

# Low voltage fuse-rails

## NV/NH fuse-rail sizes 00, 1, 2, 3

### Characteristics of LV NV fuse-rails

The LV NV/NH fuse-rails are 3-pole bases of LV fuse-links, intended for busbar mounting. The LV NV/NH fuse-rails comprises three single-pole connections in one unit. Each contact at an individual phase is connected to the phase on the busbar system. The other contacts are fitted with cable connecting terminals or intended for attachment of the following busbar system.

### Use

The LV NV/NH fuse-rails are mainly used for cable distribution and power supply systems.

### Principle of operation

The LV NV/NH fuse-rails are intended for insertion of LV fuse-links that are inserted and removed from the LV NV/NH fuse-rails by means of a special handle (refer to Catalogue ETI - LV fuse-links, Code No. number 4941111 and 4941100).

### Design of LV NV/NH fuse-rails

The insulated supporting body is made of one piece, the material is polyester reinforced with glass fibres. A silver-plated contact system, fitted with tinned extinction chambers, ensures a low power dissipation, optimum thermal characteristics, and a high breaking capacity. The contact derived parts are intended for cable connections or for attachment of the next busbar system. All the live parts are protected against accidental contacts - in conformity with BVG A2. A special form of the contact part cover provides for safe insertion and removal of the LV fuse-links.

### Short description

The LV NV/NH fuse-rails are manufactured in compliance with the DIN 43623 standard, and are mostly used for installation into cable distribution cabinets and power supply systems.

They are available in sizes of 00/160 A to 3/630 A. Covers provide insulation protection for all live parts.

All the LV NV/NH fuse-rails are fitted with new, modern Delta contact systems allowing optimum pressure contact between the fuse cartridge and the LV NV/NH fuse-rails, resulting in extremely low level of power dissipation and heating-up.

All standard insulated LV NV/NH fuse-rails shown in the Catalogue are intended for general usage.

Upon request appropriate individual configurations can be designed - in such cases please contact our sales engineers, or call us to the factory.

### Advantages

- upper or lower cable connection - as required
- optimum pull contact
- simple installation
- modular design



General LV NV/NH fuse-rail table

Size	Code No.	Busbar system	Product designation	Connection description	Protection cover	Weight [kg]	Packaging [pcs]
00	001691015	100	VL00/100 M8-2	flat connection – screw M8	/	0,8	1/1
00	001691016	100	VL00/100 SP.95-2	prism 35 - 95 mm <sup>2</sup>	/	0,8	1/1
00	001691020	185	VL00 M8	flat connection – screw M8	/	1,5	1/1
00	001691021	185	VL00 SP.95	V-clip 10-95 mm <sup>2</sup>	/	1,5	1/1
1	001691024	185	VL1 M10	screw M10	terminal compartment cover	3,5	1/1
1	001695280	185	VL1H M10*	screw M10	terminal compartment cover	3,5	1/1
1	001691025	185	VL1 SP.300	V-clip 25-300 mm <sup>2</sup>	terminal compartment cover	3,5	1/1
2	001691022	185	VL2 M12	screw M12	terminal compartment cover	3,8	1/1
2	001695290	185	VL2H M12*	screw M12	terminal compartment cover	3,8	1/1
2	001691029	185	VL2 M12x35	screw M12x35	terminal compartment cover	3,8	1/1
2	001691030	185	VL2 SP.240 P	V-clip 25-240 mm <sup>2</sup>	terminal cover	3,8	1/1
2	001691031	185	VL2 SP.300	V-clip 25-300 mm <sup>2</sup>	terminal compartment cover	3,8	1/1
3	001691027	185	VL3 M12	screw M12	terminal compartment cover	4,3	1/1
3	001691028	185	VL3 SP.300	V-clip 25-300 mm <sup>2</sup>	terminal compartment cover	4,3	1/1

\* H - "Omega" contact (make short - circuit current 80 kA)

Table of accessories for LV NV/NH fuse-rails

Type	Code No.	Description	Packaging [pcs]
busbar connection KS 00/5-10	001691040	busbar thickness 5-10mm	1/3
busbar connection KS 123/10	001692460	busbar thickness 10mm	1/1
protection covering of contact connections ZPL 123/10HA	001691045	for sizes 1,2,3	1/1
busbar covering PZ 00/185	001691046	mounting thread M8	1/1
busbar covering PZ 00/100	001691047	mounting thread M8	1/1
busbar covering PZ 123/185	001691048	mounting thread M12	1/1
busbar support PP 100/185	001691055	for busbar system 100 mm and 185 mm	1/1
protection covering of PP busbar support ZP POP 100	001691056	Lateral cover for busbar support 100 mm	1/1
protection covering of PP busbar support ZP POP 185	001691057	Lateral cover for busbar support 185 mm	1/1



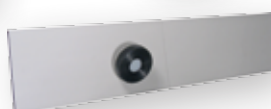
busbar support



busbar connection



busbar covering



protection covering of contact connections

#### Busbar connection

Busbar connections are used for drill-free direct contacting of the strip-fuseways on the busbars.

