Terminal low-voltage power distribution - xPole series



Powering Business Worldwide

Terminal low-voltage power distribution - xPole series

Content

1

Terminal low-voltage power distribution - xPole series



1.1 Residual current circuit breaker

PFIM (ELE) 3

1.2 Residual current circuit breaker with Overload protection (RCBO)

PFL10, PFL9 (ELM) 6

PLD10, PLD9 (ELE) 10

1.3 Residual current protection accessory(RCBO)

PBSM (ELM) 14

PDB (ELE) 17

1.4 Miniature circuit breaker (MCB)

PL10, PL9 19

PL91 32

PLHT 34

FAZ (global offer) 38

1.5 Other protective switches and accessories

Accessories for RCD, MCB and RCBO 45

Disconnecting switch, construction contactor and relay 47

1.6 Busbar

Busbar 51

1.7 Technical data

Technical data 53

Terminal low-voltage power distribution - xPole series

Product Description

Eaton, as one of the most powerful electrical brands, the most influential technical innovator, plays a leading role in the industry. Eaton keeps providing high performance product with quality to help our customer increase productivity, reduce energy consumption and help us all build a more sustainable world, making Eaton a well known reliable brand with strong sense of social responsibility.

Comprehensive xPole product range for industrial, commercial and residential, infrastructure construction, MOEM applications: Residual current protection, over load/short-circuit protection, surge protection and control.

As an high-end terminal product line, xPole series provide safer, easier operation and installation offers with fancy design and high performance.

- Comprehensive product range with all levels of rating current and features, provide all setting up protection for personal safety, devices and circuit fault.
- Positive indication of contact position via a clear, easy to identify "red-green" indicator, ensure the safety..
- Dual terminal design allows to install busbar or cables reducing wiring time and increasing flexibility.
- Color coded toggle gives visual indication of the current rating to reduce confusion of assemblers.
- Wiring terminals are constructed to prevent miswiring while reduce the risk of electrical fire, make wiring more efficiency.
- 3 position DIN rail connector, easy to release and replace, ensure the continuously power supply when meet switch fault.
- A variety of accessories, easy to snap into adjacent units, convenient for installation and operation.
- Extremely high breaking capacity and superior current limiting characteristics, increasing safety of electrical system with reduced system impulse due to faults.
- Unique arc eliminating system design ensures rapid release during fault conditions, reducing heat and improving service life.
- Meets and exceeds the latest standards and the certificate. No significant modify needed when upgrade.
- Meets RoH and REACH environmental standards, betterly serve the customer across the world.



Contents

Description *Page*

Residual current circuit breaker PFIM (ELM)
PFIM, 2P, 16-100A, 10-300mA, Type AC, Instantaneous..... **4**
PFIM, 4P, 25-100A, 30-300mA, Type AC, Instantaneous..... **4**
PFIM, 2P, 16-63A, 10-300mA, Type A, Instantaneous..... **4**
PFIM, 4P, 25-100A, 30-300mA, Type A, Instantaneous..... **5**
PFIM, 2P, 25-40A, 30-100mA, Type AC, Type G **5**
PFIM, 4P, 40-63A, 30-100mA, Type AC, Type G **5**
PFIM, 2P, 40A, 100-300mA, Type A, Selective..... **5**
PFIM, 4P, 25-100A, 100-300mA, Type A, Selective..... **5**

Residual current circuit breaker PFIM (ELM)

Product Description

- Electromagnetic residual current circuit breaker PFIM series are widely applied in commercial / residential construction and electrical equipment, to protect persons and animals against electric shock and ensuring reliable protections to your circuits and loads.
- Direct and indirect contact protections, as well as accessory protection, with powerful isolation function.
- Tripping is line voltage-independent, make sure it's still effective when system voltage drops.
- Compact design and small size, with rated current up to 100A.
- 4 types of rated residual currents: 10, 30, 100, 300mA for different applications.
- Wide variety of nominal currents: 16, 25, 40, 63, 80, 100A.
- Unique design for anti-surge current, prevent the system from fault tripping when lightning stroke or surge current impulse, ensure the system continuous operating.
- 2 pole / 4 pole available .
- Visible contact position indicator, indicating the status for safety operation.
- Auxiliary switch Z-HK can be mounted subsequently.
- Undergo extreme ambient cycling tests: wind power application, electric vehicle charge station, etc. And carry a robust operating temperature range.
- Meet the latest international and national standards: IEC/EN 61008 and GB 16916.
- Certification: CCC, CE, OVE, and CCS.

(For Technical data, see P52)

Conditional surge current-proof 250A, Type AC, instantaneous



$I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
2P			
16/001	PFIM-16/2/001	294241	1
25/003	PFIM-25/2/003	294242	1
25/01	PFIM-25/2/01	294243	1
25/03	PFIM-25/2/003	294244	1
40/003	PFIM-40/2/003	294245	1
40/01	PFIM-40/2/01	294246	1
40/03	PFIM-40/2/03	294247	1
63/003	PFIM-63/2/003	294248	1
63/01	PFIM-63/2/01	294249	1
63/03	PFIM-63/2/03	294250	1
80/003	PFIM-80/2/003	294251	1
80/01	PFIM-80/2/01	294252	1
80/03	PFIM-80/2/03	294253	1
100/003	PFIM-100/2/003-AS	102910	1
100/01	PFIM-100/2/01-AS	102911	1
100/03	PFIM-100/2/03-AS	102912	1



4P			
25/003	PFIM-25/4/003	294270	1
25/01	PFIM-25/4/01	294271	1
25/03	PFIM-25/4/003	294272	1
40/003	PFIM-40/4/003	294273	1
40/01	PFIM-40/4/01	294274	1
40/03	PFIM-40/4/03	294275	1
63/003	PFIM-63/4/003	294276	1
63/01	PFIM-63/4/01	294277	1
63/03	PFIM-63/4/03	294278	1
80/003	PFIM-80/4/003	294279	1
80/01	PFIM-80/4/01	294280	1
80/03	PFIM-80/4/03	294281	1
100/003	PFIM-100/4/003-AS	102915	1
100/01	PFIM-100/4/01-AS	102916	1
100/03	PFIM-100/4/03-AS	102917	1

Conditional surge current-proof 250A, sensitive to residual pulsating DC, Type A, instantaneous



$I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
2P			
16/001	PFIM-16/2/001-A	294254	1
25/003	PFIM-25/2/003-A	294255	1
25/01	PFIM-25/2/01-A	294256	1
25/03	PFIM-25/2/003-A	294257	1
40/003	PFIM-40/2/003-A	294258	1
40/01	PFIM-40/2/01-A	294259	1
40/03	PFIM-40/2/03-A	294260	1
63/003	PFIM-63/2/003-A	294261	1
63/01	PFIM-63/2/01-A	294262	1
63/03	PFIM-63/2/03-A	294263	1



Conditional surge current-proof 250A, sensitive to residual pulsating DC, Type A, instantaneous

$I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
4P			
25/003	PFIM-25/4/003-A	294282	1
25/01	PFIM-25/4/01-A	294283	1
25/03	PFIM-25/4/003-A	294284	1
40/003	PFIM-40/4/003-A	294285	1
40/01	PFIM-40/4/01-A	294286	1
40/03	PFIM-40/4/03-A	294287	1
63/003	PFIM-63/4/003-A	294288	1
63/01	PFIM-63/4/01-A	294289	1
63/03	PFIM-63/4/03-A	294290	1
80/003	PFIM-80/4/003-A	294291	1
80/01	PFIM-80/4/01-A	294292	1
80/03	PFIM-80/4/03-A	294293	1
100/003	PFIM-100/4/003-A-AS	102919	1
100/01	PFIM-100/4/01-A-AS	102920	1
100/03	PFIM-100/4/03-A-AS	102921	1

Surge current-proof 3kA, Type AC, Type G





$I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
2P			
25/003	PFIM-25/2/003-G	294264	1
25/01	PFIM-25/2/01-G	294265	1
40/003	PFIM-40/2/003-G	294266	1
40/01	PFIM-40/2/01-G	294267	1
4P			
40/003	PFIM-40/4/003-G	294294	1
40/01	PFIM-40/4/01-G	294295	1
63/003	PFIM-63/4/003-G	294296	1
63/01	PFIM-63/4/01-G	294297	1

Surge current-proof 5kA, sensitive to residual pulsating DC, TYPE S/A, selective





$I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
2P			
40/01	PFIM-40/2/01-G	294268	1
40/03	PFIM-40/2/03-G	294269	1
4P			
25/01	PFIM-25/4/01-S/A	294298	1
40/01	PFIM-40/4/01-S/A	294299	1
40/03	PFIM-40/4/03-S/A	294301	1
63/01	PFIM-63/4/01-S/A	294302	1
63/03	PFIM-63/4/03-S/A	294303	1
80/03	PFIM-80/4/03-S/A	294304	1
100/03	PFIM-100/4/03-S/A	102924	1

Residual current circuit breaker with overload protection PFL10 (10kA) (ELM)



Contents

Description *Page*

Residual current circuit breaker with overload protection PFL10 (10kA) (ELM)
PFL10, 1P+N, 6-40A, 10-300mA, Curve C, TYPE AC, instantaneous **7**
PFL10, 1P+N, 6-40A, 10-300mA, Curve C, TYPE A, instantaneous **7**

Residual current circuit breaker with overload protection PFL10 (10kA) (ELM)

Product Description

- Electromagnetic residual current breaker PF10 with overload protection, is widely used in commercial / residential construction and electrical equipment, providing overload and short circuit protection for devices and circuits, additional fire and electric shock protection provide further application segment.
- Integrated functions of overload, short circuit and residual current protection, the insulation co-ordination function allows the application as main switch of indoor switchgear.
- Tripping is line voltage-independent, make sure it's still effective when system voltage drops.
- Compact design, and only 35mm wide (2 modules).
- Several rated residual currents:10,30,300mA for different applications.
- Rated currents: 6-40A.
- Unique design for anti-surge current, prevent the system from fault tripping when lightning stroke or surge current impulse, ensure the system continuous operating.
- Poles: 1P+N.
- Instantaneous tripping characteristics: C.
- Rated breaking capacity: 10kA.
- Visible contact position indicator, indicating the status for safety operation.
- Comprehensive range of accessories: auxiliary contact, alarm contact, shunt trip, under-voltage trip.
- Undergo extreme ambient cycling tests: wind power application, electric vehicle charge station, etc. And carry a robust operating temperature range.
- Meet the latest international and national standards: IEC/EN 61009 and GB 16917.
- Product certification: CCC, CE, CCS.

(For Technical data, see P53)

1

1-pole +N



Conditional surge current-proof 250A, Type AC, Instantaneous

$I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
Curve C			
6/001	PFL10-6/1N/C/001	294784	6
10/001	PFL10-10/1N/C/001	294785	6
13/001	PFL10-13/1N/C/001	294786	6
16/001	PFL10-16/1N/C/001	294787	6
6/003	PFL10-6/1N/C/003	294788	6
10/003	PFL10-10/1N/C/003	294789	6
13/003	PFL10-13/1N/C/003	294790	6
16/003	PFL10-16/1N/C/003	294791	6
20/003	PFL10-20/1N/C/003	294792	6
25/003	PFL10-25/1N/C/003	294793	6
32/003	PFL10-32/1N/C/003	294794	6
40/003	PFL10-40/1N/C/003	294795	6
6/03	PFL10-6/1N/C/03	294796	6
10/03	PFL10-10/1N/C/03	294797	6
13/03	PFL10-13/1N/C/03	294798	6
16/03	PFL10-16/1N/C/03	294799	6
20/03	PFL10-20/1N/C/03	294800	6
25/03	PFL10-25/1N/C/03	294801	6
32/03	PFL10-32/1N/C/03	294802	6
40/03	PFL10-40/1N/C/03	294803	6

1-pole +N



Conditional surge current-proof 250A, sensitive to residual pulsating DC, Type A, instantaneous

$I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
Curve C			
6/001	PFL10-6/1N/C/001-A	294804	6
10/001	PFL10-10/1N/C/001-A	294805	6
13/001	PFL10-13/1N/C/001-A	294806	6
16/001	PFL10-16/1N/C/001-A	294807	6
6/003	PFL10-6/1N/C/003-A	294808	6
10/003	PFL10-10/1N/C/003-A	294809	6
13/003	PFL10-13/1N/C/003-A	294810	6
16/003	PFL10-16/1N/C/003-A	294811	6
20/003	PFL10-20/1N/C/003-A	294812	6
25/003	PFL10-25/1N/C/003-A	294813	6
32/003	PFL10-32/1N/C/003-A	294814	6
40/003	PFL10-40/1N/C/003-A	294815	6
6/03	PFL10-6/1N/C/03-A	294816	6
10/03	PFL10-10/1N/C/03-A	294817	6
13/03	PFL10-13/1N/C/03-A	294818	6
16/03	PFL10-16/1N/C/03-A	294819	6
20/03	PFL10-20/1N/C/03-A	294820	6
25/03	PFL10-25/1N/C/03-A	294821	6
32/03	PFL10-32/1N/C/03-A	294822	6
40/03	PFL10-40/1N/C/03-A	294823	6

Residual current circuit breaker with overload protection PFL9 (6kA) (ELM)



Contents

Description *Page*

Residual current circuit breaker with overload protection PFL9 (6kA) (ELM)
PFL9, 1P+N, 6-40A, 10-300mA, Curve C, TYPE AC, instantaneous **9**

1

Residual current circuit breaker with overload protection PFL9 (6kA) (ELM)

Product Description

- Electro-magnetic residual current breaker PF9 with overload protection, is widely applied in commercial / residential construction and electrical equipment, providing overload and short circuit protection for devices and circuits, additional fire and electric shock protection provide further application segment.
- Integrated functions of overload, short circuit and residual current protection, the insulation co-ordination function allows the application as main switch of indoor switchgear.
- Tripping is line voltage-independent, make sure it's still effective when system voltage drops.
- Compact design, and only 35mm wide (2 modules).
- Several rated residual currents:10,30,300mA for different applications.
- Rated currents: 6-40A.
- Unique design for anti-surge current, prevent the system from fault tripping when lightning stroke or surge current impulse, ensure the system continuous operating.
- Poles: 1P+N.
- Instantaneous tripping characteristics: C.
- Rated breaking capacity: 6kA.
- Visible contact position indicator, indicating the status for safety operation.
- Comprehensive range of accessories: auxiliary contact, alarm contact, shunt trip, under-voltage trip...
- Undergo extreme ambient cycling tests: wind power application, electric vehicle charge station, etc. And carry a robust operating temperature range.
- Meet the latest international and national standards: IEC/EN 61009 and GB 16917.
- Product certification: CCC, CE, CCS

(For Technical data, see P53)

1

1-pole+N



Conditional surge current-proof 250A, Type AC ∿ , instantaneous

$I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
Curve C			
6/001	PFL9-6/1N/C/001	294824	6
10/001	PFL9-10/1N/C/001	294825	6
13/001	PFL9-13/1N/C/001	294826	6
16/001	PFL9-16/1N/C/001	294827	6
6/003	PFL9-6/1N/C/003	294828	6
10/003	PFL9-10/1N/C/003	294829	6
13/003	PFL9-13/1N/C/003	294830	6
16/003	PFL9-16/1N/C/003	294831	6
20/003	PFL9-20/1N/C/003	294832	6
25/003	PFL9-25/1N/C/003	294833	6
32/003	PFL9-32/1N/C/003	294834	6
40/003	PFL9-40/1N/C/003	294835	6
6/03	PFL9-6/1N/C/03	294836	6
10/03	PFL9-10/1N/C/03	294837	6
13/03	PFL9-13/1N/C/03	294838	6
16/03	PFL9-16/1N/C/03	294839	6
20/03	PFL9-20/1N/C/03	294840	6
25/03	PFL9-25/1N/C/03	294841	6
32/03	PFL9-32/1N/C/03	294842	6
40/03	PFL9-40/1N/C/03	294843	6

Residual current circuit breaker with overload protection PLD10 (10kA) (ELE)



Contents

Description *Page*

Residual current circuit breaker with overload protection PLD10 (10kA) (ELE)

PLD10, 1P+N, 6-40A, 10-300mA, Curve C, TYPE AC, instantaneous **11**

PLD10, 1P+N, 6-20A, 10-300mA, Curve D, TYPE AC, instantaneous **11**

PLD10, 1P+N, 6-20A, 300mA, Curve C, TYPE AC, instantaneous, overvoltage protection..... **11**

Residual current circuit breaker with overload protection PLD10 (10kA) (ELE)

Product Description

- Electronic residual current breaker PLD10 with overload protection, is widely applied in commercial / residential construction and electrical equipment, providing overload and short circuit protection for for devices and circuits, additional fire and electric shock protection provide further application segment.
- Integrated 4 functions of overload, short circuit, residual current and overvoltage protections, the insulation co-ordination function allows the application as main switch of indoor switchgear.
- Compact design, and only 35mm wide (2 modules).
- Rated residual currents: 10, 30, 300mA, suitable for different applications.
- Rated currents: 6-40A
- Unique design for anti-surge current, prevent the system from fault tripping when lightning stroke or surge current impulse, ensure the system continuous operating.
- 1P+N are available.
- Instantaneous tripping characteristics: C, D.
- Rated breaking capacity: 10kA
- Visible contact position indicator, indicating the status for safety operation.
- Comprehensive range of accessories: auxiliary contact, alarm contact, shunt trip, under-voltage trip...
- Undergo extreme ambient cycling tests: wind power application, electric vehicle charge station, etc. And carry a robust operating temperature range.
- Meet the latest international and national standards: IEC/EN 61009 and GB 16917.
- Product certification: CCC, CE, CCS.

(For Technical data, see P55)

1.2 Terminal low-voltage power distribution - xPole series

Residual current circuit breaker with overload protection PLD10

1-pole+N



Conditional surge current-proof 250A, TYPE AC ∿, instantaneous

$I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
Curve C			
6/001	PLD10-6/1N/C/001	100798	6
10/001	PLD10-10/1N/C/001	100799	6
13/001	PLD10-13/1N/C/001	101070	6
16/001	PLD10-16/1N/C/001	101071	6
20/001	PLD10-20/1N/C/001	101072	6
25/001	PLD10-25/1N/C/001	101073	6
32/001	PLD10-32/1N/C/001	101074	6
40/001	PLD10-40/1N/C/001	101075	6
6/003	PLD10-6/1N/C/003	101076	6
10/003	PLD10-10/1N/C/003	101077	6
13/003	PLD10-13/1N/C/003	101078	6
16/003	PLD10-16/1N/C/003	101079	6
20/003	PLD10-20/1N/C/003	101080	6
25/003	PLD10-25/1N/C/003	101081	6
32/003	PLD10-32/1N/C/003	101082	6
40/003	PLD10-40/1N/C/003	101083	6
Curve D			
6/001	PLD10-6/1N/D/001	101092	6
10/001	PLD10-10/1N/D/001	101093	6
13/001	PLD10-13/1N/D/001	101094	6
16/001	PLD10-16/1N/D/001	101095	6
20/001	PLD10-20/1N/D/001	101096	6
6/003	PLD10-6/1N/D/003	101097	6
10/003	PLD10-10/1N/D/003	101098	6
13/003	PLD10-13/1N/D/003	101099	6
16/003	PLD10-16/1N/D/003	101100	6
20/003	PLD10-20/1N/D/003	101101	6

1-pole+N, with overvoltage protection



Conditional surge current-proof 250A, TYPE AC ∿, instantaneous

$I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
Curve C			
6/003	PLD10-6/1N/C/003/UVO	101146	6
10/003	PLD10-10/1N/C/003/UVO	101147	6
13/003	PLD10-13/1N/C/003/UVO	101148	6
16/003	PLD10-16/1N/C/003/UVO	101149	6
20/003	PLD10-20/1N/C/003/UVO	101150	6
25/003	PLD10-25/1N/C/003/UVO	101151	6
32/003	PLD10-32/1N/C/003/UVO	101152	6
40/003	PLD10-40/1N/C/003/UVO	101153	6

Residual current circuit breaker with overload protection PLD9 (6kA) (ELE)



Contents

Description *Page*

Residual current circuit breaker with overload protection PLD9 (6kA) (ELE)
PLD9, 1P+N, 6-40A, 10-300mA, Curve C/ D, instantaneous **13**
PLD9, 1P+N, 6-40A, 300mA, Curve C, TYPE AC, instantaneous, Overvoltage protection..... **13**

1

Residual current circuit breaker with overload protection PLD9 (6kA) (ELE)

Product Description

- Electronic Residual current breaker PLD9 with overload protection, is widely applied in commercial / residential construction and electrical equipment, providing overload and short circuit protection for for devices and circuits, additional fire and electric shock protection provide further application segment.
- Integrated 4 functions of overload, short circuit, residual current and overvoltage protections, the insulation co-ordination function allows the application as main switch of indoor switchgear.
- Compact design, only 35mm wide (2 modules).
- Several rated residual currents:10,30,300mA for different applications.
- Several rate currents: 6-40A
- Unique design for anti-surge current, prevent the system from fault tripping when lightning stroke or surge current impulse, ensure the system continuous operating.
- 1P+N are available.
- Instantaneous tripping characteristics: C, D.
- Rated breaking capacity: 6kA.
- Visible contact position indicator, indicating the status for safety operation.
- Comprehensive range of accessories: auxiliary contact, alarm contact, shunt trip, under-voltage trip...
- Undergo extreme ambient cycling tests: wind power application, electric vehicle charge station, etc. And carry a robust operating temperature range.
- Meet the latest international and national standards: IEC/EN 61009 and GB 16917.
- Product certification: CCC, CE, CCS.

