

Installation devices



Installation devices and circuit breakers for mounting into distribution boards.

Miniature circuit breakers

Residual current devices

Surge arresters

Other devices and accessories

Catalogue 2006 - 2007

Valid from 1.6.2006

MOELLER



We keep power under control.

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Explanatory notes to used marking

New item

Phase-out type

Change in type designation or in article number

Residual current devices PF7

- A complete spectrum of compact residual current devices up to 100 A
- Rated short circuit strength 10 kA
- Especially for protection against accidents caused by current and property protection
- Wide variety of types (G, S, A, G/A, S/A, R, U, ...)
- Special type U for frequency converter applications with high surge current proof
- Accessories suitable for subsequent installation
-  Frost resistance

SGS202



Residual Current Devices PF7

- Can be used as an additional protection against dangerous contact with live parts ($I_{\Delta n} \leq 30 \text{ mA}$), as a protection against dangerous contact with exposed conductive parts ($I_{\Delta n} > 30 \text{ mA}$) or as a fire protection ($I_{\Delta n} \leq 300 \text{ mA}$)
- Rated short circuit strength 10 kA
- Busbar positioning for input optionally above or below
- The device function irrespective of the position of installation
- Contact position indicator red-green
- Twin purpose terminal (lift/open – mouthed) above or below
- Free terminal space despite installed busbar
- 4-pole device can also be used for 2-pole or 3-pole connection
- Test key "T" must be pressed once a month
- Additional protection against overload must be used for devices with rated current 80 A and 100 A
- Terminal capacity 1.5–35 mm²

Surge current proof 250 A



- Type AC – sensitive to residual AC
- Without time delay – surge current-proof 250 A

$I_n/I_{\Delta n} [\text{A}]$	Type Designation	Article No.	Units per package
2-pole			
25/0.03	PF7-25/2/003	263577	1/60
25/0.10	PF7-25/2/01	263578	1/60
40/0.03	PF7-40/2/003	263579	1/60
40/0.10	PF7-40/2/01	263580	1/60
63/0.03	PF7-63/2/003	263581	1/60
63/0.10	PF7-63/2/01	263582	1/60
63/0.30	PF7-63/2/03	263583	1/60
4-pole			
25/0.03	PF7-25/4/003	263584	1/30
25/0.10	PF7-25/4/01	263585	1/30
40/0.03	PF7-40/4/003	263586	1/30
40/0.10	PF7-40/4/01	263587	1/30
40/0.30	PF7-40/4/03	263588	1/30
40/0.50	PF7-40/4/05	263589	1/30
63/0.03	PF7-63/4/003	263590	1/30
63/0.10	PF7-63/4/01	263591	1/30
63/0.30	PF7-63/4/03	263592	1/30
63/0.50	PF7-63/4/05	263593	1/30
80/0.03	PF7-80/4/003	263594	1/30
80/0.10	PF7-80/4/01	263595	1/30
80/0.30	PF7-80/4/03	263596	1/30
80/0.50	PF7-80/4/05	263597	1/30
100/0.03	PF7-100/4/003	102925	1/30
100/0.10	PF7-100/4/01	102926	1/30
100/0.30	PF7-100/4/03	102927	1/30
100/0.50	PF7-100/4/05	102928	1/30

5G5102



5G5202



Surge current proof 250 A, sensitive also to pulsating DC



- Type A – sensitive to residual AC and residual pulsating DC
- Without time delay – surge current-proof 250 A

$I_n/I_{\Delta n} [\text{A}]$	Type Designation	Article No.	Units per package
2-pole			
16/0.01	PF7-16/2/001-A	263598	1/60
25/0.03	PF7-25/2/003-A	263599	1/60
25/0.10	PF7-25/2/01-A	263600	1/60
25/0.30	PF7-25/2/03-A	263601	1/60
40/0.03	PF7-40/2/003-A	263602	1/60
40/0.10	PF7-40/2/01-A	263603	1/60
40/0.30	PF7-40/2/03-A	263604	1/60
63/0.03	PF7-63/2/003-A	263605	1/60
63/0.10	PF7-63/2/01-A	263606	1/60
63/0.30	PF7-63/2/03-A	263607	1/60

5G19002



5G19202



4-pole

25/0.03	PF7-25/4/003-A	263608	1/30
25/0.10	PF7-25/4/01-A	263609	1/30
25/0.30	PF7-25/4/03-A	263610	1/30
40/0.03	PF7-40/4/003-A	263611	1/30
40/0.10	PF7-40/4/01-A	263612	1/30
40/0.30	PF7-40/4/03-A	263613	1/30
63/0.03	PF7-63/4/003-A	263614	1/30
63/0.10	PF7-63/4/01-A	263615	1/30
63/0.30	PF7-63/4/03-A	263616	1/30
80/0.03	PF7-80/4/003-A	263617	1/30
80/0.30	PF7-80/4/03-A	263618	1/30
100/0.03	PF7-100/4/003-A	102929	1/30
100/0.10	PF7-100/4/01-A	102930	1/30
100/0.30	PF7-100/4/03-A	102931	1/30
100/0.50	PF7-100/4/05-A	102932	1/30

Surge current-proof 3 kA, type G



- Type AC – sensitive to residual AC

- G with time delay – surge current-proof 3 kA

$I_n/I_{\Delta n}$ [A]	Type Designation	Article No.	Units per package
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2-pole

25/0.03	PF7-25/2/003-G	263619	1/60
25/0.10	PF7-25/2/01-G	263620	1/60
40/0.03	PF7-40/2/003-G	263621	1/60
40/0.10	PF7-40/2/01-G	263622	1/60

5G19402



5G19602



4-pole

40/0.03	PF7-40/4/003-G	263623	1/30
40/0.10	PF7-40/4/01-G	263624	1/30
63/0.03	PF7-63/4/003-G	263625	1/30
63/0.10	PF7-63/4/01-G	263627	1/30

Surge current-proof 3 kA, for x-rays – R



- Type A – sensitive to residual AC and residual pulsating DC

- R – for x-rays – surge current-proof 3 kA

$I_n/I_{\Delta n}$ [A]	Type Designation	Article No.	Units per package
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4-pole

63/0.03	PF7-63/4/003-R	263628	1/30
100/0.03	PF7-100/4/003-R	102935	1/30

5G20202



SG19802



Selective, surge current-proof 5 kA, type S



- Type AC – sensitive to residual AC
- S selective with time delay – surge current-proof 5 kA

$I_n/I_{\Delta n}$ [A]	Type Designation	Article No.	Units per package
2-pole			
40/0.10	PF7-40/2/01-S	263629	1/60
40/0.30	PF7-40/2/03-S	263630	1/60
4-pole			
80/0.10	PF7-80/4/01-S	263636	1/30

SG20002



Selective, surge current-proof 5 kA, sensitive also to pulsating DC



- Type A – sensitive to residual AC and residual pulsating DC
- S selective with time delay – surge current-proof 5 kA

$I_n/I_{\Delta n}$ [A]	Type Designation	Article No.	Units per package
4-pole			
25/0.10	PF7-25/4/01-S/A	263631	1/30
40/0.10	PF7-40/4/01-S/A	263632	1/30
40/0.30	PF7-40/4/03-S/A	263633	1/30
63/0.10	PF7-63/4/01-S/A	263634	1/30
63/0.30	PF7-63/4/03-S/A	263635	1/30
80/0.30	PF7-80/4/03-S/A	263637	1/30
100/0.30	PF7-100/4/03-S/A	292494	1/30

SG20502



Selective, surge current-proof 5 kA, frequency converter-proof, type U



- Type A – sensitive to residual AC and residual pulsating DC
- U – for frequency converter applications
- S selective with time delay – surge current-proof 5 kA

$I_n/I_{\Delta n}$ [A]	Type Designation	Article No.	Units per package
4-pole			
40/0.10	PF7-40/4/01-U	263638	1/30
40/0.30	PF7-40/4/03-U	263639	1/30
63/0.10	PF7-63/4/01-U	263640	1/30
63/0.30	PF7-63/4/03-U	263641	1/30
80/0.30	PF7-80/4/03-U	292495	1/30
100/0.30	PF7-100/4/03-U	292496	1/30

Compact residual current devices type U – see page 8.

Sealing Cover Set Z-RC/AK

- For PF7, PFR (not to use for PFDM)

	Type Designation	Article No.	Units per package
for 2-pole	Z-RC/AK-2TE	285385	10/30
for 4-pole	Z-RC/AK-4TE	101062	10/600

Z-HWS



Notification label Z-HWS-FI

- Notification of operator of responsibility to check functionality of residual current devices regularly (once a month)
- Languages: D, E, I, F, CZ, RUS, PL, H

	Type Designation	Article No.	Units per package
Notification label	Z-HWS-FI	236980	100

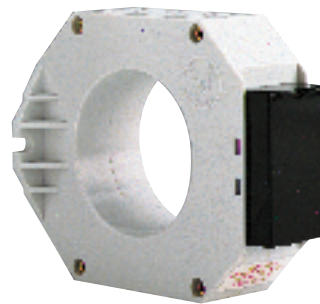
Residual Current Relays PFR Core Balance Transformers Z-WFR

- Especially matched residual current relays and core balance transformers intended for RCD set with indirect releasing
- Rated current up to 400 A
- Rated residual/fault currents 0.3 A and 1 A
- Standard S/A for usual installations
- Type U – frequency converter-proof
-  Frost resistance

SG6102



420801f



Residual Current Relays PFR



- Can be used as an additional protection against dangerous contact with exposed conductive parts ($I_{\Delta n} > 30 \text{ mA}$) or as a fire protection ($I_{\Delta n} \leq 300 \text{ mA}$)
- Contact position indicator red-green
- A pair of NC contacts
- Rated current of relay contacts 25 A / 400 V DC, 16 A / 230 V AC

Selective, surge current-proof 5 kA, sensitive also to residual pulsating DC

- Type A – sensitive to residual AC and residual pulsating DC
- S selective with time delay – surge current-proof 5 kA
- PFR2-..-S/A can be combined only with Z-WFR 2-S/A
- PFR3-..-S/A can be combined only with Z-WFR 3-S/A

5G6102

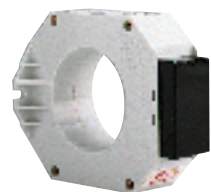


$I_{\Delta n}$ [A]	Type Designation	Article No.	Units per package
0.30	PFR2-03-S/A	235864	1/30
0.30	PFR3-03-S/A	235865	1/30
1.0	PFR2-1-S/A	235866	1/30
1.0	PFR3-1-S/A	235867	1/30

Core Balance Transformers Z-WFR for PFR-S/A



420801



Maximum cable lead-through diameter	Type Designation	Article No.	Units per package
60 mm	Z-WFR 2-S/A	236981	1
130 mm	Z-WFR 3-S/A	236982	1

Selective, surge current-proof 5 kA, frequency converter-proof, type U



- Type A – sensitive to residual AC and residual pulsating DC
- U – for frequency converter applications
- S selective with time delay – surge current-proof 5 kA
- PFR2-..-U can be combined only with Z-WFR 2-U
- PFR3-..-U can be combined only with Z-WFR 3-U

5G20702

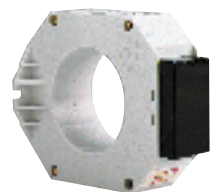


$I_{\Delta n}$ [A]	Type Designation	Article No.	Units per package
0.30	PFR2-03-U	235868	1/30
0.30	PFR3-03-U	235869	1/30
1.0	PFR2-1-U	235870	1/30
1.0	PFR3-1-U	235871	1/30

Core Balance Transformers Z-WFR for PRF-U



420801



Maximum cable lead-through diameter	Type Designation	Article No.	Units per package
60 mm	Z-WFR 2-U	104386	1
130 mm	Z-WFR 3-U	104387	1

Residual Current Devices PHF7

- Residual current devices with high operational reliability
- High reliability against unwanted tripping – type G, S, G/A
- Regular monthly testing of the device functionality is not necessary
- Integrated overload protection
-  Frost resistance

SGS602



Residual Current Devices PHF7

- Can be used as an additional protection against dangerous contact with live parts ($I_{\Delta n} \leq 30 \text{ mA}$), as a protection against dangerous contact with exposed conductive parts ($I_{\Delta n} > 30 \text{ mA}$) or as a fire protection ($I_{\Delta n} \leq 300 \text{ mA}$)
- Rated short circuit strength 10 kA
- Integrated overload protection
- High reliability – testing of device need not be proven every month
- Test key "T" must be pressed once a year
- Busbar positioning optionally above or below
- The device function irrespective of the position of installation
- Contact position indicator red-green
- Twin purpose terminal (lift/open – mouthed) above or below
- Free terminal space despite installed busbar

SG5502



Surge current-proof 3 kA, type G



- Type AC – sensitive to residual AC
- G with time delay – surge current-proof 3 kA

$I_n/I_{\Delta n} [\text{A}]$	Type Designation	Article No.	Units per package
2-pole			
25/0.03	PHF7-25/2/003-G	263642	1/60
40/0.03	PHF7-40/2/003-G	263643	1/60

SG5602



4-pole

25/0.03	PHF7-25/4/003-G	263644	1/30
40/0.03	PHF7-40/4/003-G	263645	1/30
63/0.03	PHF7-63/4/003-G	263646	1/30

SG20902



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



- Type A – sensitive to residual AC and residual pulsating DC
- G with time delay – surge current-proof 3 kA

$I_n/I_{\Delta n} [\text{A}]$	Type Designation	Article No.	Units per package
4-pole			
40/0.03	PHF7-40/4/003-G/A	263647	1/30
63/0.03	PHF7-63/4/003-G/A	263648	1/30

SG21002



Surge current-proof 5 kA, type S



- Type AC – sensitive to residual AC
- S selective with time delay – surge current-proof 5 kA

$I_n/I_{\Delta n} [\text{A}]$	Type Designation	Article No.	Units per package
4-pole			
40/0.10	PHF7-40/4/01-S	263649	1/30
40/0.30	PHF7-40/4/03-S	263650	1/30
63/0.10	PHF7-63/4/01-S	263651	1/30
63/0.30	PHF7-63/4/03-S	263652	1/30

Residual Current Devices PFDM

- Residual current devices PFDM for the 125 A rated current range
- Suitable also for additional protection against dangerous contact with live parts
- Auxiliary contact for subsequent installation
- Special devices for variety of applications – types AC, A, and S/A
-  Frost resistance

SG0802



Residual Current Devices PFDM

- Can be used as an additional protection against dangerous contact with live parts ($I_{\Delta n} \leq 30 \text{ mA}$), as a protection against dangerous contact with exposed conductive parts ($I_{\Delta n} > 30 \text{ mA}$) or as a fire protection ($I_{\Delta n} \leq 300 \text{ mA}$)
- Rated short circuit strength 10 kA
- Busbar positioning optionally above or below
- The device function irrespective of the position of installation
- Contact position indicator red-green
- Twin-purpose terminal (lift/open – mouthed) above and below
- Free terminal space despite installed busbar
- Test key "T" must be pressed once a month
- Terminal capacity 1.5–50 mm²



Conditionally surge current-proof (0,5 μs / 100 kHz)



- Type AC – sensitive to residual AC
- Without time delay

$I_n/I_{\Delta n} [\text{A}]$	Type Designation	Article No.	Units per package
4-pole			
125/0.03	PFDM-125/4/003	235916	1/30
125/0.10	PFDM-125/4/01	235917	1/30
125/0.30	PFDM-125/4/03	235918	1/30
125/0.50	PFDM-125/4/05	235919	1/30

- Type A – sensitive to residual AC and residual pulsating DC
- Without time delay



$I_n/I_{\Delta n} [\text{A}]$	Type Designation	Article No.	Units per package
4-pole			
125/0.03	PFDM-125/4/003-A	235920	1/30
125/0.10	PFDM-125/4/01-A	235921	1/30
125/0.30	PFDM-125/4/03-A	235922	1/30
125/0.50	PFDM-125/4/05-A	235923	1/30

- Type S/A – sensitive to residual AC and residual pulsating DC
- Selective – with time delay 40 ms

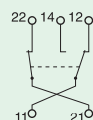


$I_n/I_{\Delta n} [\text{A}]$	Type Designation	Article No.	Units per package
4-pole			
125/0.30	PFDM-125/4/03-S/A	285639	1/30
125/0.50	PFDM-125/4/05-S/A	285640	1/30

Accessories for protective devices PFDM

Description	Contacts	Type Designation	Article No.	Units per package
Auxiliary contacts 6 A (AC11) 230 V AC	1 NO + 1 NC	Z-HD	265620	1

Connection diagram



Residual Current Devices PF6

- Economy series of RCD with rated short circuit strength 6 kA
- Rated short circuit strength 6 kA
- For fault current/residual current protection and additional protection
- Accessories suitable for subsequent installation
-  Frost resistance

SGS202



Residual Current Devices PF6

- Can be used as an additional protection against dangerous contact with live parts ($I_{\Delta n} \leq 30 \text{ mA}$), as a protection against dangerous contact with exposed conductive parts ($I_{\Delta n} > 30 \text{ mA}$) or as a fire protection ($I_{\Delta n} \leq 300 \text{ mA}$)
- Rated short circuit strength 6 kA
- Busbar positioning optionally above or below
- The device function irrespective of the position of installation
- Contact position indicator red-green
- Twin-purpose terminal (lift/open – mouthed) above and below
- Possibility of using of busbar
- 4-pole device can also be used for 2-pole or 3-pole connection
- Test key "T" must be pressed once a month
- Terminal capacity 1.5–35 mm²

Surge current-proof 250 A



- Type AC – sensitive to residual AC
- Without time delay – surge current-proof 250 A

WA_SG15904



$I_n/I_{\Delta n} [\text{A}]$	Type Designation	Article No.	Units per package
2-pole			
25/0.03	PF6-25/2/003	286492	1/60
25/0.10	PF6-25/2/01	286493	1/60
25/0.30	PF6-25/2/03	286494	1/60
25/0.50	PF6-25/2/05	286495	1/60
40/0.03	PF6-40/2/003	286496	1/60
40/0.10	PF6-40/2/01	286497	1/60
40/0.30	PF6-40/2/03	286498	1/60
40/0.50	PF6-40/2/05	286499	1/60
63/0.03	PF6-63/2/003	286500	1/60
63/0.10	PF6-63/2/01	286501	1/60
63/0.30	PF6-63/2/03	286502	1/60
63/0.50	PF6-63/2/05	286503	1/60

WA_SG15804



4-pole			
25/0.03	PF6-25/4/003	286504	1/30
25/0.10	PF6-25/4/01	286505	1/30
25/0.30	PF6-25/4/03	286506	1/30
25/0.50	PF6-25/4/05	286507	1/30
40/0.03	PF6-40/4/003	286508	1/30
40/0.10	PF6-40/4/01	286509	1/30
40/0.30	PF6-40/4/03	286510	1/30
40/0.50	PF6-40/4/05	286511	1/30
63/0.03	PF6-63/4/003	286512	1/30
63/0.10	PF6-63/4/01	286513	1/30
63/0.30	PF6-63/4/03	286514	1/30
63/0.50	PF6-63/4/05	286515	1/30

Add-on Residual Current Protection Unit PBHT

- For combination with miniature circuit breaker PLHT
- Add-on residual current unit (screw connection) for 80 or 125 A
- High flexibility and ease of installation thanks to variable wiring
- Free selection of main power supply
- Auxiliary switch 1 NO contact included as standard in all PBHT versions
- The screw connection to the PLHT-device can be unscrewed at any time. Consequently, in case of modifications of the systems to be protected, the installation can be adapted to new requirements at any time.
- Permits combinations with a variety of characteristics thanks to the different rated currents and characteristics of the miniature circuit breakers PLHT which can be connected

