

## SUMMARY OF MODELS OF FUSE-RAILS

				
Type	<b>FSR00</b>	<b>FSR1</b>	<b>FSR2</b>	<b>FSR3</b>
Rated operating current $I_e$	160 A	250 A	400 A	630 A
Rated operating voltage AC/DC $U_e$	690 V	690 V	690 V	690 V
Size	00	1	2	3
Busbar spacing	185 mm	185 mm	185 mm	185 mm
Mounting width	50 mm	100 mm	100 mm	100 mm
Fuse-link size	000/00	1	2	3

### Accessories

<b>Connecting sets</b>		CS-FS00-3..	CS-FS123-WD		
<b>Adapter for busbar system with spacing 185 mm</b>		OD-FS00-DA	-	-	-
<b>Connecting space covers</b>		OD-FS00-..	OD-FS123-KP		
<b>Fuse cover</b>		OD-FSR00-K	-	-	-
<b>Switch-disconnector superstructures</b>		-	NL-FSD12-3.		NL-FSD3-3.
<b>Adapter for parallel outlet</b>		-	HP-SE/K		
<b>Measuring transformers</b>		FSR00-3D-...-M.	MA1.-FS123-..		

## SUMMARY OF MODELS OF FUSE-RAILS

### Description

#### Connecting hooks

- Busbar thickness  $5 \div 12$  mm.
- Busbar width  $12 \div 32$  mm.



#### Adapter for busbar system with spacing 185 mm

- Enables compensation of mounting depth in combination with FSR1, FSR2, FSR3. FSR1, FSR2, FSR3.



#### Adapter for parallel outlet

- Enable temporary connection of another outlet.



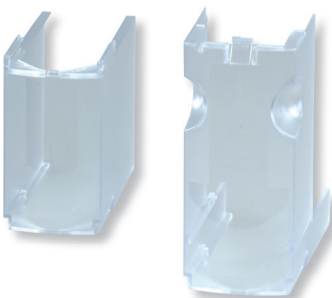
#### Switch-disconnector superstructures

- Enable to rebuild of the fuse-rail into a fuse switch-disconnector.



#### Connecting space covers

- Additional covering of outlet connecting space.



#### Fuse cover

- It makes it possible to cover the fuse-link.



#### Measuring adapters

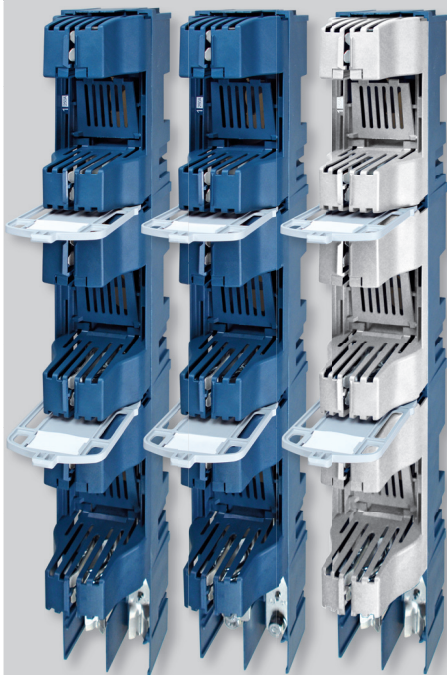
- Transformation ratio 250/5 A, 400/5 A and 600/5 A.
- Class of accuracy 0,5; 0,5S and 1.
- Overcurrent number 5.

#### Connecting sets

- Accessory for switch-disconnector FSD00.
- Accessory for switch-disconnector FSD1, 2, 3.
- For connection of Cu/Al conductor of cross-section up to  $95 \text{ mm}^2$ .
- For connection of Cu/Al conductor of cross-section  $2 \times 240 \text{ mm}^2$ .



### FUSE-RAILS FSR1, FSR2, FSR3



- The fuse-rails are suitable for application in disconnecting cabinets or distribution and industrial low-voltage switchboards with busbar spacing.
- They are intended for fuse-links with blade contacts.
- Modular design.
- Possibility of additional rebuild of the fuse-rail into a fuse switch-disconnector by simple addition of the superstructure NL-FSD.. without dismantling from busbars.
- Cable outlet bottom or top.
- Connection possibility Cu/Al 2x 240 mm<sup>2</sup>.
- Possibility of addition of measuring adapters with current transformers.
- Mounting directly on the busbar by means of screws:
  - FSR1.. M10/20 Nm.
  - FSR2.., FSR3.. M12/28 Nm.
- Outlet terminals:
  - ...LM pressing-in nuts with screws
    - FSR1 M10/20 Nm.
    - FSR2, FSR3 M12/28 Nm.
  - ...LV V-shaped terminals for clamps 5845 (the shaped clamps must be ordered separately).
  - ...LL disconnector of busbar systems.