(For Technical data, see P55)

1-pole+N



Conditional surge current-proof 250A, TYPE AC, instantaneous

$I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
Curve C			
6/001	PLD9-6/1N/C/001	101154	6
10/001	PLD9-10/1N/C/001	101155	6
13/001	PLD9-13/1N/C/001	101156	6
16/001	PLD9-16/1N/C/001	101157	6
20/001	PLD9-20/1N/C/001	101158	6
25/001	PLD9-25/1N/C/001	101159	6
32/001	PLD9-32/1N/C/001	101160	6
40/001	PLD9-40/1N/C/001	101161	6
6/003	PLD9-6/1N/C/003	101162	6
10/003	PLD9-10/1N/C/003	101163	6
13/003	PLD9-13/1N/C/003	101164	6
16/003	PLD9-16/1N/C/003	101165	6
20/003	PLD9-20/1N/C/003	101166	6
25/003	PLD9-25/1N/C/003	101167	6
32/003	PLD9-32/1N/C/003	101168	6
40/003	PLD9-40/1N/C/003	101169	6
Curve D			
6/001	PLD9-6/1N/D/001	101178	6
10/001	PLD9-10/1N/D/001	101179	6
13/001	PLD9-13/1N/D/001	101180	6
16/001	PLD9-16/1N/D/001	101181	6
20/001	PLD9-20/1N/D/001	101182	6
6/003	PLD9-6/1N/D/003	101183	6
10/003	PLD9-10/1N/D/003	101184	6
13/003	PLD9-13/1N/D/003	101185	6
16/003	PLD9-16/1N/D/003	101186	6
20/003	PLD9-20/1N/D/003	101187	6

1-pole+N,
with overvoltage protection



Conditional surge current-proof 250A, TYPE AC, instantaneous

$I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
Curve C			
6/003	PLD9-6/1N/C/003/UVO	101232	6
10/003	PLD9-10/1N/C/003/UVO	101233	6
13/003	PLD9-13/1N/C/003/UVO	101234	6
16/003	PLD9-16/1N/C/003/UVO	101235	6
20/003	PLD9-20/1N/C/003/UVO	101236	6
25/003	PLD9-25/1N/C/003/UVO	101237	6
32/003	PLD9-32/1N/C/003/UVO	101238	6
40/003	PLD9-40/1N/C/003/UVO	101239	6

Residual current protection accessory PBSM, used with MCB PL10 and PL9 (ELM)



Contents

Description *Page*

Residual current protection accessory PBSM
PLD9, 1P+N, 6-40A, 300mA, Curve C, TYPE AC, PBSM, ⩽ 40A and ⩽63A, 30-1000mA, 2/3/4-pole, TYPE AC, instantaneous **15**
PBSM, ⩽40A, 30mA, 2/3/4-pole, TYPE AC, Time Delay..... **15**
PBSM, ⩽40A and ⩽63A, 30-1000mA, TYPE A, instantaneous..... **16**
PBSM, ⩽40A and⩽63A, 100-1000mA, TYPE AC, selective **16**

Residual current protection accessory PBSM

Product Description

- Electromagnetic residual current protection accessory PBSM, in combination with MCB PL10 and PL9, forms a complete residual current breaker device with overload protection, widely applied in commercial / residential construction and electrical equipment, providing overload and short circuit protection for for devices and circuits, additional fire and electric shock protection provide further application segment.
- Integrated 3 functions of overload, short circuit, and residual current protection, the insulation co-ordination function allows the application as main switch of indoor switchgear.
- Tripping is line voltage-independent, make sure it's still effective when system voltage drops.
- Rated residual currents: 30, 100, 300, 500, 1000mA, suitable for different applications.
- Different residual current operating time, meeting your requests for different protection- instantaneous, general and selective.
- Only two rated currents for all MCB combinations of 63A and below, which could significantly reduce your inventory and cost.
- Unique design for anti-surge current, prevent the system from fault tripping when lightning stroke or surge current impulse, ensure the system continuous operating.
- Unique removable design provide convenient, accurate , reliable operation and safety when combining with MCBs; Conversion terminals use copper bars with large contact surface, which allows lower heat loss, avoiding over heating safety hazards due to round conductors.
- Poles: 2P, 3P and 4P.
- Rated breaking capacity: depends on matched MCB.
- Comprehensive range of accessories: auxiliary contact, alarm contact, shunt trip, under-voltage trip...
- Undergo extreme ambient cycling tests: wind power application, electric vehicle charge station, etc. And carry a robust operating temperature range.
- Meet the latest international and national standards: IEC/EN 61009 and GB 16917.
- Product certification: CCC, CE, OVE, CCS.

(For Technical data, see P56)

Conditional surge current-proof 250A, TYPE AC, instantaneous



PL10/9: Max. Rated Current $I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
2P			
40/003	PBSM-402/003	294164	1
40/01	PBSM-402/01	294165	1
40/03	PBSM-402/03	294166	1
63/003	PBSM-632/003	294167	1
63/01	PBSM-632/01	294168	1
63/03	PBSM-632/03	214169	1



3P			
40/003	PBSM-403/003	294198	1
40/01	PBSM-403/01	294199	1
40/03	PBSM-403/03	294200	1
40/1	PBSM-403/01	294201	1
63/003	PBSM-633/003	294202	1
63/01	PBSM-633/01	294203	1
63/03	PBSM-633/03	294204	1
63/1	PBSM-633/1	294205	1



4P			
40/003	PBSM-404/03	294219	1
40/01	PBSM-404/01	294220	1
40/03	PBSM-404/03	294221	1
40/1	PBSM-404/1	294222	1
63/003	PBSM-634/003	294223	1
63/01	PBSM-634/01	294224	1
63/03	PBSM-634/03	294225	1
63/1	PBSM-634/1	294226	1

Conditional surge current-proof up to 3kA, TYPE AC, Type G (Time Delay)



PL10/9: Max. Rated Current $I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
2/3/4P			
40/003	PBSM-402/003-G	294197	1
40/003	PBSM-403/003-G	294214	1
40/003	PBSM-404/003-G	294235	1

Conditional surge current-proof 250A, sensitive to residual pulsating DC TYPE A, instantaneous



PL10/9: Max. Rated Current $I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
2P			
40/003	PBSM-402/003-A	294190	1
40/01	PBSM-402/01-A	214191	1
40/03	PBSM-402/03-A	214192	1
40/1	PBSM-402/1-A	214193	1
63/003	PBSM-632/003-A	214194	1
63/01	PBSM-632/01-A	214195	1
63/03	PBSM-632/03-A	214196	1



3P			
40/003	PBSM-403/003-A	294206	1
40/01	PBSM-403/01-A	294207	1
40/03	PBSM-403/03-A	294208	1
40/1	PBSM-403/1-A	294209	1
63/003	PBSM-633/003-A	294210	1
63/01	PBSM-633/01-A	294211	1
63/03	PBSM-633/03-A	294212	1
63/1	PBSM-633/1-A	294213	1



4P			
40/003	PBSM-404/003-A	294227	1
40/01	PBSM-404/01-A	294228	1
40/03	PBSM-404/03-A	294229	1
40/1	PBSM-404/1-A	294230	1
63/003	PBSM-634/003-A	294231	1
63/01	PBSM-634/01-A	294232	1
63/03	PBSM-634/03-A	294233	1
63/1	PBSM-634/1-A	294234	1

Conditional surge current-proof up to 5kA, TYPE AC, Type S (Selective)

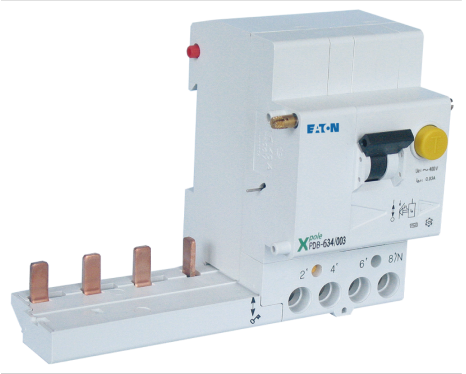


PL10/9: Max. Rated Current $I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
3P			
40/01	PBSM-403/01/S	294215	1
40/03	PBSM-403/03-S	294216	1
63/01	PBSM-633/01-S	294217	1
63/03	PBSM-633/03-S	294218	1



4P			
40/01	PBSM-404/01-S	294236	1
40/03	PBSM-404/03-S	294237	1
63/01	PBSM-634/01-S	294238	1
63/03	PBSM-634/03-S	294239	1
63/1	PBSM-634/1-S	294240	1

1 **Residual current protection accessory PDB, for use with MCB PL10 and PL9 (ELE)**



Contents

Description *Page*

Residual current protection accessory PDB, for use with MCB PL10 and PL9 (ELE)

PDB, ⩽40A and ⩽63A, 30-300mA, TYPE AC, instantaneous **18**

Residual current protection accessory PDB

Product Description

- Electronic Residual current protection accessory PDB, in combination with MCB PL10 and PL9, forms a complete Residual current breaker device, widely applied in commercial / residential construction and electrical equipment, providing overload and short circuit protection for devices and circuits, additional fire and electric shock protection provide further application segment.
- Integrated 3 functions of overload, short circuit, and residual current protection, the insulation co-ordination function allows the application as main switch of indoor switchgear.
- Rated residual currents: 30, 300mA, mainly used for construction applications.
- Only two rated currents for all MCB combinations of 63A and below, which could significantly reduce your inventory and cost.
- Unique design for anti-surge current, prevent the system from fault tripping when lightning stroke or surge current impulse, ensure the system continuous operating.
- Unique removable design provide convenient, accurate , reliable operation and safety when combining with MCBs; Conversion terminals use copper bars with large contact surface, which allows lower heat loss, avoiding over heating safety hazards due to round conductors.
- 2P, 3P and 4P are available.
- Rated breaking capacity: depends on supplied MCB.
- Comprehensive range of accessories: auxiliary contact, alarm contact, shunt trip, under-voltage trip...
- Meet the latest international and national standards: IEC/EN 61009 and GB 16917.
- Product certification: CCC, CE, CCS.

(For Technical data, see P57)

Conditional surge current-proof 250A, TYPE AC, instantaneous



PL10/9: Max. Rated Current $I_n/I_{\triangle n}$(A)	Type designation	Article No.	Units per package
2P			
40/003	PDB-402/003	104325	1
40/03	PDB-402/03	104326	1
63/003	PDB-632/003	104327	1
63/03	PDB-632/03	104328	1



3P			
40/003	PDB-403/003	104329	1
40/03	PDB-403/03	104360	1
63/003	PDB-633/003	104361	1
63/03	PDB-633/03	104362	1



4P			
40/003	PDB-404/003	104363	1
40/03	PDB-404/03	104364	1
63/003	PDB-634/003	104365	1
63/03	PDB-634/03	104366	1

1.4 Terminal low-voltage power distribution - xPole series

Miniature circuit breaker PL10 (10kA)

1

Miniature circuit breaker PL10 (10kA)



Contents

Description ***Page***

Miniature circuit breaker PL10 (10kA)

PL10, 10kA, Characteristics C, 0.5-63A **20**

PL10, 10kA, Characteristics D, 0.5-63A **22**

Miniature circuit breaker PL10 (10kA)

Product Description

- Rated breaking capacity breaker PL10 series are the choice preferred by high end markets and customers due to its extremely high short circuit capacity of 10kA. It is widely used in high-end constructions and MOEM industry as overload and short circuit protection, control, power supply isolation for equipment and circuit.
- Powerful isolation function, especially applicable for use in the main switch of indoor switchgear, no need of additional disconnect switch, saving about 8% cost.
- Refined rated currents, to provide you accurate protections. Especially for devices below 6A, we provide refined specifications such as 0.5, 1, 2, 3, 4, 6A, to meet requirements of industrial control circuits.
- Positive indication of contact position via a clear, easy to identify “red-green” indicator, ensure the safety.
- Dual terminal design allows to install busbar or cables reducing wiring time and increasing flexibility.
- Color coded toggle gives visual indication of the current rating to reduce confusion for assemblers.
- Wiring terminals are constructed to prevent miswiring while reduce the risk of electrical fire, make wiring more efficiency.
- 3 position DIN rail connector, easy to release and replace, ensure the continuously power supply when meet switch fault.
- Extremely high breaking capacity and superior current limiting characteristics, increasing safety of electrical system with reduced system impulse due to faults.
- Unique arc eliminating system design ensures rapid release during fault conditions, reducing heat and improving service life.
- Meets and exceeds the latest standards and the certificate. No significant modify needed when upgrade.
- 1P, 2P, 3P, 4P, are available.
- Instantaneous tripping characteristics: C, D.
- Rated breaking capacity: 10kA.
- Comprehensive range of accessories: auxiliary contact, alarm contact, shunt trip, under-voltage trip...
- Undergo extreme ambient cycling tests: wind power application, electric vehicle charge station, etc. And carry a robust operating temperature range.
- Meet the latest international and national standards: IEC/EN 60898 and GB 10963.
- Product certification: CCC, CE, CCS.

(For Technical data, see P58)

10kA, Characteristics C



Rated current I_n(A)	Type designation	Article No.	Units per package
1-pole			
0.5	PL10-C0.5	294353	12
1	PL10-C1	294354	12
2	PL10-C2	294355	12
3	PL10-C3	294356	12
4	PL10-C4	294357	12
6	PL10-C6	294358	12
10	PL10-C10	294359	12
13	PL10-C13	294360	12
16	PL10-C16	294361	12
20	PL10-C20	294362	12
25	PL10-C25	294363	12
32	PL10-C32	294364	12
40	PL10-C40	294365	12
50	PL10-C50	294366	12
63	PL10-C63	294367	12



2P			
0.5	PL10-C0.5/2	294381	6
1	PL10-C1/2	294382	6
2	PL10-C2/2	294383	6
3	PL10-C3/2	294384	6
4	PL10-C4/2	294385	6
6	PL10-C6/2	294386	6
10	PL10-C10/2	294387	6
13	PL10-C13/2	294388	6
16	PL10-C16/2	294389	6
20	PL10-C20/2	294390	6
25	PL10-C25/2	294391	6
32	PL10-C32/2	294392	6
40	PL10-C40/2	294393	6
50	PL10-C50/2	294394	6
63	PL10-C63/2	294395	6



10kA, Characteristics C

Rated current I_n (A)	Type designation	Article No.	Units per package
3 pole			
0.5	PL10-C0.5/3	294409	4
1	PL10-C1/3	294410	4
2	PL10-C2/3	294411	4
3	PL10-C3/3	294412	4
4	PL10-C4/3	294413	4
6	PL10-C6/3	294414	4
10	PL10-C10/3	294415	4
13	PL10-C13/3	294416	4
16	PL10-C16/3	294417	4
20	PL10-C20/3	294418	4
25	PL10-C25/3	294419	4
32	PL10-C32/3	294420	4
40	PL10-C40/3	294421	4
50	PL10-C50/3	294422	4
63	PL10-C63/3	294423	4



4 pole			
0.5	PL10-C0.5/4	294437	3
1	PL10-C1/4	294438	3
2	PL10-C2/4	294439	3
3	PL10-C3/4	294440	3
4	PL10-C4/4	294441	3
6	PL10-C6/4	294442	3
10	PL10-C10/4	294443	3
13	PL10-C13/4	294444	3
16	PL10-C16/4	294445	3
20	PL10-C20/4	294446	3
25	PL10-C25/4	294447	3
32	PL10-C32/4	294448	3
40	PL10-C40/4	294449	3
50	PL10-C50/4	294450	3
63	PL10-C63/4	294451	3

10kA, Characteristics D



Rated current I_n (A)	Type designation	Article No.	Units per package
1 pole			
0.5	PL10-D0.5	294368	12
1	PL10-D1	294369	12
2	PL10-D2	294370	12
3	PL10-D3	294371	12
4	PL10-D4	294372	12
6	PL10-D6	294373	12
10	PL10-D10	294374	12
13	PL10-D13	294375	12
16	PL10-D16	294376	12
20	PL10-D20	294377	12
25	PL10-D25	294378	12
32	PL10-D32	294379	12
40	PL10-D40	294380	12
50	PL10-D50	166269	12
63	PL10-D63	166370	12



2 pole			
0.5	PL10-D0.5/2	294396	6
1	PL10-D1/2	294397	6
2	PL10-D2/2	294398	6
3	PL10-D3/2	294399	6
4	PL10-D4/2	294400	6
6	PL10-D6/2	294401	6
10	PL10-D10/2	294402	6
13	PL10-D13/2	294403	6
16	PL10-D16/2	294404	6
20	PL10-D20/2	294405	6
25	PL10-D25/2	294406	6
32	PL10-D32/2	294407	6
40	PL10-D40/2	294408	6
50	PL10-D50/2	166371	6
63	PL10-D63/2	166372	6



10kA, Characteristics D

Rated current I_n (A)	Type designation	Article No.	Units per package
3 pole			
0.5	PL10-D0.5/3	294424	4
1	PL10-D1/3	294425	4
2	PL10-D2/3	294426	4
3	PL10-D3/3	294427	4
4	PL10-D4/3	294428	4
6	PL10-D6/3	294429	4
10	PL10-D10/3	294430	4
13	PL10-D13/3	294431	4
16	PL10-D16/3	294432	4
20	PL10-D20/3	294433	4
25	PL10-D25/3	294434	4
32	PL10-D32/3	294435	4
40	PL10-D40/3	294436	4
50	PL10-D50/3	166373	4
63	PL10-D63/3	166374	4



4 pole			
0.5	PL10-D0.5/4	294452	3
1	PL10-D1/4	294453	3
2	PL10-D2/4	294454	3
3	PL10-D3/4	294455	3
4	PL10-D4/4	294456	3
6	PL10-D6/4	294457	3
10	PL10-D10/4	294458	3
13	PL10-D13/4	294459	3
16	PL10-D16/4	294460	3
20	PL10-D20/4	294461	3
25	PL10-D25/4	294462	3
32	PL10-D32/4	294463	3
40	PL10-D40/4	294464	3
50	PL10-D50/4	166375	3
63	PL10-D63/4	166376	3

Miniature circuit breaker PL9 (6kA)



Contents

Description ***Page***

Miniature circuit breaker PL9 (6kA)
- PL9, 6kA, Characteristics B, 1-63A..... **25**
- PL9, 6kA, Characteristics C, 0.5-63A..... **27**
- PL9, 6kA, Characteristics D, 0.5-63A..... **29**
- PL9-DC, DC -use, 6kA, Characteristics C, 2-50A **31**

Miniature circuit breaker PL9 (6kA)

Product Description

- Compared to 10kA tripping capacity PL10, PL9 is more suitable for mainstream markets, due to its superior cost effective feature. It is widely applied in commercial / residential construction and electrical equipment, providing overload and short circuit protection for devices and circuits, additional fire and electric shock protection provide further application segment.
- Powerful isolation function, especially applicable for use in the main switch of indoor switchgear, no need of additional disconnect switch, saving about 8% cost.
- Refined rated current levels, providing you accurate protections. Especially for devices below 6A, we provide refined specifications such as 0.5, 1, 2, 3, 4, 6A, to greatly meet requirements of industrial control circuits.
- Positive indication of contact position via a clear, easy to identify “red-green” indicator, ensure the safety.
- Dual terminal design allows to install busbar or cables reducing wiring time and increasing flexibility.
- Different handle colors are used to indicate different current ratings, with added current marks besides printings on the device, allowing the marks to last longer and with improved artistic appearance.
- Wiring terminals are constructed to prevent miswiring while reduce the risk of electrical fire, make wiring more efficiency. prevent huge risks of electrical fire due to miswiring, and improve wiring efficiency.
- 3 position DIN rail connector, easy to release and replace, ensure the continuously power supply when meet switch fault.
- Extremely high breaking capacity and superior current limiting characteristics, increasing safety of electrical system with reduced system impulse due to faults.
- Unique arc eliminating system design ensures rapid release during fault conditions, reducing heat and improving service life.
- Meets and exceeds the latest standards and the certificate. No significant modify needed when upgrade.
- 1P, 2P, 3P, 4P, are available.
- Instantaneous tripping characteristics: B, C, D.
- Rated breaking capacity: 6kA.
- Comprehensive range of accessories: auxiliary contact, alarm contact, shunt trip, under-voltage trip.
- Undergo extreme ambient cycling tests: wind power application, electric vehicle charge station, etc. And carry a robust operating temperature range.
- Meet the latest international and national standards: IEC/EN 60898 and GB 10963.
- Product certification: CCC, CE, CCS.