SG6002



Add-on Residual Current Protection UNIT PBHT

- For mounting onto PLHT MCBs
- Rated conditional short circuit strength PBHT + PLHT given by PLHT (15–25 kA)
- Build-in auxiliary NO switch
- Wires for connection with PLHT as well as mounting screws are included in standard delivery
- 4-pole

SG6002



- Type A sensitive to residual AC and pulsating residual DC
- Surge current-proof 250 A

$I_n/I_{\Delta n}$ [A]	Type Designation	Article No.	Units per package
80/0.03	PBHT-80/4/003-A	248827	1/4
80/0.30	PBHT-80/4/03-A	248829	1/4
80/0.50	PBHT-80/4/05-A	248832	1/4
80/1.00	PBHT-80/4/1-A	248835	1/4
125/0.03	PBHT-125/4/003-A	248808	1/4
125/0.30	PBHT-125/4/03-A	248810	1/4
125/0.50	PBHT-125/4/05-A	248813	1/4
125/1.00	PBHT-125/4/1-A	248816	1/4

- Type A sensitive to residual AC and pulsating residual DC
- S selective with time delay – surge current-proof 5 kA

wa_sg1101/WA_SG0301



$I_n/I_{\Delta n}$ [A]	Type Designation	Article No.	Units per package
80/0.30	PBHT-80/4/03-S/A	248830	1/4
80/0.50	PBHT-80/4/05-S/A	248833	1/4
80/1.00	PBHT-80/4/1-S/A	248836	1/4
125/0.30	PBHT-125/4/03-S/A	248811	1/4
125/0.50	PBHT-125/4/05-S/A	248814	1/4
125/1.00	PBHT-125/4/1-S/A	248817	1/4

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Shunt trip release for residual protection unit PBHT

Operational voltage range	Type Designation	Article No.	Units per package
110-415 V AC / 110-230 V DC	Z-BHASA/230	248445	8
12-60 V AC/DC	Z-BHASA/24	248444	8

SG9998



Technical information p. 104

Combined RCD/MCB Devices PFL7, 1+N-pole

- Residual current device / miniature circuit breaker combination
- Tripping characteristics of MCB B, C
- Rated breaking capacity 10 kA
- Rated currents up to 40 A
- Contact position indicator red-green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Accessories suitable for subsequent installation
-  Frost resistance

SG4202



Combined RCD/MCB Devices PFL7

- Can be used as an additional protection against dangerous contact with live parts ($I_{\Delta n} \leq 30 \text{ mA}$)
- Rated breaking capacity 10 kA
- Busbar positioning optionally above or below
- The device function irrespective of the position of installation
- Contact position indicator red-green
- Twin-purpose terminal (lift/open – mouthed) above and below
- Free terminal space despite installed busbar
- Test key "T" must be pressed once a month
- Terminal capacity 1–25 mm²

Surge current-proof 250 A



Rated breaking capacity of MCB 10 kA, 1+N-pole

- Type AC – sensitive to residual AC
- Without time delay – surge current-proof 250 A

$I_n/I_{\Delta n} [\text{A}]$	Type Designation	Article No.	Units per package
Characteristic B			
6/0.03	PFL7-6/1N/B/003	263430	1/60
10/0.03	PFL7-10/1N/B/003	263434	1/60
13/0.03	PFL7-13/1N/B/003	263518	1/60
16/0.03	PFL7-16/1N/B/003	263534	1/60
20/0.03	PFL7-20/1N/B/003	263540	1/60
25/0.03	PFL7-25/1N/B/003	263546	1/60
32/0.03	PFL7-32/1N/B/003	263552	1/60
40/0.03	PFL7-40/1N/B/003	263558	1/60

Characteristic C

6/0.03	PFL7-6/1N/C/003	263432	1/60
10/0.03	PFL7-10/1N/C/003	263516	1/60
13/0.03	PFL7-13/1N/C/003	263531	1/60
16/0.03	PFL7-16/1N/C/003	263537	1/60
20/0.03	PFL7-20/1N/C/003	263543	1/60
25/0.03	PFL7-25/1N/C/003	263549	1/60
32/0.03	PFL7-32/1N/C/003	263555	1/60
40/0.03	PFL7-40/1N/C/003	263561	1/60

Note: Configurations with $I_{\Delta n} = 0.3 \text{ A}$ to order.

Surge current-proof 250 A, sensitive also to residual pulsating DC



Rated breaking capacity of MCB 10 kA, 1+N-pole

- Type A – sensitive to residual AC and residual pulsating DC
- Without time delay – surge current-proof 250 A

$I_n/I_{\Delta n} [\text{A}]$	Type Designation	Article No.	Units per package
Characteristic B			
6/0.03	PFL7-6/1N/B/003-A	263431	1/60
10/0.03	PFL7-10/1N/B/003-A	263435	1/60
13/0.03	PFL7-13/1N/B/003-A	263519	1/60
16/0.03	PFL7-16/1N/B/003-A	263535	1/60
Characteristic C			
6/0.03	PFL7-6/1N/C/003-A	263515	1/60
10/0.03	PFL7-10/1N/C/003-A	263517	1/60
13/0.03	PFL7-13/1N/C/003-A	263532	1/60
16/0.03	PFL7-16/1N/C/003-A	263538	1/60

Note: Rated currents 20 to 40 A to order.

SG4202



SG4202



Surge current-proof 3 kA, type G



Rated breaking capacity of MCB 10 kA, 1+N-pole

• Type AC – sensitive to residual AC

• Type G with time delay min. 10 ms – surge current-proof 3 kA

SG4202



$I_n/I_{\Delta n}$ [A]	Type Designation	Article No.	Units per package
Characteristic B			
13/0.03	PFL7-13/1N/B/003-G	263530	1/60
16/0.03	PFL7-16/1N/B/003-G	263536	1/60
20/0.03	PFL7-20/1N/B/003-G	263542	1/60
25/0.03	PFL7-25/1N/B/003-G	263548	1/60
Characteristic C			
13/0.03	PFL7-13/1N/C/003-G	263533	1/60
16/0.03	PFL7-16/1N/C/003-G	263539	1/60
20/0.03	PFL7-20/1N/C/003-G	263545	1/60
25/0.03	PFL7-25/1N/C/003-G	263551	1/60

Note: Other rated currents to order.

Combined RCD/MCB Devices PFL6, 1+N-pole

- Economy series mainly for house installations
- Residual current device / miniature circuit breaker combination
- Tripping characteristics of MCB B, C
- Rated breaking capacity 6 kA
- Rated residual current 30 mA
- Contact position indicator red-green
- Accessories suitable for subsequent installation
-  Frost resistance

wa_sg16604



Combined RCD/MCB Devices PFL6



- Can be used as an additional protection against dangerous contact with live parts ($I_{\Delta n} \leq 30 \text{ mA}$)
- Rated breaking capacity 6 kA
- Busbar positioning optionally above or below
- The device function irrespective of the position of installation
- Contact position indicator red-green
- Twin-purpose terminal (lift/open – mouthed) above and below
- Possibility to use busbar
- Test key "T" must be pressed once a month
- Terminal capacity 1–25 mm²

Surge current-proof 250 A

Rated breaking capacity of MCB 6 kA, 1+N-pole

- Type AC – sensitive to residual AC
- Without time delay – surge current-proof 250 A

$I_n/I_{\Delta n} [\text{A}]$	Typové označení	Objed. číslo	Balení (ks)
Characteristic B			
6/0.03	PFL6-6/1N/B/003	286428	1/60
10/0.03	PFL6-10/1N/B/003	286429	1/60
13/0.03	PFL6-13/1N/B/003	286430	1/60
16/0.03	PFL6-16/1N/B/003	286431	1/60
20/0.03	PFL6-20/1N/B/003	286432	1/60
25/0.03	PFL6-25/1N/B/003	286433	1/60
32/0.03	PFL6-32/1N/B/003	286434	1/60
40/0.03	PFL6-40/1N/B/003	286435	1/60
Characteristic C			
6/0.03	PFL6-6/1N/C/003	286464	1/60
10/0.03	PFL6-10/1N/C/003	286465	1/60
13/0.03	PFL6-13/1N/C/003	286466	1/60
16/0.03	PFL6-16/1N/C/003	286467	1/60
20/0.03	PFL6-20/1N/C/003	286468	1/60
25/0.03	PFL6-25/1N/C/003	286469	1/60
32/0.03	PFL6-32/1N/C/003	286470	1/60
40/0.03	PFL6-40/1N/C/003	286471	1/60

wa_sg16604



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Miniature Circuit Breakers PL7

- MCB for protection against overload and short circuit current in installations
- Tripping characteristics B, C, D
- Rated breaking capacity 10 kA
- Rated currents up to 63 A
- Contact position indicator red-green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Accessories suitable for subsequent installation

SG14402



Miniature Circuit Breakers PL7

- Rated voltage 230/400 V AC; 48 V DC
- Selectivity class 3 – high capacity to limit short-circuit currents
- Maximum back-up fuse 125 A gL
- Degree of protection IP20
- Contact position indicator red-green
- Terminal capacity 1–25 mm²
- Accessories suitable for subsequent installation
- The device function irrespective of the position of installation

Characteristic B, rated breaking capacity 10 kA

- For socket and light applications with low surge currents

SG7502



SG14002



SG8702



SG14402



Rated Current I _n [A]	Type Designation	Article No.	Units per package
1-pole			
2	PL7-B2/1	264839	12/120
4	PL7-B4/1	264850	12/120
6	PL7-B6/1	262673	12/120
10	PL7-B10/1	262674	12/120
13	PL7-B13/1	262675	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

1+N-pole 1.5 MU

6	PL7-B6/1N	262727	8/80
10	PL7-B10/1N	262728	8/80
13	PL7-B13/1N	262729	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

2-pole 2 MU

6	PL7-B6/2	262761	6/60
10	PL7-B10/2	262762	6/60
13	PL7-B13/2	262764	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

3-pole

6	PL7-B6/3	263386	4/40
10	PL7-B10/3	263387	4/40
13	PL7-B13/3	263388	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

SG9302



3+N-pole 4 MU

6	PL7-B6/3N	263982	3/30
10	PL7-B10/3N	263983	3/30
13	PL7-B13/3N	263984	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

Characteristic C, rated breaking capacity 10 kA

- For applications with motors and applications with higher surge currents

SG7502



Rated Current I_n [A]	Type Designation	Article No.	Units per package
1-pole			
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
1.6	PL7-C1,6/1	262698	12/120
2	PL7-C2/1	262699	12/120
4	PL7-C4/1	262700	12/120
6	PL7-C6/1	262701	12/120
10	PL7-C10/1	262702	12/120
13	PL7-C13/1	262703	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

SG14002



1+N-pole 1.5 MU

2	PL7-C2/1N	262744	8/80
4	PL7-C4/1N	262745	8/80
6	PL7-C6/1N	262746	8/80
10	PL7-C10/1N	262747	8/80
13	PL7-C13/1N	262748	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

SG8702



SG14402



SG9302



Rated Current I_n [A]	Type Designation	Article No.	Units per package
2-pole			
0.5	PL7-C0,5/2	263352	6/60
1	PL7-C1/2	263353	6/60
2	PL7-C2/2	263354	6/60
4	PL7-C4/2	263355	6/60
6	PL7-C6/2	263356	6/60
10	PL7-C10/2	263357	6/60
13	PL7-C13/2	263358	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
3-pole			
0.5	PL7-C0,5/3	263402	4/40
1	PL7-C1/3	263403	4/40
2	PL7-C2/3	263404	4/40
4	PL7-C4/3	263405	4/40
6	PL7-C6/3	263406	4/40
10	PL7-C10/3	263407	4/40
13	PL7-C13/3	263408	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
3+N-pole 4 MU			
6	PL7-C6/3N	263992	3/30
10	PL7-C10/3N	263993	3/30
13	PL7-C13/3N	263994	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

Characteristic D, rated breaking capacity 10 kA

- For applications with high surge currents

Rated Current I_n [A]	Type Designation	Article No.	Units per package
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1-pole

2	PL7-D2/1	262711	12/120
4	PL7-D4/1	262712	12/120
6	PL7-D6/1	262713	12/120
10	PL7-D10/1	262714	12/120
13	PL7-D13/1	262715	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

2-pole

6	PL7-D6/2	263368	6/60
10	PL7-D10/2	263369	6/60
13	PL7-D13/2	263380	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

3-pole

6	PL7-D6/3	263418	4/40
10	PL7-D10/3	263419	4/40
13	PL7-D13/3	263420	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

3+N-pole 4 MU

6	PL7-D6/3N	264002	3/30
10	PL7-D10/3N	264003	3/30
13	PL7-D13/3N	264004	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

SG7502



SG8702



SG14402



SG9302



Miniature Circuit Breakers PL7 – DC for all types of current

Characteristic C, rated breaking capacity 10 kA

- For applications with DC
- Rated voltage 230/400 V AC; 250 V DC
- Take into account polarity!

Rated Current I_n [A]	Type Designation	Article No.	Units per package
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

SG10602



SG10802



Miniature Circuit Breakers PLI

- MCB for protection against overload and short circuit current in installations
- Two plug-in terminals per a pole at the output side
- Tripping characteristics B, C, D
- Rated breaking capacity 10 kA
- Rated currents to 16 A
- Contact position indicator red-green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Accessories suitable for subsequent installation



Miniature Circuit Breakers PLI with plug-in terminals at the output side

- Rated voltage 230/400 V AC; 48 V DC
- Selectivity class 3 – high capacity to limit short-circuit currents
- Maximum back-up fuse 125 A gL
- Degree of protection IP20
- Contact position indicator red-green
- Terminal capacity
1–25 mm² input terminal
1–4 mm² output terminal
- The device function irrespective of the position of installation
- Accessories suitable for subsequent installation

Characteristic B, rated breaking capacity 10 kA

- For socket and light applications with low surge currents

Rated Current I_n [A]	Type Designation	Article No.	Units per package
1-pole			
2	PLI-B2/1	101245	12/120
4	PLI-B4/1	101246	12/120
6	PLI-B6/1	101247	12/120
10	PLI-B10/1	101249	12/120
13	PLI-B13/1	101250	12/120
16	PLI-B16/1	101251	12/120
3-pole			
6	PLI-B6/3	101310	1/40
10	PLI-B10/3	101312	1/40
13	PLI-B13/3	101313	1/40
16	PLI-B16/3	101314	1/40

Characteristic C, rated breaking capacity 10 kA

- For applications with motors and applications with higher surge currents

Rated Current I_n [A]	Type Designation	Article No.	Units per package
1-pole			
2	PLI-C2/1	101252	12/120
4	PLI-C4/1	101253	12/120
6	PLI-C6/1	101254	12/120
10	PLI-C10/1	101256	12/120
13	PLI-C13/1	101257	12/120
16	PLI-C16/1	101258	12/120
3-pole			
2	PLI-C2/3	101315	1/40
4	PLI-C4/3	101316	1/40
6	PLI-C6/3	101317	1/40
10	PLI-C10/3	101319	1/40
13	PLI-C13/3	101320	1/40
16	PLI-C16/3	101321	1/40

Characteristic D, rated breaking capacity 10 kA

- For applications with high surge currents

Rated Current I_n [A]	Type Designation	Article No.	Units per package
1-pole			
2	PLI-D2/1	101259	12/120
4	PLI-D4/1	101260	12/120
6	PLI-D6/1	101261	12/120
10	PLI-D10/1	101263	12/120
13	PLI-D13/1	101264	12/120
16	PLI-D16/1	101265	12/120
3-pole			
6	PLI-D6/3	101324	1/40
10	PLI-D10/3	101326	1/40
13	PLI-D13/3	101327	1/40
16	PLI-D16/3	101328	1/40

WA-SG05805



WA-SG06005



WA-SG05705



Miniature Circuit Breakers PL6

- Economy series suitable for house installations
- Tripping characteristics B, C, D
- Rated breaking capacity 6 kA
- Rated currents up to 63 A
- Contact position indicator red-green
- Accessories suitable for subsequent installation

wa_sg16804



Miniature Circuit Breakers PL6

- Rated voltage 230/400 V AC; 48 V DC
- Selectivity class 3 – high capacity to limit short-circuit currents
- Maximum back-up fuse 100 A gL
- Degree of protection IP20
- Contact position indicator red-green
- Terminal capacity 1–25 mm²
- The device function irrespective of the position of installation
- Accessories suitable for subsequent installation

Characteristic B, rated breaking capacity 6 kA

- For socket and light applications with low surge currents

wa_sg16704



Rated Current I _n [A]	Type Designation	Article No.	Units per package
1-pole			
2	PL6-B2/1	286516	12/120
4	PL6-B4/1	286517	12/120
6	PL6-B6/1	286518	12/120
10	PL6-B10/1	286519	12/120
13	PL6-B13/1	286520	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

1+N-pole

6	PL6-B6/1N	106025	8/80
10	PL6-B10/1N	106026	8/80
13	PL6-B13/1N	106027	8/80
16	PL6-B16/1N	106028	8/80

wa_sg16504



2-pole			
2	PL6-B2/2	286550	6/60
4	PL6-B4/2	286551	6/60
6	PL6-B6/2	286552	6/60
10	PL6-B10/2	286553	6/60
13	PL6-B13/2	286554	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

wa_sg16804



3-pole			
2	PL6-B2/3	286584	4/40
4	PL6-B4/3	286585	4/40
6	PL6-B6/3	286586	4/40
10	PL6-B10/3	286587	4/40
13	PL6-B13/3	286588	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

3+N-pole

6	PL6-B6/3N	106035	3/30
10	PL6-B10/3N	106036	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

Characteristic C, rated breaking capacity 6 kA

- For applications with motors and applications with higher surge currents

Rated Current I_n [A]	Type Designation	Article No.	Units per package
1-pole			
2	PL6-C2/1	286528	12/120
4	PL6-C4/1	286529	12/120
6	PL6-C6/1	286530	12/120
10	PL6-C10/1	286531	12/120
13	PL6-C13/1	286532	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
1+N-pole			
2	PL6-C2/1N	106029	8/80
4	PL6-C4/1N	106030	8/80
6	PL6-C6/1N	106031	8/80
10	PL6-C10/1N	106032	8/80
13	PL6-C13/1N	106033	8/80
16	PL6-C16/1N	106034	8/80
2-pole			
2	PL6-C2/2	286562	6/60
4	PL6-C4/2	286563	6/60
6	PL6-C6/2	286564	6/60
10	PL6-C10/2	286565	6/60
13	PL6-C13/2	286566	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
3-pole			
2	PL6-C2/3	286596	4/40
4	PL6-C4/3	286597	4/40
6	PL6-C6/3	286598	4/40
10	PL6-C10/3	286599	4/40
13	PL6-C13/3	286600	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
3+N-pole			
2	PL6-C2/3N	106905	3/30
4	PL6-C4/3N	106906	3/30
6	PL6-C6/3N	106907	3/30
10	PL6-C10/3N	106908	3/30
13	PL6-C13/3N	106909	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

wa_sg16704



wa_sg16504



wa_sg16804



Characteristic D, rated breaking capacity 6 kA

- For applications with high surge currents

Rated Current I_n [A]	Type Designation	Article No.	Units per package
1-pole			
2	PL6-D2/1	286540	12/120
4	PL6-D4/1	286541	12/120
6	PL6-D6/1	286542	12/120
10	PL6-D10/1	286543	12/120
13	PL6-D13/1	286544	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

wa_sg16704



2-pole

2	PL6-D2/2	286574	6/60
4	PL6-D4/2	286575	6/60
6	PL6-D6/2	286576	6/60
10	PL6-D10/2	286577	6/60
13	PL6-D13/2	286578	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

wa_sg16504



3-pole

2	PL6-D2/3	286608	4/40
4	PL6-D4/3	286609	4/40
6	PL6-D6/3	286610	4/40
10	PL6-D10/3	286611	4/40
13	PL6-D13/3	286612	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

wa_sg16804



Miniature Circuit Breakers PLHT and Accessories

- MCBs for higher rated currents suitable also for industrial applications
- Tripping characteristics B, C, D
- Rated breaking capacity from 15 to 25 kA
- Rated current up to 125 A
- Contact position indicator red-green
- Accessories suitable for subsequent installation
- Mounting onto DIN rail

SG13102



Miniature Circuit Breakers PLHT

- Rated voltage 230 V AC; 60 V DC
- Selectivity class 3
- Maximum back-up fuse 200 A gL
- Degree of protection IP20
- Contact position indicator red-green
- Terminal capacity 2.5–50 mm²
- The device function irrespective of the position of installation
- Accessories suitable for subsequent installation

Characteristic B, breaking capacity 15-25 kA (according to rated current)

- For socket and light applications with low surge currents
- Rated breaking capacity for B characteristic:

$I_n = 20-63 \text{ A}^{*)}$	25 kA
$I_n = 80-100 \text{ A}$	20 kA
$I_n = 125 \text{ A}$	15 kA

Rated Current I_n [A]	Type Designation	Article No.	Units per package
-------------------------	------------------	-------------	-------------------

1-pole 1.5 MU

50	PLHT-B50	247976	12
63	PLHT-B63	247977	12
80	PLHT-B80	247978	12
100	PLHT-B100	247979	12
125	PLHT-B125	247980	12

3-pole 4.5 MU

50	PLHT-B50/3	248028	4
63	PLHT-B63/3	248029	4
80	PLHT-B80/3	248030	4
100	PLHT-B100/3	248031	4
125	PLHT-B125/3	248032	4

^{*)} Note: Lower rated currents (20, 25, 32, 40 A) to order.

