

FUSE SWITCH-DISCONNECTORS **VARIUS** SIZE 00 UP TO 160 A



Fuse switch-disconnector FH00 is intended fuse-links with blade contacts size 000 and 00. It enables safe disconnection not only of rated current, but also overcurrent up to octuple rated current. A version of this switch-disconnector enables

- It is equipped with a label for description of the protected circuit.
- Measuring holes in the cover.
- Basic version with terminal inbus screws M8 for cable lugs max. \varnothing 27 mm.
- Connecting sets with terminal inbus screws.
- Variability of connecting sets.
- It is possible to lock the switch-disconnector cover.

remote signalling of fuse state, in each pole separately using standard visual status indicators of the fuse-links with blade contacts.

Mounting:

- Directly on the panel by means of screws.
- On busbars with spacing 60 mm by means of adapter.
- More switch-disconnectors "side-by-side" or "flat" can be installed without limitation of electrical parameters.
- This product has been developed thanks to financial support from state budget through the Ministry of Industry and Trade.

Fuse switch-disconnectors up to 160 A

Type	Product code	Version	Weight [kg]	Packing [pcs]
FH00-1A/F	18621	1-pole, basic version with terminal inbus screws M8	0.270	1

FH00-1S/F	18623	1-pole, with fuse state signalling, connector with 1 m cable, switch-disconnector cover with signalling can be ordered as a spare part, connection by terminal inbus screws M8	0.287	1
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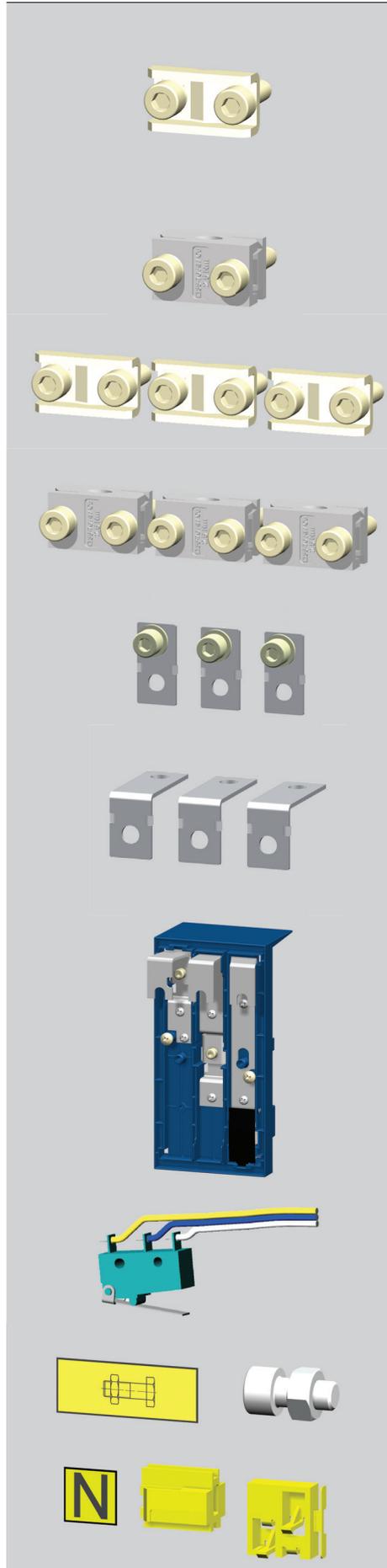
FH00-3A/F	18622	3-pole, basic version with terminal inbus screws M8	0.690	1
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FH00-3S/F	18624	3-pole, with fuse state signalling, connector with 1 m cable, switch-disconnector cover with signalling can be ordered as a spare part, connection by terminal inbus screws M8	0.712	1
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FH00-3SB/F	18625	3-pole, with fuse state signalling, connector without cable, this version enables any connection according to the user needs, connection by terminal inbus screws M8	0.700	1
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FH00-3L/F	20767	3-pole, connection by terminal inbus screws M8, with light indication of fuse state; fuse blowing is signalled by flashing red LED; if the fuse is not blown, the red LED does not light	0.718	1
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Connecting sets

Description	Type	Product code	Weight [kg]	Packing [pcs]
Clip terminal for 1-pole switch-disconnector FH00-1./F, connection of Cu conductors of cross-section 2.5 ÷ 50 mm ² , torque 3 Nm	CS-FH00-1S	18626	0.018	1

Prismatic clamp for 1-pole switch-disconnector FH00-1./F, connection of Cu/Al conductors of cross-section 10 ÷ 95 mm ² , torque 2.5 Nm	CS-FH00-1P1	18628	0.044	1
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Clip terminals - set of 3 pieces for 3-pole switch-disconnector FH00-3./F, connection of Cu conductors of cross-section 2.5 ÷ 50 mm ² , torque 3 Nm	CS-FH00-3S	18627	0.054	1
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Prismatic clamps - set of 3 pieces for 3-pole switch-disconnector FH00-3./F, connection of Cu/Al conductors of cross-section 10 ÷ 95 mm ² , torque 2.5 Nm	CS-FH00-3P1	18629	0.132	1
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Adapter - set of 3 pieces for connection of cable lugs outside the connection space of the switch-disconnectors FH00... It is recommended to use the connection space covers, torque 2.5 ÷ 3 Nm	CS-FH00-3N	20764	0.051	1
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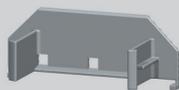
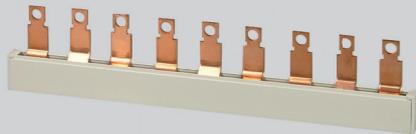
Terminals for rear connection - set of 3 pieces for 3-pole switch-disconnector FH00-3./F, torque 2.5 ÷ 3 Nm	CS-FH00-3Z	20765	0.077	1
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Accessories

Description	Type	Product code	Weight [kg]	Packing [pcs]
Adapter for busbars with spacing 60 mm , busbar thickness 5 ÷ 12 mm, busbar width 12 ÷ 32 mm, for 3-pole switch-disconnector FH00-3./F, bottom or top cable outlet, mounting width 89 mm	OD-FH00-AL60	18630	0.354	1

Remote signalling of the fuse switch-disconnector cover position , with 1 m cable, possibility of mounting up to 2 signalling on switch-disconnector	OD-FH-SK	12929	0.038	1
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Assembly kit for assembling 2-pole or 4-pole switch-disconnector	OD-FH00-SS24	18631	0.007	1
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Accessories

Description	Type	Number of connected	Product code	Weight [kg]	Packing [pcs]
Busbars, for 3-pole switch-disconnectors, one busbar module is used for power supply. For detailed information see page E14	CS-FH00-3L2	2	34394	0.91	1
	CS-FH00-3L3	3	34395	1.61	1
	CS-FH00-3L4	4	34396	2.31	1
	CS-FH00-3L5	5	34397	3.01	1

Description	Type	Product code	Weight [kg]	Packing [pcs]
Connection space cover, identical for both upper and lower space, for 1-pole switch-disconnector FH00-1./F	OD-FH00-KP1	18632	0.013	1

Connection space cover, identical for both upper and lower space, for 3-pole switch-disconnector FH00-3./F	OD-FH00-KP3	18633	0.062	1
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Barrier against accidental contact for FH00-3...	OD-FH00-Z3	18634	0.016	1
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Front shield for FH00-3...	OD-FH00-KR	18635	0.026	1
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Spare parts

Description	Type	Product code	Weight [kg]	Packing [pcs]
Cover without fuse state signalling, 1-pole, size 00	ND-FH00-V1	33722	0.083	1
Cover without fuse state signalling, 3-pole, size 00	ND-FH00-V3	33721	0.23	1
Cover with fuse state signalling, 1-pole, includes cable with connector	ND-FH00-VS1	18680	0.1	1
Cover with fuse state signalling, 3-pole, includes cable with connector	ND-FH00-VS3	18681	0.238	1
Cover with light indication of fuse state, 3-pole	ND-FH00-VL3	33510	0.279	1
Connector for 1-pole switch-disconnector with remote signalling of fuse state, without cable, with 3 pins	ND-FH-SZ10	33519	0.028	1
Connector for 1-pole switch-disconnector with remote signalling of fuse state, with 3-core cable	ND-FH-SZ13	33520	0.045	1
Connector for 3-pole switch-disconnector with remote signalling of fuse state, without cable, with 9 pins	ND-FH-SZ30	33521	0.038	1
Connector for 3-pole switch-disconnector with remote signalling of fuse state, with 9-core cable	ND-FH-SZ39	33522	0.055	1

FUSE SWITCH-DISCONNECTORS **VARIUS** SIZE 00 UP TO 160 A

Parameters

Type		FH00	
Rated operating voltage	U_e	690 V	
Rated operating current	I_e	160 A	
		400 V a.c.	AC-23B
Utilization category *		500 V a.c.	AC-22B
		690 V a.c.	AC-21B
		250 V d.c.	DC-22B
Thermal current with fuse-link	I_{th}	160 A	
Thermal current with disconnecting knife ZP000	I_{th}	250 A	
Rated frequency	f_n	40 ÷ 60 Hz	
Rated insulation voltage	U_i	1000 V a.c.	
Rated conditional short-circuit current	I_{cc}	400 V a.c./160 A	120 kA
		500 V a.c./160 A	50 kA
		690 V a.c./160 A	50 kA
Rated impulse withstand voltage	U_{imp}	12 kV for FH00-.A/ 8 kV for FH00-.S/ 12 kV for FH00-.3L/.	
Rated short-time withstand current	$I_{cw} 1s$	5 kA	
Rated short-circuit making capacity at 400 V a.c.	I_{cm}	16 kA	
Fuse-link size		000, 00	
Max. power losses of the fuse-link	P_v	12 W	
Power losses at I_n without fuse-link	P_v	7W	
Electrical durability	operating cycles	300 at 100 A	
		200 at 160 A	
Mechanical durability	operating cycles	2000	
Degree of protection from the front side, built-in device, cover closed		IP 20	
Degree of protection from the front side, built-in device, cover open or removed		IP 20	
Operating ambient temperature		- 25 ÷ + 55 °C	
Altitude above sea level max.		2000 m	
Pollution degree		3	
Overvoltage category for 690 V a.c.		IV	
Seismic resistance per VE ŠKODA		0.25 ÷ 50 Hz/3g	
Torque of output terminals		2.5 ÷ 3 Nm	
Standards		IEC 60947-1, -3 EN 60947-1, -3	
Approval marks			

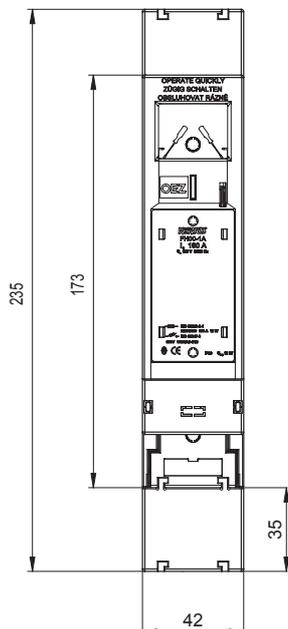
* In use of disconnecting knives ZP000 in the switch-disconnectors the utilization category is decreased by one degree.

EN 60947-3 ed. 2/A2, p. C.5 Instructions for the use of 1-pole controlled devices states:

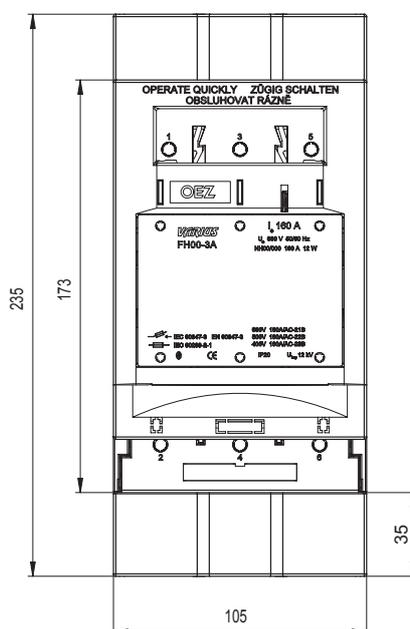
These devices are intended for distribution systems with possible necessity of switching and/or safe disconnection of individual phases, and must not be used for switching a primary circuit of a three-phase equipment.

Dimensions

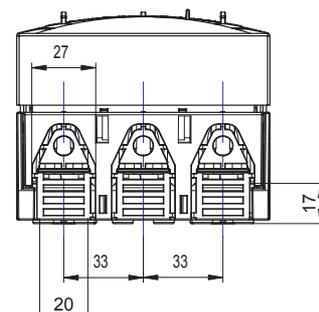
Switch-disconnector FH00-1A/F



Switch-disconnector FH00-3A/F and FH00-3L/F



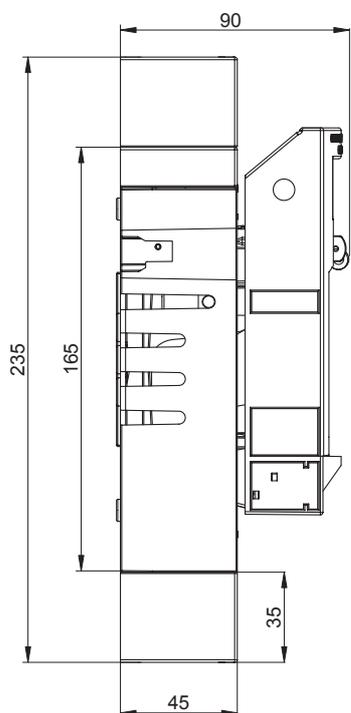
Switch-disconnector FH00-3A/F and FH00-3L/F



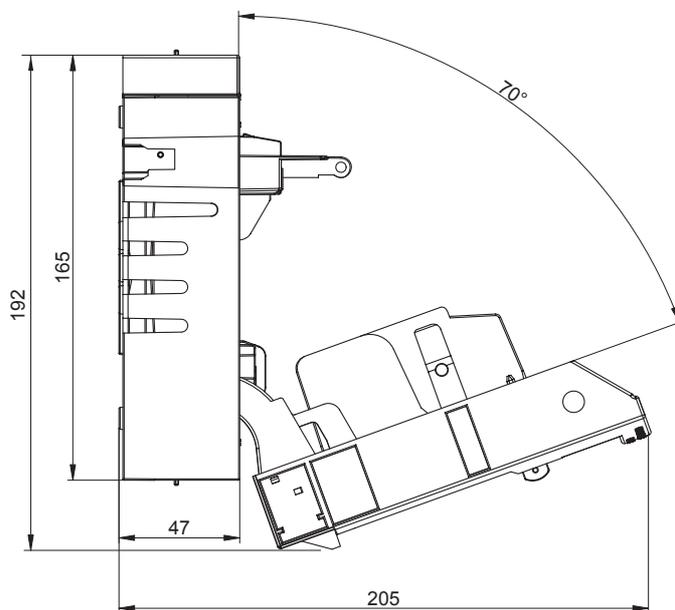
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Dimensions

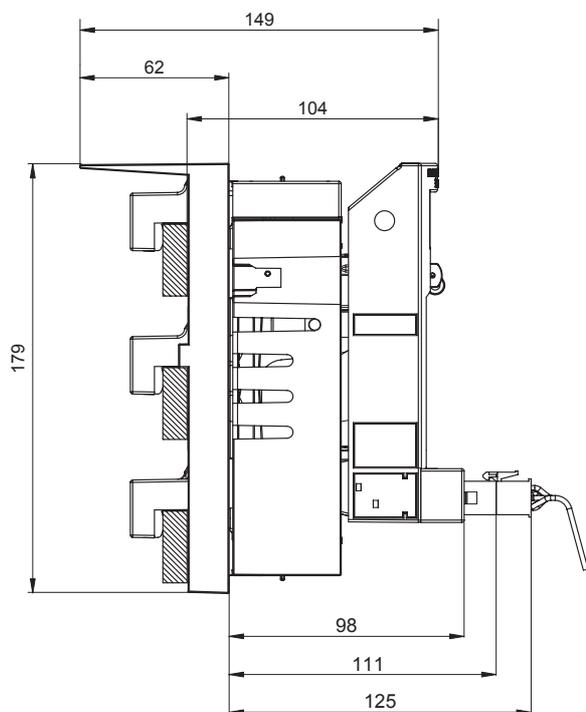
Switch-disconnector FH00-3A/F, FH00-1A/F and FH00-3L/F



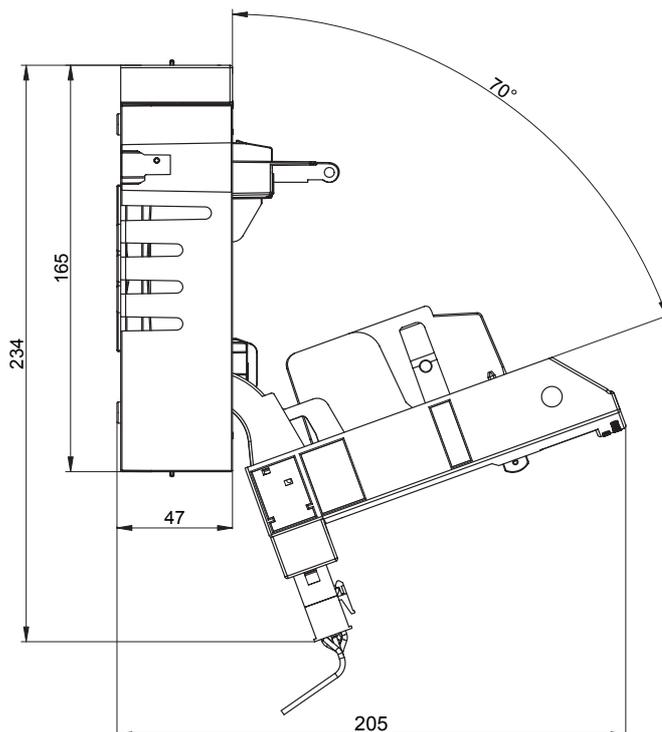
Switch-disconnectors FH00-3A/F, FH00-1A/F and FH00-3L/F in open position



Switch-disconnectors FH00-3...

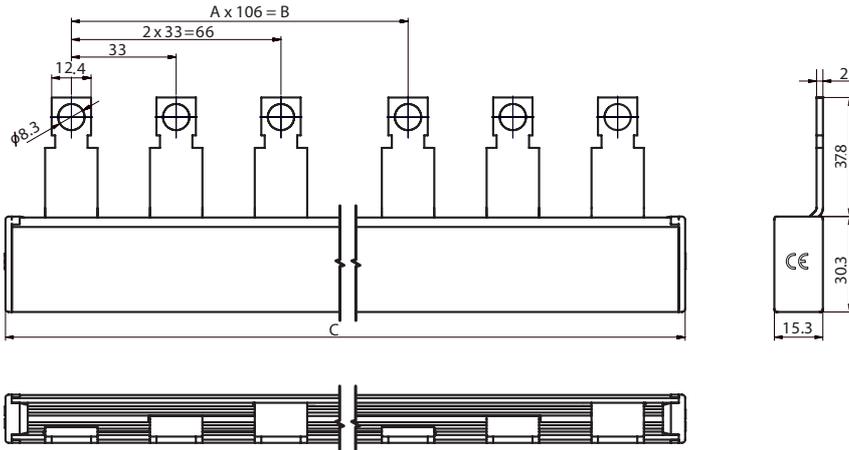


Switch-disconnectors FH00-3S/F and FH00-1S/F in open position



FUSE SWITCH-DISCONNECTORS **VARIUS** SIZE 00 UP TO 160 A

Busbars CS-FH00... for connection of 2, 3 or 4 of 3-pole switch-disconnectors FH00



Dimensions			Type
A [number]	B [mm]	C [mm]	
1	106	210	CS-FH00-3L2
2	212	315	CS-FH00-3L3
3	318	420	CS-FH00-3L4
4	424	525	CS-FH00-3L5

Busbar cross-section 50 mm²

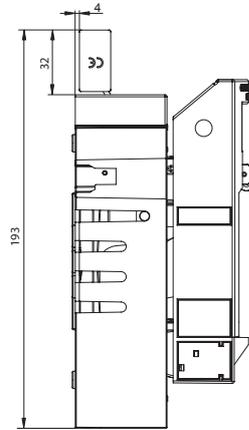
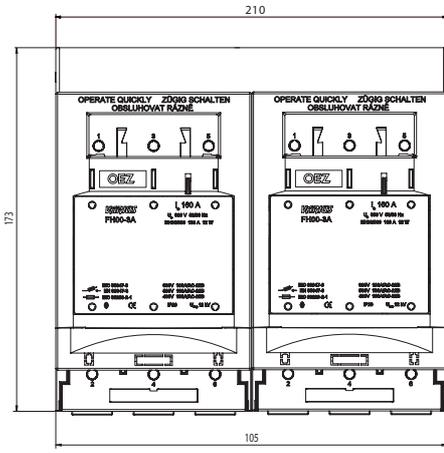
Power supply by a cable with cable lug - connection cross-section max.120 mm² Cu/Al

Max. busbar current 250A for version CS-FH00-3L2 and CS-FH00-3L3

Max. busbar current 160A for version CS-FH00-3L4 and CS-FH00-3L5

Max. individual current taking 160A/phase

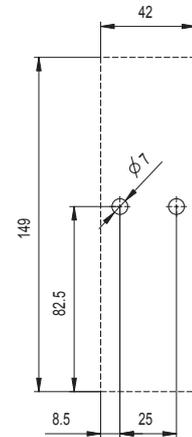
3-pole switch-disconnectors FH00-3./F with busbars CS-FH00...



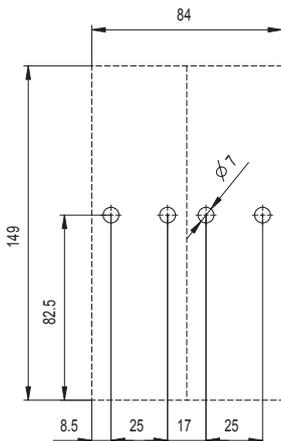
Dimensions

Clearance and drilling plans

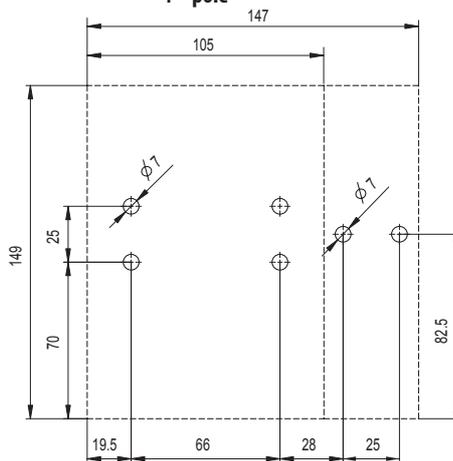
1 - pole



2 - pole



4 - pole



Diagram

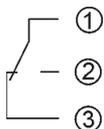
Light indication of fuse state in 3-pole fuse switch-disconnector

Fuse blowing is signalled by flashing red LED, if the fuse is not blown, the red LED does not light.

Rated voltage
24 - 400 V a.c.
24 - 450 V d.c.

Remote signalling of fuse state in 1-pole fuse switch-disconnector

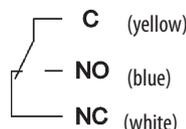
State of contacts with not blown fuse-link:
fuse not blown – contacts 1 – 3 closed



5 A/250 V a.c.
0.2 A/250 V d.c.

Remote signalling of cover position of 1-pole and 3-pole switch-disconnectors

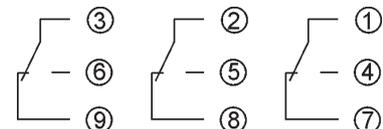
State of contacts with open cover:
cover open – contacts C – NC closed



5 A/250 V a.c.
0.2 A/250 V d.c.

Remote signalling of fuse state in 3-pole fuse switch-disconnector

State of contacts with not blown fuse-link:
fuse not blown – contacts 1 – 7, 2 – 8, 3 – 9 closed



5 A/250 V a.c.
0.2 A/250 V d.c.

CONDITIONS FOR USE OF FUSE-LINKS IN FUSE SWITCH-DISCONNECTORS

Use of fuse-links with blade contacts P51R06 in the fuse switch-disconnector FH00

Fuse-link	Cross-section of Cu conductor [mm ²]	Reduced rated current [A]
P51R06 6A	1 ÷ 4	6
P51R06 10A	1 ÷ 6	10
P51R06 16A	1.5 ÷ 10	16
P51R06 20A	1.5 ÷ 10	20
P51R06 25A	1.5 ÷ 16	25
P51R06 32A	2.5 ÷ 4	28
	6 ÷ 10	30
P51R06 40A	16 ÷ 25	32
	2.5 ÷ 4	28
	6 ÷ 10	30
P51R06 50A	16 ÷ 25	32
	6 ÷ 10	40
	16	42
	25	47
P51R06 63A	35 ÷ 50	50
	6 - 10	45
	16	47
	25 ÷ 35	50
	50	53
P51R06 80A	70	60
	6	55
	10	58
	16	60
	25 ÷ 35	64
	50	68
P51R06 100A	70	75
	95	79
	16	68
	25 ÷ 35	72
P51R06 125A	50	77
	70	85
	95	90
	16	80
	25	85
P51R06 160A	35	87
	50	90
	70	100
	95	105
P51R06 160A	16	97
	25 ÷ 35	100
	50	110
	70	120
P51R06 160A	95	125