(For Technical data, see P58)



6kA, Characteristics B

Rated current I_n (A)	Type designation	Article No.	Units per package
1P			
1	**PL9-B1**	172116	12
2	**PL9-B2**	116944	12
3	**PL9-B3**	172117	12
4	**PL9-B4**	172118	12
6	**PL9-B6**	172119	12
10	**PL9-B10**	172120	12
13	**PL9-B13**	172121	12
16	**PL9-B16**	172122	12
20	**PL9-B20**	172123	12
25	**PL9-B25**	172124	12
32	**PL9-B32**	172125	12
40	**PL9-B40**	172126	12
50	**PL9-B50**	172127	12
63	**PL9-B63**	172128	12



2P			
1	**PL9-B1/2**	172145	6
2	**PL9-B2/2**	172146	6
3	**PL9-B3/2**	172147	6
4	**PL9-B4/2**	172148	6
6	**PL9-B6/2**	172149	6
10	**PL9-B10/2**	172150	6
13	**PL9-B13/2**	172151	6
16	**PL9-B16/2**	172152	6
20	**PL9-B20/2**	172153	6
25	**PL9-B25/2**	172154	6
32	**PL9-B32/2**	175155	6
40	**PL9-B40/2**	172156	6
50	**PL9-B50/2**	172157	6
63	**PL9-B63/2**	172158	6

6kA, Characteristics B



Rated current I_n (A)	Type designation	Article No.	Units per package
3P			
1	**PL9-B1/3**	172160	4
2	**PL9-B2/3**	116946	4
3	**PL9-B3/3**	172161	4
4	**PL9-B4/3**	172162	4
6	**PL9-B6/3**	172163	4
10	**PL9-B10/3**	172164	4
13	**PL9-B13/3**	172165	4
16	**PL9-B16/3**	172166	4
20	**PL9-B20/3**	172167	4
25	**PL9-B25/3**	172168	4
32	**PL9-B32/3**	172015	4
40	**PL9-B40/3**	172016	4
50	**PL9-B50/3**	172017	4
63	**PL9-B63/3**	172018	4



4P			
1	**PL9-B1/4**	172035	3
2	**PL9-B2/4**	172036	3
3	**PL9-B3/4**	172037	3
4	**PL9-B4/4**	172038	3
6	**PL9-B6/4**	172039	3
10	**PL9-B10/4**	172040	3
13	**PL9-B13/4**	172041	3
16	**PL9-B16/4**	172042	3
20	**PL9-B20/4**	172043	3
25	**PL9-B25/4**	172044	3
32	**PL9-B32/4**	172045	3
40	**PL9-B40/4**	172046	3
50	**PL9-B50/4**	172047	3
63	**PL9-B63/4**	172048	3



6kA, Characteristics C

Rated current I_n (A)	Type designation	Article No.	Units per package
1P	-		
0.5	PL9-C0.5	294521	12
1	PL9-C1	294522	12
2	PL9-C2	294523	12
3	PL9-C3	294524	12
4	PL9-C4	294525	12
6	PL9-C6	294526	12
10	PL9-C10	294527	12
13	PL9-C13	294528	12
16	PL9-C16	294529	12
20	PL9-C20	294530	12
25	PL9-C25	294531	12
32	PL9-C32	294532	12
40	PL9-C40	294533	12
50	PL9-C50	294534	12
63	PL9-C63	294535	12



2P			
0.5	PL9-C0.5/2	294549	3
1	PL9-C1/2	294950	3
2	PL9-C2/2	294551	3
3	PL9-C3/2	294552	3
4	PL9-C4/2	294553	3
6	PL9-C6/2	294554	3
10	PL9-C10/2	294555	3
13	PL9-C13/2	294556	3
16	PL9-C16/2	294557	3
20	PL9-C20/2	294558	3
25	PL9-C25/2	294559	3
32	PL9-C32/2	294560	3
40	PL9-C40/2	294561	3
50	PL9-C50/2	294562	3
63	PL9-C63/2	294563	3

6kA, Characteristics C



Rated current I_n (A)	Type designation	Article No.	Units per package
3P			
0.5	PL9-C0.5/3	294577	4
1	PL9-C1/3	294578	4
2	PL9-C2/3	294579	4
3	PL9-C3/3	294580	4
4	PL9-C4/3	294581	4
6	PL9-C6/3	294582	4
10	PL9-C10/3	294583	4
13	PL9-C13/3	294584	4
16	PL9-C16/3	294585	4
20	PL9-C20/3	294586	4
25	PL9-C25/3	294587	4
32	PL9-C32/3	294588	4
40	PL9-C40/3	294589	4
50	PL9-C50/3	294590	4
63	PL9-C63/3	294591	4



4P			
0.5	PL9-C0.5/4	294605	3
1	PL9-C1/4	294606	3
2	PL9-C2/4	294607	3
3	PL9-C3/4	294608	3
4	PL9-C4/4	294609	3
6	PL9-C6/4	294610	3
10	PL9-C10/4	294611	3
13	PL9-C13/4	294612	3
16	PL9-C16/4	294613	3
20	PL9-C20/4	294614	3
25	PL9-C25/4	294615	3
32	PL9-C32/4	294616	3
40	PL9-C40/4	294617	3
50	PL9-C50/4	294618	3
63	PL9-C63/4	294619	3

6kA, Curve D



Rated current I_n (A)	Type designation	Article No.	Units per package
1P			
0.5	PL9-D0.5	294536	12
1	PL9-D1	294537	12
2	PL9-D2	294538	12
3	PL9-D3	294539	12
4	PL9-D4	294540	12
6	PL9-D6	294541	12
10	PL9-D10	294542	12
13	PL9-D13	294543	12
16	PL9-D16	294544	12
20	PL9-D20	294545	12
25	PL9-D25	294546	12
32	PL9-D32	294547	12
40	PL9-D40	294548	12
50	PL9-D50	166812	12
63	PL9-D63	166813	12



2P			
0.5	PL9-D0.5/2	264564	6
1	PL9-D1/2	264565	6
2	PL9-D2/2	264566	6
3	PL9-D3/2	264567	6
4	PL9-D4/2	264568	6
6	PL9-D6/2	264569	6
10	PL9-D10/2	264570	6
13	PL9-D13/2	264571	6
16	PL9-D16/2	264572	6
20	PL9-D20/2	264573	6
25	PL9-D25/2	264574	6
32	PL9-D32/2	264575	6
40	PL9-D40/2	264576	6
50	PL9-D50/2	166814	6
63	PL9-D63/2	166815	6

6kA, Characteristics D



Rated current I_n (A)	Type designation	Article No.	Units per package
3P			
0.5	PL9-D0.5/3	294592	4
1	PL9-D1/3	294593	4
2	PL9-D2/3	294594	4
3	PL9-D3/3	294595	4
4	PL9-D4/3	294596	4
6	PL9-D6/3	294597	4
10	PL9-D10/3	294598	4
13	PL9-D13/3	294599	4
16	PL9-D16/3	294600	4
20	PL9-D20/3	294601	4
25	PL9-D25/3	294602	4
32	PL9-D32/3	294603	4
40	PL9-D40/3	294604	4
50	PL9-D50/3	166816	4
63	PL9-D63/3	166817	4



4P			
0.5	PL9-D0.5/4	294620	3
1	PL9-D1/4	294621	3
2	PL9-D2/4	294622	3
3	PL9-D3/4	294623	3
4	PL9-D4/4	294624	3
6	PL9-D6/4	294625	3
10	PL9-D10/4	294626	3
13	PL9-D13/4	294627	3
16	PL9-D16/4	294628	3
20	PL9-D20/4	294629	3
25	PL9-D25/4	294630	3
32	PL9-D32/4	294631	3
40	PL9-D40/4	294632	3
50	PL9-D50/4	166818	3
63	PL9-D63/4	166819	3

Miniature circuit breaker PL9-DC, DC-use, 10kA, Characteristics C



Rated current I_n (A)	Type designation	Article No.	Units per package
1P			
2	PL9-C2-DC	294690	12
3	PL9-C3-DC	294691	12
4	PL9-C4-DC	294692	12
6	PL9-C6-DC	294693	12
10	PL9-C10-DC	294694	12
13	PL9-C13-DC	294695	12
16	PL9-C16-DC	294696	12
20	PL9-C20-DC	294697	12
25	PL9-C25-DC	294698	12
32	PL9-C32-DC	294699	12
40	PL9-C40-DC	294700	12
50	PL9-C50-DC	294701	12



2P			
2	PL9-C2/2-DC	294703	6
3	PL9-C3/2-DC	294704	6
4	PL9-C4/2-DC	294705	6
6	PL9-C6/2-DC	294706	6
10	PL9-C10/2-DC	294707	6
13	PL9C13/2-DC	294708	6
16	PL9-C16/2-DC	294709	6
20	PL9-C20/2-DC	294710	6
25	PL9-C25/2-DC	294711	6
32	PL9-C32/2-DC	294712	6
40	PL9-C40/2-DC	294713	6
50	PL9-C50/2-DC	294714	6

Miniature circuit breaker PL91, 1P+N, 1 modular width (6kA)



Contents

Description	*Page*
Miniature circuit breaker PL91 1P+N 1 modular width (6kA)	
PL91, 6kA, 1P+N, 1 modular width, 6-40A	**33**

1

Miniature circuit breaker PL91, 1P+N, 1 modular width (6kA)

Product Description

- Miniature circuit breaker PL91 series are mainly used in indoor switchgear of buildings, due to its one-module width (18mm) and capability to disconnect phase and neutral conductor simultaneously. It can prevent safety risks due to non-disconnecting of neutral conductors during maintenance, and reduce width which significantly saves mounting space and reducing dimensions of indoor switchgear. In this way, the total cost of indoor solutions decrease by 30%. Thanks to its cost performance, it's widely applied to provide overload and short circuit protections, control, power isolation functions for equipment and circuit.
- Positive indication of contact position via a clear, easy to identify "red-green" indicator, ensure the safety.
- Color coded toggle gives visual indication of the current rating to reduce confusion for assemblers.
- Wiring terminals are constructed to prevent miswiring while reduce the risk of electrical fire, make wiring more efficiency.
- 3-position DIN rail clip, permits removal from existing busbar system, protect the system from power off due to a switch fault.
- Extremely high breaking capacity and superior current limiting characteristics, increasing safety of electrical system with reduced system impulse due to faults.
- Unique arc eliminating system design ensures rapid release during fault conditions, reducing heat and improving service life.
- Meets and exceeds the latest standards and the certificate. No significant modify needed when upgrade.
- 1P+N are available.
- Instantaneous tripping characteristics: C.
- Rated breaking capacity: 6kA.
- Comprehensive range of accessories: auxiliary contact, alarm contact, shunt trip, under-voltage trip.
- Meet the latest international and national standards: IEC/EN 60898 and GB 10963.
- Product certification: CCC, CE, OVE and CCS

(For Technical data, see P60)



6kA, 1P+N, 1 modular width

Rated current I_n (A)	Type designation	Article No.	Units per package
C curve			
6	PL91-C6/1N	294346	12
10	PL91-C10/1N	294347	12
16	PL91-C16/1N	294348	12
20	PL91-C20/1N	294349	12
25	PL91-C25/1N	294350	12
32	PL91-C32/1N	294351	12
40	PL91-C40/1N	294352	12

Miniature circuit breaker PLHT (up to 25kA)



Contents

Description ***Page***

Miniature circuit breaker PLHT (up to 25kA)
PLHT, 15-25kA，Characteristics C, 63-125A..... **35**
PLHT, 15-25kA，Characteristics D, 50-100A..... **36**
Accessories of miniature circuit breaker PLHT..... **37**

Miniature circuit breaker PLHT (up to 25kA)

Product Description

- With an high breaking capacity up to25kA and maximum rated operating current up to 125 A, Miniature circuit breaker PLHT could typically applied in non-standard enclosures of buildings as well as in mechanical equipment of larger power, to provide overload and short circuit protections, control, and power supply isolation for equipment and lines.
- Extremely high breaking capacity and current specifications, ensure good superior-subordinate-selectivity coordination relations, when in combination with PL10/PL9..
- Positive indication of contact position via a clear, easy to identify “red-green” indicator, ensures the safety.
- Color coded toggle gives visual indication of the current rating to reduce confusion for assemblers.
- Extremely high breaking capacity and superior current limiting characteristics, increasing safety of electrical system with reduced system impulse due to faults.
- Unique arc eliminating system design ensures rapid release during fault conditions, reducing heat and improving service life.
- Meets and exceeds the latest standards and the certificate. No significant modify needed when upgrade.
- 1P, 2P, 3P, 4P, 3P+N are available.
- Instantaneous tripping characteristics: C, D.
- Rated breaking capacity: 15-25 kA.
- Comprehensive range of accessories: auxiliary contact, alarm contact, shunt trip.
- Undergo extreme ambient cycling tests: wind power application, electric vehicle charge station, etc. And carry a robust operating temperature range.
- Meet the latest international and national standards: IEC/EN 60947.2 and GB 14048-2.
- Product certification: CCC, CE, OVE and CCS.

(For Technical data, see P62)

15-25kA, Characteristics C



Rated current I_n (A)	Switching Capacity I_{cu} (kA)	Type designation	Article No.	Units per package
1P				
63	25	PLHT-C63	294304	4
80	20	PLHT-C80	294305	4
100	20	PLHT-C100	294306	4
125	15	PLHT-C125	294307	4



2P				
63	25	PLHT-C63/2	294312	2
80	20	PLHT-C80/2	294313	2
100	20	PLHT-C100/2	294314	2
125	15	PLHT-C125/2	294315	2



3P				
63	25	PLHT-C63/3	294320	1
80	20	PLHT-C80/3	294321	1
100	20	PLHT-C100/3	294322	1
125	15	PLHT-C125/3	294323	1



3pole+N				
63	25	PLHT-C63/3N	294336	1
80	20	PLHT-C80/3N	294337	1
100	20	PLHT-C100/3N	294338	1
125	15	PLHT-C125/3N	294339	1



4P				
63	25	PLHT-C63/4	294328	1
80	20	PLHT-C80/4	294329	1
100	20	PLHT-C100/4	294330	1
125	15	PLHT-C125/4	294331	1

15-25kA, Characteristics D



Rated current I_n (A)	Switching Capacity I_{cu} (kA)	Type designation	Article No.	Units per package
1P				
50	25	PLHT-D50	294308	4
63	25	PLHT-D63	294309	4
80	20	PLHT-D80	294310	4
100	15	PLHT-D100	294311	4



2P				
50	25	PLHT-D50/2	294316	2
63	25	PLHT-D63/2	294317	2
80	20	PLHT-D80/2	294318	2
100	15	PLHT-D100/2	294319	2



3P				
50	25	PLHT-D50/3	294324	1
63	25	PLHT-D63/3	294325	1
80	20	PLHT-D80/3	294326	1
100	15	PLHT-D100/3	294327	1



3pole+N				
50	25	PLHT-D50/3N	294340	1
63	25	PLHT-D63/3N	294341	1
80	20	PLHT-D80/3N	294342	1
100	15	PLHT-D100/3N	294343	1



4P				
50	25	PLHT-D50/4	294332	1
63	25	PLHT-D63/4	294333	1
80	20	PLHT-D80/4	294334	1
100	15	PLHT-D100/4	294335	1

Accessories of miniature circuit breaker PLHT



Operational voltage range V-	Type designation	Article No.	Units per package
Shunt release			
110-415VAC	Z-LHASA/230	248442	8
110-220VAC			
12-60VAC	Z-LHASA/24	248441	8
12-60VAC			



Auxiliary contact			
1NO+1NC	Z-LHK	248440	10

Miniature circuit breaker FAZ (Global application) 15kA



Contents

Description ***Page***

Miniature circuit breaker FAZ (Global application) 15kA
- FAZ, 1, 2, 3P, Characteristics B, 1-63A..... **39**
- FAZ, 3P+N, 4P, Characteristics B, 6-63A..... **40**
- FAZ, 1, 2, 3P, Characteristics C, 0.5-63A..... **41**
- FAZ, 3P+N,4P, Characteristics C, 0.5-63A..... **42**
- FAZ, 1, 2, 3P, Characteristics D, 0.5-40A **43**
- FAZ, 3P+N, 4P, Characteristics D, 0.5-40A..... **44**

Miniature circuit breaker FAZ (Global application) 15kA

Product Description

- Globally applied miniature circuit breaker FAZ with high breaking capacity is widely applied in high-end commercial / residential constructions and MOEM industry, providing overload and short circuit protections, control, power isolation for device and circuit.
- Meets the latest international and national standards: IEC/EN60898, IEC/EN 60947-2, GB10963 and UL1077.
- Positive indication of contact position via a clear, easy to identify “red-green” indicator, ensures the safety.
- Dual terminal design allows to install busbar or cables reducing wiring time and increasing flexibility.
- Wiring terminals are constructed to prevent miswiring while reduce the risk of electrical fire, make wiring more efficiency.
- 3-position DIN rail clip, permits removal from existing busbar system, protect the system from power off due to a switch fault.
- Extremely high breaking capacity and superior current limiting characteristics, increasing safety of electrical system with reduced system impulse due to faults.
- Unique arc eliminating system design ensures rapid release during fault conditions, reducing heat and improving service life.
- Meets and exceeds the latest standards and the certificate. No significant modify needed when upgrade.
- Comprehensive range of accessories: auxiliary contact, alarm contact, shunt trip, under-voltage trip...
- Undergo extreme ambient cycling tests: wind power application, electric vehicle charge station, etc. And carry a robust operating temperature range.
- 1P, 2P, 3P, 4P, 3P+N are available.
- Instantaneous tripping characteristics: B, C, D.
- Rated breaking capacity: 15kA (according to IEC/EN 60947-2).
- Product certification: CCC, CE, CCS, UL, VDE, DNV, LR and etc.

(For Technical data, see P63)

15kA, Characteristics B



Rated current I_n (A)	Type designation	Article No.	Units per package
1-pole			
1	FAZ-B1/1	278520	12
2	FAZ-B2/1	278523	12
3	FAZ-B3/1	278525	12
4	FAZ-B4/1	278527	12
5	FAZ-B5/1	278528	12
6	FAZ-B6/1	278529	12
8	FAZ-B8/1	278530	12
10	FAZ-B10/1	278531	12
13	FAZ-B13/1	278533	12
16	FAZ-B16/1	278535	12
20	FAZ-B20/1	278536	12
25	FAZ-B25/1	278537	12
32	FAZ-B32/1	278538	12
40	FAZ-B40/1	278539	12
50	FAZ-B50/1	278540	12
63	FAZ-B63/1	278541	12



2-pole			
1	FAZ-B1/2	278719	6
2	FAZ-B2/2	278722	6
3	FAZ-B3/2	278724	6
4	FAZ-B4/2	278726	6
5	FAZ-B5/2	278727	6
6	FAZ-B6/2	278728	6
8	FAZ-B8/2	278729	6
10	FAZ-B10/2	278730	6
13	FAZ-B13/2	278732	6
16	FAZ-B16/2	278734	6
20	FAZ-B20/2	278735	6
25	FAZ-B25/2	278736	6
32	FAZ-B32/2	278737	6
40	FAZ-B40/2	278738	6
50	FAZ-B50/2	278739	6
63	FAZ-B63/2	278740	6



3-pole			
1	FAZ-B1/3	278832	4
2	FAZ-B2/3	278835	4
3	FAZ-B3/3	278837	4
4	FAZ-B4/3	278839	4
5	FAZ-B5/3	278840	4
6	FAZ-B6/3	278841	4
8	FAZ-B8/3	278842	4
10	FAZ-B10/3	278843	4
13	FAZ-B13/3	278845	4
16	FAZ-B16/3	278847	4
20	FAZ-B20/3	278848	4
25	FAZ-B25/3	278849	4
32	FAZ-B32/3	278850	4
40	FAZ-B40/3	278851	4
50	FAZ-B50/3	278852	4
63	FAZ-B63/3	278853	4

15kA, Characteristics B



Rated current I_n (A)	Type designation	Article No.	Units per package
3-pole+N			
6	FAZ-B6/3N	278943	3
8	FAZ-B8/3N	278944	3
10	FAZ-B10/3N	278945	3
13	FAZ-B13/3N	278947	3
16	FAZ-B16/3N	278949	3
20	FAZ-B20/3N	278950	3
25	FAZ-B25/3N	278951	3
32	FAZ-B32/3N	278952	3
40	FAZ-B40/3N	278953	3
50	FAZ-B50/3N	278954	3
63	FAZ-B63/3N	278955	3



4-pole			
6	FAZ-B6/4	279029	3
8	FAZ-B8/4	279030	3
10	FAZ-B10/4	279031	3
13	FAZ-B13/4	279033	3
16	FAZ-B16/4	279035	3
20	FAZ-B20/4	279036	3
25	FAZ-B25/4	279037	3
32	FAZ-B32/4	279038	3
40	FAZ-B40/4	279039	3
50	FAZ-B50/4	279040	3
63	FAZ-B63/4	279041	3







15kA, Characteristics C

Rated current I_n (A)	Type designation	Article No.	Units per package
1-pole			
0.5	FAZ-C0.5/1	278544	12
1	FAZ-C1/1	278546	12
2	FAZ-C2/1	278549	12
3	FAZ-C3/1	278551	12
4	FAZ-C4/1	278553	12
5	FAZ-C5/1	278554	12
6	FAZ-C6/1	278555	12
8	FAZ-C8/1	278556	12
10	FAZ-C10/1	278557	12
13	FAZ-C13/1	278559	12
16	FAZ-C16/1	278561	12
20	FAZ-C20/1	278562	12
25	FAZ-C25/1	278563	12
32	FAZ-C32/1	278564	12
40	FAZ-C40/1	278565	12
50	FAZ-C50/1	278566	12
63	FAZ-C63/1	278567	12
2-pole			
0.5	FAZ-C0.5/2	278743	6
1	FAZ-C1/2	278745	6
2	FAZ-C2/2	278748	6
3	FAZ-C3/2	278750	6
4	FAZ-C4/2	278752	6
5	FAZ-C5/2	278753	6
6	FAZ-C6/2	278754	6
8	FAZ-C8/2	278755	6
10	FAZ-C10/2	278756	6
13	FAZ-C13/2	278758	6
16	FAZ-C16/2	278760	6
20	FAZ-C20/2	278761	6
25	FAZ-C25/2	278762	6
32	FAZ-C32/2	278763	6
40	FAZ-C40/2	278764	6
50	FAZ-C50/2	278765	6
63	FAZ-C63/2	278766	6
3-pole			
0.5	FAZ-C0.5/3	278856	4
1	FAZ-C1/3	278858	4
2	FAZ-C2/3	278861	4
3	FAZ-C3/3	278863	4
4	FAZ-C4/3	278865	4
5	FAZ-C5/3	278866	4
6	FAZ-C6/3	278867	4
8	FAZ-C8/3	278868	4
10	FAZ-C10/3	278869	4
13	FAZ-C13/3	278871	4
16	FAZ-C16/3	278873	4
20	FAZ-C20/3	278874	4
25	FAZ-C25/3	278875	4
32	FAZ-C32/3	278876	4
40	FAZ-C40/3	278877	4
50	FAZ-C50/3	278878	4
63	FAZ-C63/3	278879	4

