003-F	193586	1/60
13/03	PKNM-13/1N/C/03-F	193590	1/60
16/03	PKNM-16/1N/C/03-F	193591	1/60
20/03	PKNM-20/1N/C/03-F	193592	1/60
25/03	PKNM-25/1N/C/03-F	193599	1/60
32/03	PKNM-32/1N/C/03-F	193600	1/60
40/03	PKNM-40/1N/C/03-F	193601	1/60
13/01	PKNM-13/1N/C/01-F	193605	1/60
16/01	PKNM-16/1N/C/01-F	193606	1/60
20/01	PKNM-20/1N/C/01-F	193607	1/60
25/01	PKNM-25/1N/C/01-F	193614	1/60
32/01	PKNM-32/1N/C/01-F	193615	1/60
40/01	PKNM-40/1N/C/01-F	193616	1/60

SG13711



**Characteristic D**

13/003	PKNM-13/1N/D/003-F	193578	1/60
16/003	PKNM-16/1N/D/003-F	193579	1/60
20/003	PKNM-20/1N/D/003-F	193580	1/60
13/03	PKNM-13/1N/D/03-F	193593	1/60
16/03	PKNM-16/1N/D/03-F	193594	1/60
20/03	PKNM-20/1N/D/03-F	193595	1/60
13/01	PKNM-13/1N/D/01-F	193608	1/60
16/01	PKNM-16/1N/D/01-F	193609	1/60
20/01	PKNM-20/1N/D/01-F	193610	1/60

$I_n/I_{\Delta n}$   
(A)

Type  
Designation

Article No.

Units per  
package

### Type G/A

#### 10 kA, 1+N-pole

#### Surge current-proof 3 kA, sensitive to residual pulsating DC, type G/A

##### Characteristic B

$I_n/I_{\Delta n}$	Type Designation	Article No.	Units per package
13/003	PKNM-13/1N/B/003-G/A	182886	1/60
16/003	PKNM-16/1N/B/003-G/A	182887	1/60
20/003	PKNM-20/1N/B/003-G/A	182888	1/60
25/003	PKNM-25/1N/B/003-G/A	182889	1/60
32/003	PKNM-32/1N/B/003-G/A	182890	1/60

SG13711



##### Characteristic C

$I_n/I_{\Delta n}$	Type Designation	Article No.	Units per package
13/003	PKNM-13/1N/C/003-G/A	182891	1/60
16/003	PKNM-16/1N/C/003-G/A	182892	1/60
20/003	PKNM-20/1N/C/003-G/A	182893	1/60
25/003	PKNM-25/1N/C/003-G/A	182894	1/60
32/003	PKNM-32/1N/C/003-G/A	182895	1/60

SG13711



### Type G

#### 10 kA, 1+N-pole

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

##### Characteristic B

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

SG13711



##### Characteristic C

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

SG13711



$I_n/I_{\Delta n}$ (A)	Type Designation	Article No.	Units per package
---------------------------	---------------------	-------------	----------------------

**Type A**

**10 kA, 1+N-pole**  
**Conditionally surge current-proof 250 A, sensitive to residual pulsating DC, type A**

SG13711



**Characteristic 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

SG13711



$I_n/I_{\Delta n}$ (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

$I_n/I_{\Delta n}$ (A)	Type Designation	Article No.	Units per package
---------------------------	---------------------	-------------	----------------------

**Type AC**

**10 kA, 1+N-pole**  
**Conditionally surge current-proof 250 A, type AC**

SG13711



**Characteristic 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

SG13711



$I_n/I_{\Delta n}$ (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

**Specifications | Combined RCD/MCB Devices PKNM, 1+N-pole**

**Description**

- Combined RCD/MCB Devices
- 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 can be mounted subsequently
- The test key "T" must be pressed every 6 month. The system operator must be informed of this obligation and his responsibility in a way that can be proven (self-adhesive RCD-label enclosed). The test intervall of 6 month is valid for residential and similar applications. Under all other conditions (e.g. damply or dusty environments), it's recommended to test in shorter intervalls (e.g. monthly).
- Pressing the test key "T" serves the only purpose of function testing the residual current device (RCD). This test does not make earthing resistance measurement ( $R_E$ ), or proper checking of the earth conductor condition redundant, which must be performed separately.
- **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/ÖNORM E 8001-1).
- **Type -F:** Increased protection in applications with 1phase frequency converter due to the detection of mixed frequencies, higher load capacity with smooth DC fault currents up to 10 mA.