#### FSR1

I <sub>n</sub> [A]	Type	Order code	Weight [kg]	Package [pcs]
250	<b>FSR1-3K-LM</b>	0EZ:43363	2.690	1
	<b>FSR1-3K-LW</b>	0EZ:43364	2.580	1

#### FSR2

I <sub>n</sub> [A]	Type	Order code	Weight [kg]	Package [pcs]
400	<b>FSR2-3K-LM</b>	0EZ:43366	2.980	1
	<b>FSR2-3K-LW</b>	0EZ:43367	2.810	1

#### FSR3

I <sub>n</sub> [A]	Type	Order code	Weight [kg]	Package [pcs]
630	<b>FSR3-3K-LM</b>	0EZ:43371	3.540	1
	<b>FSR3-3K-LW</b>	0EZ:43372	3.360	1

#### Disconnectors of busbar systems

I <sub>n</sub> [A]	Type	Order code	Weight [kg]	Package [pcs]
250	<b>FSR1-3K-LL</b>	0EZ:43365	2.230	1
400	<b>FSR2-3K-LL</b>	0EZ:43368	2.230	1
630	<b>FSR3-3K-LL</b>	0EZ:43373	2.380	1



#### Accessories

Connecting sets	<b>CS-FS123-WD</b>	page D29
Connecting space covers	<b>OD-FS123-KP</b>	page D29
Free place cover	<b>OD-FS123-KM</b>	page D29
Switch-disconnector superstructures	<b>NL-FSD..</b>	page D29
Adapter for parallel outlet	<b>HP-SE/K</b>	page D29

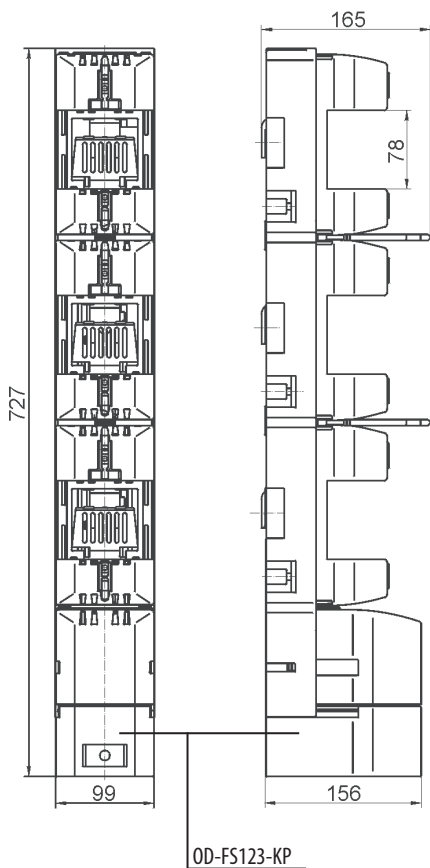
## FUSE-RAILS FSR1, FSR2, FSR3

### Specifications

Type		FSR1	FSR2	FSR3
Standards		IEC 60269-1 IEC 60269-2	IEC 60269-1 IEC 60269-2	IEC 60269-1 IEC 60269-2
Approval marks				
Rated current	$I_n$	250 A	400 A	630 A
Rated current	$U_n$	AC/DC 690 V	AC/DC 690 V	AC/DC 690 V
Rated thermal current with fuse-link	$I_{th}$	250 A	400 A	630 A
Rated thermal current with disconnecting link ZP... / / cross-section of connected conductors	$I_{th}$	400 A / 240 mm <sup>2</sup>	560 A / 2x 185 mm <sup>2</sup>	800 A / 2x 185 mm <sup>2</sup>
Rated frequency	$f_n$	40 ÷ 60 Hz	40 ÷ 60 Hz	40 ÷ 60 Hz
Rated insulation voltage	$U_i$	AC 1 000 V	AC 1 000 V	AC 1 000 V
Short-circuit resistance with fuse-link gG, AC 500 V		120 kA	120 kA	120 kA
Fuse-link size		1	2	3
Max. power losses of the fuse-link	$P_v$	32 W	45 W	48 W
<b>Connection</b>				
Connecting screws / cable lugs / busbars		M10 / max. 40 mm / max. width 30 mm	M12 / max. $\varnothing$ 40 mm / max. width 30 mm	M12 / max. 40 mm / max. width 30 mm
Torque		20 Nm	28 Nm	28 Nm
<b>Operating conditions</b>				
Degree of protection		IP20	IP20	IP20
Operating ambient temperature		-25 ÷ +55 °C	-25 ÷ +55 °C	-25 ÷ +55 °C
Working position		see page I3	see page I3	see page I3

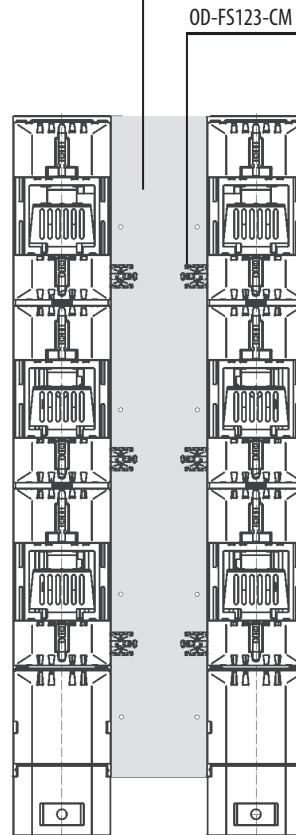
### Dimensions

FSR1-3K-L., FSR2-3K-L., FSR3-3K-L.



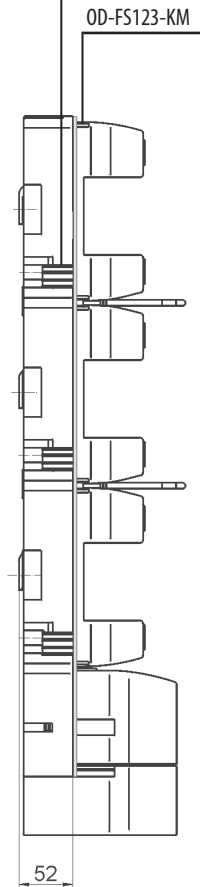
OD-FS123-KM

OD-FS123-CM



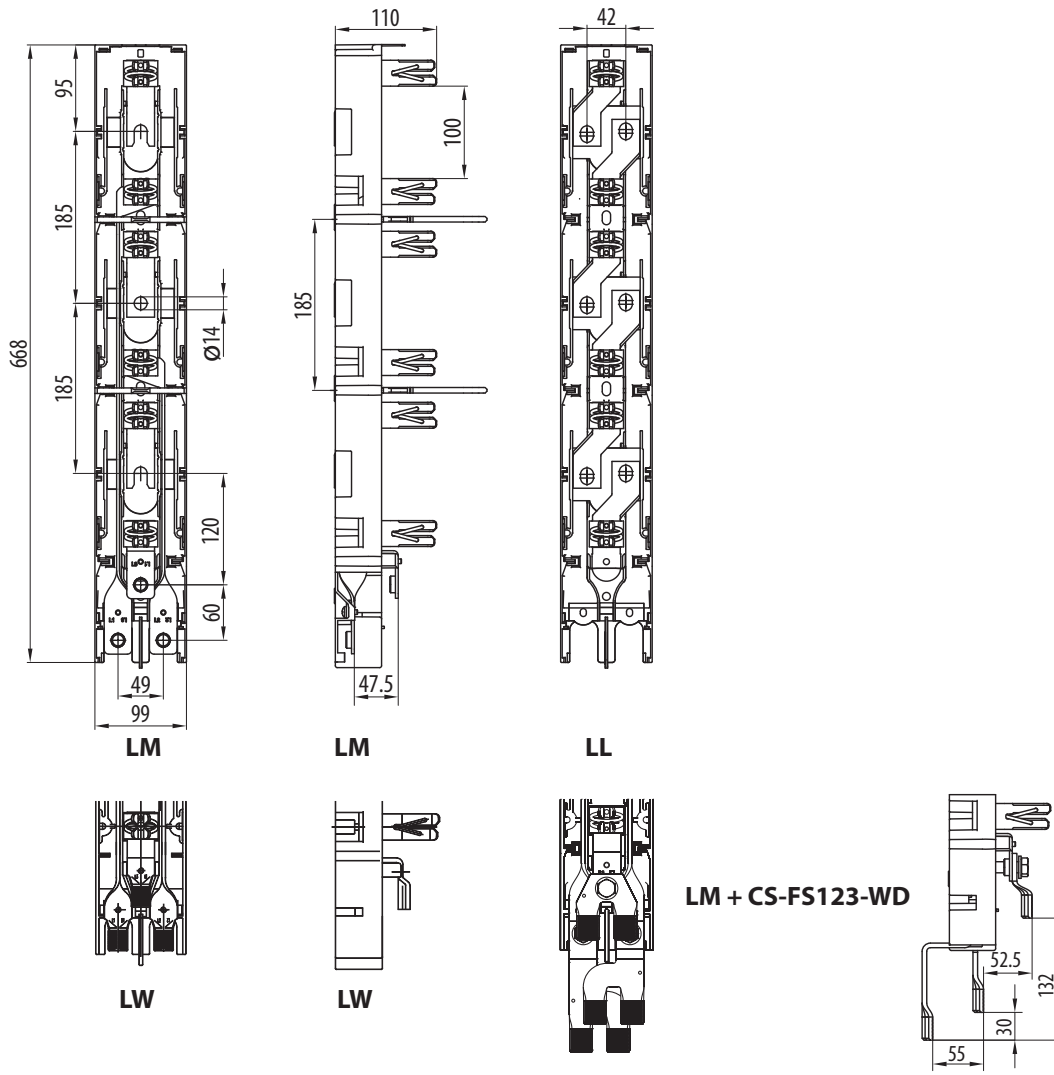
OD-FS123-CM

OD-FS123-KM

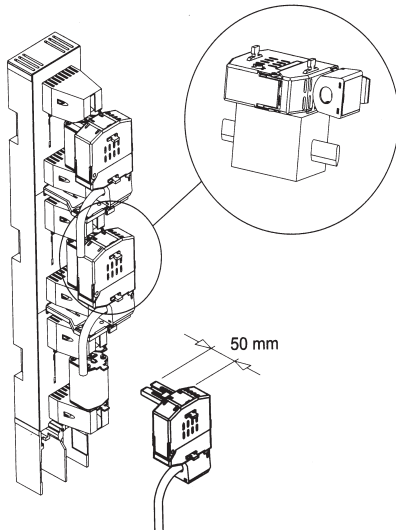


FUSE-RAILS FSR1, FSR2, FSR3

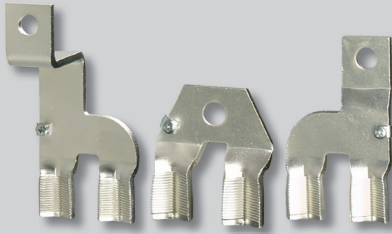
Dimensions



FSR+HP-SE/K



## ACCESSORIES FOR FSR1, FSR2, FSR3



### Connecting set up to 2x 240 mm<sup>2</sup>

- Direct connection by two parallel Cu/Al conductors up to 240 mm<sup>2</sup>, without cable lugs by means of clamps 5845.
- Mounting on the switch-disconnectors of design ..-LM.
- The shaped clamps 5845 must be ordered separately, see page G10.

Type	Order code	Description	Weight [kg]	Package [pcs]
CS-FS123-WD	OEZ:43566	for FSR1, FSR2, FSR3	0.720	1

### Connecting space cover

- Additional covering of outlet connecting space.

Type	Order code	Description	Weight [kg]	Package [pcs]
OD-FS123-KP	OEZ:43565	in upward outlet	0.145	1

### Free place covers and cover clips

- Intended for covering of the switchboard free place between two switch-disconnectors.
- Width 100 mm.

Type	Order code	Description	Weight [kg]	Package [pcs]