SG12902



SG13102



Characteristic C, breaking capacity 15–25 kA (according to rated current)

- For applications with motors and applications with higher surge currents

- Rated breaking capacity for C characteristic:

$I_n = 20\text{--}63\text{ A}$	25 kA
$I_n = 80\text{--}100\text{ A}$	20 kA
$I_n = 125\text{ A}$	15 kA

Rated Current I_n [A]	Type Designation	Article No.	Units per package
-------------------------	------------------	-------------	-------------------

1-pole 1.5 MU

20	PLHT-C20	247981	12
25	PLHT-C25	247982	12
32	PLHT-C32	247983	12
40	PLHT-C40	247984	12
50	PLHT-C50	247985	12
63	PLHT-C63	247986	12
80	PLHT-C80	247987	12
100	PLHT-C100	247988	12
125	PLHT-C125	247989	12

2-pole 3 MU

50	PLHT-C50/2	248011	6
63	PLHT-C63/2	248012	6
80	PLHT-C80/2	248013	6
100	PLHT-C100/2	248014	6
125	PLHT-C125/2	248015	6

3-pole 4.5 MU

20	PLHT-C20/3	248033	4
25	PLHT-C25/3	248034	4
32	PLHT-C32/3	248035	4
40	PLHT-C40/3	248036	4
50	PLHT-C50/3	248037	4
63	PLHT-C63/3	248038	4
80	PLHT-C80/3	248039	4
100	PLHT-C100/3	248040	4
125	PLHT-C125/3	248041	4

3+N-pole 6 MU

20	PLHT-C20/3N	248059	3
25	PLHT-C25/3N	248060	3
32	PLHT-C32/3N	248061	3
40	PLHT-C40/3N	248062	3
50	PLHT-C50/3N	248063	3
63	PLHT-C63/3N	248064	3
80	PLHT-C80/3N	248065	3
100	PLHT-C100/3N	248066	3
125	PLHT-C125/3N	248067	3

5G12902



5G13002



5G13102



5G13202



Characteristic D, breaking capacity 15–25 kA (according to rated current)

- For applications with high surge currents

- Rated breaking capacity for D characteristic:

$I_n = 50, 63 \text{ A}$	25 kA
$I_n = 80 \text{ A}$	20 kA
$I_n = 100 \text{ A}$	15 kA

Rated Current I_n [A]	Type Designation	Article No.	Units per package
-------------------------	------------------	-------------	-------------------

1-pole 1.5 MU

50	PLHT-D50	247994	12
63	PLHT-D63	247995	12
80	PLHT-D80	247996	12
100	PLHT-D100	247997	12

2-pole 3 MU

50	PLHT-D50/2	248020	6
63	PLHT-D63/2	248021	6
80	PLHT-D80/2	248022	6
100	PLHT-D100/2	248023	6

3-pole 4.5 MU

50	PLHT-D50/3	248046	4
63	PLHT-D63/3	248047	4
80	PLHT-D80/3	248048	4
100	PLHT-D100/3	248049	4

3+N-pole 6 MU

50	PLHT-D50/3N	248072	3
63	PLHT-D63/3N	248073	3
80	PLHT-D80/3N	248074	3
100	PLHT-D100/3N	248075	3

Note: Lower rated currents (20, 25, 32, 40 A) to order.

SG12902



SG13002



SG13102



SG13202



Accessories for Miniature Circuit Breakers PLHT

Description	Type Designation	Article No.	Units per package
Shunt Trip Release			
110–415 V	Z-LHASA/230	248442	8
12–60 V	Z-LHASA/24	248441	8
Auxiliary Switch			
1NC + 1NO contact	Z-LHK	248440	10/100
Busbar blocks Z-SV (1.5 MU)			
16 mm ² (up to 80 A)	Z-SV-16/3P	271072	20
End cover	Z-AK-16/2+3P	271070	10/600
35 mm ² (up to 110 A)	Z-SV-35/PLHT-V	264939	4
End cover	Z-V-35/AK/3P	264932	10/600

Note: Residual Currents Blocks PBHT see page 15.

SG25702



Z-LHASA

SG25802



Z-LHK

Other Devices, Accessories

- Disconnecter switch
 - Auxiliary switch
 - Shunt trip release
 - Relays
 - Pushbuttons with signalization
 - Motor starters
 - Measuring devices
-
- Utility design
 - Universal utilization
 - Easy mounting

wa_sg04002



SG11402



SG17902



SG14205



SG14305



SG14405



SG14505



Main Switch Disconnecter IS

- Can be used as a main switch disconnecter of distribution board
- Rated voltage 240 / 415 V AC
- Rated short circuit strength 12.5 kA (for $I_n = 16-80$ A) and 6 kA (for $I_n = 100-125$ A)
- Busbar positioning optionally above or below
- Utilization category AC-22
- Degree of protection IP10
- Terminal capacity 2.5–50 mm²
- The device function irrespective of the position of installation

Rated Current [A]	Poles	Type Designation	Article No.	Units per package
16	1	IS-16/1	276254	12/120
16	2	IS-16/2	276255	1/60
16	3	IS-16/3	276256	1/40
16	4	IS-16/4	276257	1/30
20	1	IS-20/1	276258	12/120
20	2	IS-20/2	276259	1/60
20	3	IS-20/3	276260	1/40
20	4	IS-20/4	276261	1/30
25	1	IS-25/1	276262	12/120
25	2	IS-25/2	276263	1/60
25	3	IS-25/3	276264	1/40
25	4	IS-25/4	276265	1/30
32	1	IS-32/1	276266	12/120
32	2	IS-32/2	276267	1/60
32	3	IS-32/3	276268	1/40
32	4	IS-32/4	276269	1/30
40	1	IS-40/1	276270	12/120
40	2	IS-40/2	276271	1/60
40	3	IS-40/3	276272	1/40
40	4	IS-40/4	276273	1/30
63	1	IS-63/1	276274	12/120
63	2	IS-63/2	276275	1/60
63	3	IS-63/3	276276	1/40
63	4	IS-63/4	276277	1/30
80	1	IS-80/1	276278	12/120
80	2	IS-80/2	276279	1/60
80	3	IS-80/3	276280	1/40
80	4	IS-80/4	276281	1/30
100	1	IS-100/1	276282	12/120
100	2	IS-100/2	276283	1/60
100	3	IS-100/3	276284	1/40
100	4	IS-100/4	276285	1/30
125	1	IS-125/1	276286	12/120
125	2	IS-125/2	276287	1/60
125	3	IS-125/3	276288	1/40
125	4	IS-125/4	276289	1/30

Accessories

Locking set (without lock)	IS/SPE-1TE	101911	5/30
Terminal cover	Z-IS/AK-1TE	276290	10/600

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Switch Disconnectors ZP-A..

- Can be used as a main switch disconnecter of distribution board
- Rated voltage 230 / 400 V AC
- Rated short circuit strength 3 kA (with back-up fuse 63 A gL)
- Degree of protection IP20
- Terminal capacity 1.5–25 mm²
- The same accessories as for MCBs PL6, PL7 can be used (auxiliary switch, shunt trip release, undervoltage release etc.)

Rated Current [A]	Poles	Type Designation	Article No.	Units per package
40	1	ZP-A40/1	248263	12/120
40	2	ZP-A40/2	248264	1/60
40	3	ZP-A40/3	248265	1/40
40	3+N	ZP-A40/3N	248266	1/30
63	1	ZP-A63/1	284906	12/120
63	2	ZP-A63/2	284907	1/60
63	3	ZP-A63/3	284908	1/40
63	3+N	ZP-A63/3N	284909	1/30

SG23602



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U1002



Lead-through terminal

- For interconnection between top and bottom busbar system
- Rated current 63 or 80 A
- Degree of protection IP20
- Terminal capacity 1–25 mm² (or 2.5–50 mm² for Z-D80)

Rated Current [A]	Type Designation	Article No.	Units per package
63	Z-D63	248267	12/120
80	Z-D80	248269	12/120

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SG10902



MCBs for Auxiliary Circuits PL7-B4/-HS

Characteristic B, rated breaking capacity 10 kA

- For protection of contacts of auxiliary circuits
- Strongly reduced value of I²t decreases worn-out of contacts in auxiliary circuits
- Rated voltage 230/400 V AC
- Rated current 4 A
- Degree of protection IP20
- Terminal capacity 1.5–25 mm²

Poles	Breaking capacity	Type Designation	Article No.	Units per package
1	10 kA	PL7-B4-HS	264908	2/120
1N	10 kA	PL7-B4/1N-HS	264909	1/80
2	10 kA	PL7-B4/2-HS	264910	1/60

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SG11802

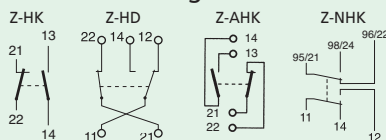


Z-HK

Auxiliary Switch Z-HK, Z-AHK, Tripping Signal Switch Z-NHK, Z-HD

- Design according to EN 60947-5-1, EN 62019
- Mounting by means of screws
- Z-AHK, Z-NHK: Contact function with relative movement (self-cleaning contacts)
- Contact material and design particularly suitable for extra low voltage
- Z-HK: only for RCDs PF6, PF7, PFR, PHF7-4p
- Z-AHK: for PHF7-2p
- Z-NHK: Universal design for PHF7, PFR, PF6, PF7
- The function of one of the two change-over contacts (95/21, 96/22, 98/24) can be switched from "auxiliary switch" to "tripping signal switch" by means of SEL driver
- Auxiliary switch (11, 12, 14; 21, 22, 24) is active with both electrical and mechanical tripping
- Tripping signal switch (95, 96, 98) is active with electrical tripping only
- Contact position indicator blue-white
- Z-HD: for PFDM RCDs

Connection diagrams



For Protective Device	Rated Current [A]	Type Designation	Article No.	Units per package
PF6, PF7, PHF7-4p, PFR	8	Z-HK	248432	4/120
PHF7-2p	4	Z-AHK	248433	4/120
PHF7, PF6, PF7	4	Z-NHK	248434	4/120
PFDM	6 A AC11 1 A DC11	Z-HD	265620	1

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SG11502



ZP-NHK

SG13505

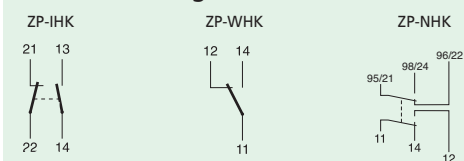


ZP-IHK

Auxiliary Switch ZP-IHK, ZP-AHK, Tripping Signal Switch ZP-NHK

- Design according to EN 62019
- Snap-on mounting, can be mounted onto PL6, PFL6, PL7, PFL7, ZP-A40, ZP-A63 a Z-MS
- **ZP-NHK: Contact function with relative movement (self-cleaning contacts)**
- Contact material and design particularly suitable for extra low voltage
- **ZP-IHK, ZP-WHK: 2 switches can be mounted onto itself thanks to mechanical design (2 x ZP-IHK or 2 x ZP-WHK or alternatively 1 x ZP-IHK + 1 x ZP-WHK)**
- **ZP-NHK: Universal design for PL7, PFL7**
The function of one of the two change-over contacts (21/95, 22/96, 24/98) can be switched from "auxiliary switch" to "tripping signal switch" by means of SEL driver
- Auxiliary switch (11, 12, 14; 21, 22, 24) is active with both electrical and mechanical tripping
- Tripping signal switch (95, 96, 98) is active with electrical tripping only

Connection diagram



Function	Rated Current [A]	Type Designation	Article No.	Units per package
1 NO + 1 NC	6	ZP-IHK	286052	4/120
1 CO	6	ZP-WHK	286053	4/120
2 CO	4	ZP-NHK	248437	4/120

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SG18102



Z-ASA

SG23702



ZP-ASA

Shunt Trip Release Z-ASA, ZP-ASA

- Shunt trip release for subsequent mounting onto PL6, PL7, PFL6, PFL7, ZP-A40, ZP-A63, Z-MS
- Width 1 MU
- Additional installation of standard auxiliary switch is possible
- Position indicator red - green
- Snap-on mounting of ZP-ASA (for PL6, PL7, PFL6, PFL7, ZP-A40, ZP-A63, Z-MS)
- Screw mounting of Z-ASA

Operational voltage range	Type Designation	Article No.	Units per package
12-110 V AC / 12-60 V DC	Z-ASA/24	248286	1/60
110-415 V AC / 110-220 V DC	Z-ASA/230	248287	1/60
12-110 V AC / 12-60 V DC	ZP-ASA/24	248438	1/60
110-415 V AC / 110-220 V DC	ZP-ASA/230	248439	1/60

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Additional terminal

- For connection of conductors up to 35 mm²

Description	Type Designation	Article No.	Units per package
Additional terminal 35 mm ²	Z-HA-EK/35	263960	12/720

SG12702



Undervoltage release Z-USA, Z-USD

- Undervoltage releases:
without delay Z-USA
delayed Z-USD with delay 0.4 s
- Release position indicator blue / white
- Test button for checking of proper function
- Can be mounted onto PL7, ZP-A40, ZP-A63, Z-MS and PL6
- Screws mounting
- Switch on limit 80 % U_n
- Lowest switch off limit 50 % U_n

Voltage AC [V] / Function	Type Designation	Article No.	Units per package
230 / without delay	Z-USA/230	248289	1/60
400 / without delay	Z-USA/400	248290	1/60
230 / delayed 0.4 s	Z-USD/230	248291	1/60

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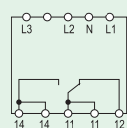
SG2002



Undervoltage relay Z-UR/400

- Relay is switched on by connection of voltage to terminals L1, L2, L3 and neutral conductor to N-terminal. LED is switched on. On condition that voltage at one, two, or three phases is below than U_s ($U_s = U_n \times 0.85$), the relay and LED are switched off.
- One-phase applications: interconnection of L1-L2-L3 terminals.

Connection diagram



Switching Voltage U_s	Rated Current	Type Designation	Article No.	Units per package
$U_n \times 0.85$ 230 / 400 V AC	5 A	Z-UR/400	248252	1

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SG12102



Z-FAM

SG13405



Z-KAM

RCD Tripping Module Z-.AM

- For remote breaking of RCDs
- Rated voltage 230/400 V AC
- Degree of protection IP20
- Terminal capacity 2 x 2.5 mm²

For device	Type Designation	Article No.	Units per package
PF6, PF7, PHF7-4p	Z-FAM	248293	1/60
PFL6, PFL7, PHF7-2p	Z-KAM	248294	1/60

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SG13905



SG13705



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SG12202



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Automatic Switching Device Z-FW

- For automatic or remote control of hardly accessible distribution rooms or distribution rooms without supervisor
- For subsequent mounting onto PL6, PL7, PF6, PF7, PHF7-4p, ZP-A40, ZP-A63, PFR, Z-MS
- **Z-FW-LP for automatic repeated switching, supply voltage 230 V AC**
- **Z-FW-LPD for automatic repeated switching, supply voltage 24–48 V DC**

- **Z-FW-LP(D)/MO pre-mounted set consisting of Z-FW-LP(D) and remote control**
- Mechanical interlock, can be sealed with leads
- Mechanical switching capability up to max. PF7-100/4p, PF6-63/4p, PL7-63/4p, PL6 all types
- Operating and alarm display by green and red LED
- Module for remote testing Z-FW of residual current devices

Function	Supply voltage	Type Designation	Article No.	Units per package
Without remote control	230 V AC	Z-FW-LP	248296	1/20
Without remote control	24–48 V DC	Z-FW-LPD	265244	1/20
Set with remote control	230 V AC	Z-FW-LP/MO	290171	1/12
Set with remote control	24–48 V DC	Z-FW-LPD/MO	290172	1/12

Module for remote testing

Residual current [A]	Type Designation	Article No.	Units per package
0.01	Z-FW/001	248297	4/120
0.03	Z-FW/003	248298	4/120
0.1	Z-FW/010	248299	4/120
0.3	Z-FW/030	248300	4/120
0.5	Z-FW/050	248301	4/120

Telecommander

- Easy control via telephone
- Uses tone choice (multifrequency choice)
- For combination with e.g. remote control module and automatic switching device Z-FW-LP(D)/MO

- Additional module Z-TCR/4S for expansion of number of outputs up to 5
- Meets requirements id Directive 1999/5/ES

Output contact	Type Designation	Article No.	Units per package
1 NO	Z-TC/1S	248386	1/30
+ 4 NO	Z-TCR/4S	248387	1/30

Technical information p. 148

SG06503



Bioswitch Z-FFS/16

- For automatic disconnection from supply voltage in time without current consumption
- Line voltage LED
- Not suitable for consumers with electronic control
- Detecting voltage about 4 V DC in controlled circuit during off state

- For consumers with extremely low consumption, it is necessary to use basic resistance PTC-W to ensure start up current for proper function

Description	Rated Current [A]	Type Designation	Article No.	Units per package
Bioswitch	10	Z-FFS/16	248255	1/60
Basic resistance		PTC-W	840000011	1

SG23802



Technical information p. 149

SG12502



Front Plate Tripping Device Z-MFPA

- To switch off connected device if front plate is removed
- Mechanical breaker for ZP-A40, ZP-A63, PL6, PFL6, PL7, PFL7
- Maximum tripped capacity: 4 + 4 poles symmetrically (4 left, 4 right)
- Can be interlocked by twisting when the tripping pin is in the pressed position
- Meets requirements of standards for automatic disconnection from power supply if front plate of distribution box is removed (see ČSN 33 2000-4-41, art. 412.2.4, EN 60439-1, art. 7.4.2.2.3b)

	Type Designation	Article No.	Units per package
Front plate tripping device	Z-MFPA	248302	6/60

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SG4100



Protective Earth Socket for DIN rail Z-SD..