#### Protection cover

The terminal compartment and terminal covers provide probe-safe frontal protective covering of the terminal compartment.

#### Busbar cover, screw-Type

The screw-Type covers of 100 mm width are fixed at busbars with M12 thread or stud. The covers of 50 mm width are fixed on busbars or adapters with M8 thread.

#### Busbar support

The 3-pole busbar support is used for the fixing of flat bars at 100 mm and 185 mm distances.

## NV/NH fuse-rail type VL00 EK

## Description

Fuse-rail type VL00/100 EK is a three-pole fuse-base in vertical design for mounting on busbar system. Intended for use with fuse-links size 000 (00C), 00 fuse-rail protects equipment in electrical circuits from overload and short circuit. Special designed contact cover enables safe manipulation with fuse-links (insertion / pull out) with special handle.

## Application

- transformer substation
- distribution boards, distribution panels
- public lightening cabinets
- cable distribution cabinets
- industry

## Mounting

Rails can be mounted on 100mm busbar system directly, with additional adapters can be mounted also to 185mm busbar system. Mounting in vertical and horizontal position.

## Standards

VL00/100 EK are in accordance with the following standards:

- IEC 60947-1
- IEC 60947-3
- IEC 60269-1
- IEC 60269-2.

## Fuse-rail type VL00/100 EK

Type	Code No.	Weight [g]	Packaging [pcs]
VL00/100 EK M8	001701600	0,95	1
VL00/100 EK BT00 10-70	001701601	0,95	1
VL00/100 EK OS00 6-50	001701602	0,94	1
VL00/100 EK P00 10-70	001701603	0,94	1
VL00/100 EK P002 50	001701605	0,96	1



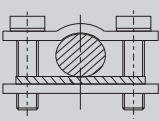
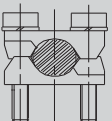
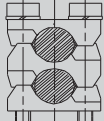
\*VL00/100 EK fuse-rails are used only for 100mm busbar system

\*\* VL00/100 EK is possible to mount on 185mm busbar using special adapters

\*\*\* for type of terminals see table of terminal for SL00/100 EK and VL00/100 EK

\*\*\*\* busbar connection for drill-free direct contacting of the fuse-rail is not at disposal

## Table of connections for SL00/100 EK and VL00/100 EK



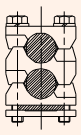
Cable terminal drawing					
Cable terminal type	M8	BT00 10-70*	OS00 6-50	P00 10-70	P002 50
Clamping cross-section	70 mm <sup>2</sup>	10-70 mm <sup>2</sup> Al/Cu	(6-50) mm <sup>2</sup> Cu	(10-70) mm <sup>2</sup> Al/Cu	2x50 mm <sup>2</sup> Al/Cu
Screw type	M8x12	M6	2x(M5x14)	2x(M5x25)	2x(M5x40)
Tightening torque	12-15 Nm	4,5 Nm	2,6 Nm	4,5 Nm	4,5 Nm
Package	3	3	3	3	3

\* connection type BT00 10-70 have to be ordered with the product, latter exchange is not possible



VL00/100 EK M8

### Additional connections for VL00/100 EK

Type	Code No.	Connector drawing	Suitability	Packaging [pcs]
OS00 6-50	001701480	 Cu*	SL00/100 EK VL00/100 EK	set = 3
P00 10-70	001701481	 Al/Cu*	SL00/100 EK VL00/100 EK	set = 3
P002 50	001701467	 Al/Cu*	SL00/100 EK VL00/100 EK	set = 3

\* cable type for direct connection is indicated on the connector drawing

\*\* exchange between connection Type is possible

### Accessories for VL00/100 EK

Type	Code No.	Description	Weight [kg/pc]	Package [pcs]
PRS-SL/VL EK	001701470	Protection cover for connection terminals	0,05	1
RA-1 100/185	001701471	Mounting adapter for 185mm busbar, single	0,25	1
RA-2 100/185	001701472	Mounting adapter for 185mm busbar, double	0,60	1

\* PRS-SL/VL EK is needed for additional protection covering when using mountin adapter RA-...

\*\* RA-1 100/185 is adapter that is needed if one SL00/100 EK or VL00/100 EK have to be mounted on 185mm busbar. With adapter RA-2 100/185 two SL00/100 EK or VL00/100 EK can be mounted on 185mm busbar same time.



RA-1 100/185

PRS-SL/VL EK



RA-2 100/185

### Example:

