News

OEZ®

Devices for building installation

2006

DEAR BUSINESS PARTNERS

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In the late summer in European continent we bring you the third issue of OEZ NEWS, this time focused on so called devices for building installations. It was just the small circuit breaker designated LSN which became our flagship immediately after privatization of our company. I have used the „so called" intentionally, because small circuit breakers are used not only for protection of building installations, but also, and very extensively, in industry and power engineering where in particular circuit breakers with breaking capacity of 10 kA and rated current up to 125 A are used.

Both technical parameters of the product and manufacturing technology have changed substantially in more than twelve years, and series of millions pieces are yearly delivered to customers throughout the world. To make the application complete, also residual current circuit breakers, overvoltage protectors, modular switches and plastic enclosures are delivered. This group of products also include motor starters, pressure and float switches. I am glad that in course of this year we presented new and modern steel-plastic distribution boards which are shown and described in this journal.

I would like to thank you for up-to-now collaboration. If you are interested in the solution of your protection tasks by OEZ devices, do not hesitate to contact us anytime. You can find updated information on our web sites *www.oez.com*.

Yours faithfully

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BUILDING INSTALLATIONS

Devices for building installations are all common protection, switching and similar devices for installation in electric switchboards. These are especially circuit breakers up to 125 A, residual current circuit breakers, installation relays and contactors, electronic relays, program timers, overvoltage protectors, motor starters, etc. All devices are for installation on the rails according to DIN EN 50 022. Their main uses are in residential and office building installations, but they also can be used for industrial installations.

DISTRIton

In this issue of OEZ News, besides brief overview we would like to offer you overvoltage protection devices and new steel-plastic distribution boards DISTRIton.

Next page selection out of the product range

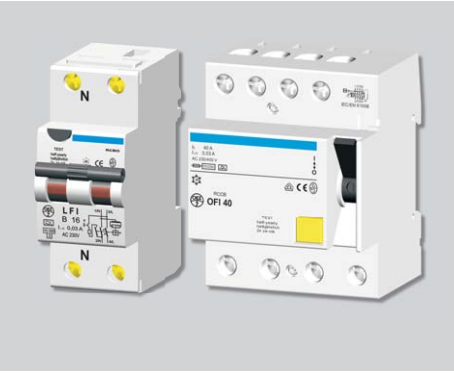
Devices for building installations - selection out of the product range

MINIATURE CIRCUIT BREAKERS

Type		LSN	LST	LSE
Number of poles		1,1+N, 2, 3, 3+N	1, 2, 3, 3+N	1, 3
Tripping characteristics		B, C, D	B, C, D	B, C
Rated current	I_n	0.2 ÷ 63 A	40 ÷ 125 A	6 ÷ 40 A
Rated operating voltage	U_e	230/400 V a.c., 48 V d.c., 220/440 V d.c.	230/400 V a.c., 48 V d.c., 220/440 V d.c.	230/400 V a.c., 48 V d.c.
Rated short-circuit breaking capacity	I_{cn}	10 kA	10 kA	6 kA
Position indicating device		●	●	-
Connection		max. 25 mm²	max. 50 mm²	max. 25 mm²
Accessories				
Auxiliary switches		●	●	●
Shunt trips		●	●	●
Undervoltage releases		●	●	●
Interconnecting busbars		●	●	●
Locking insert		●	-	●