- Meets requirements of VDE, ÖVE, ČSN
- Possibility of screw mounting
- Width 2.5 MU
- Design -BS with child protection device

Design	Type Designation	Article No.	Units per package
Protective earth socket with child protection device	Z-SD230-BS	266876	10/50
Protective earth socket in Schuko design	Z-SD230	266875	10/50

SG4100



Technical information p. 150

Priority-(Current) Relay Z-LAR/..

- For simple priority connection of important consumers
- Wide range of currents
- Expensive peak loads are avoided efficiently (staggered heating)
- Integrated auxiliary switch, 1 NC or 1 NO or 1 CO contact
- NC and NO contact are potential free
- Rated current 8, 16, 32 A
- Rated voltage 250 V AC

Contacts	Rated Current [A]	Type Designation	Article No.	Units per package
1 NC	3-8	Z-LAR/8-O	248256	1/60
1 NC	10-16	Z-LAR/16-O	248257	1/60
1 NC	15-32	Z-LAR/32-O	248258	1/60
1 NO	3-8	Z-LAR/8-S	248259	1/60
1 NO	10-16	Z-LAR/16-S	248260	1/60
1 NO	15-32	Z-LAR/32-S	248261	1/60
1 CO	3-8	Z-LAR/8-W	248262	1/60

SG11702



Technical information p. 151

SG12003



Signal Lamps Z-EL, Z-DLD, Z-UEL, Z-UDL, Z-BEL

- Rated voltage 24 V AC/DC or 230 V AC/DC
- Colour red/green, can be selected by alternative wiring
- Flash option by usage of different terminals only, changeover option
- Terminal capacity 1–10 mm²
- Twin lamp means 50 % saving of space in comparison to a pair of individual lamps

LED colour	Rated voltage LED	Type Designation	Article No.	Units per package
Single Lamp				
Z-EL				
orange	24 V AC/DC	Z-EL/OR24	275444	2/120
red	230 V AC/DC	Z-EL/R230	284921	2/120
green	230 V AC/DC	Z-EL/G230	284922	2/120
orange	230 V AC/DC	Z-EL/OR230	275865	2/120
blue	230 V AC/DC	Z-EL/BL230	103131	2/120
Twin Lamp				
Z-DLD				
red + green	24 V AC/DC	Z-DLD/2/24	284926	2/120
red + green	230 V AC/DC	Z-DLD/2/230	284925	2/120
Universal Single Lamp - changeover function				
Z-UEL				
red / green	24 V AC/DC	Z-UEL24	284924	2/120
red / green	230 V AC/DC	Z-UEL230	284923	2/120
Universal Twin Lamp - changeover function				
Z-UDL				
red / green	24 V AC/DC	Z-UDL24	284928	2/120
red / green	230 V AC/DC	Z-UDL230	284927	2/120
Signal Lamp - with integrated flash function				
Z-BEL				
red	24 V AC/DC	Z-BEL/R24	284931	2/120
green	24 V AC/DC	Z-BEL/G24	284932	2/120
red	230 V AC/DC	Z-BEL/R230	284929	2/120
green	230 V AC/DC	Z-BEL/G230	284930	2/120

Technical information p. 152

SG12203



Pushbutton Unit Z-PU, Pushbutton Unit with LED Z-PUL

- Rated voltage of LED 24 V AC/DC or 230 V AC/DC
- Rated current of contacts 16 A 250 V AC
- Low power consumption of LED
- Terminal capacity 1–10 mm²
- LED colour orange
- Pushbutton colour
 - NO contact green
 - NC contact red
 - NO + NC contact black

Rated voltage LED	Contacts	Type Designation	Article No.	Units per package
-	1 NO	Z-PU/S	276291	2/120
-	2 NO	Z-PU/SS	276292	2/120
-	1 NO + 1 NC	Z-PU/SO	276293	2/120
-	2 NC	Z-PU/OO	276294	2/120
24 V AC/DC	2 NO	Z-PUL24/SS	276295	2/120
24 V AC/DC	1 NO + 1 NC	Z-PUL24/SO	276296	2/120
230 V AC/DC	2 NO	Z-PUL230/SS	276297	2/120
230 V AC/DC	1 NO + 1 NC	Z-PUL230/SO	276298	2/120
230 V AC/DC	2 NC	Z-PUL230/OO	276299	2/120

Technical information p. 152

Switch Z-SW and Switch with LED Z-SWL

- Rated voltage of LED 24 V AC/DC or 230 V AC/DC
- Rated current of contacts 16 A, 250 V AC
- Low power consumption of LED
- Standard colour of LED orange, standard colour of pushbutton black
- Terminal capacity 1–10 mm²

Rated voltage LED	Contacts	Type Designation	Article No.	Units per package
-	1 NO	Z-SW/S	276300	2/120
-	2 NO	Z-SW/SS	276301	2/120
-	1 NO + 1 NC	Z-SW/SO	276302	2/120
-	1 CO	Z-SW/W	276303	2/120
24 V AC / DC	2 NO	Z-SWL24/SS	276304	2/120
24 V AC / DC	1 NO + 1 NC	Z-SWL24/SO	276305	2/120
230 V AC / DC	2 NO	Z-SWL230/SS	276306	2/120
230 V AC / DC	1 NO + 1 NC	Z-SWL230/SO	276307	2/120
230 V AC / DC	1 NO	Z-SWL230/S	292300	2/120

SG12103



Technical information p. 152

Pushbutton Z-T and Illuminated Pushbutton Z-LT

- Rated voltage 230 V AC
- Rated current of contacts 16 A
- Supplied with glow lamp installed 230 V, 2 mA, E10
- Possibility to use a bulb with arbitrary voltage, max. 2 W
- Terminal capacity 1–10 mm²

Filter/push button	Contacts	Type Designation	Article No.	Units per package
- / green	4 NO	Z-T/4S-G	248328	12/120
- / black	3 NO + 1 NC	Z-T/3S1O	248330	12/120
transparent/green	3 NO	Z-LT/3S-G	248311	12/120
transparent/black	2 NO + 1 NC	Z-LT/SSO	248313	12/120

SG18502



SG18202



Technical information p. 153, 154

Switch Z-S and Illuminated Switch Z-SL

- Rated voltage 230 V AC
- Rated current of contacts 16 A; 32 A
- Supplied with glow lamp installed 230 V, 2 mA, E10
- Possibility to use a bulb with arbitrary voltage, max. 2 W
- Standard colour of filter transparent, switching toggle black
- Terminal capacity 1–10 mm²

Rated Current	Contacts	Type Designation	Article No.	Units per package
16 A	3 NO	Z-S/3S	248334	12/120
16 A	4 NO	Z-S/4S	248335	12/120
16 A	2 NO + 2 NC	Z-S/SSOO	248337	12/120
16 A	3 NO + 1 NC	Z-S/3S1O	248338	12/120
32 A	1 NO	Z-S32/S	248339	12/120
32 A	2 NO	Z-S32/SS	248340	12/120
32 A	3 NO	Z-S32/3S	248341	12/120
32 A	4 NO	Z-S32/4S	248342	12/120

SG18702



SG18302



Technical information p. 153, 154

Accessories

Glow lamp 230 V	Z-GLI/230	248320	1
Bulb 24 V	Z-GLUE/24	284807	1
Filter red	Z-KAL/ROT	248322	10
Filter green	Z-KAL/GRUEN	284808	10
Filter transparent	Z-KAL/KLAR	248324	10
Filter blue	Z-KAL/BLAU	248325	10

Changeover Switch Z-S/W..

- Rated voltage 230 V AC
- Rated current of contacts 16 A
- Degree of protection IP20
- Terminal capacity 1–10 mm²

Contacts	Type Designation	Article No.	Units per package
2 CO	Z-S/2WE	248344	12/120
1 CO I-O-II	Z-S/WM	248345	12/120
2 CO I-O-II	Z-S/2WM	248346	12/120

SG18602



Technical information p. 154

Rotary Switch Z-DS

- Suitable for direct switching of motors, lighting, heating system or as instrument switches
- Rated voltage 690 V AC
- Rated current 20 A
- Degree of protection IP20
- Terminal capacity 2 x 0.75–1.5 mm²

Function	Description	Type Designation	Article No.	Units per package
1pole OFF	0 - 1	Z-DSA1-01	248868	1/40
1pole CHANGE	1 - 0 - 2	Z-DSU1-102	248869	1/40
2pole OFF	0 - 1	Z-DSA2-01	248872	1/40
2pole OFF with lock *)	0 - 1	Z-DSA2-01-SL	248873	1/40
2pole CHANGE	1 - 2	Z-DSU2-12	248874	1/40
2pole CHANGE	1 - 0 - 2	Z-DSU2-102	248875	1/40
2pole CHANGE	HA - 0 - AU	Z-DSU2-H0A	248876	1/40
3pole CHANGE	1 - 0 - 2	Z-DSU3-102	248877	1/40
Voltmeter L-N	L1 - N...	Z-DSV-LN	248878	1/40
Voltmeter L-L	L1 - L2...	Z-DSV-LL	248879	1/40
Voltmeter L+N	L1 - N3...	Z-DSV-LLN	248880	1/40

*) Key can be pulled out in both positions "0" and "1".

SG3602



Z-DSU1-102

SG3702



Z-DSA2-01-SL

Technical information p. 155

Time-Lag Relay Z-ZR

- Driving voltage 24 V AC/DC; 110–240 V AC
- Rated current of output contacts 8 A at 230 V AC
- Rated switching capacity for AC-1 2000 VA
- Degree of protection IP20
- Terminal capacity 2 x 0.5–2.5 mm²

Function	Contacts	Type Designation	Article No.	Units per package
e+r	1 CO	Z-ZRER/W	248881	2/120
e+w	1 CO	Z-ZREWI/W	248882	2/120
bi+b	1 CO	Z-ZRBLI/W	248883	2/120
mf	1 CO	Z-ZRMF/W	248885	2/120
li+lp	2 CO	Z-ZRTAK/WW	248884	1/60
mf	2 CO	Z-ZRMF/WW	248886	1/60

SG13002



Technical information p. 158

Impulse Relays Z-S...

- Suitable for switching electrical consumers in impulse operation
- Rated control voltage 12 V, 24 V, 48 V, 230 V AC; 12 V, 24 V DC
- Rated current of output contacts 16 A at 230 V AC
- Rated switching capacity for AC-1 2000 VA
- Degree of protection IP20
- Terminal capacity 0.5–10 mm²

Type Z-S for local control

- with pushbutton

Control voltage	Contacts	Width MU	Type Designation	Article No.	Units per package
230 V AC	1 NO	1	Z-S230/S	265262	2/120
230 V AC	2 NO	1	Z-S230/SS	265271	2/120
230 V AC	1 CO	1	Z-S230/W	265290	2/120
230 V AC	2 CO	2	Z-S230/WW	265312	1/60
230 V AC	1 NO + 1 NC	1	Z-S230/SO	265283	2/120
230 V AC	2 NO + 2 NC	2	Z-S230/2S2O	265305	1/60
48 V AC / 24 V DC*)	1 NO	1	Z-S48/S	265534	2/120
48 V AC / 24 V DC*)	2 NO	1	Z-S48/SS	265536	2/120
48 V AC / 24 V DC*)	1 NO + 1 NC	1	Z-S48/SO	265538	2/120
48 V AC / 24 V DC*)	2 NO + 2 NC	2	Z-S48/2S2O	265540	1/60
48 V AC / 24 V DC*)	1 CO	1	Z-S48/W	265544	2/120
48 V AC / 24 V DC*)	2 CO	2	Z-S48/WW	265542	1/60
24 V AC / 12 V DC*)	1 NO	1	Z-S24/S	265535	2/120
24 V AC / 12 V DC*)	2 NO	1	Z-S24/SS	265537	2/120
24 V AC / 12 V DC*)	1 NO + 1 NC	1	Z-S24/SO	265539	2/120
24 V AC / 12 V DC*)	2 NO + 2 NC	2	Z-S24/2S2O	265541	1/60
24 V AC / 12 V DC*)	1 CO	1	Z-S24/W	265545	2/120
24 V AC / 12 V DC*)	2 CO	2	Z-S24/WW	265543	1/60
12 V AC	2 NO	1	Z-S12/SS	265278	2/120

*) Possibility of AC/DC control

Type Z-SB for local control

- with pushbutton and LED

230 V AC	2 NO	1	Z-SB230/SS	265301	2/120
24 V AC	2 NO	1	Z-SB24/SS	265302	2/120
24 V DC	2 NO	1	Z-SB23/SS	265303	2/120

Type Z-SC for central control

- with pushbutton

230 V AC	1 NO	1	Z-SC230/S	265299	2/120
230 V AC	1 NO + 1 CO	2	Z-SC230/1S1W	265324	1/60
230 V AC	2 NO + 1 NC	2	Z-SC230/2S1O	265327	1/60
230 V AC	3 NO	2	Z-SC230/3S	265321	1/60
24 V AC	1 NO	1	Z-SC24/S	265300	2/120

Accessories for impulse relays

Compensator	1	Z-S/KO	270588	2/120
Group block	1	Z-SC/GP	270587	2/120

Spacer 0.5 MU		Z-DST	248949	10
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Note:

Spacer is designed for separation of a pair of impulse relays with air gap – duty of inputs of relays with spacer is higher (of order of hours, < 100 %). In continual regime of operation (long control pulse), surface temperature of a relay can be increased in accordance with EN 60669.

WA_SG12802



Z-S24/SO

WA_SG13002



WA_SG13102



Z-SC230/S

sg 12705



TLK

Technical information p. 163, 164

Staircase Switch Z-TL., TL.

Type Z-TLE, Z-TLK

- Rated current 16 A AC for AC-1
- Max. incandescent lamp load 2000 W
- Adjustment range 0.5 – 10 min
- Function selector ON-AUT-OFF
- Terminal capacity 2 x 2.5 mm²

Type TLE, TLK

- Rated permanent current 16 A AC
- Switching capacity 4000 VA / AC1
- Adjustment range 0.5–15 min
- Terminal capacity 1 x 4 mm²
2 x 2.5 mm²

Function	Type Designation	Article No.	Units per package
Staircase switch with STOP function	Z-TLE	284938	6/120
Staircase switch with STOP and alarm	Z-TLK	285020	6/120
Staircase switch with STOP and alarm	TLE	101064	2/120
As TLE with central control input, zero-voltage proof	TLK	101066	2/120

wa_sg12304



DS-GS/1W

SG14005



DS-GS/1S

Technical information p. 165, 166

Light Intensity Switch DS-G

- For automatic control of lighting systems with respect to light intensity at sensor
- Rated voltage 230 V; 50/60 Hz
- Rated current 16 A 250 V AC for AC1
- Max. resistive load 3500 W, $\cos\varphi = 1$
- Max. incandescent lamp load 2300 W, $\cos\varphi = 1$
- Max. inductive load 8 A, 250 V AC $\cos\varphi = 0.8$
- Adjustable range 2 – 10000 lux
- Terminal capacity 2 x 2.5 mm²
- Type DS-GS switch with external light sensor
- Type DS-GK compact with integrated light sensor (IP54)

Function	Type Designation	Article No.	Units per package
Light intensity switch with external sensor	DS-GS/1S	237769	1/72
Light intensity switch with integrated timer and external sensor	DS-GS/1W	237770	1/45
Light intensity switch with internal sensor IP54	DS-GK	237771	1/36

Accessories

Spare external sensor for DS-GS	Z-DS/SENSOR	237772	1/200
Cap for change of sensitivity	Z-DS/KAPPE	237773	1/50

SG14105



Z-DS/SENSOR

Bell Transformers TR-G

- Rated primary voltage 230 V AC
- ...-SF types safety transformers with separate windings for continual duty, the other types with reduced duty

MU Rated output [VA]	Sec. voltage [V]	Sec. current [A]	Type Designation	Article No.	Units per package
2 8	8	1	TR-G/8	272480	1
2 8	4-8-12	1-1-0.67	TR-G3/8	272481	1
2 18	4-8-12	2-2-1.5	TR-G3/18	272483	1
3 24	12-24	2-1	TR-G2/24	272484	1
5 63	12-24	5.2-2.6	TR-G2/63-SF	272485	1
3 24	8-12	2-2	TR-G2/24-SF	272486	1
5 24	12-24	2-1	TR-G2/24-SF2	272487	1

SG07003



TR-G/8

SG07103



TR-G2/63-SF

Technical information p. 167, 168

Installation Relays Z-R., Z-TN

- Suitable for switching 1-phase or 3-phase consumers
- Rated current up to 20 A / 250 V AC
- Suitable for mounting into distribution boxes

WA_SG12402



Z-R109/2S2O

Type Z-R

- With pushbutton

Control voltage	Contacts	Width MU	Type Designation	Article No.	Units per package
230 V AC	1 NO	1	Z-R230/S	265149	2/120
230 V AC	2 NO	1	Z-R230/SS	265168	2/120
230 V AC	4 NO	2	Z-R230/4S	265226	1/60
230 V AC	1 NO + 1 NC	1	Z-R230/SO	265181	2/120
230 V AC	2 NC	1	Z-R230/OO	265188	2/120
230 V AC	2 NO + 2 NC	2	Z-R230/2S2O	265215	1/60
24 V AC	1 NO	1	Z-R24/S	265160	2/120
24 V AC	2 NO	1	Z-R24/SS	265173	2/120
24 V AC	1 NO + 1 NC	1	Z-R24/SO	265183	2/120
24 V AC	2 NO + 2 NC	2	Z-R24/2S2O	265218	1/60
24 V AC	2 NC	1	Z-R24/OO	265189	2/120
24 V DC	2 NO	1	Z-R23/SS	265174	2/120
24 V DC	2 NO + 2 NC	2	Z-R23/2S2O	265219	1/60
12 V AC	2 NO	1	Z-R12/SS	265175	2/120
8 V AC	2 NO	1	Z-R8/SS	265177	2/120

WA_SG12302a



Z-RE23/SO

Type Z-RE

- With LED
- Rated current 20 A / 250 V AC

Control voltage	Contacts	Width MU	Type Designation	Article No.	Units per package
230 V AC	1 NO	1	Z-RE230/S	265190	2/120
230 V AC	2 NO	1	Z-RE230/SS	265193	2/120
230 V AC	1 NO + 1 NC	1	Z-RE230/SO	265197	2/120
24 V AC	2 NO	1	Z-RE24/SS	265194	2/120
24 V AC	1 NO + 1 NC	1	Z-RE24/SO	265198	2/120
24 V DC	2 NO + 2 NC	2	Z-RE23/2S2O	265232	1/60

WA_SG12702a



Z-RK230/SS

Type Z-RK

- With pushbutton and LED
- Rated current 20 A / 250 V AC

Control voltage	Contacts	Width MU	Type Designation	Article No.	Units per package
230 V AC	1 NO	1	Z-RK230/S	265200	2/120
230 V AC	2 NO	1	Z-RK230/SS	265203	2/120
230 V AC	1 NO + 1 NC	1	Z-RK230/SO	265208	2/120
24 V AC	2 NO	1	Z-RK24/SS	265205	2/120
24 V AC	1 NO + 1 NC	1	Z-RK24/SO	265209	2/120
24 V DC	2 NO + 2 NC	2	Z-RK23/2S2O	271464	1/60

SG01603



Z-TN230/4S

Type Z-TN

- With mechanical pre-selection ON / AUT / OFF
- Rated current 20 A / 250 V AC

Control voltage	Contacts	Width MU	Type Designation	Article No.	Units per package
230 V AC	2 NO	1	Z-TN230/SS	265574	2/120
230 V AC	3 NO	2	Z-TN230/3S	265576	1/60
230 V AC	4 NO	2	Z-TN230/4S	265579	1/60
230 V AC	1 NO + 1 NC	1	Z-TN230/1S1O	267975	2/120
24 V AC	2 NO	1	Z-TN24/SS	267976	2/120
24 V AC	3 NO	2	Z-TN24/3S	267977	1/60
24 V AC	4 NO	2	Z-TN24/4S	267978	1/60
24 V AC	1 NO + 1 NC	1	Z-TN24/1S1O	267979	2/120

Accessories for installation relays Z-R..