**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
Terminal cover cap	KLV-TC-2	276240
Additional terminal 35 mm <sup>2</sup>	Z-HA-EK/35	263960

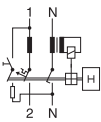


### Technical Data

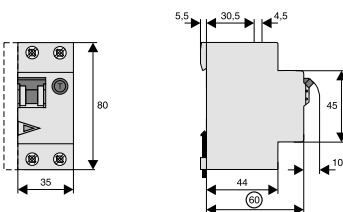
		PKNM, 1+N-pole
<b>Electrical</b>		
Design according to		IEC/EN 61009
Current test marks as printed onto the device		
Line voltage-independent tripping		instantaneous 250 A (8/20 $\mu$ s), surge current proof
Type G, F		10 ms delay 3 kA (8/20 $\mu$ s), surge current proof
Rated voltage	$U_e$	230 V AC, 50 Hz
Operational voltage range		196-253 V
Rated tripping current	$I_{\Delta n}$	10, 30, 100, 300 mA
Rated non-tripping current	$I_{\Delta no}$	0.5 $I_{\Delta n}$
Rated insulation voltage	$U_i$	440 VAC
Sensitivity		AC and pulsating DC
Selectivity class		3
Rated breaking capacity	$I_{cn}$	10 kA
Rated current		2 - 40 A
Rated impulse withstand voltage	$U_{imp}$	4 kV (1.2/50 $\mu$ s)
Characteristic		B, C
Maximum back-up fuse (short circuit)		100 A gL (>10 kA)
Endurance		
electrical components		$\geq 4,000$ switching operations
mechanical components		$\geq 20,000$ switching operations
<b>Mechanical</b>		
Frame size		45 mm
Device height		80 mm
Device width		35 mm (2MU)
Mounting		3-position DIN rail clip, permits removal from existing busbar system
Degree of protection, switch		IP20
Degree of protection, built-in		IP40
Upper and lower terminals		open mouthed/lift terminals
Terminal protection		finger and hand touch safe, DGUV VS3, EN 50274
Terminal capacity		1 - 25 mm <sup>2</sup>
Terminal torque		2 - 2.4 Nm
Busbar thickness		0.8 - 2 mm
Tripping temperature		-25°C to +40°C
Storage- and transport temperature		-35°C to +60°C
Resistance to climatic conditions		according to IEC/EN 61009

### Connection diagram

1+N-pole



### Dimensions (mm)

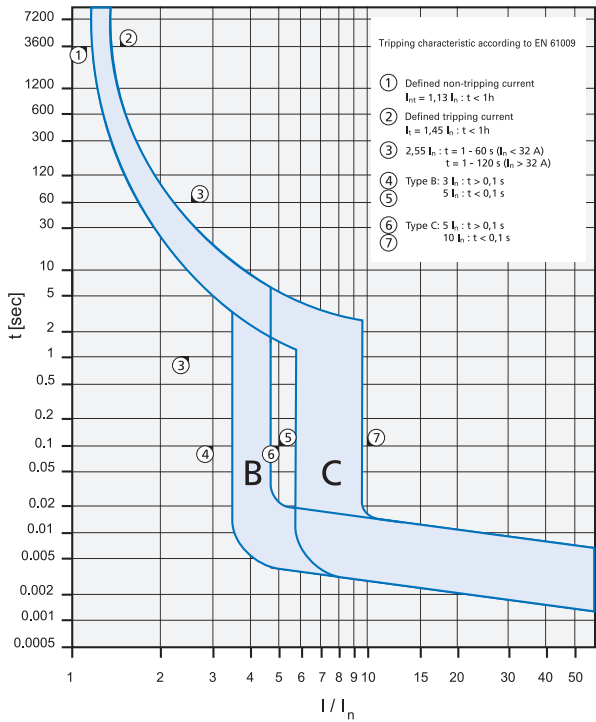


**Load Capacity PKNM-../1N/**

Effect of ambient temperature (MCB component)

I <sub>n</sub> [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 and 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<sub>s</sub> [kA] (i. e. in case of short-circuit currents I<sub>ks</sub> under I<sub>s</sub>, 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\***