15kA, Characteristics C



Rated current I_n (A)	Type designation	Article No.	Units per package
3-pole+N			
0.5	FAZ-C0.5/3N	278958	3
1	FAZ-C1/3N	278960	3
2	FAZ-C2/3N	278963	3
3	FAZ-C3/3N	278965	3
4	FAZ-C4/3N	278967	3
5	FAZ-C5/3N	278968	3
6	FAZ-C6/3N	278969	3
8	FAZ-C8/3N	278970	3
10	FAZ-C10/3N	278971	3
13	FAZ-C13/3N	278973	3
16	FAZ-C16/3N	278975	3
20	FAZ-C20/3N	278976	3
25	FAZ-C25/3N	278977	3
32	FAZ-C32/3N	278978	3
40	FAZ-C40/3N	278979	3
50	FAZ-C50/3N	278980	3
63	FAZ-C63/3N	278981	3



4-pole			
0.5	FAZ-C0.5/4	279044	3
1	FAZ-C1/4	279046	3
2	FAZ-C2/4	279049	3
3	FAZ-C3/4	279051	3
4	FAZ-C4/4	279053	3
5	FAZ-C5/4	279054	3
6	FAZ-C6/4	279055	3
8	FAZ-C8/4	279056	3
10	FAZ-C10/4	279057	3
13	FAZ-C13/4	279059	3
16	FAZ-C16/4	279061	3
20	FAZ-C20/4	279062	3
25	FAZ-C25/4	279063	3
32	FAZ-C32/4	279064	3
40	FAZ-C40/4	279065	3
50	FAZ-C50/4	279066	3
63	FAZ-C63/4	279067	3

15kA, Characteristics D



Rated current I_n (A)	Type designation	Article No.	Units per package
1-pole			
0.5	FAZ-D0.5/1	278568	12
1	FAZ-D1/1	278569	12
2	FAZ-D2/1	278572	12
3	FAZ-D3/1	278574	12
4	FAZ-D4/1	278576	12
5	FAZ-D5/1	278577	12
6	FAZ-D6/1	278578	12
8	FAZ-D8/1	278579	12
10	FAZ-D10/1	278580	12
13	FAZ-D13/1	278582	12
16	FAZ-D16/1	278584	12
20	FAZ-D20/1	278585	12
25	FAZ-D25/1	278586	12
32	FAZ-D32/1	278587	12
40	FAZ-D40/1	278588	12



2-pole			
0.5	FAZ-D0.5/2	278767	6
1	FAZ-D1/2	278768	6
2	FAZ-D2/2	278771	6
3	FAZ-D3/2	278773	6
4	FAZ-D4/2	278775	6
5	FAZ-D5/2	278776	6
6	FAZ-D6/2	278777	6
8	FAZ-D8/2	278778	6
10	FAZ-D10/2	278779	6
13	FAZ-D13/2	278781	6
16	FAZ-D16/2	278783	6
20	FAZ-D20/2	278784	6
25	FAZ-D25/2	278785	6
32	FAZ-D32/2	278786	6
40	FAZ-D40/2	278767	6



3-pole			
0.5	FAZ-D0.5/3	278880	4
1	FAZ-D1/3	278881	4
2	FAZ-D2/3	278884	4
3	FAZ-D3/3	278886	4
4	FAZ-D4/3	278888	4
5	FAZ-D5/3	278889	4
6	FAZ-D6/3	278890	4
8	FAZ-D8/3	278891	4
10	FAZ-D10/3	278892	4
13	FAZ-D13/3	278894	4
16	FAZ-D16/3	278896	4
20	FAZ-D20/3	278897	4
25	FAZ-D25/3	278898	4
32	FAZ-D32/3	278899	4
40	FAZ-D40/3	278900	4

15kA, Characteristics D



Rated current I_n (A)	Type designation	Article No.	Units per package
3-pole+N			
0.5	FAZ-D1/3N	278983	3
1	FAZ-D2/3N	278986	3
2	FAZ-D3/3N	278988	3
3	FAZ-D4/3N	278990	3
4	FAZ-D5/3N	278991	3
5	FAZ-D6/3N	278992	3
6	FAZ-D8/3N	278993	3
8	FAZ-D10/3N	278994	3
10	FAZ-D13/3N	278996	3
13	FAZ-D16/3N	278998	3
16	FAZ-D20/3N	278999	3
20	FAZ-D25/3N	279000	3
25	FAZ-D32/3N	279001	3
32	FAZ-D40/3N	279002	3
40			



4-pole			
0.5	FAZ-D0.5/4	279068	3
1	FAZ-D1/4	279069	3
2	FAZ-D2/4	279072	3
3	FAZ-D3/4	279074	3
4	FAZ-D4/4	279076	3
5	FAZ-D5/4	279077	3
6	FAZ-D6/4	279078	3
8	FAZ-D8/4	279079	3
10	FAZ-D10/4	279080	3
13	FAZ-D13/4	279082	3
16	FAZ-D16/4	279084	3
20	FAZ-D20/4	279085	3
25	FAZ-D25/4	279086	3
32	FAZ-D32/4	279087	3
40	FAZ-D40/4	279088	3



Contents

Description ***Page***

Accessories for RCD, MCB and RCBO
- Auxiliary contact Z-HK **46**
- Auxiliary contact ZP-IHK, FAZ-XHIN11; tripping signal contact ZP-NHK, FAZ-XAM002 ..... **46**
- Shunt trip ZP-ASA **46**
- Undervoltage trip Z-USA **46**
- Overvoltage trip POP-270 ..... **46**

Accessories for RCD, MCB and RCBO

Product Description

- Auxiliary contact
- Shunt trip
- Undervoltage trip
- Overvoltage trip

(For Technical data, see P67)

Z-HK



Auxiliary contact Z-HK

Design: screwing mounting

For use with	Function	Type designation	Article No.	Units per package
PFIM	1NC+1NO	Z-HK	248432	4

ZP-IHK
FAZ-XHIN11



ZP-NHK
FAZ-XAM002



Auxiliary contact ZP-IHK, FAZ-XHIN11; tripping signal contact ZP-NHK, FAZ-XAM002

Design: snapping mounting

For use with	Function	Type designation	Article No.	Units per package
PL-PFL-PLD-	1NC+1NO	ZP-IHK	286052	4
PL-PFL-PLD-	2 pair transferrable	ZP-NHK	248437	4
FAZ-	1NC+1NO	FAZ-XHIN11	286054	4
FAZ-	2 pair transferrable	FAZ-XAM002	262414	4

ZP-ASA



Shunt trip ZP-ASA (suitable for PL10, PL9 and FAZ)

Design: snapping mounting

Operational voltage (V-)	Mounting type	Type designation	Article No.	Units per package
110-415V AC	Snapping	ZP-ASA/230	288439	1
110-220V DC				
12-60V AC	Snapping	ZP-ASA/24	288438	1
12-60V DC				

Z-USA



Undervoltage release Z-USA (for PL10, PL9 and FAZ)

Design: screwing mounting

Operational voltage (V-)	Function	Type designation	Article No.	Units per package
115	Instantaneous type	Z-USA/115	248288	1
230	Instantaneous type	Z-USA/230	248289	1
400	Instantaneous type	Z-USA/400	248290	1

POP-270
NEW



Overvoltage release POP-270 (for PL10, PL9 and FAZ)

Design: snapping mounting

- Function: to monitor the voltage between phase conductor and N conductor. In case of high voltage, the release will make the circuit breaker trip
- For applications of 3-phase simultaneous monitoring, it is required to select 3 POP units

Operational voltage (V-)	Mounting type	Type designation	Article No.	Units per package
230V AC/50Hz	280V±5%	POP-270	131674	1

1.5 Terminal low-voltage power distribution - xPole series

Disconnecting switch, construction contactor and relay

Disconnecting switch, construction contactor and relay







Contents

Description ***Page***

Disconnecting switch, construction contactor and relay

Disconnecting switch IS **48**

Intermediate relay Z-R **49**

Construction contactor Z-SCH **50**

Auxiliary contact Z-SC for construction contactor **50**

Disconnecting switch, construction contactor and relay

Product Description

- Disconnecting switch IS
- Construction contactor Z-SCH
- Relay Z-R

(For Technical data, see P72)



Disconnecting switch IS

Rated current (A)	Poles	Type designation	Article No.	Units per package
40	1	IS-40/1	276270	12
40	2	IS-40/2	276271	6
40	3	IS-40/3	276272	4
40	4	IS-40/4	276273	3
63	1	IS-63/1	276274	12
63	2	IS-63/2	276275	6
63	3	IS-63/3	276276	4
63	4	IS-63/4	276277	3
80	1	IS-80/1	276278	12
80	2	IS-80/2	276279	6
80	3	IS-80/3	276280	4
80	4	IS-80/4	276281	3
100	1	IS-100/1	276282	12
100	2	IS-100/2	276283	6
100	3	IS-100/3	276284	4
100	4	IS-100/4	276285	3
125	1	IS-125/1	276286	12
125	2	IS-125/2	276287	6
125	3	IS-125/3	276288	4
125	4	IS-125/4	276289	3

Accessories

Accessories for padlocks (for IS, EIS, FAZ, PLD..., PFL, PFIM)	IS/SPE-1TE	101911	10
Accessories for padlocks (for PL10, PL9)	Z-IS/SPE-1TE	274418	10



Intermediate relay Z-R 20A

Control voltage	Function	Modular	Type designation	Article No.	Units per package
230VAC	1NO	1	Z-R230/S	265149	2
230VAC	2NO	1	Z-R230/SS	265168	2
230VAC	1NO+1NC	1	Z-R230/SO	265181	2
230VAC	2NO+2NC	2	Z-R230/2S2O	265215	1
230VAC	3NO+1NC	2	Z-R230/3S1O	265221	1
230VAC	4NO	2	Z-R230/4S	265226	1
230VAC	2NC	1	Z-R230/OO	265188	2
230VAC	4NC	2	Z-R230/4O	265228	1
110VAC	2NO	1	Z-R110/SS	265170	2
110VAC	2NO+2NC	2	Z-R110/2S2O	265216	1
110VAC	3NO+1NC	2	Z-R110/3S1O	265222	1
110VDC	2NO	1	Z-R109/SS	265171	2
110VDC	1NO+1NC	1	Z-R109/SO	265182	2
110VDC	2NO+2NC	2	Z-R109/2S2O	265217	1
110VDC	3NO+1NC	2	Z-R109/3S1O	265223	1
48VAC	2NO	1	Z-R48/SS	265172	2
24VAC	INO	1	Z-R24/S	265160	2
24VAC	2NO	1	Z-R24/SS	265173	2
24VAC	1NO	1	Z-R24/SO	265183	2
24VAC	2NO	2	Z-R24/2S2O	265218	1
24VAC	3NO+1NC	2	Z-R24/3S1O	265224	1
24VAC	4NO	2	Z-R24/4S	265227	1
24VAC	2NC	1	Z-R24/OO	265189	2
24VAC	4NC	2	Z-R24/4O	265229	1
24VDC	1NO	1	Z-R23/S	265161	2
24VDC	2NO	1	Z-R23/SS	265174	2
24VDC	1NO+1NC	1	Z-R23/SO	265184	2
24VDC	2NO+2NC	2	Z-R23/2S2O	265219	1
12VAC	1NO	1	Z-R12/S	265162	2
12VAC	2NO	1	Z-R12/SS	265175	2
12VAC	1NO+1NC	1	Z-R12/SO	265185	2
12VAC	2NO+2NC	2	Z-R12/2S2O	265220	1
12VAC	3NO+1NC	2	Z-R12/3S1O	265225	1
12VDC	1NO	1	Z-R11/S	265163	2
12VDC	2NO	1	Z-R11/SS	265176	2
12VDC	1NO+1NC	1	Z-R11/SO	265186	2
12VDC	2NC	1	Z-R11/OO	265198	2

Construction contactor Z-SCH



Control voltage	Rated current (AC1)	Function	Modular	Type designation	Article No.	Units per package
230VAC	25A	4NO	2	Z-SCH 230/25-40	248847	1
230VAC	25A	4NC	2	Z-SCH 230/25-04	248848	1
230VAC	25A	3NO+1NC	2	Z-SCH 230/25-31	248846	1
230VAC	25A	2NO+2NC	2	Z-SCH 230/25-22	248849	1
24VAC	25A	2NO+2NC	2	Z-SCH 24/25-22	248850	1
24VAC	25A	4NO	2	Z-SCH 24/25-40	248851	1
230VAC	40A	4NO	3	Z-SCH 230/40-40	248852	1
230VAC	40A	3NO+1NC	3	Z-SCH 230/40-31	248854	1
230VAC	40A	2NO+2NC	3	Z-SCH 230/40-22	248853	1
230VAC	40A	2NO	3	Z-SCH 230/40-20	248855	1



Control voltage	Rated current (AC1)	Function	Modular	Type designation	Article No.	Units per package
230VAC	63A	4NO	3	Z-SCH 230/63-40	248856	1
230VAC	63A	3NO+1NC	3	Z-SCH 230/63-31	248858	1
230VAC	40A	2NO+2NC	3	Z-SCH 230/63-22	248857	1
230VAC	63A	2NO	3	Z-SCH 230/63-20	248859	1

Auxiliary contact Z-SC for construction contactor



Modular	Function	Type designation	Article No.	Units per package
0.5 MW	1NO+1NC	Z-SC	248862	3

1

Busbar

SG7997



SG14702



Busbar

Product Description

- Flexible and convenient plug-in busbar
- Busbars with fixed modules design

(For Technical data, see P76)

Contents

Description ***Page***

Busbar

Busbar (plug-in type) **52**
Busbar (for PL9/10, FAZ) , 10mm², 16mm² (1m long)..... **52**
Accessory..... **52**

330607



SG7997



Busbar (plug-in type)

Description	Type designation	Article No.	Units per package
Connection plug L1, N	ZV-L1/N	263941	1
Connection plug L2, L3	ZV-L2/L3	263944	1
Copper bar 1 m long	ZV-SS	263956	1
Connection plug L1, N	ZV-L1/N-80V	263950	1
Connection plug L2, L3	ZV-L2/L3-80V	263953	1
Copper bar 1 m long	ZV-SS-80A	263957	1
Sealing cover 1m long, for 50+80A	ZV-ADP	263958	1
End cap	ZV-AEK	263959	1

SG14702



Busbar(for PL9/10, FAZ), 10mm², 16mm² (1 meter)

Description	Type designation	Article No.	Units per package
Bus, 1pole	Z-GV-10/1P-1TE	270339	1
Bus, 3pole	Z-GV-10/3P-3TE	271060	1
Bus, 1pole	Z-GV-16/1P-1TE	271061	1
Bus, 1pole+N	Z-GV-16/1P+N-2TE	271063	1
Bus, 3pole	Z-GV-16/3P-3TE	271064	1
Bus, 4pole	Z-GV-16/3P+N-4TE	271066	1
Terminal cap, 2pole+3pole	Z-AK-10/2+3P	271069	10
Terminal cap, 2pole+3pole	Z-AK-16/2+3P	271070	10
Termal cap, 4pole	Z-AK-16/4P	271071	10

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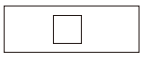
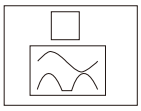
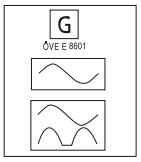
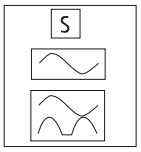


Accessory

Description	Type designation	Product No.	Number of unit package
Contact safety blanket	ZV-BS	264940	10

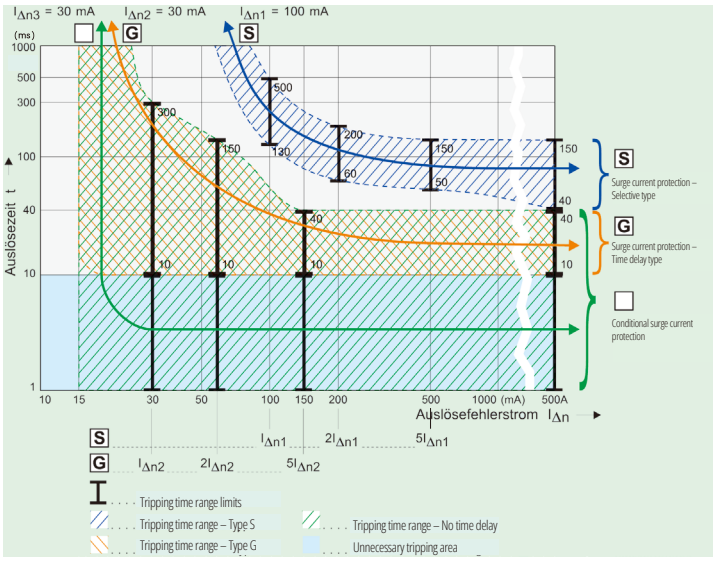
1

Residual current circuit breaker (RCD)— general data

Symbol	Description
	Eaton/Moeller standard, Suitable for outdoor installation (distribution boxes for outdoor installation and building sites) up to -25° C.
	Conditionally surge-current proof (>250 A, 8/20 µs) for general application.
	Surge current protection >250A, 8/20 µs
	RCD sensitive to pulsating DC for application where residual pulsating DC may occur. Non-selective, instantaneous. Protects only against special forms of residual pulsating DC which have not been smoothed.
	RCD of type G (min 10 ms time delay) surge current-proof up to 3 kA. For system components where protection against unwanted tripping is compulsory to avoid personal injury and damage to property. Also for systems involving long lines and high linecapacity. Some versions are sensitive to pulsating DC.
	RCD of type S (selective, min 40 ms time delay) surge current-proof up to 5 kA. Mainly used as main switch, as well as in combination with surge arresters.This is the only RCD suitable for series connection with other types if the rated tripping current of the downstream RCD does not exceed one third of the rated tripping current of the device of type S. Some versions are sensitive to pulsating DC.

Tripping characteristic curve (IEC/EN 61008)

Tripping characteristics, tripping time range and selectivity of instantaneous, surge current-proof "G" and surge current-proof - selective "S" residual current devices.



Residual current circuit breaker PFIM

- Residual current devices
- Shape compatible with and suitable for standard busbar connection to other devices of the P-series
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- Free terminal space despite installed busbar
- Universal tripping signal switch, also suitable for PLS., PKN., Z-A. can be mounted subsequently
- Auxiliary switch Z-HK can be mounted subsequently
- Contact position indicator red – green(PFIM 4 DIN)
- Delayed types suitable for being used with standard fluorescent tubes with or without electronical ballast (maximum 20 units per phase)
- The device functions irrespective of the position of installation
- Tripping is line voltage-independent. Consequently, the RCD is suitable for "fault current/residual current protection" and "additional protection" within the the meaning of the applicable installation rules
- Mains connection at either side
- The 4-pole device can also be used for 3-pole connection.
- For this purpose use terminals 1-2, 3-4, and 5-6 (+ cable link).
- The 4-pole device can also be used for 2-pole connection.
- For this purpose use terminals 5-6 and N-N.
- The test key "T" must be pressed every month. The system operator must be informed of this obligation and his responsibility in a way that can be proven (self-adhesive RCD-label enclosed)
- Pressing the test key "T" serves the only purpose of function testing the residual current device (RCD). This test does not make earthing resistance measurement (RE), or proper checking of the earth conductor condition redundant, which must be performed separately.

Type -A: Protects against special forms of residual pulsating DC which have have not been smoothed

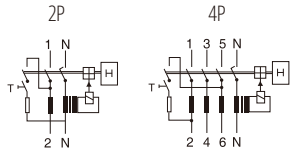
Type -G: High reliability against unwanted tripping. Compulsory for any circuit where personal injury or damage to property may occur in case ofunwanted tripping

Type -S: Selective residual current device sensitive to AC, type -S.Compulsory for systems with surge arresters downstream of the RCD.Additionally protects against special forms of residual pulsating pulsating DC which have not been smoothed.