Spacer 0.5 MU	Z-DST	248949	10
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Note:

Spacer is designed for separation of a pair of installation relays with air gap in case of ambient temperature over 40 °C or in case of full current load of all contacts.

SG0102



Z-SCH230/25-40

SG0502



Z-SCH230/63-40

SG0602



Z-SC

Installation contactors Z-SCH

- Designed for switching 1-phase or 3-phase consumers up to 63 A AC. Suitable for installation in modular distribution boxes.
- Coil voltage 24 V, 230 V 50 Hz
- Rated current of contacts 25 to 63 A 250 V AC for AC-1
- Rated voltage of contacts 440 V; 50 Hz
- Terminal capacity 2.5–25 mm²

Coil voltage	Rated current	Contacts	Type Designation	Article No.	Units per package
24 V	25 A	4 NO	Z-SCH24/25-40	248851	1/40
24 V	25 A	2 NO + 2 NC	Z-SCH24/25-22	248850	1/40
230 V	25 A	4 NO	Z-SCH230/25-40	248847	1/60
230 V	25 A	4 NC	Z-SCH230/25-04	248848	1/60
230 V	25 A	3 NO + 1 NC	Z-SCH230/25-31	248846	1/60
230 V	25 A	2 NO + 2 NC	Z-SCH230/25-22	248849	1/60
230 V	40 A	4 NO	Z-SCH230/40-40	248852	1/40
230 V	40 A	3 NO + 1 NC	Z-SCH230/40-31	248854	1/40
230 V	40 A	2 NO + 2 NC	Z-SCH230/40-22	248853	1/40
230 V	40 A	2 NO	Z-SCH230/40-20	248855	1/40
230 V	63 A	4 NO	Z-SCH230/63-40	248856	1/40
230 V	63 A	3 NO + 1 NC	Z-SCH230/63-31	248858	1/40
230 V	63 A	2 NO + 2 NC	Z-SCH230/63-22	248857	1/40
230 V	63 A	2 NO	Z-SCH230/63-20	248859	1/40

Note: for AC only, AC-1

Accessories

Auxiliary switch	1 NO + 1 NC	Z-SC	248862	3
Spacer	(0.5 MU)	Z-DST	248949	10
Suppressor RC-Combination	12-250 V AC	Z-RC/230	101428	2/120

SG2302



SU-GS/1W-TA

SG2302



Z-SDM/1K-WO

Timers Z-SGS, SU-G, Z-SDM

- Synchronous drive ensures timing with accuracy of feed voltage frequency, without power reserve.
- Quartz systems ensures timing with accuracy of Quartz crystal, with power reserve
- Digital timers with power reserve

Drive	Program	Width	Contacts	Type Designation	Article No.	Units per package
Analogue						
Synchron.	Day	1 MU	1 NO	Z-SGS/TA	248254	2
Quartz	Day	1 MU	1 CO	SU-GQ-TA	268628	2
Synchron.	Day	3 MU	1 CO	SU-GS/1W-TA	268626	1
Synchron.	Week	3 MU	1 CO	SU-GS/1W-WO	268627	1
Quartz	Day	3 MU	1 CO	SU-GQ/1W-TA	268629	1
Quartz	Week	3 MU	1 CO	SU-GQ/1W-WO	268630	1
Quartz	Week+Day	6 MU	2 CO	SU-GQ/2W-TW	268631	1

Digital

Quartz	Day	2 MU	1 CO	Z-SDM/1K-TA	248210	1
Quartz	Week	2 MU	1 CO	Z-SDM/1K-WO	248211	1
Quartz	Week	2 MU	2 CO	Z-SDM/2K-WO	248212	1

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Measuring Instruments Z-MG

- For measuring of 1-phase voltage and current

SG2802



Technické údaje na str. 179

Analogue Ammeter and Voltmeter

Analogue instruments Z-MG/AA; Z-MG/VA

- Accuracy class 1.5
- Measuring range for direct measuring up to 40 A
- Type Z-MG/AA5-WS with exchangeable scale for indirect measuring up to 600 A
- Terminal capacity 4 mm² or 8 mm² for Z-MG/AA-40

Function	Range	Type Designation	Article No.	Units per package
Ammeter	0–10 A	Z-MG/AA-10	248228	1
Ammeter	0–40 A	Z-MG/AA-40	248229	1
Ammeter with exchangeable dial	0–600/5 A	Z-MG/AA5-WS	248227	1
Voltmeter	0–250 V	Z-MG/VA-250	248223	1
Voltmeter	0–500 V	Z-MG/VA-500	248224	1

Digital Ammeter and Voltmeter

Digital instruments Z-MG/AD; Z-MG/VD

- Accuracy class 1; + 1 digit
- Measuring range for direct measuring up to 20 A
- Type Z-MG/AD-999 for indirect measuring up to 1000 A
- Terminal capacity 4 mm²

Function	Range	Type Designation	Article No.	Units per package
Ammeter	0–20 A	Z-MG/AD-20	248225	1
Ammeter	0–999/5 A	Z-MG/AD-999	248226	1
Voltmeter	0–600 V	Z-MG/VD-600	248222	1
Ammeter + Voltmeter	0–8 kA / 5 A	Z-MG/VD+AD	263140	1
	0–600 V			
Ammeter + Voltmeter with 2 programmable contacts	0–8 kA / 5 A 0–600 V	Z-MG/VD+AD+S	263141	1

Accessories

Measuring current transformers Z-MG/WAS.., Z-MG/WAK..
Exchangeable scales Z7-MG/WS.. for Z-MG/AA5-WS

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5G8897



Exchangeable Scales for Z-MG/AA5-WS

Exchangeable scales / 0-60	Z7-MG/WS-60	850001086	1
Exchangeable scales / 0-100	Z7-MG/WS-100	850001067	1
Exchangeable scales / 0-200	Z7-MG/WS-200	850001069	1
Exchangeable scales / 0-250	Z7-MG/WS-250	850001070	1
Exchangeable scales / 0-300	Z7-MG/WS-300	850001088	1
Exchangeable scales / 0-400	Z7-MG/WS-400	850001089	1
Exchangeable scales / 0-600	Z7-MG/WS-600	850001093	1

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Power Meters Z-KWZ, KWZ

- Power meters for measuring of active energy
- Accuracy class 1 and 2

Type KWZ-230

- 1-phase power meter for direct measuring
- Rated current 10 A, maximum current 40 A
- Resolution 0.1 kWh
- Accuracy class 1
- Power meter according EN 61036 for sub-measurement

Type Z-KWZ-3PH

- 3-phase power meter for semidirect measuring – necessary to supplement with current transformer with ratio X/5 A
- Change of ratio according to current transformer by means of DIP changeover switch:
40/50/60/75/100/120/150/200/300/600/400 A
500/600/750/1000/1200/1500/2000/3000/6000 A
- Resolution 1 kWh or 10 kWh

- Accuracy class 2
- Power meter according EN 61036 for sub-measurement

Type KWZ-3PH(D)-...

- According to EN 62053-21
- KWZ-3PH with electromechanical counter
- KWZ-3PHD with digital display
- KWZ-3PH(D)-D63 for direct measuring up to 63 A, accuracy class 2
- KWZ-3PH(D)-I5 (I1) for semidirect measuring with ratio X/5 A (X/1 A), accuracy class 1
- S0 test input as a standard for all types
- KWZ-3PHD in 1-tariff up to 4-tariff configuration, version -D (-DR, -DC) 2-tariff, version -R (-DR) with relay output, version -C (-DC) with communication module RS-485
- Type approval and calibration for Czech Rep. (acceptable for most of EU countries)

Range [digit]	Rated voltage (AC)	Type Designation	Article No.	Units per package
5+1	230 V	KWZ-230	286839	1/60
4+2 [MWh] or 6 [kWh]	230/400 V	Z-KWZ-3PH	248230	1
6+1	230/400 V	KWZ-3PH-D63	999201153	1
6+1	230/400 V	KWZ-3PH-I5	999201156	1
6+1	230/400 V	KWZ-3PH-I1	999201159	1
7+1	230/400 V	KWZ-3PHD-D63	999201172	1
6+2	230/400 V	KWZ-3PHD-I5	999201175	1
6+2	230/400 V	KWZ-3PHD-I1	999201413	1
7+1	230/400 V	KWZ-3PHD-D63-R	999201414	1
6+2	230/400 V	KWZ-3PHD-I5-R	999201415	1
6+2	230/400 V	KWZ-3PHD-I1-R	999201416	1
7+1	230/400 V	KWZ-3PHD-D63-C	999201417	1
6+2	230/400 V	KWZ-3PHD-I5-C	999201418	1
6+2	230/400 V	KWZ-3PHD-I1-C	999201419	1
7+1	230/400 V	KWZ-3PHD-D63-D	999201420	1
6+2	230/400 V	KWZ-3PHD-I5-D	999201421	1
6+2	230/400 V	KWZ-3PHD-I1-D	999201422	1
7+1	230/400 V	KWZ-3PHD-D63-DR	999201423	1
6+2	230/400 V	KWZ-3PHD-I5-DR	999201424	1
6+2	230/400 V	KWZ-3PHD-I1-DR	999201425	1
7+1	230/400 V	KWZ-3PHD-D63-DC	999201426	1
6+2	230/400 V	KWZ-3PHD-I5-DC	999201427	1
6+2	230/400 V	KWZ-3PHD-I1-DC	999201428	1
Sealable terminal cover for KWZ-3PH...		KWZ-SCOV	999201447	2

3-tariff and 4-tariff meters also in offer. Information on request.

Accessories: current transformers for cables and for busbars

- Z7-MG/WAK: maximum cable diameter 20 mm
- Z7-MG/WAS: maximum busbar dimensions 30x10 mm
- MAK...: for busbars

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Accessories for measuring instruments

- Current transformers
- Type Z7-MG/WAK for cables with diameter up to $\varnothing$ 20 mm
- Type Z7-MG/WAS for busbars 30x10 mm

SG8797



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Current Transformers

Function / Range [A]	Type Designation	Article No.	Units per package
Current transformer for cable / 60/5	Z7-MG/WAK-60	850001072	1
Current transformer for cable / 100/5	Z7-MG/WAK-100	850001074	1
Current transformer for cable / 200/5	Z7-MG/WAK-200	850001076	1
Current transformer for cable / 250/5	Z7-MG/WAK-250	850001077	1
Current transformer for busbar / 100/5	Z7-MG/WAS-100	850001078	1
Current transformer for busbar / 300/5	Z7-MG/WAS-300	850001082	1
Current transformer for busbar / 400/5	Z7-MG/WAS-400	850001083	1
Current transformer for busbar / 600/5	Z7-MG/WAS-600	850001085	1

Current Transformers

Description (Max. busbar dimensions)	Type Designation	Article No.	Units per pack.
For cable max. $\varnothing$ 20 mm	MAK 45/21 100/5A 2.5VA 1%	999201060	1
	MAK 45/21 150/5A 2.5VA 1%	999201061	1
	MAK 45/21 250/5A 5VA 1%	999201062	1
	MAK 45/21 400/5A 5VA 1%	999201063	1
For busbar 30 x 10 mm	MAK 62/30 50/5A 1.5VA 1%	999201306	1
	MAK 62/30 75/5A 1.5VA 1%	999201307	1
	MAK 62/30 200/5A 7.5VA 1%	999201308	1
	MAK 62/30 100/5A 2.5VA 1%	999201072	1
	MAK 62/30 150/5A 5VA 1%	999201073	1
	MAK 62/30 200/5A 5VA 0.5%	999201074	1
	MAK 62/30 200/5A 5VA 0.5% cal.	999201075	1
	MAK 62/30 250/5A 5VA 0.5%	999201076	1
	MAK 62/30 250/5A 5VA 0.5% cal.	999201077	1
	MAK 62/30 300/5A 5VA 0.5%	999201080	1
	MAK 62/30 300/5A 5VA 0.5% cal.	999201081	1
	MAK 62/30 400/5A 5VA 0.5%	999201084	1
	MAK 62/30 400/5A 5VA 0.5% cal.	999201085	1
	MAK 62/30 600/5A 5VA 0.5%	999201092	1
	MAK 62/30 600/5A 5VA 0.5% cal.	999201093	1
For busbar 40 x 10 mm	MAK 62/40 150/5A 2.5VA 1%	999201309	1
	MAK 62/40 200/5A 1.5VA 0.5%	999201094	1
	MAK 62/40 200/5A 3.75VA 1%	999201095	1
	MAK 62/40 250/5A 2.5VA 0.5%	999201096	1
	MAK 62/40 250/5A 5VA 1%	999201310	1
	MAK 62/40 300/5A 5VA 0.5%	999201097	1
	MAK 62/40 300/5A 5VA 0.5% cal.	999201098	1
	MAK 62/40 300/5A 5VA 1%	999201099	1
	MAK 62/40 400/5A 5VA 0.5%	999201100	1
	MAK 62/40 400/5A 5VA 0.5% cal.	999201101	1
	MAK 62/40 400/5A 5VA 1%	999201102	1
	MAK 62/40 500/5A 7.5VA 1%	999201103	1
	MAK 62/40 500/5A 5VA 0.5%	999201104	1
	MAK 62/40 600/5A 5VA 0.5%	999201105	1
	MAK 62/40 600/5A 5VA 0.5% cal.	999201106	1
With primary winding, connection M8	MAK 62/WS 50/5A 5VA 0.5%	999201107	1
	MAK 62/WS 50/5A 5VA 0.5% cal.	999201108	1
	MAK 62/WS 75/5A 5VA 0.5%	999201109	1
	MAK 62/WS 75/5A 5VA 0.5% cal.	999201110	1
	MAK 62/WS 100/5A 5VA 0.5%	999201111	1
	MAK 62/WS 100/5A 5VA 0.5% cal.	999201112	1
	MAK 62/WS 125/5A 5VA 0.5%	999201113	1
	MAK 62/WS 125/5A 5VA 0.5% cal.	999201114	1
	MAK 62/WS 150/5A 5VA 0.5%	999201115	1
	MAK 62/WS 150/5A 5VA 0.5% cal.	999201116	1

MAK 45/21



MAK 62/30



MAK 62/40



MAK 62/WS



MAK 62/R

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Current Transformers - continuation



MAK 74/40



MAK 74/50



MAK 86/50



MAK 86/60



MAK 104/80



MAK 140/100/H

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Busbar dimensions	Type Designation	Article No.	Units per pack.
For cable max. Ø 22 mm	MAK 62/R 150/5A 5VA 1%	999201311	1
	MAK 62/R 250/5A 5VA 1%	999201117	1
	MAK 62/R 400/5A 5VA 1%	999201118	1
	MAK 62/R 600/5A 5VA 1%	999201119	1
For busbar 40 x 12 mm	MAK 74/40 200/5A 5VA 0.5%	999201120	1
	MAK 74/40 300/5A 5VA 0.5%	999201121	1
	MAK 74/40 400/5A 5VA 0.5%	999201122	1
	MAK 74/40 600/5A 5VA 0.5%	999201123	1
	MAK 74/40 600/5A 15VA 0.5%	999201124	1
	MAK 74/40 1000/5A 5VA 0.5%	999201125	1
For busbar 50 x 12 mm	MAK 74/50 400/5A 5VA 0.5%	999201126	1
	MAK 74/50 600/5A 5VA 0.5%	999201127	1
	MAK 74/50 600/5A 5VA 0.5% cal.	999201128	1
	MAK 74/50 1000/5A 5VA 0.5%	999201129	1
	MAK 74/50 1000/5A 5VA 0.5% cal.	999201130	1
With primary winding, connection M10	MAK 74/WS 200/5A 5VA 0.5%	999201131	1
	MAK 74/WS 200/5A 5VA 0.5% cal.	999201132	1
For busbar 40 x 10 mm	MAK 86/40 300/5A 10VA 0.5%	999201133	1
	MAK 86/40 400/5A 10VA 0.5%	999201134	1
For busbar 50 x 12 mm	MAK 86/50 400/5A 10VA 0.5%	999201135	1
	MAK 86/50 500/5A 10VA 0.5%	999201136	1
	MAK 86/50 600/5A 10VA 0.5%	999201137	1
	MAK 86/50 600/5A 15VA 0.5%	999201138	1
	MAK 86/50 800/5A 15VA 0.5%	999201139	1
	MAK 86/50 1000/5A 10VA 0.5%	999201140	1
	MAK 86/50 1000/5A 15VA 0.5%	999201141	1
For busbar 60 x 12 mm	MAK 86/60 200/5A 3.75VA 1%	999201312	1
	MAK 86/60 250/5A 5VA 1%	999201313	1
	MAK 86/60 300/5A 7.5VA 1%	999201314	1
	MAK 86/60 400/5A 12.5VA 1%	999201315	1
	MAK 86/60 600/5A 10VA 0.5%	999201142	1
	MAK 86/60 600/5A 15VA 1%	999201143	1
	MAK 86/60 1000/5A 15VA 0.5%	999201144	1
For busbar 80 x 12 mm	MAK104/80 1500/5A 30VA 1%	999201145	1
For busbar 100 x 30 mm	MAK140/100/H 1500/5A 45VA 0.5%	999201146	1
	MAK140/100/H 1500/5A 45VA 1%	999201147	1
	MAK140/100/H 1600/5A 15VA 1%	999201148	1

Operating Hours Counter BSZ, Pulse Counter Z-IMZ

- For gathering operating time data of machines
- Rated voltage 230 V or 24 V, 50 Hz
- With electromechanical counter without possibility of zeroing
- Terminal capacity 0.14–4 mm²

Range [digit]	Rated voltage (AC)	Type Designation	Article No.	Units per package
5+2	230 V	BSZ/230	276309	1/60
5+2	24 V	BSZ/24	276308	1/60
7	230 V	Z-IMZ/230	248206	1/60
7	24 V	Z-IMZ/24	248207	1/60

SG15805



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SG1902



Buzzer Z-SUM, Bell Z-GLO

- Without sparking
- Degree of protection IP20
- Terminal capacity 10 mm²

Function	Rated voltage AC	Type Designation	Article No.	Units per package
Buzzer	230 V	Z-SUM230	270584	2/120
Buzzer	24 V	Z-SUM24	270583	2/120
Buzzer	12 V	Z-SUM12	271087	2/120
Bell	230 V	Z-GLO230	270586	2/120
Bell	24 V	Z-GLO24	270585	2/120
Bell	12 V	Z-GLO12	271088	2/120

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SG17802



SG17902



Manual Motor Starters Z-MS

- Reliable protection in case of thermal overload and short circuit
- Magnetic short-circuit tripping fixed
- Thermal overload tripping adjustable
- Suitable for small distribution boxes
- Contact position indicator red-green
- Busbar positioning optionally above or below
- Main application fields: switching and protection of 3-phase motors up to 15 kW (380/400 V) or other consumers up to 40 A
- Also suitable as main switch
- Isolating characteristics according to IEC/EN 60947
- Accessories compatible with PL6, PL7 etc.