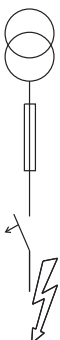
PKNM I <sub>n</sub> [A]	DII-DIV gL/gG								
	10	16	20	25	35	50	63	80	100
2	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	2.2	8.5	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
4	<0.5 <sup>1)</sup>	<0.5 <sup>1)</sup>	0.7	1.2	3.7	10.0	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>
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>
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			0.6	0.9	1.9	3.3	7.0	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>
16				0.7	1.4	2.4	4.4	7.0	10.0 <sup>2)</sup>
20					1.3	2.2	4.0	6.3	10.0 <sup>2)</sup>
25					1.3	2.1	3.8	5.8	10.0 <sup>2)</sup>
32						2.0	3.5	5.2	9.5
40							3.1	4.5	8.1

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

PKNM I <sub>n</sub> [A]	DII-DIV gL/gG								
	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>
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>
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>
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>
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			<0.5	0.7	1.5	2.6	5.3	9.0	10.0 <sup>2)</sup>
13					1.4	2.3	4.6	7.6	10.0 <sup>2)</sup>
16					1.2	1.8	3.4	5.5	10.0 <sup>2)</sup>
20					1.2	1.7	3.1	5.0	10.0 <sup>2)</sup>
25						1.6	2.9	4.6	10.0 <sup>2)</sup>
32							2.3	3.4	7.7
40								2.9	6.2

<sup>1)</sup> Selectivity limit current I<sub>s</sub> under 0.5 kA.

<sup>2)</sup> Selectivity limit current I<sub>s</sub> = rated breaking capacity I<sub>cn</sub> of the RCD/MCB device  
Darker areas: no selectivity



### 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	D01-D03 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>	
32						1.0	1.4	2.0	2.5	3.7	7.1	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>	

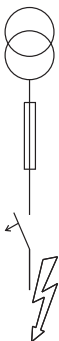
Short circuit selectivity **Characteristic C** towards fuse link **NH-00\***

PKNM	D01-D03 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>	
25								1.6	2.1	3.2	7.2	10.0 <sup>2)</sup>	10.0 <sup>2)</sup>	
32									1.7	2.6	5.3	9.0	10.0 <sup>2)</sup>	
40										2.4	4.5	7.5	10.0	

<sup>1)</sup> Selectivity limit current  $I_s$  under 0.5 kA.

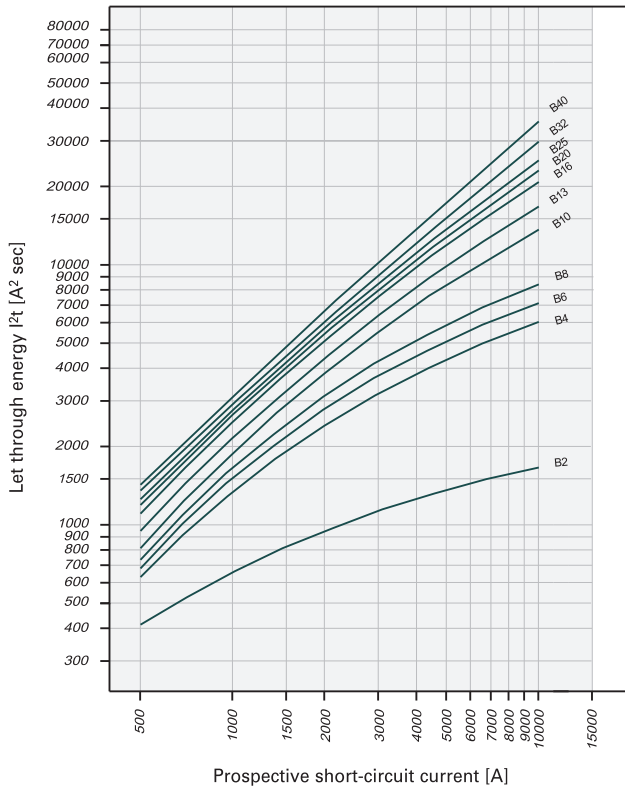
<sup>2)</sup> Selectivity limit current  $I_s$  = rated breaking capacity  $I_{cn}$  of the RCD/MCB device

Darker areas: no selectivity



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

Let-through Energy PKNM, Characteristic B, 1+N-pole



Let-through Energy PKNM, Characteristic C, 1+N-pole