note: - not available ● available

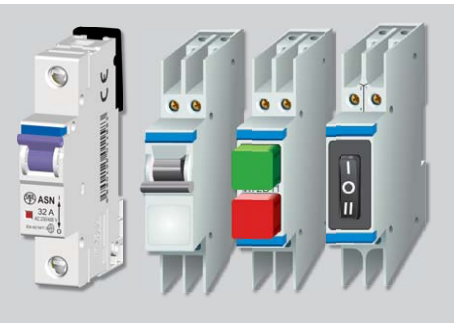
RESIDUAL CURRENT CIRCUIT BREAKERS



Type		residual current circuit breakers with overcurrent protection		residual current circuit breakers	
		LFI	LFE	OFI	OFE
Number of poles		2	2	2, 4	2, 4
Tripping characteristics		B, C	B, C	-	-
Rated current	I_n	6 ÷ 25 A	6 ÷ 16 A	16 ÷ 80 A	25 ÷ 63 A
Rated residual current	$I_{\Delta n}$	30 mA	30 mA	10 ÷ 500 mA	30 ÷ 300 mA
Rated operating voltage	U_e	230 V a.c.	230 V a.c.	230/400 V a.c.	230/400 V a.c.
Type		A ⩙	AC ~	A, A/G, A/S ⩙	AC ~
Breaking capacity	I_{cn}	10 kA	6 kA	-	-
Rated conditional short-circuit current	I_{nc}	-	-	10 kA	6 kA
Connection		max. 25 mm²	max. 25 mm²	max. 25 mm²	max. 25 mm²
Accessories					
Auxiliary switch		●	●	●	●
Interconnecting busbars		●	●	●	●

note: - not available ● available

SWITCHES AND PUSH-BUTTONS



Type		tumbler switches			rocker-type switches	push-button switches	control push-buttons
		ASN	AST	MS	MSK	MT2B	MT, M2T
Arrangement of contacts		10, 20, 30, 40	10, 30, 40	20, 11, 30, 40, 22	10, 001	11, 40, 22	01, 10, 20, 11, 31, 22, 2x11
Rated operating voltage	U_e	230/400 V a.c. 48 V d.c.	230/400 V a.c. 48 V d.c.	230/400 V a.c. 220 V d.c.	250 V a.c. 12 V d.c.	230/400 V a.c. 220 V d.c.	230/400 V a.c. 220 V d.c.
Rated current	I_n	32 and 63 A	125 A	25 A	6, 10, 16 A	25 A	25 A
Signal light		-	-	●	●	-	●
Connection		max. 25 mm²	max. 50 mm²	max. 6 mm²	max. 6 mm²	max. 6 mm²	max. 6 mm²

note: - not available ● available

INSTALLATION RELAYS AND CONTACTORS

Type		installation relays	installation contactors
		PR208, PR116	S20, S25, S40, S63
Arrangement of contacts		001, 002	10, 20, 11, 02, 40, 31, 13
Rated operating voltage	U_e	250 V a.c., 24 V d.c., 30 V d.c.	250/440 V a.c.
Rated current	I_n	8, 16 A	20, 25, 40, 63 A
Operating voltage		24 V a.c., 230 V a.c., 24 V d.c.	230 V a.c.
Connection		max. 6 mm²	max. 25 mm²
Accessories			
Auxiliary switch		-	●

note: - not available ● available

ELECTRONIC RELAYS

Type		current relay	timing relay		impulse relay	stair switch
		RP1	MCR	TCR	IR116K	trealux
Arrangement of contacts		10, 01	001	001	001	10
Rated operating voltage	U_e	250 V a.c.	250 V a.c., 24 V d.c.	250 V a.c., 24 V d.c.	230 V a.c.	230 V a.c.
Rated current	I_n	16 A	8 A	8 A	16 A	16 A
Operating voltage (current)		5 ÷ 15 A, 10 ÷ 28 A 26 ÷ 63 A	12, 24, 230 V a.c. 12, 24 V d.c.	12 ÷ 230 V a.c. 24 ÷ 220 V d.c.	230 V a.c.	230 V a.c.
Time program		-	0.5 s ÷ 130 min.	0.5 s ÷ 120 min.	-	0.5 s ÷ 20 min.
Connection		max. 16 mm²	max. 6 mm²	max. 6 mm²	max. 6 mm²	

note: - not available ● available

Overvoltage protection for low voltage networks

OEZ is known not only as a developer of protective devices, but also as a firm which for several years has been offering comprehensive choice of lightning current arresters and surge voltage arresters for overvoltage protection of low voltage networks.

TYPES OF OVERVOLTAGE PROTECTION

Arresters must in most cases be installed in several stages, and their parameters must be selected in such a way that each stage will absorb certain precisely defined part of overvoltage wave. Main parameters of arresters of individual classes are rated voltage, rated surge current at defined form of surge current wave and voltage protection level at passage of rated surge current through the arrester.