Num. of poles	Range [A]	Type Designation	Article No.	Units per package
2	0.10 - 0.16	Z-MS-0,16/2	248389	1/60
2	0.16 - 0.25	Z-MS-0,25/2	248390	1/60
2	0.25 - 0.40	Z-MS-0,40/2	248391	1/60
2	0.40 - 0.63	Z-MS-0,63/2	248392	1/60
2	0.63 - 1.00	Z-MS-1,0/2	248393	1/60
2	1.00 - 1.60	Z-MS-1,6/2	248394	1/60
2	1.60 - 2.50	Z-MS-2,5/2	248395	1/60
2	2.50 - 4.00	Z-MS-4,0/2	248396	1/60
2	4.00 - 6.30	Z-MS-6,3/2	248397	1/60
2	6.30 - 10.0	Z-MS-10/2	248398	1/60
2	10.0 - 16.0	Z-MS-16/2	248399	1/60
2	16.0 - 25.0	Z-MS-25/2	248400	1/60
2	25.0 - 40.0	Z-MS-40/2	248401	1/60
3	0.10 - 0.16	Z-MS-0,16/3	248402	1/40
3	0.16 - 0.25	Z-MS-0,25/3	248403	1/40
3	0.25 - 0.40	Z-MS-0,40/3	248404	1/40
3	0.40 - 0.63	Z-MS-0,63/3	248405	1/40
3	0.63 - 1.00	Z-MS-1,0/3	248406	1/40
3	1.00 - 1.60	Z-MS-1,6/3	248407	1/40
3	1.60 - 2.50	Z-MS-2,5/3	248408	1/40
3	2.50 - 4.00	Z-MS-4,0/3	248409	1/40
3	4.00 - 6.30	Z-MS-6,3/3	248410	1/40
3	6.30 - 10.0	Z-MS-10/3	248411	1/40
3	10.0 - 16.0	Z-MS-16/3	248412	1/40
3	16.0 - 25.0	Z-MS-25/3	248413	1/40
3	25.0 - 40.0	Z-MS-40/3	248414	1/40

Accessories

Function	Type Designation	Article No.	Units per package
Shunt trip release 24 V	ZP-ASA/24	248438	6/60
Shunt trip release 230 V	ZP-ASA/230	248439	6/60
Undervoltage release 230 V	Z-USA/230	248289	6/60
Undervoltage release 400 V	Z-USA/400	248290	6/60
Delayed undervoltage release 230 V	Z-USD/230	248291	6/60
Auxiliary switch	ZP-IHK	286052	4/120
Aux. and tripping sig. switch	ZP-NHK	248437	4/120
Remote control switching dev.	Z-FW-LP	248296	1/20
Moisture-proof enclosure	Z-MFG	248383	1
Moisture-proof encl. N-cond.	Z-MFG/NL	248384	1
Moisture-proof encl. EM.-OFF	Z-MFG/NOT	248385	1
Additional terminal 35 mm ²	Z-HA-EK/35	263960	12/720
Switching interlock without lock	IS/SPE-1TE	101911	5/30

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5G0600



Moisture-Proof Enclosure Z-MFG, IP54

- Design according to EN 50298
- Suitable for motor starters Z-MS, e.g. 3-pole (+Z-USA), MCBs, switches etc.
- Earth conductor connection integrated in all types
- Scope of delivery for Z-MFG/NOT: 4 entry bushes, 1 mushroom-shaped pushbutton (red) + 1 NC contact for undervoltage release
- Turning handle, can be locked in the OFF-position by means of 3 padlocks, max. Ø 6 mm
- Enclosure cover can be sealed with leads in 2 locations

Function	Type Designation	Article No.	Units per package
ON/OFF	Z-MFG	248383	1
ON/OFF N-terminal	Z-MFG/NL	248384	1
ON/OFF + EMERGENCY OFF + N-terminal	Z-MFG/NOT	248385	1

Note: Designed for MCBs, switches and motor starters Moeller

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VT4900



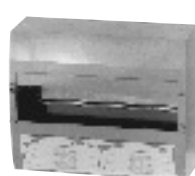
Compact Enclosure KLV-TC

- Degree of protection IP30
- Without door
- For 45 mm devices for modular installation
- Can be sealed

Width MU	Type Designation	Article No.	Units per package
1+1 Enclosure without terminal	KLV-TC-2	276240	1
3+1 Enclosure without terminal	KLV-TC-4	276241	1
6+2 Enclosure without terminal	KLV-TC-8	276242	1
3+1 Enclosure with terminal	KLV-TC-4-TB	276243	1
6+2 Enclosure with terminal	KLV-TC-8-TB1	276244	1
6+2 Enclosure with double-length terminal	KLV-TC-8-TB2	276245	1
Terminal for KLV-TC-4	KLV-TC-TB-4/4	276246	1
Terminal for KLV-TC-8	KLV-TC-TBC-4/4	276247	1
Double-length terminal for KLV-TC-8	KLV-TC-TBC-4/4+4	276248	1

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1442



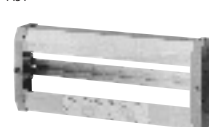
Enclosure ISO

- Plastic enclosure with terminal and busbar
- 1-row
- 45 mm device cut-out
- Terminal included
- ISO 0 - KL7 (7 x 16 mm²)
- ISO 1 - KL15 (15 x 16 mm²)

Width MU	Type Designation	Article No.	Units per package
7	ISO 0	770502401	1
15	ISO 1	770502402	1

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1434



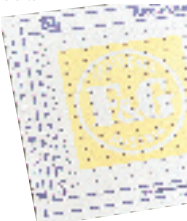
Universal Enclosure

- For devices with frame size 45 mm
- Side boards and profiled strips are connected with glue
- KLV-LV-SP-45 - side boards
- KLV-LV-PL-45 - profiled strips 2 m

Description	Type Designation	Article No.	Units per package
Side board	KLV-LV-SP-45	279265	2
Profiled strip 2 m	KLV-LV-PL-45	279266	1

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373703



Marking Tables GR

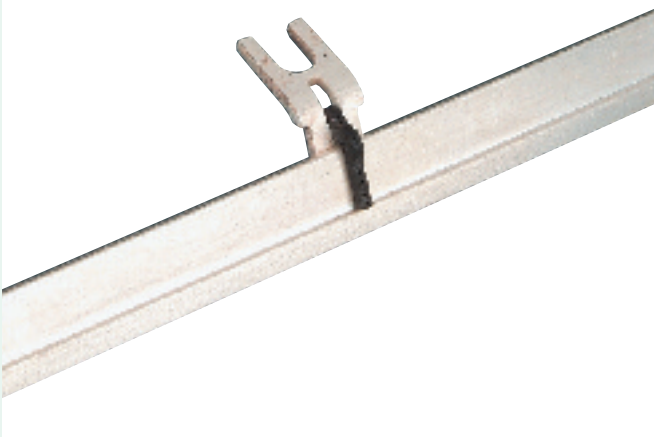
- Sticky labels for clear assign accessories of devices to circuits
- Pre-printed marks for usual circuits

Num. of labels / Dimension	Type Designation	Article No.	Units per package
30 210x120 mm	GR-2	138103900	1
90 210x300 mm	GR-3	138104100	1

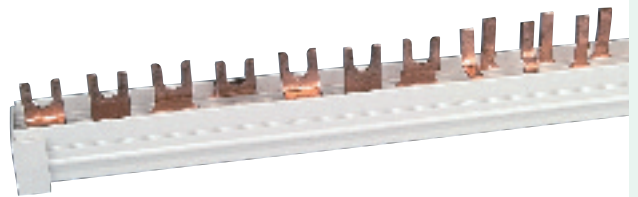
Busbar Systems

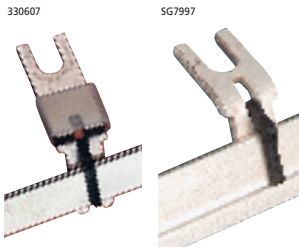
- For simple connection of Moeller devices
- Easy mounting
- Rated cross-section 10, 16, 35 mm²

SG7997



SG4700





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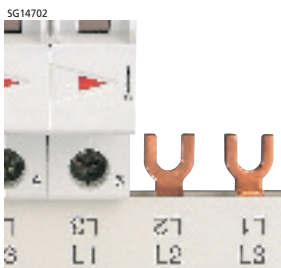
Universal busbar system ZV

- Rated current 50 A, 80 A for devices Xpole

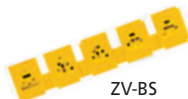
Description	Current	Type Designation	Article No.	Units per package
Conn. angle L1, N	50 A	ZV-L1/N-10	263941	10/600
Conn. angle L2, L3	50 A	ZV-L2/L3-10	263944	10/600
Conn. angle N (0.5 MU)	50 A	ZV-N-05TE-10	263947	10/600
Busbar 1 m	50 A	ZV-SS	263956	1/10
Conn. angle L1, N	80 A	ZV-L1/N-80A-10	263950	10/600
Conn. angle L2, L3	80 A	ZV-L2/L3-80A-10	263953	10/600
Busbar 1 m	80 A	ZV-SS-80A	263957	1/10
Cover section 1 m	50+80 A	ZV-ADP	263958	1/10
End caps for busbar cover		ZV-AEK	263959	1/600

Busbar Block Z-GV

- Cross-section 10 mm², 16 mm² for Xpole devices
- Length 1 m



714KL16419



ZV-B5

Description	Current	Type Designation	Article No.	Units per package
Busbar 1p	63 A	Z-GV-10/1P-1TE-C	999201450	50
Busbar 3p	63 A	Z-GV-10/3P-3TE-C	999201451	20
End cap 2+3p		Z-AK-10/2+3P-C	999201454	10/600
Busbar 1p	80 A	Z-GV-16/1P-1TE-C	999201452	50
Busbar 1p+N	80 A	Z-GV-16/1P+N-2TE	271063	20
End cap 2+3p		Z-AK-16/2+3P	271070	10/600
Busbar 3p	80 A	Z-GV-16/3P-3TE-C	999201453	20
End cap 2+3p		Z-AK-16/2+3P-C	999201455	10/600
Busbar 3p+N	80 A	Z-GV-16/3P+N-4TE	271066	15
End cap 4p		Z-AK-16/4P	271071	10/600

- Cross-section 10 mm², 16 mm² for Xpole devices
- For 12 poles including end caps

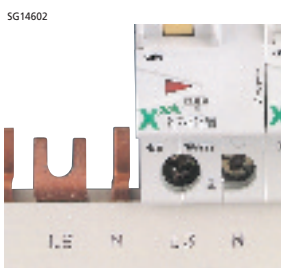
Description	Current	Type Designation	Article No.	Units per package
Busbar 3p	63 A	Z-GV-10/3P-12-C	999201456	50
Busbar 3p	80 A	Z-GV-16/3P-12-C	999201457	50

Accessories

- For shrouding of unused terminals Z-GV-1TE
- 1 pc = 5-shroud set

Busbar Tag Shrouds	ZV-B5	264940	10/600
Busbar Tag Shrouds	ZV-B5-G	104903	10/600

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Busbar Block Z-GSV

- Cross-section 16 mm² for PL6 and PL7 1+N-pole (1.5 MU)
- Current 80 A

Description	Type Designation	Article No.	Units per package
Busbar 1p+N	Z-GSV-16/1P+N	271067	10
End cap 2+3p	Z-AK-16/2+3P	271070	10/600
Busbar 3 x 1p+N	Z-GSV-16/3P+N	271068	10
End cap 4p	Z-AK-16/4P	271071	10/600

Busbar Block Z-SV (1.5 MU)

- Cross-section 16 mm² a 35 mm² for PLHT (terminals separation 1.5 MU)

Description	Current	Type Designation	Article No.	Units per package
Busbar 16 mm ²	up to 80 A	Z-SV-16/3P	271072	20
End cap for 16 mm ²		Z-AK-16/2+3P	271070	10/600
Busbar 35 mm ²	up to 110 A	Z-SV-35/PLHT-V	264939	4
End cap for 35 mm ²		Z-V-35/AK/3P	264932	10/600

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Fuse-links and Fuse Disconnectors

- Fuse-links D II, D III, D IV up to 100 A and accessories
- Fuse disconnectors VLC for cylindrical fuse-links up to 100 A
- Cylindrical fuse-links up to 100 A
- Fuse disconnectors LTS up to 630 A



Fuse-links D II, D III, D IV

- Design according to ČSN 35 4710, EN 60269, CEE 16, VDE 0636
- Standard fuse-links – protection of electric lines against overload and short circuit
- Fuse-links gG (slow, formerly signed with

a symbol of snail shell) – protection of circuits lines against overload and short circuit, suitable for consumers which are source of surge currents

Type	Rated current [A]	Type Designation	Article No.	Units per package
DII standard	2	D II-2 A	852312101	25/500
	4	D II-4 A	852312102	25/500
	6	D II-6 A	852312103	25/500
	10	D II-10 A	852312104	25/500
	16	D II-16 A	852312105	25/500
	20	D II-20 A	852312106	25/500
	25	D II-25 A	852312107	25/500
DII delayed gL/gG	2	D II-2 A gG	852312401	25/500
	4	D II-4 A gG	852312402	25/500
	6	D II-6 A gG	852312403	25/500
	10	D II-10 A gG	852312404	25/500
	16	D II-16 A gG	852312405	25/500
	20	D II-20 A gG	852312406	25/500
	25	D II-25 A gG	852312407	25/500
DIII standard	35	D III-35 A	852313101	25/500
	50	D III-50 A	852313102	25/500
	63	D III-63 A	852313103	25/500
DIII delayed gL/gG	35	D III-35 A gG	852313401	25/500
	50	D III-50 A gG	852313402	25/500
	63	D III-63 A gG	852313403	25/500
DIV standard	80	D IV-80 A	852314101	25/500
	100	D IV-100 A	852314102	25/500
DIV delayed gL/gG	80	D IV-80 A gG	852314401	25/500
	100	D IV-100 A gG	852314402	25/500

D III



D IV



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Gauge Pieces VD II, VD III

- Type VD II for fuse-links D II / E 27

- Type VD III for fuse-links D III / E 33

Type	Rated current [A]	Type Designation	Article No.	Units per package
VDII	2	VD II-2 A	852342001	25/1500
	4	VD II-4 A	852342002	25/1500
	6	VD II-6 A	852342003	25/1500
	10	VD II-10 A	852342004	25/1500
	16	VD II-16 A	852342005	25/1500
	20	VD II-20 A	852342006	25/1500
	25	VD II-25 A	852342007	25/1500
VDIII	35	VD III-35 A	852343001	25/850
	50	VD III-50 A	852343002	25/850
	63	VD III-63 A	852343003	25/850

VD III



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KD III

Fuse Carriers KD II, KD III

- Type KD II for fuse-links D II / E 27

- Type KD III for fuse-links D III / E 33

For	Rated current [A]	Type Designation	Article No.	Units per package
Fuse E 27	25	KD II	852332003	
Fuse E 33	63	KD III	852333002	



EZV 25

Fuse Bases EZV, EZN

- Type EZV for mounting on panel
- Type EZN for mounting on DIN rail
- Type xxx 25 for fuse-links D II with $I_n = 2-25$ A with thread E 27

- Type xxx 63 for fuse-links D III with $I_n = 35-63$ A with thread E 33

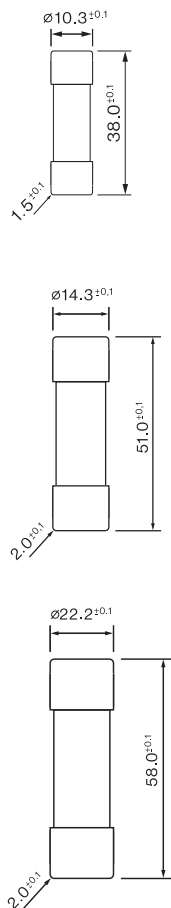
Mounting	Rated current [A]	Type Designation	Article No.	Units per package
1-pole with plastic cover				
On panel	25	EZV 25	852322011	10/130
On DIN rail	25	EZN 25	852322009	10/130
On panel	63	EZV 63	852323010	10/120
On DIN rail	63	EZN 63	852323008	10/120
3-pole				
On DIN rail	25	EZN 25/3 linear	852322025	4/60
On DIN rail	63	EZN 63/3 linear	852323016	6/42



EZN 25/3 linear

Cylindrical Fuse-links C 10, C 14, C 22

- Fuse-links suitable for fuse disconnectors VLC
- Rated voltage 690, 500, 400 V, 50 Hz (according to I_n)
- High breaking capacity 80–120 kA (under type)
- Low let-through energy
- Characteristic gG suitable for protection of electrical lines, cables
- Characteristic AM suitable for protection of circuits with motors



Type size	Rated current [A]	Type Designation	Article No.	Units per package
Characteristic gL/gG				
10x38	1	C10-1 A	850001651	10/500
10x38	2	C10-2 A	850001652	10/500
10x38	4	C10-4 A	850001653	10/500
10x38	6	C10-6 A	850001654	10/500
10x38	8	C10-8 A	850001655	10/500
10x38	10	C10-10 A	850001656	10/500
10x38	12	C10-12 A	850001657	10/500
10x38	16	C10-16 A	850001658	10/500
10x38	20	C10-20 A	850001659	10/500
10x38	25	C10-25 A	850001660	10/500
10x38	32	C10-32 A	850001661	10/500
14x51	2	C14-2 A	850001662	10/500
14x51	4	C14-4 A	850001663	10/500
14x51	6	C14-6 A	850001664	10/500
14x51	8	C14-8 A	850001665	10/500
14x51	10	C14-10 A	850001666	10/500
14x51	12	C14-12 A	850001667	10/500
14x51	16	C14-16 A	850001668	10/500
14x51	20	C14-20 A	850001669	10/500
14x51	25	C14-25 A	850001670	10/500
14x51	32	C14-32 A	850001671	10/500
14x51	40	C14-40 A	850001672	10/500
14x51	50	C14-50 A	850001673	10/500
22x58	16	C22-16 A	850001674	10/500
22x58	20	C22-20 A	850001675	10/500
22x58	25	C22-25 A	850001676	10/500
22x58	32	C22-32 A	850001677	10/500
22x58	40	C22-40 A	850001678	10/500
22x58	50	C22-50 A	850001679	10/500
22x58	63	C22-63 A	850001680	10/500
22x58	80	C22-80 A	850001681	10/500
22x58	100	C22-100 A	850001682	10/500
Characteristic aM				
10x38	2	C10 2A aM	850001832	10/500
10x38	4	C10 4A aM	850001833	10/500
10x38	6	C10 6A aM	850001834	10/500
10x38	8	C10 8A aM	850001835	10/500
10x38	10	C10 10A aM	850001836	10/500
10x38	12	C10 12A aM	850001837	10/500
10x38	16	C10 16A aM	850001838	10/500
10x38	20	C10 20A aM	850001839	10/500
10x38	25	C10 25A aM	850001840	10/500
10x38	32	C10 32A aM	850001841	10/500
14x51	2	C14 2A aM	850001843	10/500
14x51	4	C14 4A aM	850001844	10/500
14x51	6	C14 6A aM	850001845	10/500
14x51	8	C14 8A aM	850001846	10/500
14x51	10	C14 10A aM	850001847	10/500
14x51	12	C14 12A aM	850001848	10/500
14x51	16	C14 16A aM	850001849	10/500
14x51	20	C14 20A aM	850001850	10/500
14x51	25	C14 25A aM	850001851	10/500
14x51	32	C14 32A aM	850001852	10/500
14x51	40	C14 40A aM	850001853	10/500
14x51	50	C14 50A aM	850001854	10/500

Cylindrical Fuse-links C 10, C 14, C 22 – continuation

Type size	Rated current [A]	Type Designation	Article No.	Units per package
Characteristic aM				
22x58	16	C22 16A aM	850001856	10/500
22x58	20	C22 20A aM	850001857	10/500
22x58	25	C22 25A aM	850001858	10/500
22x58	32	C22 32A aM	850001859	10/500
22x58	40	C22 40A aM	850001860	10/500
22x58	50	C22 50A aM	850001861	10/500
22x58	63	C22 63A aM	850001862	10/500
22x58	80	C22 80A aM	850001863	10/500
22x58	100	C22 100A aM	850001864	10/500

Fuse Disconnectors VLC

- For cylindrical fuse-links C10, C14, C22
- Mainly for industrial distributions
- Meets requirements EN 60947-3
- Rated voltage 690 V, 50 Hz
- Utilization category AC-22B
- Terminal capacity 25 mm²
- Design ...L with lighting indication of tripping of fuse-links

Fuse Disconnectors up to 32 A: VLC 10

- For cylindrical fuse-links C10
- Busbars for PL7 can be used

Num. of poles	For fuse-link	Type Designation	Article No.	Units per package
1P	10x38	VLC10 1P	850001620	10
1P+N	10x38	VLC10 1P+N	850001621	5
2P	10x38	VLC10 2P	850001622	5
3P	10x38	VLC10 3P	850001623	3
3P+N	10x38	VLC10 3P+N	850001624	2
1P	10x38	VLC10 1P+L	850001625	10
1P+N	10x38	VLC10 1P+N+L	850001626	5
2P	10x38	VLC10 2P+L	850001627	5
3P	10x38	VLC10 3P+L	850001628	3
3P+N	10x38	VLC10 3P+N+L	850001629	2

Fuse Disconnectors up to 63 A: VLC 14

- For cylindrical fuse-links C14

Num. of poles	For fuse-link	Type Designation	Article No.	Units per package
1P	14x51	VLC14-1P	285361	12
1P+N	14x51	VLC14-1P+N	285362	6
2P	14x51	VLC14-2P	285363	6
3P	14x51	VLC14-3P	285364	4
3P+N	14x51	VLC14-3P+N	285365	3
1P	14x51	VLC14-1P/L	285371	12
1P+N	14x51	VLC14-1P+N/L	285372	6
2P	14x51	VLC14-2P/L	285373	6
3P	14x51	VLC14-3P/L	285374	4
3P+N	14x51	VLC14-3P+N/L	285375	3

Fuse Disconnectors up to 100 A: VLC 22

- For cylindrical fuse-links C22

Num. of poles	For fuse-link	Type Designation	Article No.	Units per package
1P	22x58	VLC22-1P	285366	3
1P+N	22x58	VLC22-1P+N	285367	2
2P	22x58	VLC22-2P	285368	2
3P	22x58	VLC22-3P	285369	1
3P+N	22x58	VLC22-3P+N	285370	1
1P	22x58	VLC22-1P/L	285376	3
1P+N	22x58	VLC22-1P+N/L	285377	2
2P	22x58	VLC22-2P/L	285378	2
3P	22x58	VLC22-3P/L	285379	1
3P+N	22x58	VLC22-3P+N/L	285380	1

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Z-LTS-160/00/1

wa_sg09003



Z-LTS-160/00/3

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Fuse Disconnectors LTS

- For power fuse-links of type sizes NH 00, 1, 2 and 3
- Delivered without NH fuse-links
- Design LTS for mounting on panel
- Design LTS...R for direct mounting on 60 mm busbar system
- Necessity to use adaptor Z-LTS...SAD in case of mounting on 100 mm busbar system
- Meets requirements of EN 60947-3
- Whole cover can be demounted at off state
- Hinged windows for measuring of fuse-links voltage

Size	Rated current [A]	Num. of poles	Type Designation	Article No.	Units per package
Mounting on panel					
00	160	1	LTS-160/00/1	263120	1/14
00	160	3	LTS-160/00/3	263121	1/6
1	250	3	LTS-250/1/3	269140	1
2	400	3	LTS-400/2/3	284647	1
3	630	3	LTS-630/3/3	284691	1
Mounting on 60 mm busbar system					
00	160	3	LTS-160/00/3-R	263122	1/3
1	250	3	LTS-250/1/3-R	269348	1
2	400	3	LTS-400/2/3-R	284648	1

Busbar Adaptor for Fuse Disconnectors Z-LTS...-SAD

- For mounting of fuse disconnectors LTS on 100 mm busbar system

Size	For disconnector	Type Designation	Article No.	Units per package
1	LTS-250/1/3	Z-LTS-250-SAD/100	286818	1
2	LTS-400/2/3	Z-LTS-400-SAD/100	286819	1
3	LTS-630/3/3	Z-LTS-630-SAD/100	286830	1

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wa_sg01502



Accessories for Fuse Disconnectors LTS

Description	Type Designation	Article No.	Units per package
Size 00			
Al/Cu clamps	Z-LTS-160-BK	286812	3/180
V-shaped busbar	Z-LTS-00-V-LA	263130	3/180
V-shaped clamp (Cross-section of circular conductor 10–50 mm ² , cross-section of sectoral conductor 35–95 mm ²)	Z-LTS-00-V-KL	263128	3/180
Cover for V-shaped clamp	Z-LTS-00-V-KLA	263132	3/180
Cover frame for LTS-160/00/3	Z-LTS-00/3-R-FR	263123	3/180
Size 1			
Al/Cu clamps	Z-LTS-250-BK	286813	3/180
Size 1, 2, 3			
V-shaped busbar	Z-LTS-V-LA	263129	3/180
V-shaped clamp	Z-LTS-V-KL	263127	3/180
Cover for V-shaped clamp	Z-LTS-V-KLA	263131	3/180

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WA_SG04003



LTS-L/160/00

Vertical Fuse Disconnectors LTS-L, LTS-LG

Size 00, Rated current 160 A, busbar separation 100 mm

- For power fuse-links of NH 00 type
- Terminal capacity 70 mm²
- Top or bottom output

Design	Type Designation	Article No.	Units per package
3 screws M8 with cover + terminal clips	LTS-L/160/00	269349	1
3 Al/Cu clamps with cover	LTS-LG 160/00-E1	872002052	1

ZLTS-M/DOHD



Z-LTS-LG/00-KR

Accessories for Fuse Disconnectors size 00

Design	Type Designation	Article No.	Units per package
Terminal clips, 3 pcs	Z-LTS-LG/00-KR	263153	3/180
Signal switch 5 A, 250 V (1 NO / 1 NC)	ZLTS-M/DOHD	872002054	1
Adaptor 100/185 mm	Z-LTS-LG/00-SAD	263118	1
Current transformer:			
- 3-phase measuring to 100 A	ZLTS-MO/SW100	872002055	1 set = 3 pcs
- 3-phase measuring to 150 A	ZLTS-MO/SW150	872002056	1 set = 3 pcs
Al/Cu clamps	Z-LTS-160-BK	286812	3/180
V-shaped busbar	Z-LTS-00-V-LA	263130	3/180
V-shaped clamp	Z-LTS-00-V-KL	263128	3/180
Cover for V-shaped clamp	Z-LTS-00-V-KLA	263132	3/180

Vertical Fuse Disconnectors LTS-L, LTS-LG

Size 1, rated current 250 A, busbar separation 185 mm

- For power fuse-links of NH 1 type

Design	Type Designation	Article No.	Units per package
M10 screw connection, 3-pole control (parallel)	LTS-L/250/1	269350	1
M10 screw connection, fixed handle, 3x1-pole control	LTS-LG 250/1	872002150	1

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WA_SG03903



WA_SG03903



Size 2, rated current 400 A, busbar separation 185 mm

- For power fuse-links of NH 2 type

Design	Type Designation	Article No.	Units per package
M12 screw connection, 3-pole control (parallel)	LTS-L/400/2	269351	1
M12 screw connection, fixed handle, 3x1-pole control	LTS-LG 400/2	872002250	1
V-shaped busbar (35–240 mm ²), fixed handle, 3x1-pole control	LTS-LG 400/2-V1	872005100	1
V-shaped busbar (35–240 mm ²), 3-pole control (parallel)	LTS-LG 400/2-V11	872005800	1

Size 3, rated current 630 A, busbar separation 185 mm

- For power fuse-links of NH 3 type

Design	Type Designation	Article No.	Units per package
M12 screw connection, 3-pole control (parallel)	LTS-L/630/3	269352	1
M12 screw connection, fixed handle, 3x1-pole control	LTS-LG 630/3	872002350	1



Vertical Fuse Disconnectors for Busbars Splitting

Size 2 and 3, rated current 400 A and 630 A, busbar separation 185 mm

Design	Type Designation	Article No.	Units per package
Vertical disconnector to 400 A, hinged handle, size 2	LTS-LG 400/2-S2	872002057	1
Vertical disconnector to 630 A, fixed handle, size 3	LTS-LG 630/3-S1	872006000	1

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Accessories for Vertical Fuse Disconnectors size 1, 2, 3

Design	Type Designation	Article No.	Units per package
V-shaped busbar	Z-LTS-V-LA	263129	3
V-shaped clamp (Cross-section of circular conductor 35–70 mm ² , cross-section of sectoral conductor 50–240 mm ²)	Z-LTS-V-KL	263127	3
Cover for V-shaped clamp	Z-LTS-V-KLA	263131	3
Terminal clips	Z-LTS-L-KR	269353	3
Terminal cover bottom length 190 mm	ZLTS-M/KHO	872006400	1
Terminal cover top length 145 mm	ZLTS-M/KHU	872006500	1
Current transformer for 3-phase measuring to 250 A for size 1	ZLTS-M3/W250	872006700	1 set = 3 pcs
to 400 A for size 2	ZLTS-M3/W400	872006900	1 set = 3 pcs
to 600 A for size 3	ZLTS-M3/W600	872007100	1 set = 3 pcs
to 1000 A for size 3	ZLTS-M3W1000	872007300	1 set = 3 pcs

WA-SG01502



WA-SG02802



Z-LTS-L-KR

Note:

NH fuse-links, other types of disconnectors and accessories also in offer. Information on request.

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Circuit Breakers LZM and Switch Disconnectors LN

- Rated currents up to 1600 A
- Rated breaking capacity 36 kA (LZMC1, LZMC2) and 50 kA (LZMN3, LZMN4)
- Modern design with small dimensions
- Easy mounting of accessories in unified design
- Graded depth of devices with module 17.5 mm
- Further particulars see catalogue "Circuit-breakers LZM and switch-disconnectors LN up to 1600 A" or "Main Catalogue Industrial Switchgear"





Circuit Breakers LZMC1

• Rated breaking capacity 36 kA

• Thermo-magnetic releases

Rated current I_n [A]	Type Designation	Article No.	Units per pack.
20	LZMC1-A20-I	111888	1
25	LZMC1-A25-I	111889	1
32	LZMC1-A32-I	111890	1
40	LZMC1-A40-I	111891	1
50	LZMC1-A50-I	111892	1
63	LZMC1-A63-I	111893	1
80	LZMC1-A80-I	111894	1
100	LZMC1-A100-I	111895	1
125	LZMC1-A125-I	111896	1
160	LZMC1-A160-I	111897	1

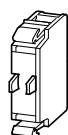
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Switch Disconnectors LN1

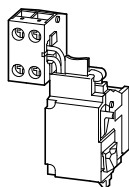
Rated current I_n [A]	Type Designation	Article No.	Units per pack.
63	LN1-63-I	111994	1
100	LN1-100-I	111995	1
125	LN1-125-I	111996	1
160	LN1-160-I	111997	1

Accessories of Circuit Breakers LZMC1 and Switch Disconnectors LN1

Description	Type Designation	Article No.	Units per pack.
Auxiliary contacts 10	M22-K10	216376	1
Auxiliary contacts 01	M22-K01	216378	1
Auxiliary contacts 11	M22-CK11	107940	1
Auxiliary contacts 20	M22-CK20	107898	1
Auxiliary contacts 02	M22-CK02	107899	1
Early-make auxiliary contacts (with clamp terminal)	NZM1-XHIV	259426	1
Undervoltage release 24 V AC	NZM1-XU24AC	259434	1
Undervoltage release 240 V AC	NZM1-XU208-240AC	259442	1
Undervoltage release 440 V AC	NZM1-XU380-440AC	259444	1
Undervoltage release with two early-make auxiliary contacts 24 V AC	NZM1-XUHIV24AC	259531	1
Undervoltage release with two early-make auxiliary contacts 240 V AC	NZM1-XUHIV208-240AC	259539	1
Undervoltage release with two early-make auxiliary contacts 440 V AC	NZM1-XUHIV380-440AC	259541	1
Shunt trip release 24 V AC / DC	NZM1-XA24AC/DC	259708	1
Shunt trip release 250 V AC / DC	NZM1-XA208-250AC/DC	259726	1
Shunt trip release 440 V AC / DC	NZM1-XA380-440AC/DC	259728	1
Shunt trip release with auxiliary contact 24 V AC / DC	NZM1-XAHIV24AC/DC	259774	1
Shunt trip release with auxiliary contact 250 V AC / DC	NZM1-XAHIV208-250AC/DC	259782	1
Shunt trip release with auxiliary contact 440 V AC / DC	NZM1-XAHIV380-440AC/DC	259784	1
Rotary drive with rotary handle, black colour	NZM1-XD	260116	1
Lockable rotary drive with rotary handle, black colour	NZM1-XDV	260125	1
Lockable rotary drive with rotary handle, red/yellow colour	NZM1-XDVR	260135	1
Door coupling rotary handle, black colour	NZM1-XTD	260160	1
Lockable door coupling rotary handle, black colour	NZM1-XTVD	260166	1
Lockable door coupling rotary handle, red/yellow colour	NZM1-XTVDVR	260178	1
Extension shaft for mounting depth 400 mm	NZM1/2-XV4	261232	1
Extension shaft for mounting depth 600 mm	NZM1/2-XV6	260191	1
Insulating surround	NZM1-XBR	260195	1
Toggle lever locking device	NZM1-XKAV	260199	1
Spacer (height 17.5 mm)	NZM1/2-XAB	260203	1
Clip plate for mounting onto DIN rail	NZM1-XC35	260213	1
Exchangeable tunnel (lift) terminal	NZM1-XKC	262240	1
Terminal clip for screw connection	NZM1-XKS	260019	1
Terminal cover	NZM1-XKSA	260021	1



M22-K10



NZM1-XHIV



NZM1-XD



NZM1-XTVDVR

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Circuit Breakers LZMC2

- Rated breaking capacity 36 kA

- Thermo-magnetic releases

Rated current I_n [A]	Type Designation	Article No.	Units per pack.
160	LZMC2-A160-I	111938	1
200	LZMC2-A200-I	111939	1
250	LZMC2-A250-I	111940	1
300	LZMC2-A300-I	111941	1

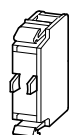
Switch Disconnectors LN2

Rated current I_n [A]	Type Designation	Article No.	Units per pack.
160	LN2-160-I	112002	1
200	LN2-200-I	112003	1
250	LN2-250-I	112004	1

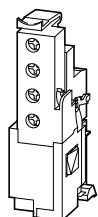
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Accessories of Circuit Breakers LZMC2 and Switch Disconnectors LN2

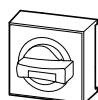
Description	Type Designation	Article No.	Units per pack.
Auxiliary contacts 10	M22-K10	216376	1
Auxiliary contacts 01	M22-K01	216378	1
Auxiliary contacts 11	M22-CK11	107940	1
Auxiliary contacts 20	M22-CK20	107898	1
Auxiliary contacts 02	M22-CK02	107899	1
Early-make auxiliary contacts	NZM2-3-XHIV	259430	1
Undervoltage release 24 V AC	NZM2/3-XU24AC	259491	1
Undervoltage release 240 V AC	NZM2/3-XU208-240AC	259499	1
Undervoltage release 440 V AC	NZM2/3-XU380-440AC	259501	1
Undervoltage release with two early-make auxiliary contacts 24 V AC	NZM2/3-XUHIV24AC	259583	1
Undervoltage release with two early-make auxiliary contacts 240 V AC	NZM2/3-XUHIV208-240AC	259591	1
Undervoltage release with two early-make auxiliary contacts 440 V AC	NZM2/3-XUHIV380-440AC	259594	1
Shunt trip release 24 V AC / DC	NZM2/3-XA24AC/DC	259754	1
Shunt trip release 240 V AC / DC	NZM2/3-XA208-250AC/DC	259763	1
Shunt trip release 440 V AC / DC	NZM2/3-XA380-440AC/DC	259766	1
Shunt trip release with auxiliary contact 24 V AC / DC	NZM2/3-XAHIV24AC/DC	259810	1
Shunt trip release with auxiliary contact 250 V AC / DC	NZM2/3-XAHIV208-250AC/DC	259818	1
Shunt trip release with auxiliary contact 440 V AC / DC	NZM2/3-XAHIV380-440AC/DC	259820	1
Rotary drive with rotary handle, black colour	NZM2-XD	260121	1
Lockable rotary drive with rotary handle, black colour	NZM2-XDV	260127	1
Lockable rotary drive with rotary handle, red colour	NZM2-XDVR	260137	1
Door coupling rotary handle, black colour	NZM2-XTD	260162	1
Lockable door coupling rotary handle, black colour	NZM2-XTVD	260168	1
Lockable door coupling rotary handle, red/yellow colour	NZM2-XTVDVR	260180	1
Extension shaft for mounting depth 400 mm	NZM1/2-XV4	261232	1
Extension shaft for mounting depth 600 mm	NZM1/2-XV6	260191	1
Insulating surround	NZM2-XBR	260197	1
Toggle lever locking device	NZM2/3-XKAV	260201	1
Spacer (height 17.5 mm)	NZM1/2-XAB	260203	1
Clip plate for mounting onto DIN rail	NZM2-XC75	260215	1
Motor drive 240 V AC	NZM2-XR208-240AC	259832	1
Motor drive 24 V DC	NZM2-XR24-30DC	259836	1
Exchangeable tunnel (lift) terminal	NZM2-160XKC	262240	1
Terminal clip for screw connection	NZM2-XKS	260030	1
Terminal cover	NZM2-XKSA	260038	1



M22-K10



NZM2/3-XHIV



NZM2-XD



NZM2-XTDVR

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Circuit Breakers LZMN3

- Rated breaking capacity 50 kA

- Thermo-magnetic releases up to 500 A, electronic releases for 630 A

Rated current I_n [A]	Type Designation	Article No.	Units per pack.
320	LZMN3-A320-I	111966	1
400	LZMN3-A400-I	111967	1
500	LZMN3-A500-I	111968	1
630	LZMN3-AE630-I	111969	1

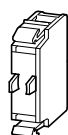
Switch Disconnectors LN3

Rated current I_n [A]	Type Designation	Article No.	Units per pack.
400	LN3-400-I	112008	1
630	LN3-630-I	112009	1

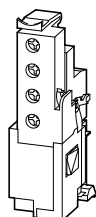
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Accessories of Circuit Breakers LZMN3 and Switch Disconnectors LN3