Accessory

Auxiliary contact	
Auxiliary switch for subsequent installation to the left	Z-HK
Tripping signal contact Adjacent mounting on the right	Z-NHK

Wiring diagram



Technical data

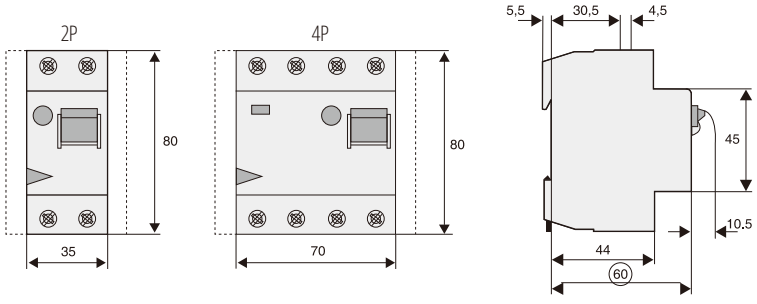
Electrical

Design according to	IEC/EN 61008, GB16916.1
Tripping	Instantaneous G type 10ms delay S type 40ms delay –with selective disconnecting function
Rated voltage Un	230/400 V, 50Hz
Rated tripping current I△n	10,30,100,300mA
Sensitivity	AC, pulse DC
Rated short-circuit strength Inc	10kA
Max. backup fuse	Short circuit protection
In = 16-63A	63A gG /gl
In = 80A	80A gG /gl
In = 100A	100A gG /gl
Rated breaking capacity Im or rated fault breaking capacity I△m	
In = 16-40A	500A
In = 63A	630A
In = 80A	800A
In = 100A	1000A
Endurance	184-440V~
Electrical comp.	⩾4000 operating cycles
Mechanical comp.	⩾20000 operating cycles

Mechanical

Mounting	IEC standard DIN rail 35mm width
Housing protection degree	IP20
Upper and lower terminals	Open mouthed/lift terminals
Terminal protection	Finger touch and hand touch safe
Terminal capacity	1.5-35 mm² single wire 2 x 16 mm² multi wire
Busbar thickness	0.8-2 mm
Tripping temperature	-25°C to 55 °C
Resistance to climate condition	According to IEC/EN 61008

Dimension (mm)



1

Residual current circuit breaker with overload protection PFL10, PFL9, 1P+N(ELM)

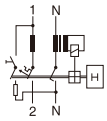
- For overload, short circuit and residual current protections
- Tripping is line voltage-independent.
- Free terminal space despite installed busbar
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- To ensure reliable leading structures for terminal wiring
- Handles of different colors (of MCB components) indicate different rated currents
- Red-green contact position indicator.
- A full range of accessories can be mounted in adjacent to basic devices
- Type -A: Protects against special forms of residual pulsating DC which have not been smoothed
- Type G: 10ms time delay to prevent unwanted tripping (eg. thunder storming weather)

Accessory

Auxiliary contact	
Subsequent mounting	ZP-IHK
Tripping signal contact	
Subsequent mounting	ZP-NHK
Shunt trip	ZP-ASA/...

Connection diagrams

1+N



Technical data

Electrical

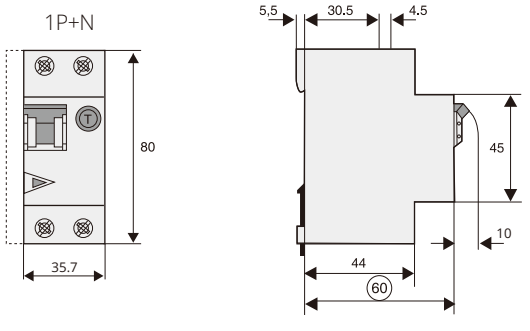
Design according to	IEC/EN 61009, GB16917.1
Tripping	Instantaneous
	G type 10ms delay
Rated voltage U_n	230 V, 50Hz
Rated current I_n	6-40A
Trial voltage range	196-253V
Operational voltage U_e Rated	240V
Tripping current $I_{\triangle n}$ Rated	10,30,300mA
Non-tripping current I_{no}	0.5 $I_{\triangle n}$
Sensitivity	AC, pulsating
Selective protection degree	3 level
Rated breaking capacity I_{cn}	PFL10: 10kA
	PFL9: 6kA
Rated impulse withstand voltage U_{imp}	6 kV(1.2/50μs)
Tripping characteristics	C
Max backup fuse (short circuit)	100 A gL (>10kA)
Lifetime: Electrical comp.	≥4000 operating cycles
Mechanical comp.	≥20000 operating cycles

Mechanical

Mounting	Quick fastening with 2 lock-in positions on DIN rail; 35mm standard rail
Upper and lower terminals	Open-mounted/lift terminals
Terminal protection	Finger and hand touch safe
Terminal capacity	1-25 mm^2
Busbar thickness	0.8-2 mm
Housing protection degree	IP20
Tripping temperature	-25°C to 55°C
Resistance to climate condition	According to IEC/EN 61009

Dimension (mm)

1P+N

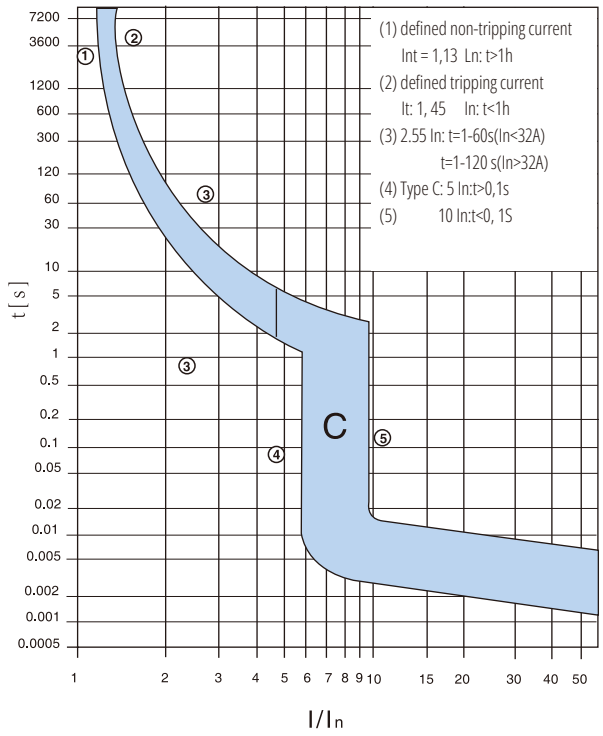


Load capacity of PFL10/9-../1N/

Ambient temperature impact (MCB component)

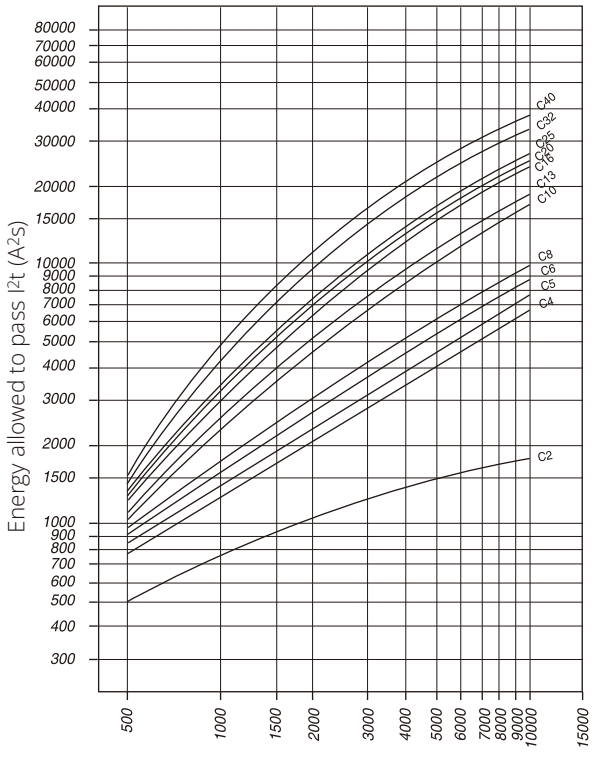
	Ambient temperature T[°C]											
I_n[A]	**-25**	**-20**	**-10**	**0**	**10**	**20**	**30**	**35**	**40**	**45**	**50**	**55**
2	2.5	2.4	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.8
4	4.9	4.8	4.7	4.5	4.3	4.2	4.0	3.9	3.9	3.8	3.7	3.6
6	7.4	7.2	7.0	6.7	6.5	6.3	6.0	5.9	5.8	5.7	5.6	5.4
10	12	12	12	11	11	10	10	9.9	9.7	9.5	9.3	9.0
13	16	16	15	15	14	14	13	13	13	12	12	12
16	20	19	19	18	17	17	16	16	15	15	15	14
20	25	24	23	22	22	21	20	20	19	19	19	18
25	31	30	29	28	27	26	25	25	24	24	23	23
32	40	38	37	36	35	33	32	32	31	30	30	29
40	49	48	47	45	43	42	40	39	39	38	37	36

Tripping characteristics of PFL10/9-../1N/, Characteristics C

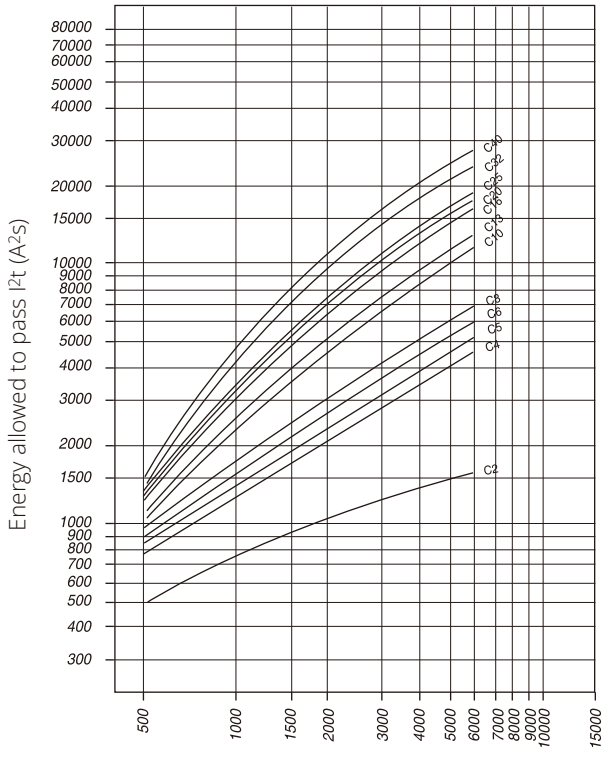


Energy Capacity PFL10/PFL9

Energy consumption of PFL10, Characteristics C, 1P+N



Energy consumption of PFL9, Characteristics C, 1P+N



1 Residual current breaker with overload protection PLD10, PLD9, 1P+N (ELE)

- For overload, short circuit and Residual current protections
- Tripping function is independent from power voltage
- Can be mounted to standard busbar
- Twin-purpose above and below(lift/open mouth type)
- Busbar positioning optionally above or below
- Red-green contact position indicator
- A full range of accessories can be mounted in adjacent to basic devices

Accessory

Auxiliary contact	
Subsequent mounting	ZP-IHK
Tripping signal contact	
Subsequent mounting	ZP-NHK
Shunt trip	ZP-ASA/...

Technical data

Electrical

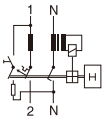
Design according to	IEC/EN 61009, GB16917.1
Tripping time	Instantaneous type
Rated voltage U_n	230 V, 50Hz
Operational voltage range	50-250 V~
Overvoltage protection U_{ov}	280±5%VAC
Rated tripping current $I_{\triangle n}$	10,30,300mA
Rated non-tripping current I_{no}	0.5 $I_{\triangle n}$
Sensitivity	AC
Selective protection degree	Level 3
Rated breaking capacity I_{cn}	PLD10:10kA PLD9: 6kA
Rated current I_n	2-40A
Tripping characteristics	C,D
Max backup fuse(short circuit)	100 A gl (>10kA)
Lifetime: electrical comp.	⩾4000 operating cycles
Mechanical comp.	⩾20000 operating cycles

Mechanical

Mounting	IEC standard DIN rail 35mm
Double function terminals on both sides	Cutout/elevation type
Terminal protection	Finger touch and hand touch safe
Terminal capacity	1-25 mm^2
Busbar thickness	0.8-2 mm
Housing protection degree	IP20
Tripping temperature	-25°C to 55°C
Resistance to climate condition	According to IEC/EN 61009

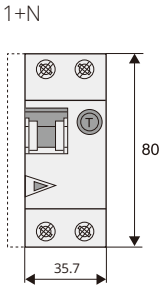
Connection diagrams

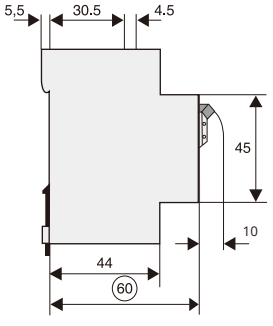
1+N



Dimension (mm)

1+N





Residual current protection accessory PBSM (for use with PL10, PL9, FAZ MCB) (ELM)

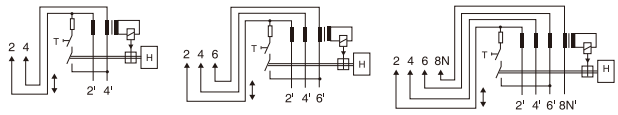
- Tripping function is independent from power voltage
- Form with high performance MCB PL10/9 and FAZ to work as RCBO units (RCD/MCB switch)
- **Type -A:** Protects against special forms of residual pulsating DC which have have not been smoothed
- **Type -G:** High reliability against unwanted tripping. Compulsory for any circuit where personal injury or damage to property may occur in case of unwanted tripping.
- **Type -S:** Selective residual current device sensitive to AC, type -S.Compulsory for systems with surge arresters downstream of the RCD.Additionally protects against special forms of residual pulsating pulsating DC which have not been smoothed.

Accessories (on PL10/9.)

Auxiliary contact Subsequent mounting	ZP-IHK
Tripping signal contact Subsequent mounting	ZP-NHK
Shunt trip	ZP-ASA/...
Undervoltage trip	ZP-USA/...
Overvoltage trip	POP-270

Connection diagrams

2P 3P 4P



Technical data

Electrical

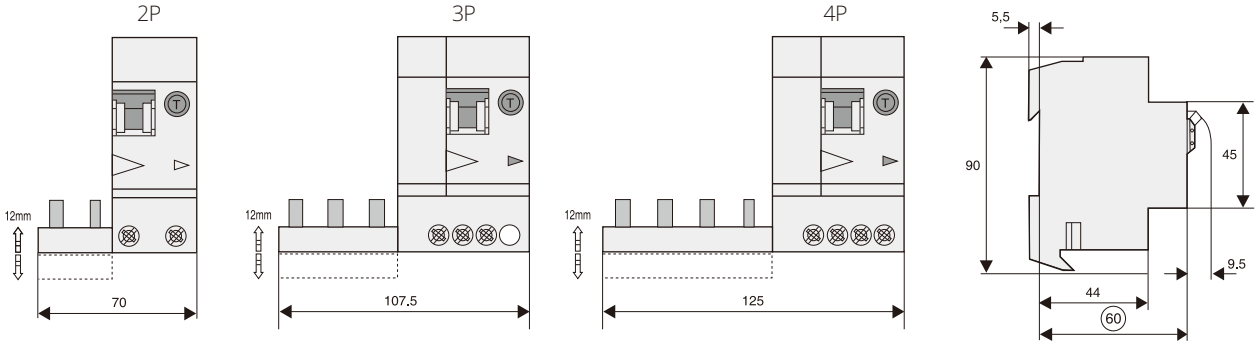
Design according to	IEC/EN 61009, GB16917.1
Tripping time	Instantaneous type Type G 10ms delay – time delay type Type S 40ms delay – selective type
Rated voltage U_n	230/400 V, 50Hz
Trial voltage range	196-440V
Rated frequency	50Hz
Rated current I_n	⩽40A, ⩽63A
Rated tripping current $I_{\triangle n}$	30,100,300,500,1000mA
Rated non-tripping current I_{no}	0.5 $I_{\triangle n}$
Sensitivity	AC, pulse DC
Rated breaking capacity I_{cn}	Same as connected MCB
Rated fault breaking capacity $I_{\triangle m}$	6kA (U_n=230V) 3kA (U_n=400V)

Mechanical

Mounting	Side mounting onto MCB
Housing protection degree	IP20
Tightening screw	M2,5 (slotted single direction round head screw)
Screw head failing moment	>0.6 Nm
Upper and lower terminals	Lift terminal
Terminal protection	Finger and hand touch safe
Terminal capacity	Rigid conductor: 1 x (1-25) mm^2 Flexible conductor 1 x (0.75-16) mm^2
Busbar thickness	0.8-2 mm
Allowable ambient temperature range	-25°C to 55°C
Resistance to climate condition	According to IEC/EN 60068-2 (25...55°C/90...95% relative humidity)

Dimension (mm)

2P 3P 4P



1

Residual current protection accessory PDB (for use with PL10 and PL9 MCB) (ELE)

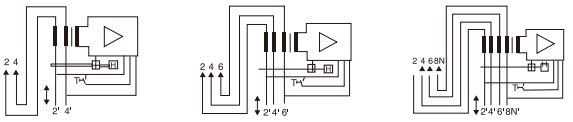
- Tripping function is independent from power voltage.
- Form with high performance MCB PL10/9 and FAZ to work as RCBO units (RCD/MCB switch).

Accessories (on PL10/9.)

Auxiliary contact Subsequent mounting	ZP-IHK
Tripping signal contact Subsequent mounting	ZP-NHK
Shunt trip	ZP-ASA/...
Undervoltage trip	ZP-USA/...
Overvoltage trip	POP-270

Connection diagrams

2P 3P 4P



Technical data

Electrical

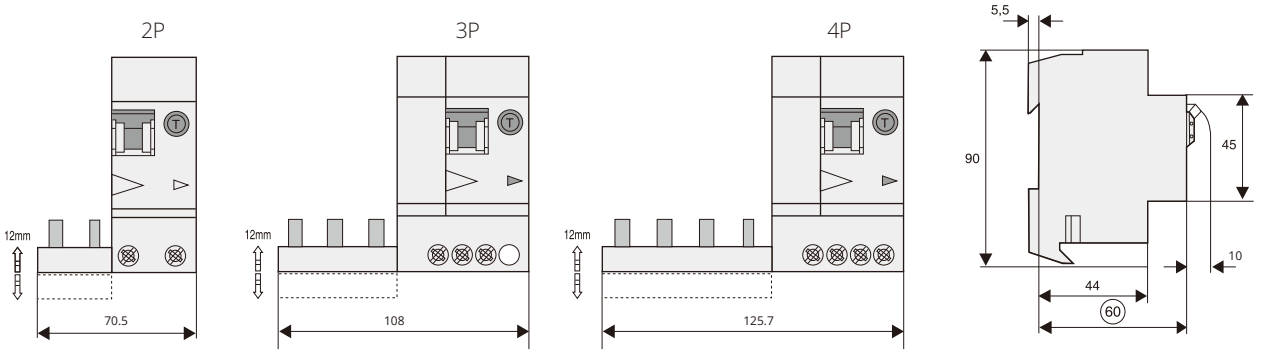
Design according to	IEC/EN 61009, GB16917.1
Tripping time	Instantaneous type
Rated voltage U_n	2P: 230V, 50Hz 3&4P: 400V, 50Hz
Testing voltage range	196-440 V~
Rated frequency	50Hz
Rated current I_n	⩽40A, ⩽63A
Rated tripping current $I_{\triangle n}$	30, 300mA
Rated non-tripping current I_{no}	0.5 $I_{\triangle n}$
Sensitivity	AC
Rated breaking capacity I_{cn}	Same as connected MCB
Rated fault breaking capacity$I_{\triangle m}$	6kA (Un=230V) 3kA (Un=400V)

Mechanical

Mounting	Side mounting onto MCB
Housing protection degree	IP20
Fastening screw	M2.5 (slotted single direction round head screw)
Screw head failing moment	>0.6 Nm
Upper and lower end terminals	Lift terminals
Terminal protection	Finger and hand touch safe
Terminal capacity	Rigid conductor: 1 x (1-25) mm^2 Flexible conductor 1 x (0.75-16) mm^2
Busbar thickness	0.8-2 mm
Allowable ambient temperature range	-25°C to 55°C
Resistance to climate condition	According to IEC/EN 60068-2 (25...55°C/90...95% relative humidity)

Dimension (mm)

2P 3P 4P



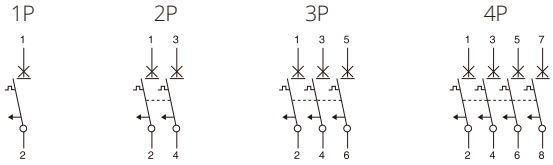
Miniature circuit breaker (MCB) PL10, PL9, and PL9-DC

- Extremely high breaking capacity and current limiting characteristics
- Shape compatible with and suitable for standard busbar connection to other devices of the P-series
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- For isolation function, may used as main switch
- Red-green contact position indicator
- Different handle colors indicate different current ratings
- Wiring terminals are construed to prevent wrong wiring
- 3-position rail clamps, easy to remove from busbars
- A full and complete product range
- Up to 48V DC (for higher DC voltage, use PL9-DC)
- PL9-DC: rated breaking capacity:10kA, to IEC/EN 60947-2
  Rated voltage 250V (1P), T=4ms
  Pay attention to the correctness of wiring polarity

Accessories (on PL10/9.)