1st stage (T1) - lightning current arresters (arrester gaps)

The first stage of protection against lightning and overvoltage in buildings. Our lightning current arresters which absorb major part of lightning current energy can be divided according to application: Building installation protection - as it is indicated, they are intended mainly for building, house and commercial applications i.e. less demanding applications. For these applications we recommend to use the lightning current arresters SJBpro…, they do not require a deionization space and that is why they are suitable also for installation in plastic distribution boards. Industrial applications - as it is indicated, they are intended for heavy duty applications in industry, power engineering etc. We recommend to use the lightning current arresters designated SJBplus…
At the same time in TT and TN-S networks it is possible to use cumulative arrester gap SJB100/NPE/1.5 installed between N and PE conductors.

		SJBpro35	SJBpro35/1,5	SJBplus50	SJBplus50/1,5	SJB100/NPE/1,5
Lightning impulse current (10/350 µs)	I_{imp}	35 kA	35 kA	50 kA	50 kA	100 kA
Follow current capability	I_{fi}	3 kA	3 kA	50 kA	50 kA	0,1 kA
Voltage protection level	U_p	≤ 4 kV	≤ 1.5 kV	≤ 4 kV	≤ 1.5 kV	≤ 1.5 kV
Wiring between N and PE		no	no	no	no	yes
Exhaust space		-	-	requires	requires	-

2nd stage (T2) - surge voltage arresters

They are formed by voltage dependent resistor - varistor. These varistor arresters, which provide sufficient protection of common electrical installation against undesirable effects of switching overvoltage are offered in fixed variant (SVL, SJL) or with plug-in module (SVM..). For connection „3+1" in TT, TN-S networks it is possible to use gas filled arrester SVM260/NPE-Z, which fulfils the same function as the cumulative arrester gap of the 1st stage SJB100/NPE/1,5.

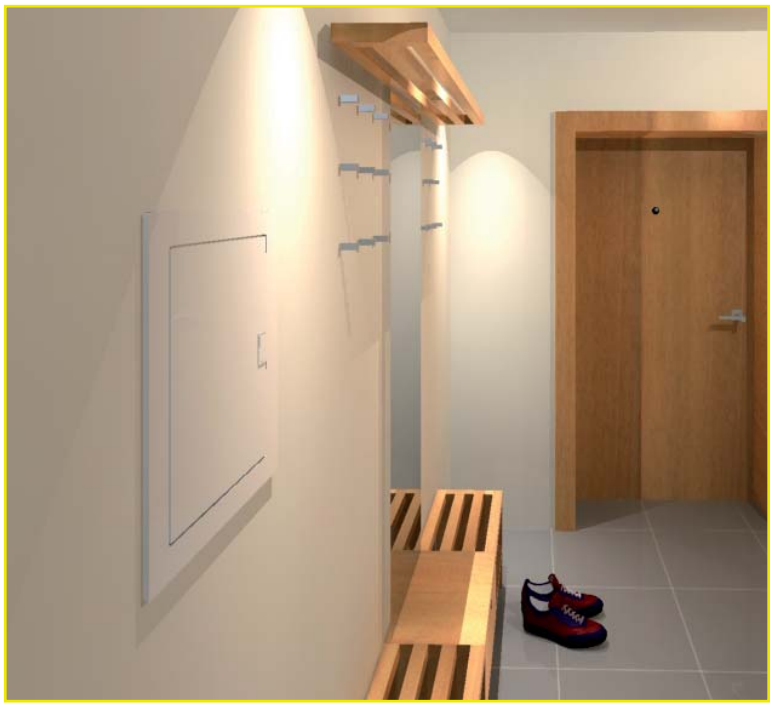
		SVL275 [1]	SJL275 [1]	SVM275-Z [1]	SVM440-Z [1]	SVM260/NPE-Z
Nominal discharge current (8/20 µs)	I_n	16 kA	10 kA	20 kA	20 kA	20 kA
Maximum discharge current (8/20 µs)	I_{max}	40 kA	20 kA	40 kA	40 kA	40 kA
Voltage protection level	U_p	≤ 1.35 kV	≤ 1.35 kV	≤ 1.35 kV	≤ 2.2 kV	≤ 1 kV
Wiring between N and PE		no	no	no	no	yes
Pluggable module		no	no	yes	yes	yes

[1] - Surge voltage arresters are also offered with remote indication (SVL275S, SJL275S, SVM440-ZS, SVM275-ZS)

This information is only a basic overview; for further information on overvoltage protection including that of the 3rd stage see the catalogue Devices for Building Installation.

DISTRIton - RZA steel-plastic distribution boards

ADVANTAGES OF RZA STEEL-PLASTIC DISTRIBUTION BOARDS



Elegant design

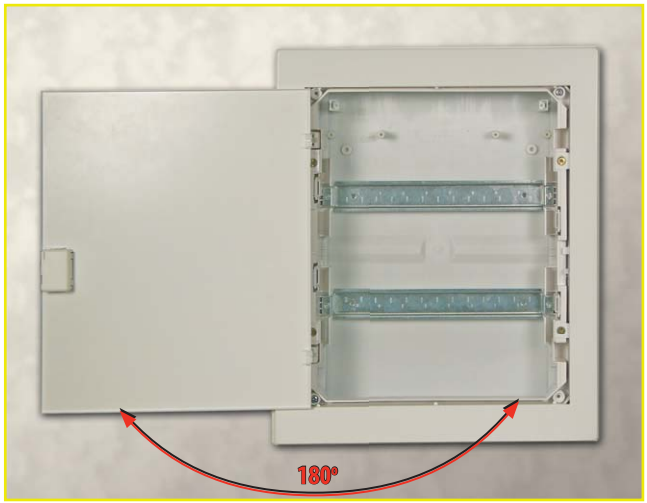
- The simple design of the distribution boards without disturbing elements is suitable for almost all applications.

Ideal coalescence of the door with the wall

- The minimum overlap of the door when walled in (7 mm) provides a perfect resulting appearance.
- Even when equipped with a lock, the distribution board maintains the same minimum overlap.

Simple mounting of devices

- Possible mounting of devices on the mounting frame outside the distribution board base and sufficient space behind the DIN rail (12 mm) allows easy fitting and connecting of the distribution board.
- The removable top and bottom plastic laminated bushings adapt easily to the section of wires to allow easy installation of cables.



Easy installation

- The robust plastic distribution board base prevents deformation during installation into the wall. This is ensured by suitable door handle plates and ribbing in the distribution board base.
- In addition, during installation and operation damage to the distribution boards is eliminated by their possibility of opening the door at an angle of up to 180°.

PRODUCTS IDENTIFICATION

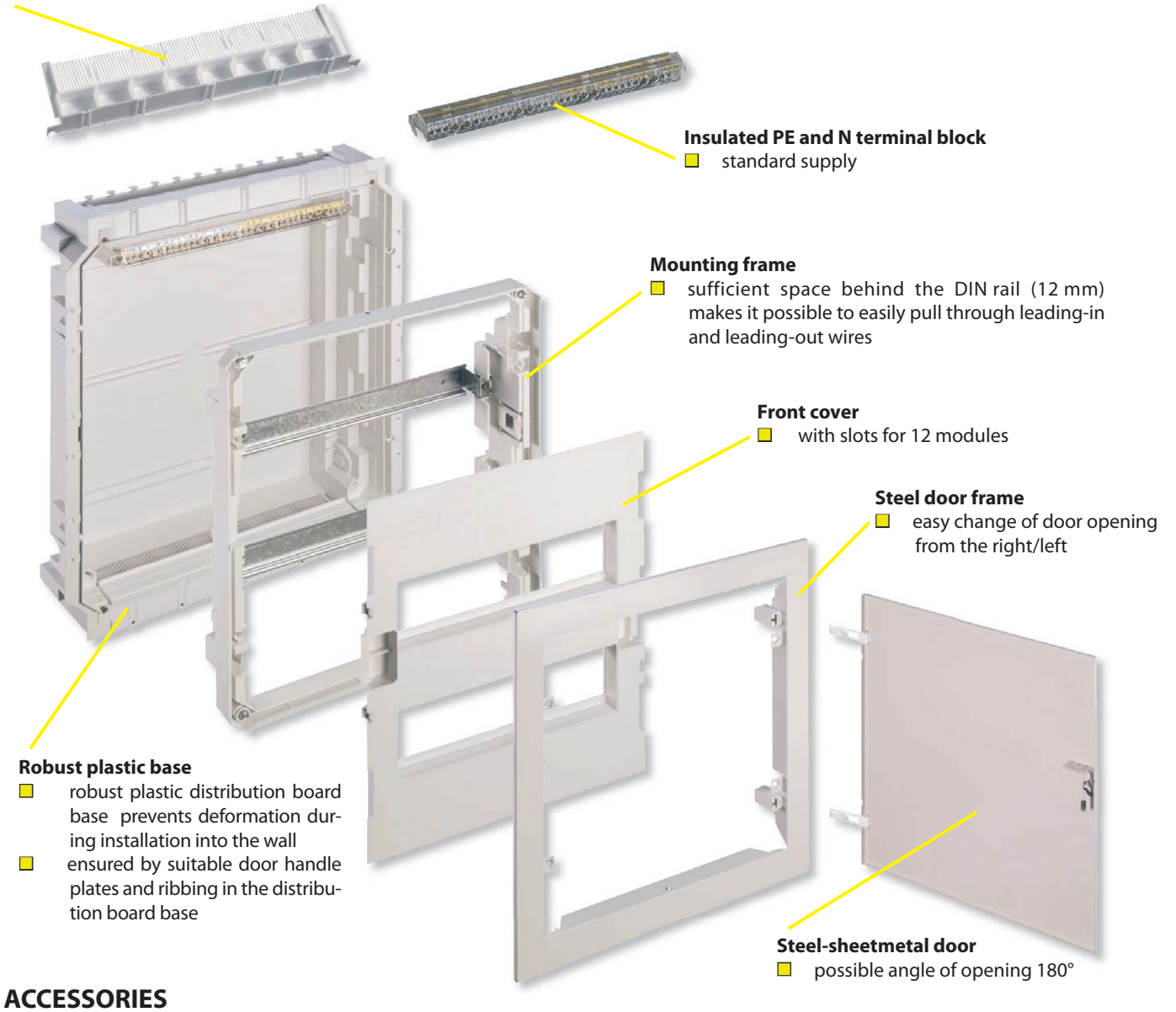
Number of rows	Maximum number of modules	Type	Product code	PE and N terminal boards		Weight [kg]	Packing [pieces]
1	12	**RZA-12N**	33363	PE	12x10 mm² + 4x25 mm²	2.1	1
				N	12x10 mm² + 4x25 mm²		
2	24	**RZA-24N**	33364	PE	12x10 mm² + 4x25 mm²	2.9	1
				N	12x10 mm² + 4x25 mm²		
3	36	**RZA-36N**	33365	PE	18x10 mm² + 6x25 mm²	3.8	1
				N	18x10 mm² + 6x25 mm²		
4	48	**RZA-48N**	33366	PE	18x10 mm² + 6x25 mm²	4.6	1
				N	18x10 mm² + 6x25 mm²		

DISTRIton - RZA steel-plastic distribution boards

DISTRIBUTION BOARD ASSEMBLY

Plastic laminated bushings
- for easy installation of wires
- location on the top and bottom side of the base

- Standard EN 60439-3
- Degree of protection IP30
- Rated voltage 230/400V a.c.



Insulated PE and N terminal block
- standard supply

Mounting frame
- sufficient space behind the DIN rail (12 mm) makes it possible to easily pull through leading-in and leading-out wires

Front cover
- with slots for 12 modules

Steel door frame
- easy change of door opening from the right/left

Robust plastic base
- robust plastic distribution board base prevents deformation during installation into the wall
- ensured by suitable door handle plates and ribbing in the distribution board base

Steel-sheetmetal door
- possible angle of opening 180°

ACCESSORIES

PD-RZA-SPC Set for connecting distribution boards
- for horizontal interconnection of distribution boards
- 1 set: 2 pieces
- product code: 33481

PD-RZA-UZ lock
- for locking the distribution board, 2 keys
- installation below the tipping lever
- product code: 33479

PD-RZA-SB4 terminal block
- installation on DIN rail/ base
- connection range: 1x25 mm² + 3x10 mm²
- product code: 33482

PD-RZA-DH mounting set
- mounting set into hollow walls
- 1 set: 4 pieces
- product code: 33483

PD-RZA-SB36 terminal block
- additional terminal block in a higher number of N, PE wires
- connection range: 30x4 mm² + 6x16 mm²
- product code: 33480

It`s ease when you know a smart move…

DISTRIton

new RZA steel-plastic distribution boards

You can`t lose with us.

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