Description	Type Designation	Article No.	Units per pack.
Auxiliary contacts 10	M22-K10	216376	1
Auxiliary contacts 01	M22-K01	216378	1
Auxiliary contacts 11	M22-CK11	107940	1
Auxiliary contacts 20	M22-CK20	107898	1
Auxiliary contacts 02	M22-CK02	107899	1
Early-make auxiliary contacts	NZM2/3-XHIV	259430	1
Undervoltage release 24 V AC	NZM2/3-XU24AC	259491	1
Undervoltage release 240 V AC	NZM2/3-XU208-240AC	259499	1
Undervoltage release 440 V AC	NZM2/3-XU380-440AC	259501	1
Undervoltage release with two early-make auxiliary contacts 24 V AC	NZM2/3-XUHIV24AC	259583	1
Undervoltage release with two early-make auxiliary contacts 240 V AC	NZM2/3-XUHIV208-240AC	259591	1
Undervoltage release with two early-make auxiliary contacts 440 V AC	NZM2/3-XUHIV380-440AC	259594	1
Shunt trip release 24 V AC / DC	NZM2/3-XA24AC/DC	259754	1
Shunt trip release 240 V AC / DC	NZM2/3-XA208-250AC/DC	259763	1
Shunt trip release 440 V AC / DC	NZM2/3-XA380-440AC/DC	259766	1
Shunt trip release with auxiliary contact 24 V AC / DC	NZM2/3-XAHIV24AC/DC	259810	1
Shunt trip release with auxiliary contact 250 V AC / DC	NZM2/3-XAHIV208-250AC/DC	259818	1
Shunt trip release with auxiliary contact 440 V AC / DC	NZM2/3-XAHIV380-440AC/DC	259820	1
Rotary drive with rotary handle, black colour	NZM3-XD	260123	1
Lockable rotary drive with rotary handle, black colour	NZM3-XDV	260129	1
Lockable rotary drive with rotary handle, red colour	NZM3-XDVR	260140	1
Door coupling rotary handle, black colour	NZM3-XTD	260164	1
Lockable door coupling rotary handle, black colour	NZM3-XTVD	260170	1
Lockable door coupling rotary handle, red/yellow colour	NZM3-XTVDVR	260182	1
Extension shaft for mounting depth 400 mm	NZM3/4-XV4	261234	1
Extension shaft for mounting depth 600 mm	NZM3/4-XV6	260193	1
Toggle lever locking device	NZM2/3-XKAV	260201	1
Motor drive 240 V AC	NZM3-XR208-240AC	259850	1
Motor drive 24 V DC	NZM3-XR24-30DC	259854	1
Exchangeable tunnel (lift) terminal	NZM3-XKC	260042	1
Terminal clip for screw connection	NZM3-XKS	260039	1
Terminal cover	NZM3-XKSA	260045	1



M22-K10



NZM2/3-XHIV



NZM3-XD



NZM3-XTVDVR

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Circuit Breakers LZMN4

• Rated breaking capacity 50 kA

• Electronic releases

Rated current I_n [A]	Type Designation	Article No.	Units per pack.
800	LZMN4-AE800-I	111978	1
1000	LZMN4-AE1000-I	111979	1
1250	LZMN4-AE1250-I	111980	1
1600	LZMN4-AE1600-I	111981	1

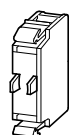
Switch Disconnectors LN4

Rated current I_n [A]	Type Designation	Article No.	Units per pack.
800	LN4-800-I	112012	1
1000	LN4-1000-I	112013	1
1250	LN4-1250-I	112014	1
1600	LN4-1600-I	112015	1

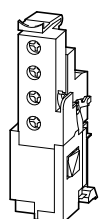
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Accessories of Circuit Breakers LZMN4 and Switch Disconnectors LN4

Description	Type Designation	Article No.	Units per pack.
Auxiliary contacts 10	M22-K10	216376	1
Auxiliary contacts 01	M22-K01	216378	1
Auxiliary contacts 11	M22-CK11	107940	1
Auxiliary contacts 20	M22-CK20	107898	1
Auxiliary contacts 02	M22-CK02	107899	1
Early-make auxiliary contacts	NZM4-XHIV	266172	1
Undervoltage release 24 V AC	NZM4-XU24AC	266189	1
Undervoltage release 240 V AC	NZM4-XU208-240AC	266193	1
Undervoltage release 440 V AC	NZM4-XU380-440AC	266194	1
Undervoltage release with two early-make auxiliary contacts 240 V AC	NZM4-XUHIV208-240AC	266221	1
Undervoltage release with two early-make auxiliary contacts 240 V AC	NZM4-XUHIV20208-240AC	266248	1
Shunt trip release 24 V AC / DC	NZM4-XA24AC/DC	266447	1
Shunt trip release 250 V AC / DC	NZM4-XA208-250AC/DC	266451	1
Shunt trip release 440 V AC / DC	NZM4-XA380-440AC/DC	266452	1
Shunt trip release with auxiliary contact 250 V AC / DC	NZM4-XAHIVC208-250AC/DC	266583	1
Rotary drive with rotary handle, black colour	NZM4-XD	266606	1
Lockable rotary drive with rotary handle, red colour	NZM4-XDVR	266610	1
Door coupling rotary handle, black colour	NZM4-XTD	266612	1
Lockable door coupling rotary handle, red/yellow colour	NZM4-XTVDVR	266618	1
Extension shaft for mounting depth 400 mm	NZM3/4-XV4	261234	1
Extension shaft for mounting depth 600 mm	NZM3/4-XV6	260193	1
Motor drive 240 V AC	NZM4-XR208-240AC	266685	1
Motor drive 60 V AC	NZM3-XR48-60AC	266683	1
Module plate	NZM4-XKM2	266820	1
Flat cable terminal	NZM4-XKB	266829	1
Tunnel (lift) terminal	NZM4-XKA	266836	1
Terminal for back connection	NZM4-XKR	266842	1
Terminal cover	NZM4-XKSA	266846	1



M22-K10



NZM4-XHIV



NZM4-XD



NZM4-XTDVR

Technical information p. 215

Surge Protection

- Protection of low-voltage installations against direct or near strokes of lighting or against surges from switching of consumers
- Surge protection devices (SPD) class B as capsulated version
- Surge arresters class C and D for protection of sensitive electronic devices
- Easy function check of arresters class C and D – fault indication
- Reliable protection against overvoltage in case of use of a complete cascade of three classes (B, C, D)

U1202



Surge Arresters class B

- For the protection of low voltage distribution systems against direct lightning stroke into the overhead power supply line or devices
- Capsulated version - during the discharge process, the device does not issue any hot ionised gases. Therefore, there is no need for keeping a safety distance to flammable materials.

Lighting Current Arresters SPI

- For coordination of arresters class B (SPI series) and arresters class C it is necessary to keep recommended length of electric line min. 10 m between arresters or to use arrester class C with a maximum continuous operating voltage U_c of 460 V AC with higher protection level
- Voltage protection level 1.5 kV

SG13005



SPI-35/440

SG14605



SPI-3+1

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Imp. current I_{imp} (10/350) μs	Type Designation	Article No.	Units per package
35 kA capsulated	SPI-35/440	263137	6/120
50 kA capsulated	SPI-50/NPE	263138	2/120
100 kA capsulated	SPI-100/NPE	263139	1/60
Surge arrester set for TN-C	SPI-35/440/3	267487	1/40
Surge arrester set for TN-S, TT	SPI-3+1	267488	1/20

Lead-through Terminal for B class arresters, SPB-D-125

Rated Current	Type Designation	Article No.	Units per package
125 A	SPB-D-125	248145	2

U0302



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Busbars Z-GV-U for SPB, SPI, SP-B+C

Num. of poles	Type Designation	Article No.	Units per package
2	Z-GV-U/2	272588	20/1200
3	Z-GV-U/3	272589	20/1200
4	Z-GV-U/4	274080	20/1200
5	Z-GV-U/5	274081	20/1200
6	Z-GV-U/6	274082	20/400
8	Z-GV-U/8	274083	20/200
9	Z-GV-U/9	274084	20/200



Z-GV-U/9

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SG01804



SPB-12/280/3

SPD class B+C, SPB-12/280

- Big saving of space inside a distribution board – two classes of SPD integrated in a single module
- Recommended for buildings supplied with underground cable

Version	Type Designation	Article No.	Units per package
SPD class B+C	SPB-12/280	284698	12/120
2-pole set for TN-S net	SPB-12/280/2	285081	1/60
3-pole set for TN-C net	SPB-12/280/3	284699	1/40
4-pole set for TN-S net	SPB-12/280/4	285082	1/30
3-pole set for TN-C net with aux. switch	SPB-12/280/3-HK	285083	1/24
4-pole set for TN-S net with aux. switch	SPB-12/280/4-HK	285084	1/20

Accessories

Auxiliary switch	SPB-HK	285085	4/120
Auxiliary switch	SPB-HK-W	105197	4/120
Busbar	ZV-KSBI		

Note:

Max. impulse current SPD class B type SPI is 12.5 kA (10/350) μ s. Maximum discharge current of C class SPD is 25 kA (8/20) μ s.

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WA_SG01203



SP-B+C/3

Pre-mounted Set SPD class B+C, SP-B+C/3

- Complete set SPD class B of type SPI and SPD class C of type SPC-S-20/460/3
- Saving of space inside distribution board – it is not necessary to use decoupling coil

Version	Type Designation	Article No.	Units per package
For TN-C nets	SP-B+C/3	267489	1
For TN-S, TT nets	SP-B+C/3+1	267510	1
Auxiliary switch	SPC-S-HK	248203	8/80

Note:

For type SP-B+C/3 surge protection devices class B of type SPI are capsulated with impulse current 35 kA (10/350) μ s. For type SP-B+C/3+1 surge protection devices class B of type SPI are capsulated with impulse current 35 kA (10/350) μ s; as a sum sparring gab type SPI-100/NPE with impulse current 100 kA (10/350) μ s is used. There is used type SPC-S-20/460/3 as C class SPD for both SP-B+C/3 and SP-B+C/3+1.

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SPD class C

- For protection of consumers against overvoltage caused by distant lightning strokes or switching processes.

U1302



SPC-E-280

Surge arresters class C, SPC-E

Max. cont. op. volt. U_c	I_n (8/20) μ s	Type Designation	Article No.	Units per package
280 V AC	20 kA	SPC-E-280	248150	12/120
N-PE 260 V AC	20 kA	SPC-E-N/PE	248157	12/120

Note: Type SPC-E-N/PE is designed for 3+1 connection.

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SG14902



SPC-S-20/280

SG14802



SPC-S-S3

Plug-in surge arrester class C, SPC-S

Max. cont. op. volt. U_c	I_n (8/20) μ s	Type Designation	Article No.	Units per package
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Insert 1 MU

Insert 280 V AC	20 kA	SPC-S-20/280	248161	4/120
Insert 460 V AC *)	20 kA	SPC-S-20/460	248164	4/120
Insert N-PE 260 V AC	20 kA	SPC-S-N/PE	248166	4/120

*) Spare insert for SP-B+C/3

Base 1- to 4-pole

Base 1-pole	SPC-S-S1	248167	12/120
Base 1+1, 2-pole	SPC-S-S2-1+1	248201	6/60
Base 2-pole	SPC-S-S2	248168	6/60
Base 3-pole	SPC-S-S3	248169	4/40
Base 4-pole	SPC-S-S4	248170	3/30
Base 3+1, 4-pole	SPC-S-S4-3+1	248171	3/30

Complete 1- to 4-pole

- base, insert, and busbar

1-pole	280 V AC 1x20 kA	SPC-S-20/280/1	248172	12/120
2-pole	280 V AC 2x20 kA	SPC-S-20/280/2	248173	1/60
3-pole	280 V AC 3x20 kA	SPC-S-20/280/3	248174	1/40
4-pole	280 V AC 4x20 kA	SPC-S-20/280/4	248175	1/30
1-pole	460 V AC 1x20 kA	SPC-S-20/460/1	248184	12/120
2-pole	460 V AC 2x20 kA	SPC-S-20/460/2	248185	1/60
3-pole	460 V AC 3x20 kA	SPC-S-20/460/3	248186	1/40
4-pole	460 V AC 4x20 kA	SPC-S-20/460/4	248187	1/30

Auxiliary switch

SPC-S-HK	248203	8/80
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Utilization: Remote signalization of malfunction of SPD of series SPC-S and SPD-S (light or acoustic warning).

U1202



SPC-S-20/280/3

U1402



SPC-S-HK

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U1002

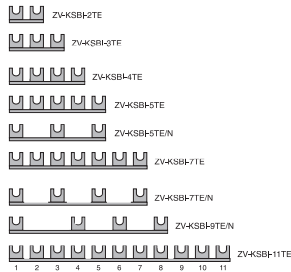


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Lead-through Terminal for SPD class C, Z-D63

Rated Current	Type Designation	Article No.	Units per package
63 A	Z-D63	248267	12/120

Busbars for SPC ZV-KSBI



	Type Designation	Article No.	Units per package
2 MU	ZV-KSBI-2TE	263961	10/600
3 MU	ZV-KSBI-3TE	263962	10/600
4 MU	ZV-KSBI-4TE	263964	10/600
5 MU	ZV-KSBI-5TE	263965	10/200
5 MU	ZV-KSBI-5TE/N	263966	10/200
7 MU	ZV-KSBI-7TE	263967	50/500
7 MU	ZV-KSBI-7TE/N	263969	10/100
9 MU	ZV-KSBI-9TE/N	266874	50/500
11 MU	ZV-KSBI-11TE	263970	50/500

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SPD Class D

- Surge arresters for protection of consumers against overvoltage
- Effectiveness of surge arrester up to 5 m of cable to both sides; for longer distances it is necessary to use another surge arrester class D.

U1602



SPD-S-1+1

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Overvoltage protection for installing into distribution board SPD-S

Version	Type Designation	Article No.	Units per package
Complete	SPD-S-1+1	248202	1/60
Base 1+1, 2-pole	SPC-S-S2-1+1	248201	6/60
Insert N-PE	SPD-S-N/PE	248199	4/120
Insert L-N	SPD-S-L/N	248200	4/120
Auxiliary switch	SPC-S-HK	248203	8/80

Socket with Surge Arrester



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Version	Type Designation	Article No.	Units per package
Device bottom with cover			
Colour:			
cream	14-661	259254	6
white	34-661	259268	6
black	04-661	259237	6
Frame			
Colour:			
cream	12-761	234528	50
white	32-761	234753	50
black	02-761	234228	1/6

Other colours on request, see catalogue "Domovní elektroinstalace Xcomfort" (in Czech).

Surge Protection module for installation in flush box VDK 280

- Clustered surge protection for a few sockets for distances up to 5 m

U0797



VDK 280 ES

Version	Type Designation	Article No.	Units per package
Complete	VDK 280 ES	880100585	1
Base	VDK 280 S	880100583	1
Insert	VDK 280 E	880100584	1
Central cover			
Colour: cream	12-690-45	234509	1/6
white	32-690-45	234732	1/6
black	02-690-45	234206	1/6
Frame			
Colour: cream	12-761	234528	50
white	32-761	234753	50
black	02-761	234228	1/6

Other colours on request.

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SG00306



Plug-in Surge Arrester SPD-STC

- Rated voltage 230 V AC
- Rated current 16 A
- Signalization function / malfunction with LED
- Maximum back-up fuse 16 A gL/gG

Version	Type Designation	Article No.	Units per package
SPD without filter	SPD-STC	105949	1/20
SPD without filter, „Schuko“	SPD-ST	105948	1/20

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SG00306



SG00106



Plug-in Surge Arrester with ISDN S0 Protection SPD-STC/ISDN

- Rated voltage 230 V AC
- Rated current 16 A
- Signalization function / malfunction with LED
- Maximum back-up fuse 16 A gL/gG

Version	Type Designation	Article No.	Units per package
Mains + ISDN-S0	SPD-STC/ISDN	294124	1/20
Mains + ISDN-S0, „Schuko“	SPD-ST/ISDN	294121	1/20

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SG00306



SG00206



Plug-in Surge Arrester with TV Protection SPD-STC/TV-SAT

- Rated voltage 230 V AC
- Rated current 16 A
- Signalization function / malfunction with LED
- Maximum back-up fuse 16 A gL/gG

Version	Type Designation	Article No.	Units per package
Mains + TV or SAT	SPD-STC/TV-SAT	294126	1/20
Mains + TV or SAT, „Schuko“	SPD-ST/TV-SAT	294123	1/20

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NO1104



Multiple Socket Ledges 19" with SPD

- Design for 19" enclosures
- Rated current 16 A
- Signalization function / malfunction with LED
- Maximum back-up fuse 16 A gL/gG

Version	Type Designation	Article No.	Units per package
Without filter, 7 outlets	SPD-STL/19/7F-S/BL/UTE	290032	1

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Control Relays EASY

- Enable simple controlling of lighting systems, heating etc.
- Front dimension for installation into installation distribution board
- Programming by means of pushbuttons and LCD or with help of Software (PC)
- 12-language menu
- 128/256 current paths
- 3/4 NC or NO contact in serial connection plus 1 coil per a row of program
- Complete information can be found in Catalogue "Elektronická a řídicí relé" (in Czech) or in or "Main Catalogue Industrial Switchgear"



Control Relays EASY

- Wide range of temperatures -25 °C – +55 °C
- Front dimension for installation into installation distribution board, width in multiples of 18 mm
- Programming by means of pushbuttons and LCD or with PC software
- Intern and extern program back-up in EEPROM memories
- 3 contacts (EASY500, EASY700), 4 contacts (EASY800, MFD-Titan) (NC or NO) in serial plus 1 coil per a row of program (current line)
- Serial and parallel connection
- 128 current lines (EASY500, EASY700)
- 256 current lines (EASY800, MFD)
- Integrated protection by means of password for switching diagram, function relay and actual values of relays
- Representation of current flow for checking of program (types with LCD)
- Menu in 12 languages: D, GB, F, I, E, P, NL, S, PL, TR, CZ, H
- Possibility to store program on memory card for types with LCD (X version: read only)
- 8 / 12 digital inputs, 2 / 4 can be used as analogous



24 V AC

Dig. inputs	Outputs	Type Designation	Article No.	Units per package
8 (2)	4 relay (8 A)	EASY512-AB-RC	274101	1
12 (4)	6 relay (8 A)	EASY719-AB-RC	274113	1

115/230 V AC

Dig. inputs	Outputs	Type Designation	Article No.	Units per package
8 (2)	4 relay (8 A)	EASY512-AC-RC	274104	1
12 (4)	6 relay (8 A)	EASY719-AC-RC	274115	1
12 (4)	6 relay (8 A)	EASY819-AC-RC	256267	1



12 V DC

Dig. inputs	Outputs	Type Designation	Article No.	Units per package
8 (2)	4 relay (8 A)	EASY512-DA-RC	274106	1
12 (4)	6 relay (8 A)	EASY719-DA-RC	274117	1

24 V DC

Dig. inputs	Outputs	Type Designation	Article No.	Units per package
8 (2)	4 relay (8 A)	EASY512-DC-RC	274109	1
8 (2)	4 transistor (0.5 A)	EASY512-DC-TC	274111	1
12 (4)	6 relay (8 A)	EASY719-DC-RC	274119	1
12 (4)	8 transistor (0.5 A)	EASY721-DC-TC	274121	1
12 (4)	6 relay (8 A)	EASY819-DC-RC	256269	1
12 (4)	8 transistor (0.5 A)	EASY821-DC-TC	256273	1
12 (4)	6 relay (8 A)	EASY820-DC-RC	256271	1
12 (4)	8 transistor (0.5 A)	EASY822-DC-TC	256276	1

Expansion units

Inputs	Outputs	Type Designation	Article No.	Units per package
12 (115/230 V AC)	6 relay (8 A)	EASY618-AC-RE	212314	1
12 (24 V DC)	6 relay (8 A)	EASY618-DC-RE	232112	1
12 (24 V DC)	8 transistor (0.5 A)	EASY620-DC-TE	212313	1
0 (without supply)	2 relay (8 A)	EASY202-RE	232186	1