Auxiliary contact Subsequent mounting	ZP-IHK
Tripping signal contact Subsequent mounting	ZP-NHK
Shunt trip	ZP-ASA/...
Undervoltage trip	ZP-USA/...
Overvoltage trip	POP-270

Connection diagrams



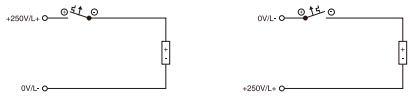
Technical data

Electrical	
Design according to	
PL10/9	IEC/EN 60898, GB10963
PL9-DC	IEC/EN 60947-2
Rated voltage U_n	
PL10/9	AC: 230/400V
PL9-DC	DC: 250V (single pole)
Operational voltage	240/415V
Rated frequency	50/60 Hz
Rated breaking capacity I_{cn}	
PL10	10 kA
PL9	6 kA
PL9-DC	10 kA (single pole 250 VDC)
Instantaneous tripping characteristics	B, C, D
Allowable max. backup fuse	
PL10	Max 125 A gL
PL9	Max 100 A gL
Selective protection level	Level 3
Electrical comp.	⩾8000 breaking operating cycles
Line voltage connection	optional (above/below)
Allowable ambient temperature range	-40°C to +75°C

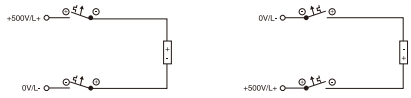
Mechanical	
Mounting	IEC standard DIN rail 35 mm
Housing protection degree	IP20
Upper and lower terminals	Open-mounted/lift terminal
Terminal protection	Finger and hand touch safe
Terminal capacity	1-25mm²
Fastening torque for terminal screw	2-2.4 Nm
Busbar thickness	0.8-2 mm
Mounting	Independent of position

Applicable for AC/DC MCB PL9-DC, C curve

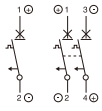
Circuit example at 250 VDC, 1P



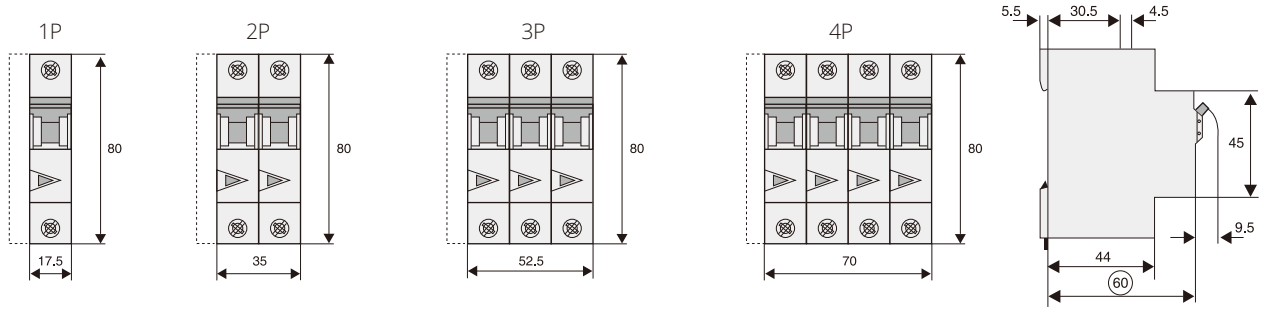
Circuit example at 500 VDC, 2P



PL9-DC Connection diagrams



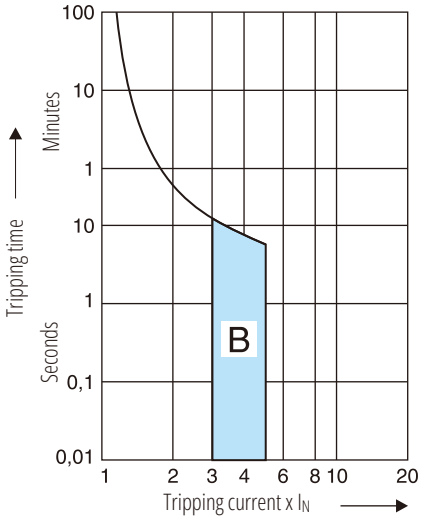
Dimension (mm)



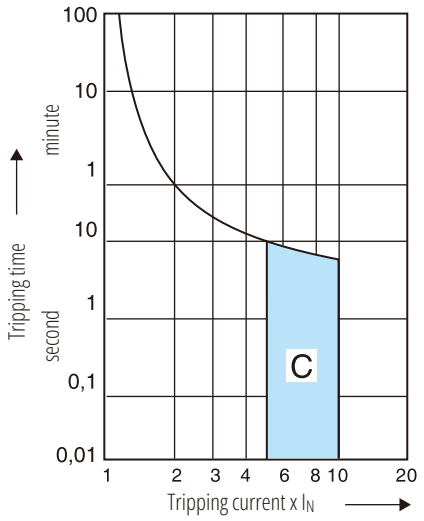
1

Tripping characteristic curve (IEC 60898)

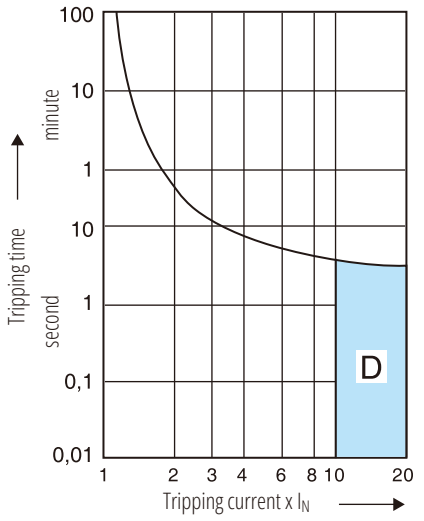
Tripping characteristic B curve



Tripping characteristic C curve



Tripping characteristic D curve

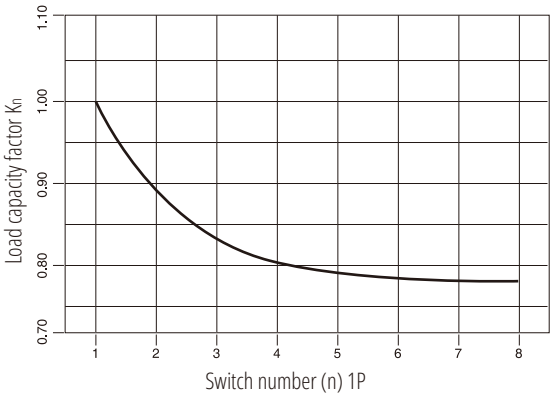


Effect of ambient temperature on thermal tripping behaviour

Adjusted rated current values according to ambient temperature

	Ambient temperature T[°C]															
I_n [A]	-25	-20	-10	0	10	20	30	35	40	45	50	55	60	65	70	75
0.5	0.61	0.60	0.58	0.56	0.54	0.52	0.50	0.49	0.48	0.47	0.46	0.45	0.44	0.43	0.42	0.41
1	1.2	1.2	1.2	1.1	1.1	1.0	1.0	0.99	0.97	0.95	0.93	0.90	0.89	0.87	0.85	0.83
2	2.4	2.4	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.7	1.7	1.7
3	3.7	3.6	3.5	3.4	3.3	3.1	3.0	3.0	2.9	2.8	2.8	2.7	2.7	2.6	2.5	2.5
4	4.9	4.8	4.7	4.5	4.3	4.2	4.0	3.9	3.9	3.8	3.7	3.6	3.5	3.5	3.4	3.3
6	7.3	7.2	7.0	6.7	6.5	6.3	6.0	5.9	5.8	5.7	5.6	5.4	5.3	5.2	5.1	5.0
10	12	12	12	11	11	10	10	9.9	9.7	9.5	9.3	9.0	8.9	8.7	8.5	8.3
13	16	16	15	15	14	14	13	13	13	12	12	12	12	11	11	11
16	20	19	19	18	17	17	16	16	15	15	15	14	14	14	14	13
20	24	24	23	22	22	21	20	20	19	19	19	18	18	17	17	17
25	31	30	29	28	27	26	25	25	24	24	23	23	22	22	21	21
32	39	38	37	36	35	33	32	32	31	30	30	29	28	28	27	26
40	49	48	47	45	43	42	40	39	39	38	37	36	35	35	34	33
50	61	60	58	56	54	52	50	49	48	47	46	45	44	43	42	41
63	77	76	73	71	68	66	63	62	61	60	58	57	56	55	53	52

Load carry capacity of parallel connected MCB mounted in parallel



Effect of Power Frequency

Effect of power frequency on the tripping behaviour IMA of the quick release

	Operating frequency f (Hz)						
	$16\,^2/_3$	50	60	100	200	300	400
$I_{MA}(f)/I_{MA}(50Hz)$ [%]	91	100	101	106	115	134	141

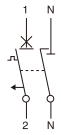
Miniature circuit breaker (MCB) PL91

- 1P+N, 1-module wide, small size
- Extremely high breaking capacity and current limiting characteristics
- Red-green contact position indicator
- Different handle colors indicate different current ratings
- Isolation function is offered
- Wiring terminals are construed to prevent wrong wiring

Accessories

Auxiliary contact	
Subsequent mounting	ZP-IHK
Tripping signal contact	
Subsequent mounting	ZP-NHK
Shunt trip	ZP-ASA/...
Undervoltage trip	ZP-USA/...

Connection diagram



Technical data

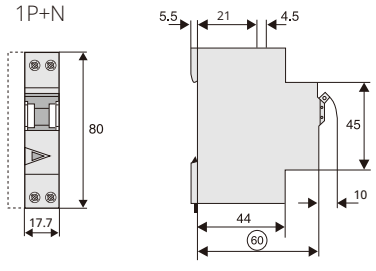
Electrical

Design according to	IEC/EN 60898 GB10963
Rated voltage U_n	230 VAC
Rated frequency	50/60 Hz
Rated current I_n	6-40A
Rated breaking capacity I_{cn}	6 kA
Tripping characteristics	C
Backup fuse	
>6 kA	Max. 100 A gL
Selective protection level	Level 3
Electrical comp.	⩾8000 breaking operating cycles
Allowable ambient temperature range	-30°C to +60°C

Mechanical

Mounting	IEC standard rail 35 mm
Housing protection degree	IP20
Upper and lower terminals	Open-mounted/lift terminal
Terminal protection	Finger and hand touch safe
Terminal capacity	1-16 mm^2

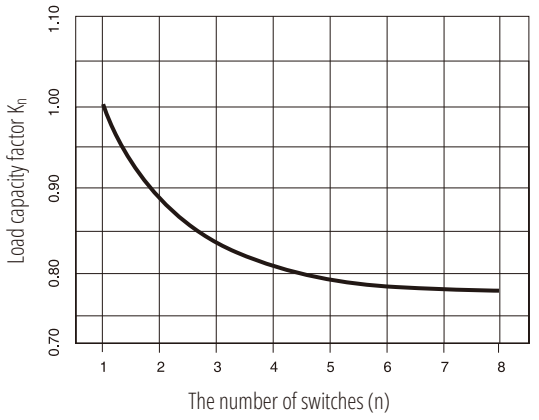
Dimension (mm)



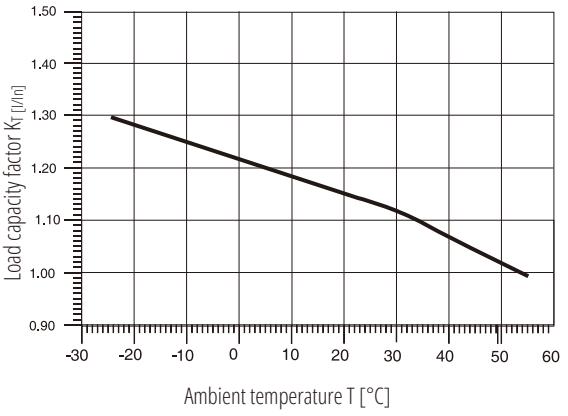
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Load capacity of PL91

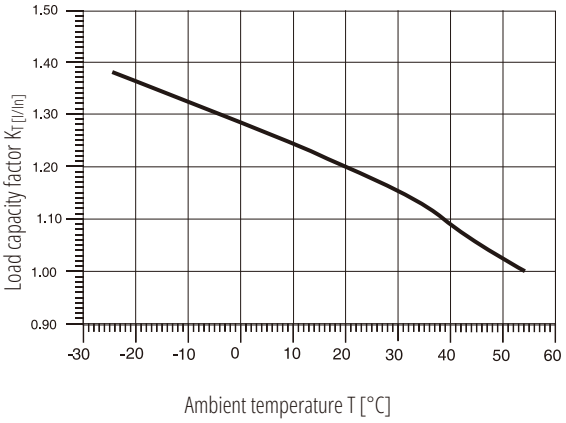
Load capacity of several MCBs mounted in parallel



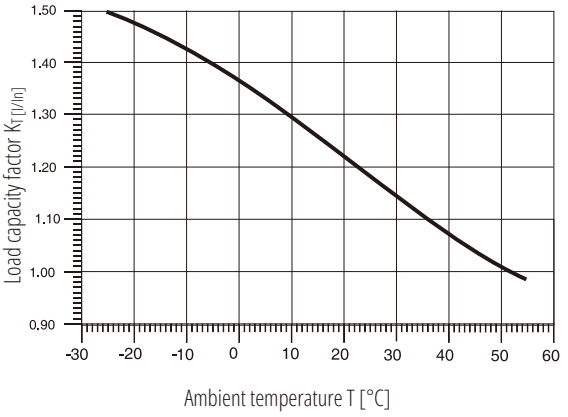
Load capacity as ambient temperature changes (I_n=2-13 A)



Load capacity as ambient temperature changes (I_n=6-25 A)



Load capacity as ambient temperature changes (I_n=32, 40 A)



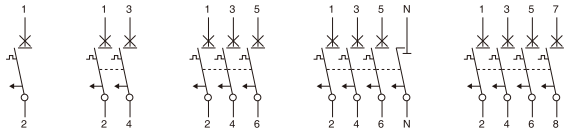
Miniature circuit breaker (MCB) PLHT

- Extremely high breaking capacity and current limiting characteristics
- Isolation function is offered, meets the insulation coordination requirement
- Contact position indicator

Accessory

Auxiliary contact	
Subsequent mounting	ZP-LHK
Shunt trip	
Subsequent mounting	ZP-LHASA/230...
	ZP-LHUSA/24...

Connection diagrams



Technical data

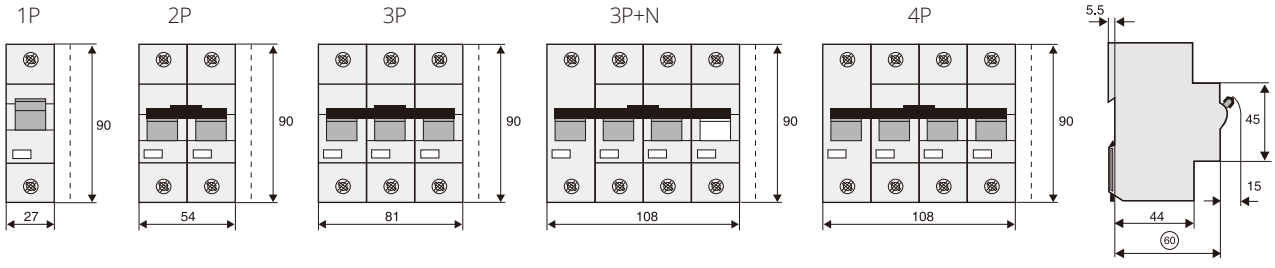
Electrical

Design according to	IEC60947-2, GB14048.2
Rated voltage U_e	
AC	230 V/ 400C
DC	60 V (each pole)
Rated breaking capacity I_{cs}	
Characteristics C	In=63A 25kA
	In=80-100A 20kA
	In=125A 15kA
Characteristics D	In=50-63A 25kA
	In=80A 20kA
	In=100A 15kA
Instantaneous tripping characteristics	C, D
Allowable backup fuse	Max. 200 A gL
Rated insulation voltage	440 V
Impulse withstand voltage U_{imp}	4 kV
Selective protection level	Level 3
Electrical comp.	⩾20000 breaking operating cycles
Allowable ambient temperature range	-40°C to +70°C

Mechanical

Mounting	IEC standard DIN rail 35 mm
Housing protection degree	IP20
Terminal type	Lift terminals
Terminal protection	Finger and hand touch safe
Terminal capacity	2.5-50 mm^2

Dimension (mm)



1

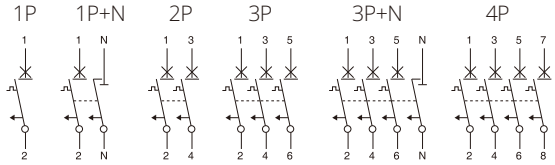
Miniature circuit breaker FAZ (global line)

- Extremely high breaking capacity and current limiting characteristics
- Compatible with standard busbar
- Twin-purpose above and below
- Isolation function used as main switch
- Red-green contact position indicator
- Wiring terminals are construed to prevent incorrect wiring
- 3-position rail clamp, easy to remove from busbars and rails
- Multi-functional accessory range

Accessories

Auxiliary contact	
Subsequent mounting	FAZ-XHIN11
Signal contact	
Subsequent mounting	FAZ-XAM002
Shunt trip	ZP-ASA/...
Undervoltage trip	Z-USA/...
Overvoltage trip	POP-270
Padlocking device	IS/SPE-1TE
Busbar can be used	EVG....

Connection diagrams



Technical data

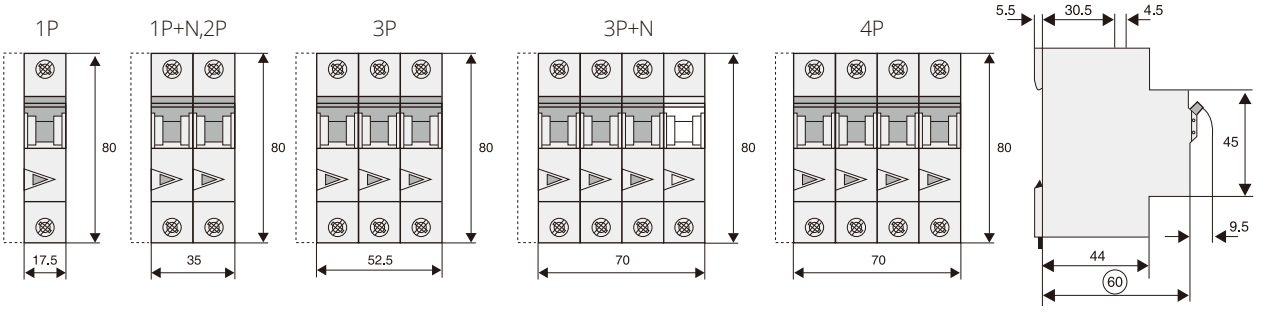
Electrical

Design according to	IEC/EN60898,IEC/EN60947-2 UL1077,CSA-C22.2 GB10963.1
Rated voltage	IEC... : 230/400V AC 50/60Hz 48V DC (1P) UL... : 277/480V AC
Rated frequency	50/60Hz
Rated current	0.5-63A
Breaking capacity	IEC 60947-2：15KA IEC 60898：10KA UL1077：5KA
Selective protection level	3
Tripping characteristics	B、C、D
Electrical comp.	⩾10000 breaking operating cycles
Allowable ambient temperature range	-40°C - +75°C
Line voltage connection	Any

Mechanical

Housing protection degree	IP20
Mounting	IEC standard rail 35mm
Upper and lower terminals	Open-mounted/lift terminal
Terminal protection	Finger and hand touch safe
Terminal capacity	1-25mm²
Busbar thickness	0.8-2mm
Mounting angle	Functions independent from mounting angles
Maximum torque for terminal screw	2-2.4Nm

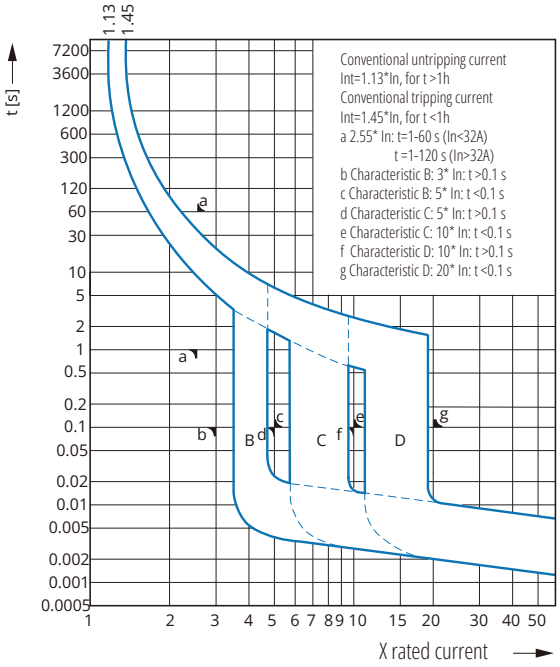
Dimension (mm)



Miniature circuit breaker FAZ (Global line)

FAZ...

Tripping characteristics, at 30°C
B, C, D to IEC/EN 60898

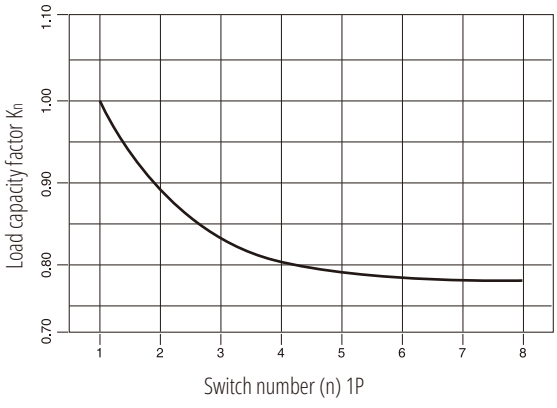


FAZ

Adjusted rated current values according to the ambient temperature

	Ambient temperature T (°C)																	
I_n [A]	-40	-30	-20	-10	0	10	20	30	35	40	45	50	55	60	65	70	75
1	1.3	1.2	1.2	1.2	1.1	1.1	1.0	1.0	0.99	0.97	0.95	0.93	0.90	0.89	0.87	0.85	0.83
2	2.6	2.5	2.4	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.7	1.7	1.7
3	3.8	3.7	3.6	3.5	3.4	3.3	3.1	3.0	3.0	2.9	2.8	2.8	2.7	2.7	2.6	2.5	2.5
4	5.1	5.0	4.8	4.7	4.5	4.3	4.2	4.0	3.9	3.9	3.8	3.7	3.6	3.5	3.5	3.4	3.3
5	6.4	6.0	6.0	5.8	5.6	5.4	5.2	5.0	4.9	4.8	4.7	4.6	4.5	4.4	4.3	4.2	4.1
6	7.7	7.5	7.2	7.0	6.7	6.5	6.3	6.0	5.9	5.8	5.7	5.6	5.4	5.3	5.2	5.1	5.0
8	10.2	9.9	9.6	9.3	9.0	8.7	8.4	8.0	7.9	7.7	7.6	7.4	7.2	7.1	6.9	6.8	6.6
10	13	12	12	12	11	11	10	10	9.9	9.7	9.5	9.3	9.0	8.9	8.7	8.5	8.3
13	17	16	16	15	15	14	14	13	13	13	12	12	12	12	11	11	11
15	19	19	18	17	17	16	16	15	15	15	14	14	14	13	13	13	12
16	20	20	19	19	18	17	17	16	16	15	15	15	14	14	14	14	13
20	26	25	24	23	22	22	21	20	20	19	19	19	18	18	17	17	17
25	32	31	30	29	28	27	26	25	25	24	24	23	23	22	22	21	21
32	41	40	38	37	36	35	33	32	32	31	30	30	29	28	28	27	26
40	51	50	48	47	45	43	42	40	39	39	38	37	36	35	35	34	33
50	64	62	60	58	56	54	52	50	49	48	47	46	45	44	43	42	41
63	81	78	76	73	71	68	66	63	62	61	60	58	57	56	55	53	53

Load capacity of Parallel connected MCB



Effect of Power Frequency

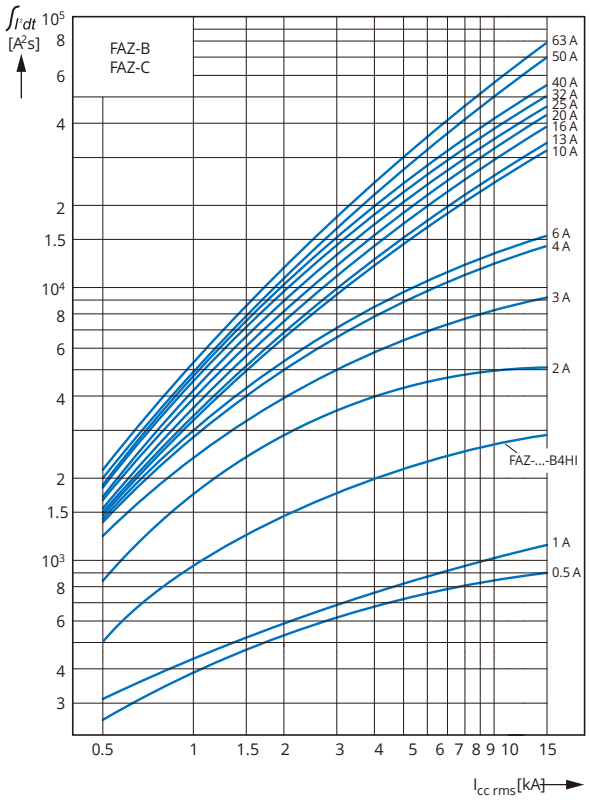
Effect of power frequency on the tripping behaviour IMA of the quick release

	Operating frequency f (Hz)						
	$16\,^2/_3$	50	60	100	200	300	400
$I_{MA}(f)/I_{MA}(50Hz)$ [%]	91	100	101	106	115	134	141

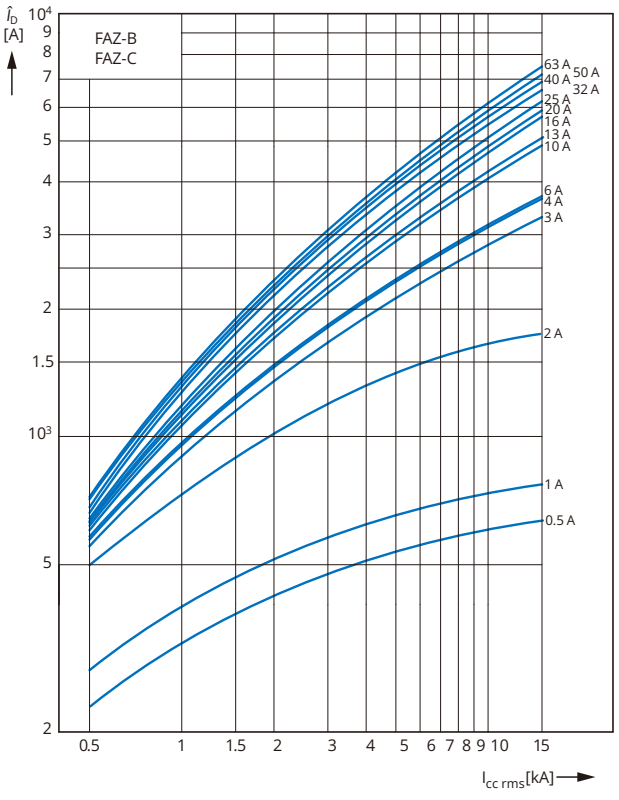
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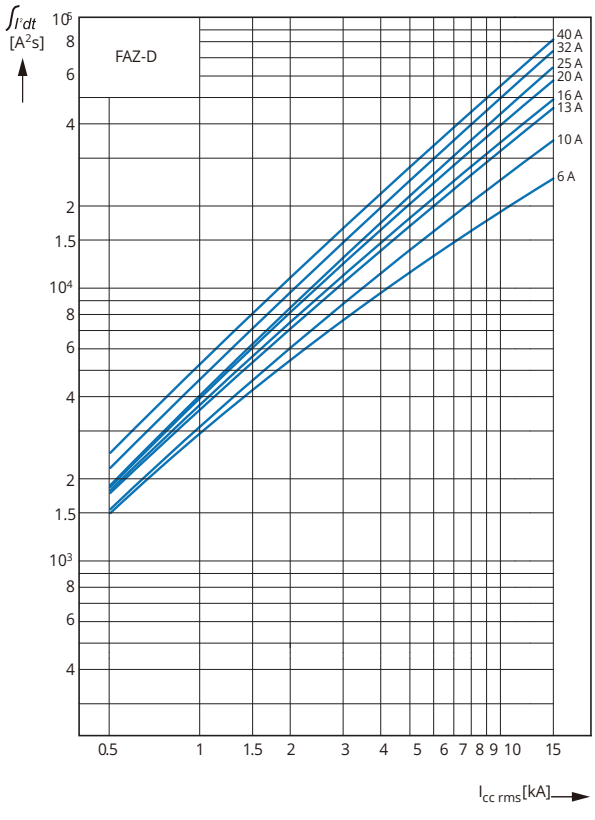
FAZ...

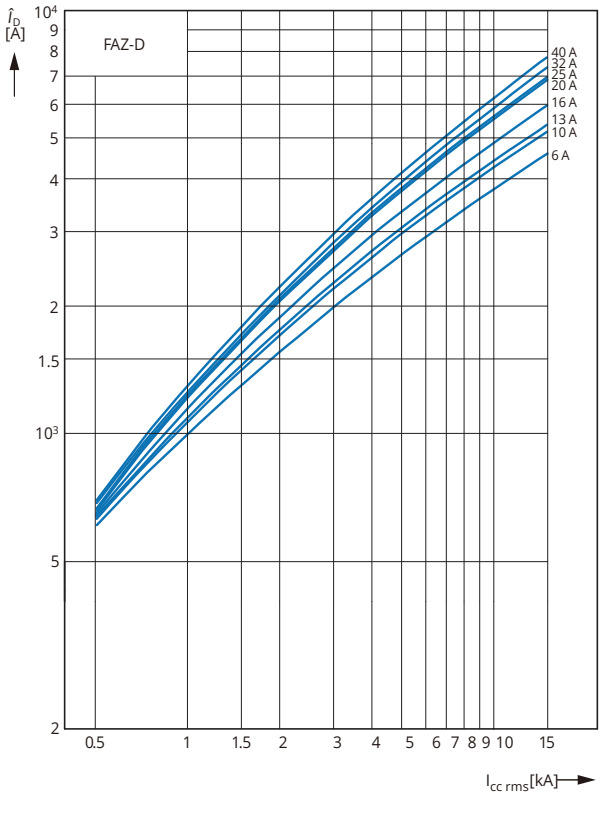
Let-through energy I^2t
To IEC/EN 60898



Let-through energy I_D
To IEC/EN 60898



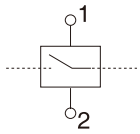




Shunt trip Z-LHASA

- Can be mounted in adjacent to basic devices
- Red-green contact position indicator
- Wide operating voltage range
- Sufficient power must be ensured when low power supply voltage Z-LHASA/24: minimum power 90 VA

Connection diagrams



Technical data

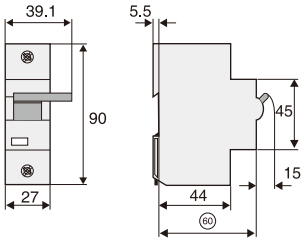
Electrical

Operational voltage range	
Z-LHASA/230:	110-415 V~
Z-LHASA/24:	12-60 V~
Operational frequency	50-60 Hz
Maximum current consumption at the make point, under rated voltage U_n	
Z-LHASA/230:	2A
Z-LHASA/24:	18A

Mechanical

Mounting	IEC standard DIN rail 35 mm
Housing protection degree	IP20
Terminal	Open-mounted/lift terminal

Dimension (mm)



Auxiliary Contact Z-LHK

- Auxiliary contact based on IEC60947-5-1
- Can be mounted in adjacent to the basic device

Connection diagrams



Technical data

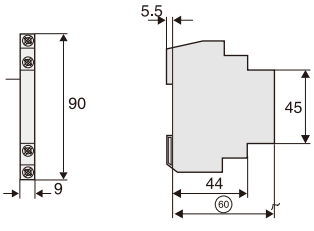
Electrical

Rated operational current I_e	(250V~) 6A/AC13
Minimum operational voltage	24 V per phase
Rated thermal current I_{th}	8A
Rated insulation voltage U_{imp}	440 V~
Max. back-up fuse	6 A gL
Contact type	1NO+1NC
Utilization type AC13	6A/250 VAC
	2A/440 VAC
Utilization type DC13	4A/600 VDC
	2A/110 VDC
	0.5A/230 VDC

Mechanical

Mounting	Mounted to the basic device
Protection degree	IP20
Terminal type	Lift terminals
Terminal capacity	1 x 1 mm² to 2 x 2.5 mm²

Dimension (mm)



1

Auxiliary contact Z-HK

- Design standard: IEC/EN 60947-5-1, GB 14048-5-1
- Can be mounted in adjacent to basic devices (with screws)
- Contact material and design are especially suitable for extremely low voltages

Connection diagrams

Z-HK

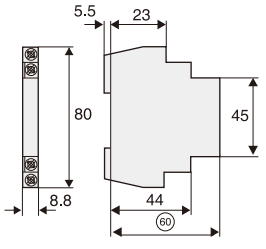


Technical data

	Z-HK
Electrical	
Can be mounted on the left	PFIM
Contact function	1NO+1NC
Rated voltage U_n	250V
Frequency	50/60 Hz
Rated current I_n	8A
Rated thermal current I_{th}	8A
Application type AC13	
Rated operational current I_e	6A/250 VAC 2A/440 VAC
Utilization category AC 15	
Rated operational current I_e	-
Utilization category DC 12 Rated operational current I_e	
Utilization category DC 12 Rated operational current I_e	0.5 A/230 V DC 2 A/110 V DC 4 A/60 V DC
Rated insulation voltage U_{imp}	250 V
Minimum operational voltage each contact U_{min}	24 V AC/DC
Minimum operational voltage I_{min}	50 mA AC/DC
Rated breaking capacity withstand voltage U_{imp} (1.2/50 µs)	2.5 kA
Mechanical	
Product width	0.5 modular width
Mounting	Mounted to the basic device
Protection degree	IP20
Terminal type	Elevation type
Cross-section for connection	0.5...2.5 mm^2
Terminal screw	M3
Fastening torque of terminal screw	Max. 0.8-1.0 Nm

Dimension (mm)

Z-HK



Auxiliary contact Z-IHK, tripping signal contact ZP-NHK

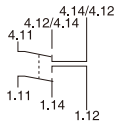
- Design standard: IEC/EN 60947.5, GB 14048-5-1
- Can be snapped into switch basic devices quickly, without screws
- Contact material and design are especially suitable for very low voltages. Contact provides relative movement function (self-cleaning contact)
- ZP-NHK, FAZ-XAM002: two changeover contact function, transferred from "tripping signal contact" to "auxiliary contact"
- Tripping signal contact sends messages of electrical tripping, instead of mechanical switching
- Test button is used for testing "electrical tripping"

Connection diagrams

ZP-IHK



ZP-NHK

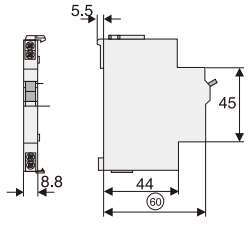


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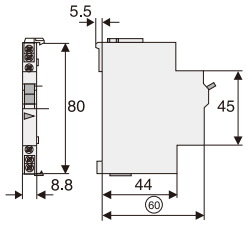
Electrical	ZP-IHK	FAZ-XHIN11	ZP-NHK	FAZ-XAM002
Can be mounted on the left on MCB:	PL10, PL9	FAZ	PL10, PL9	FAZ
RCBO:	PFL10/9, PLD10/9		PFL10/9, PLD10/9	
Accessory:	ZP-ASA, POP-270	ZP-ASA, POP-270	ZP-ASA, POP-270	ZP-ASA, POP-270
Contact function	1NO+1NC	1NO+1NC	2 convertible	2 convertible
Rated voltage U_n	250/440 V AC	250/440 V AC	250 V AC	250 V AC
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated current I_n	4A	4A	4A	4A
Rated thermal current I_{th}	4A	4A	4A	4A
Utilization category AC 13				
Rated operational current I_e	3 A/250 V AC	3 A/250 V AC	3 A/250 V AC	3 A/250 V AC
Utilization category AC 15				
Rated operational current I_e	2 A/250 V AC	2 A/250 V AC	2 A/250 V AC	2 A/250 V AC
Utilization category DC 12				
Rated operational current I_e	0.5A/110V DC	0.5A/110 V DC	0.5A/110 V DC	0.5A/110 V DC
Rated insulation voltage U_i	250 V AC	250 V AC	250 V AC	250 V AC
Minimum operating voltage of each contact U_{min}	5V DC	5 V DC	5 V DC	5 V DC
Minimum operating current I_{min}	10 mA DC	10 mA DC	10 mA DC	10 mA DC
Rated breaking capacity Uimp (1.2/50µs)	2.5 kA	2.5 kA	2.5 kA	2.5 kA
Mechanical				
Tripping indicator "electrical tripping"	-	-	Blue/white	Blue/white
Product width	0.5-module wide	0.5-module wide	0.5-module wide	0.5-module wide
Mounting type	Mounted to basic devices	Mounted to basic devices	Mounted to basic devices	Mounted to basic devices
Protection level	IP20	IP20	IP20	IP20
Terminal type	Elevation type	Elevation type	Elevation type	Elevation type
Cross-section for connection	0. 5...2.5 mm^2	0. 5...2.5 mm^2	0. 5...2.5 mm^2	0. 5...2.5 mm^2
Terminal screw	M3	M3	M3	M3
Fastening torque of terminal screw	Max 0.8-1.0 Nm	Max 0.8-1.0 Nm	Max 0.8-1.0 Nm	Max 0.8-1.0 Nm

Dimension (mm)

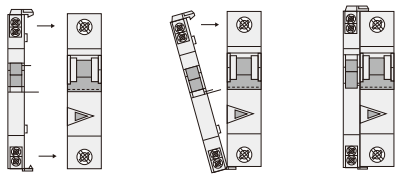
ZP-IHK
FAZ-XHIN11



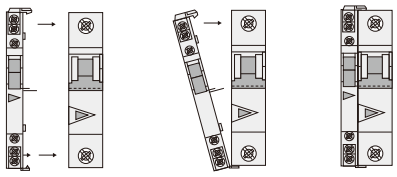
ZP-NHK
FAZ-XAM002



Example:



Example:

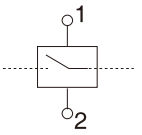


1

Shunt release ZP-ASA

- Remote tripping purpose, adjacent mounting to PL-, FAZ, PFL-, PLD-
- Can be attached to standard auxiliary contact
- Red-green contact position indicator
- ZP-ASA can be snapped in for mounting

Connection diagrams

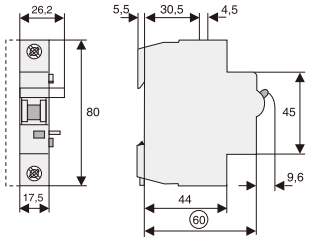


Technical data

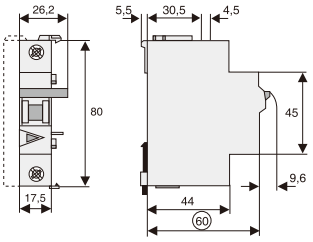
	ZP-ASA24	ZP-ASA230
Electrical		
Mounted on	PL-, FAZ, PFL-, PLD-	PL-, FAZ, PFL-, PLD-
Operational voltage range	12-60 V AC 12-60 V DC	110-415 V AC 110-220 V DC
Frequency	50/60 Hz	50/60 Hz
Possible mounted standard auxiliary contact	ZP-NHK. FAZ-XHIN11	ZP-NHK. FAZ-XHIN11
Mechanical		
Tripping indicator "electrical tripping"	Red/green	Red/green
Product width	17.5mm	17.5mm
Mounting	IEC standard DIN rail 35 mm	
Protection degree	IP20	IP20
Terminal type	Open-mounted/lift terminal + terminal guidance	Open-mounted/lift terminal + terminal guidance
Cross-section for connection	1-25 mm^2	1-25 mm^2

Dimension (mm)

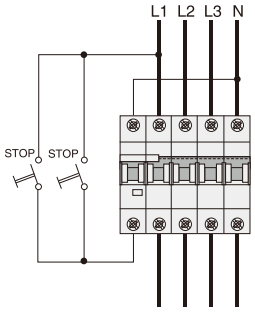
Z-ASA



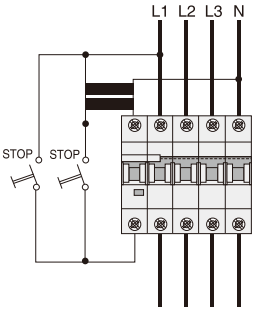
ZP-ASA



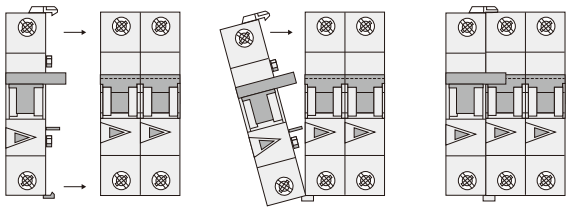
Wiring example 230V



Wiring example 24V



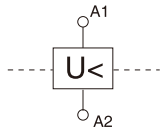
For example: ZP-ASA+PL10 or ZP-ASA+FAZ



Undervoltage trip Z-USA

- Instantaneous tripping
- Voltage-controlled blue or white indicator
- Maintenance button is used for zero-voltage making test
- Can be mounted onto PL10, PL9 and FAZ

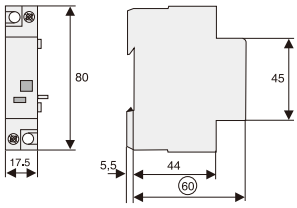
Connection diagrams



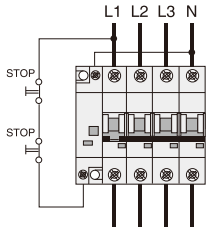
Technical data

	ZP-USA/115	ZP-USA/230	ZP-USA/400
Electrical			
Rated voltage Un	115 V AC	230 V AC	400 V AC
Frequency	50-60 Hz	50-60 Hz	50-60 Hz
Making voltage value	80% Un	80% Un	80% Un
Tripping voltage value	50% Un	50% Un	50% Un
Mechanical			
Tripping indicator "electrical tripping"	Blue/white	Blue/white	Blue/white
Product width	17.5mm	17.5mm	17.5mm
Mounting	IEC standard rail 35mm	IEC standard rail 35mm	IEC standard rail 35mm
Protection level	IP40	IP40	IP40
Terminal type	Open-mounted/lift terminal + terminal guidance	Open-mounted/lift terminal + terminal guidance	Open-mounted/lift terminal + terminal guidance
Cross-section for connection	1-2 x 2.5 mm^2	1-2 x 2.5 mm^2	1-2 x 2.5 mm^2

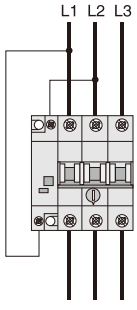
Dimension (mm)



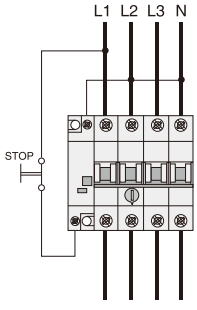
Undervoltage trip wiring example



Wiring example at 400V and 230V



Wiring Example
Z-USA/400+FAZ



Wiring Example
Z-USA/230+PL9/PL10

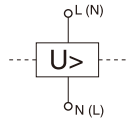
1 Power frequency Overvoltage trip POP-270 (for PL9/PL10/FAZ)

- POP device is designed to decrease the impact of overvoltage between phase conductor and neutral conductor on electrical equipment and/or receiving devices (for example, due to damaged neutral conductor in a 3-phase system). When overvoltage between phase conductor and neutral conductor is detected, the device can switch off circuits, thus achieving this purpose
- In accordance with European standard BTTF 128-1
- In accordance with national industry standard JGJ 16-2008 “Civil Building Electrical Design Specification”
- Contact status indicator indicates safety isolation with “red-green” colors
- “ON-OFF” changeover function