OD-FS123-KM	OEZ:43566	for FSR1, FSR2, FSR3	0.230	1
OD-FS123-CM	OEZ:43567	cover clips, 4 pcs	0.006	1

### Switch-disconnector superstructures

- Enable to rebuild of the fuse-rail into a fuse switch-disconnector.
- Width 100 mm.

Type	Order code	Description	Weight [kg]	Package [pcs]
NL-FSD12-31	OEZ:43388	rebuilding to fuse switch-disconnector FSD1, FSD2, 1-pole control	1.560	1
NL-FSD12-33	OEZ:43389	rebuilding to fuse switch-disconnector FSD1, FSD2, 3-pole control	1.670	1
NL-FSD3-31	OEZ:43390	rebuilding to fuse switch-disconnector FSD3, 1-pole control	1.560	1
NL-FSD3-33	OEZ:43391	rebuilding to fuse switch-disconnector FSD3, 3-pole control	1.670	1

### Adapter for parallel outlet

- Enable temporary connection of another outlet.
- The fuse switch-disconnector must be equipped with covers for parallel outlet OD-FSD.
- For fuse-links 000 up to 100 A.
- Handling by means of replacement handle.
- Cable terminal for connection of stranded cables up to 50 mm<sup>2</sup>.
- It can be used for fuse-bases.

Type	Order code	Description	Weight [kg]	Package [pcs]
HP-SE/K	OEZ:11810	for FSR1, FSR2, FSR3	0.340	1
HP-KS	OEZ:09061	cable terminal	0.165	1

Technical information see page D28