Accessory

Auxiliary contact, for use with	ZP-IHK	286052
Subsequent installation	FAZ-XHIN11	286054
Warning contact, for	ZP-NHK	248437
Subsequent installation	FAZ-XAM002	262414
Shunt trip	ZP-ASA/..	248438, 248439
Undervoltage trip	ZP-USA/..	248288, 248291

Connection diagrams

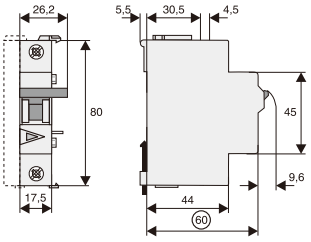


Technical data

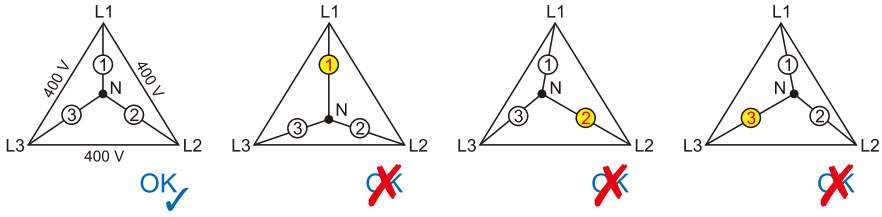
Electrical	
Rated operational voltage U_e	230 V AC
Rated insulation voltage U_i	440 V AC
Rated frequency	50 Hz
Driving voltage U_a	255 V ⩽ Ua ⩽ 295 V
Driving times t_a	
Under 295 V	⩽ 100ms
Under 400 V	⩽ 50ms
Power consumption under U_e	⩽ 0,4w
Max. back-up fuse	125A gG(gL)
Rated withstand impulse voltage U_{imp}	4kV (1.2/50) μS
Overvoltage class	III

Mechanical	
Equipment width	17.5 mm (1 module)
Weight	106 g
Allowable ambient temperature	-25°C to +55°C
Protection level (after mounting)	IP40
Terminal capacity on both sides	1-25 mm^2 with connection guidance
Busbar thickness up to	1.5 mm
Fastening torque of wiring terminals	2.4-3Nm
Mounting	Quick fastening, with 2 locking positions on DIN rail IEC/EN 60715

Dimension (mm)

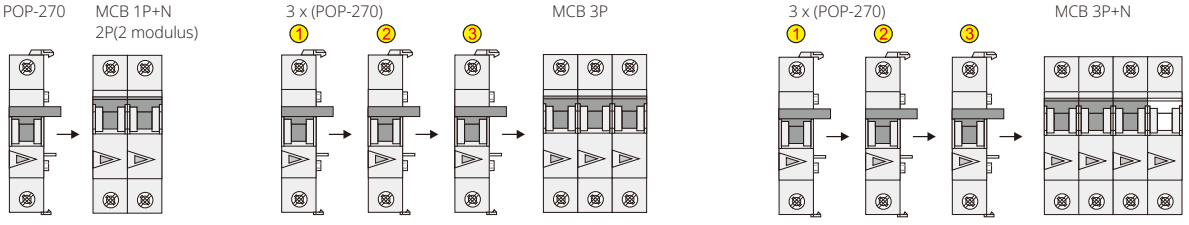


Voltage triangle relationship

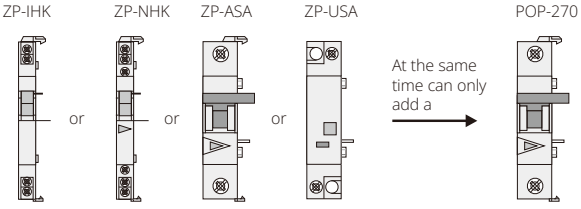


① ② ③ ... to activate POP device (U_L-n)>255V

For use with PL9/10 MCBs



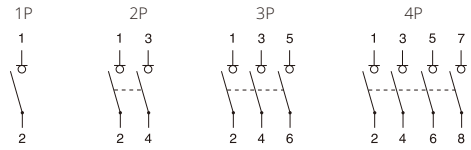
POP-270 accessory



Disconnecting switch IS

- Equipped with disconnecting switch
- Suitable for use as main switch in electrical lines of industrial, commercial and residential applications
- Contacts has very high anti-abrasion performance
- Wiring terminals on both sides
- Contact status indicator

Connection diagrams

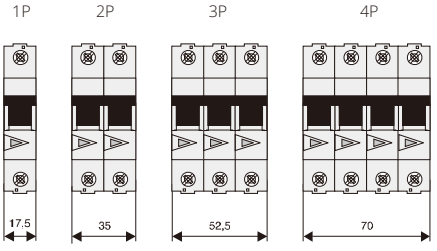


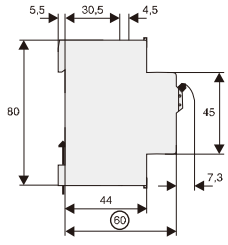
Technical data

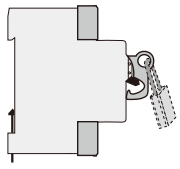
In accordance with electrical standards	IEC/EN60947-3 GB14048.3
Rated voltage U_n	240/415 V AC
Rated frequency	50-60 Hz
Rated insulation voltage U_i	690 V
Rated withstand impulse voltage U_{imp}	6kV
Pollution degree	3
Rated short time withstand current I_{cw}	2kA
Rated short circuit making capacity I_{cm}	2.8kA
Rated current	
AC21B 240/415V	40, 63, 80, 100, 125 A
AC22B 240/415V	40, 63, 80, 100, 125 A
AC23B 240/415V	40, 63, 80, 100, 125 A

Poles	1, 2, 3, 4P
Max. back-up fuse	125A gG
Short circuit impulse withstand strength (with backup protection)	40-80A 12.5kA ; 125A 10kA
Electrical comp.	⩾3000
Mechanical comp.	⩾16000
Casing protection level	IP40 (after mounting)
Wiring terminal type	Dual terminals on both sides, Lift/open mouth type
Terminal capacity	Conductor: 2.5-50 mm^2 Busbar thickness: 0.8-1.0 mm
Mounting	IEC standard DIN rail 35mm
Accessory	Locking device to prevent accidental operations

Dimension (mm)







Lock device to prevent accidental operations
IS/SPE-1TE

1

Construction relay Z-R, construction relay Z-SCH

Special design and specifications; modular mounting; can be installed inside modular distribution enclosures of electrical equipment, or enclosures with cover caps.

Innovatively designed AC electronic magnetic system reduces switch noise. Can fully satisfy application requirements towards office and residential areas.

Construction relays Z-R and Z-SCH are applicable for break-make control of single phase or three phase electrical equipments (up to 63A). These devices are widely used in power distribution system of buildings, to provide following control functions:

- Open and close lightning system
- Open and close electrical heating system
- Open and close ventilation system
- Open and close air conditioning system and fans
- Open and close heating pumps
- Open and close electric-controlled (motor driven) roller doors and shutters
- Etc

Construction relay Z-R series and relay Z-SCH series fully meet IEC61905 and IEC60947 standards.

IEC 61095 is related to “electromechanical relay in household and similar applications”. To satisfy this standard means to satisfy very high safety requirements towards persons and property.

IEC 60947 is related to “electromagnetic relays for use in electrical system manufacturing”.

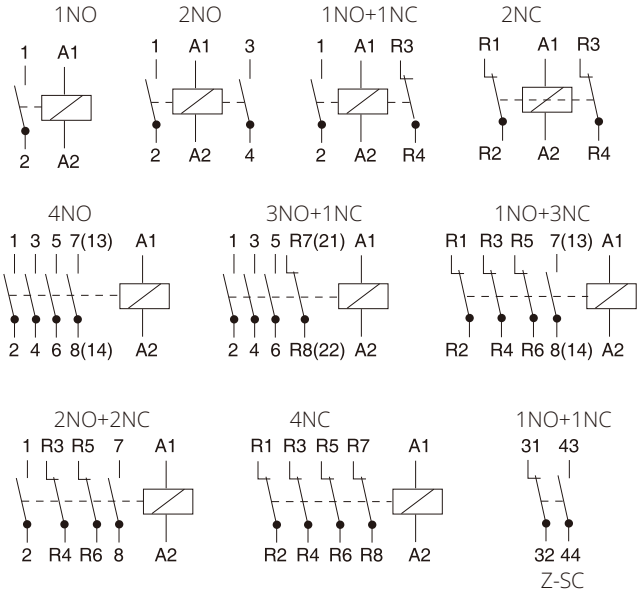
Safety:

- Touch and hand touch safe, according to VGB4 standard
- Front-face contact position indicator
- Made of non-flammable materials and plastics without chlorine and halogen
- User-friendly operations and mounting

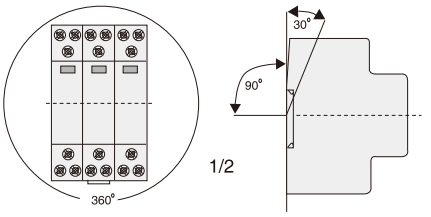
Advantages:

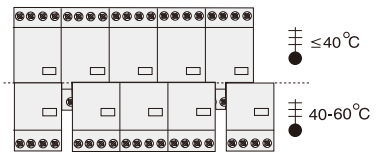
- Low switch noise, no humming
- Safe, fast and flexible connection
- Fast snapping into 35mm DIN rail, saving time and allowing flexible mounting
- Several contact combinations with high flexibility. Z-SCH can be combined with auxiliary contact Z-SC, resulting in higher flexibility
- large space for power supply connection for coils, and very easy to connect

Connection diagrams



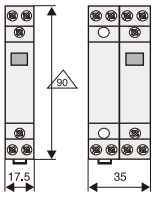
Allowable mounting position



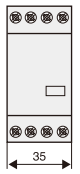


Dimension (mm)

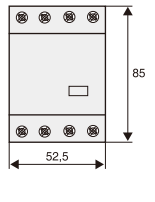
Z-R
1module 2 modules

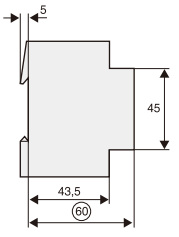


Z-SCH.../25
2 modules

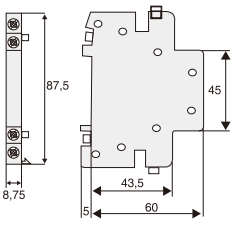


Z-SCH.../40, .../63
3 modules





Z-SC



Construction relay Z-R, construction relay Z-SCH

Data complies with IEC61905, EN61905, VDE0660, IEC60947-4-1, EN60947-4-1, VDE

			Z-R	Z-SCH/25/-	Z-SCH/40/-	Z-SCH/63/-	Z-SC
Utilization category AC1(e.g. heating system)							
Rated operational current I_n (=I_{th})							
When open	At 69°C	A	20	25	40	63	-
Switch operating cycles		S x 10^6	0.1	0.1	0.1	0.1	-
Rated operating power AC1	220-240V	kW	4.6	9.5	16	25	-
	380-415V	kW	-	17	27.5	43	-
Utilization category AC3 (open and close 3 phase AC motor)							
Rated operational current I_n (=I_{th})		A	-	9	27	30	-
Electrical Comp.		S x 10^6	-	0.15	0.15	0.15	-
Rated power of 3 phase AC motor	220V	kW	-	2.2	7.5	8	-
50-60Hz	220-240V	kW	-	2.5	8	8.5	-
	380-415V	kW	-	4	12.5	15	-
Utilization category DC1 (open and close resistance load, L/R ⩽15ms)							
Data of NO contacts	24 V DC	A	20	25	40	63	-
1P	48 V DC	A	18	22	25	26	-
	60 V DC	A	17	18	19	21	-
	110 V DC	-	4	5	7	8	-
	220 V DC	A	0.4	0.5	0.7	0.7	-
2-pole series connection	24 V DC	A	20	25	40	63	-
	48 V DC	A	20	25	40	44	-
	60 V DC	A	20	25	33	36	-
	110 V DC	-	10	16	17	18	-
	220 V DC	A	-	4	5	6	-
3-pole series connection	24 V DC	A	-	25	40	63	-
	48 V DC	A	-	25	40	63	-
	60 V DC	A	-	25	40	61	-
	110 V DC	-	-	25	31	34	-
	220 V DC	A	-	10	15	16	-
4-pole series connection	24 V DC	A	-	25	40	63	-
	48 V DC	A	-	25	40	63	-
	60 V DC	A	-	25	40	63	-
	110 V DC	-	-	25	40	63	-
	220 V DC	A	-	15	20	21	-
Main contact component (U_{imp}=4kV)							
Rated insulation voltage U_i		VAC	440	440	440	440	440
Rated operating voltage U_e		VAC	250	440	440	440	440
Allowable breaking frequency	AC1,AC3	1/h	300	300	600	600	600
Mechanical Comp		S x 10^6	1	1	1	1	1
Auxiliary contact component (U_{imp}=4 kV)							
Rated insulation voltage U_i		VAC	440	440	440	440	440
Rated thermal current=I_{th}	40 ˚C	A	20	25	20	63	10
	60 ˚C	A	20	25	20	63	6
Utilization category AC15 (control ELM load)							
Rated operating current I_e	220-240V	A	-	-	-	-	3
	380-415V	A	-	-	-	-	2
	440V	A	-	-	-	-	1.6
Utilization category DC13 (control DC ELM load)							
Rated operating current per phase I_e	24-60V	A	-	-	-	-	2
	110V	A	-	-	-	-	0.4
	220V	A	-	-	-	-	0.1

1

Construction relay Z-R, construction relay Z-SCH

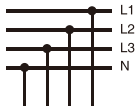
Data in compliance with IEC61905, EN61905, VDE0660,IEC60947-4-1, EN60947-4-1,VDE

			Z-R	Z-SCH/25/-	Z-SCH/40/-	Z-SCH/63/-	Z-SC
Trip coil power							
	Pickup	VA	7-9	14-18	33-45	33-45	-
	Keep	VA	2.2-4.2	4.4-4.8	7	7	-
		W	0.8-1.6	1.6-3.2	2.6	2.6	-
Operating range of tripping coil							
Coil voltage range (multiple of rated voltage)			0.85-1.1	0.85-1.1	0.85-1.1	0.85-1.1	-
Pv consumption power per phase			2	2	3	7	0.5
Consumption power per switch		W					
Pvges, at rated load current	1P	W	3.6	5.2	5.6	5.6	-
	2P	W	5.6	7.2	8.6	16.6	-
	3P	W	-	9.2	11.6	23.6	-
	4P	W	-	11.2	14.6	30.6	-
Front-face temperature							
Limit values, according to IEC/EN/VDE		K	40	40	40	40	-
Typical values when all the poles are loaded		K	15	25	27	31	-
Side temperature							
Limit values, according to IEC/EN/VDE		K	50	50	50	50	-
Typical values when all the poles are loaded		K	41	35	27	40	-
Wiring terminal heating (New devices)							
Limit values, according to IEC/EN/VDE		K	65	65	65	65	-
Typical values when all the poles are loaded		K	42	44	36	48	-
Switch noise (open and close)							
Typical average values		dB	76	80	78	78	-
Wiring cross section							
Main circuit	Single core or multi-core wire	mm^2	1.5-10	1.5-10	2.5-25	2.5-25	0.5-2.5
	Thin-core stranded wire	mm^2	1.5-6	1.5-6	2.5-16	2.5-16	0.5-1.5
	Number of conductors each terminal		1	1	1	1	2
Coil	Single core or multi-core wire	mm^2	0.75-2.5	0.75-2.5	0.75-2.5	0.75-2.5	-
	Thin-core stranded wire	mm^2	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	-
	Number of conductors each terminal	mm^2	1	1	1	1	-
Weight		kg/unit	0.13	0.22	0.36	0.36	0.026
Short circuit protection (main circuit)							
Max rated current of fuse							
Suitable type number	gL(gG)	A	35	35	63	80	-
Short circuit protection (auxiliary circuit)							
Max rated current of fuse							
Short circuit current 1kA, no contact fuse	gL(gG)	A	-	-	-	-	10
Utilization category AC1	Rated operating current I_e AC1	A	20	25	40	63	-
	Making capacity RMX value I_{eff}	A	120	165	300	400	-
	Peak value I_{spitze}	A	170	233	424	565	-
Utilization category AC5a	Rated operating power cos φ 0.5	kW	1.1	1.3	3.4	5.5	-
	220-240V AC cos φ 0.90	kW	0.4	0.4	1.6	2.1	-
	DUO	kW	3	3.7	6.3	10	-
Utilization category AC5b	Rated operating power	kW	1.4	1.8	3.6	5.1	-
	220-240 VAC						

Plug-in busbar system 50A, 80A (for all Eaton low voltage switches)

- Few components, only 2 types of wiring plugs for busbars of each cross section, used for 3-phase AC
- ZV-SS and ZV-SS-80A use same sealing covers and terminal caps

Circuit diagram

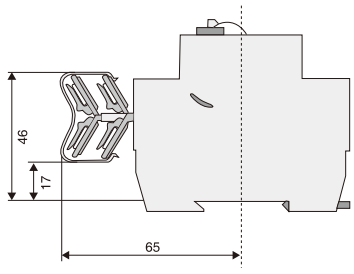


Technical data

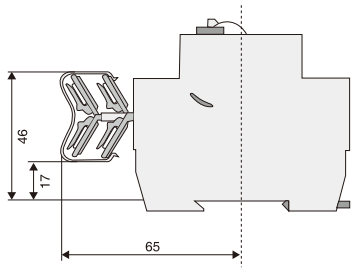
Electrical	
Rated voltage	230/400V, 50/60 Hz
Rated current	
ZV-./., ZV-SS	50A
ZV-./., - 80A, ZV-SS-80A	80A
Short circuit strength	15kA

Mechanical	
Busbar section area	
ZV-SS	16mm² Cu
ZV-SS-80A	25mm² Cu
Busbar length	1m

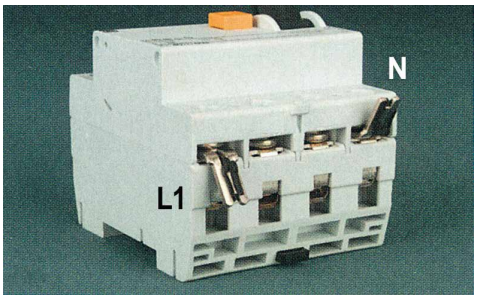
Dimension (mm) 50A



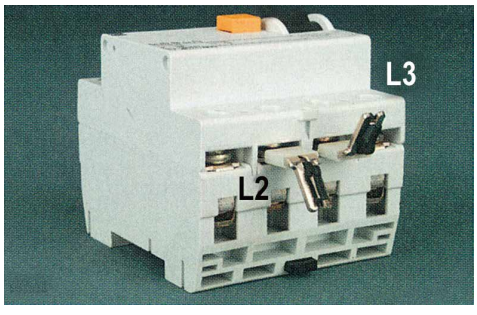
Dimension (mm) 80A



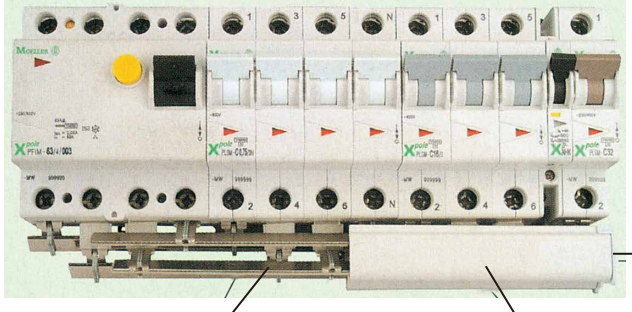
Connection angle



For ZV-L1/N(-80A), same connection angles for L1 and N, 180° rotating



For ZV-L1/N(-80A), same connection angles for L1 and N, 180° rotating



Terminal cap ZV-AEK

Busbar
ZV-SS
ZV-SS=80A

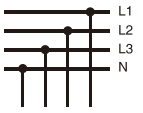
Cover ZV-ADP

1

Fixed-type busbar 10mm2, 16mm2 (fork-type) (for all Eaton low voltage switches)

- Length of each busbar: 1m

Connection diagrams

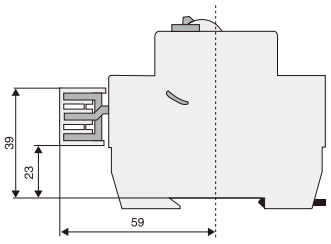


Technical data

Electrical	
Rated voltage	230/400V, 50/60 Hz
Rated current	
10mm^2	63A
16mm^2	80A
Short circuit strength	10A

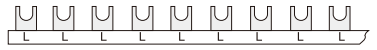
Mechanical	
Busbar cross-section area	10 and 16 mm^2 Cu
Distance between poles	17.8mm

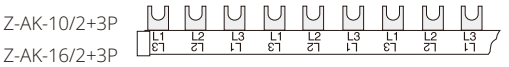
Dimension (mm)

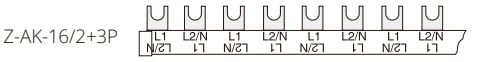


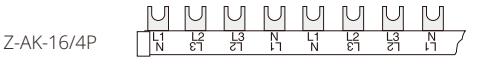
Specifications

Terminal cap Busbar














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We deliver:

- **Electrical solutions** that use less energy, improve power reliability and make the places we live and work safer and more comfortable
- **Hydraulic and electrical solutions** that enable machines to deliver more productivity without wasting power
- **Aerospace solutions** that make aircraft lighter, safer and less costly to operate, and help airports operate more efficiently
- **Vehicle drivetrain and powertrain solutions** that deliver more power to cars, trucks and buses, while reducing fuel consumption and emissions

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