

# Switch Disconnectors and Fuses

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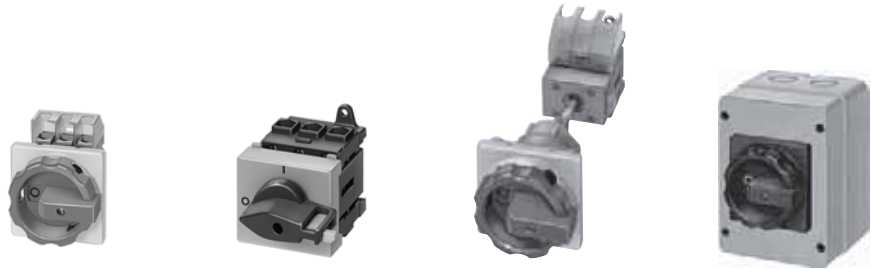


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# Switch Disconnectors and Fuses

## Introduction

## Overview



Type **3LD20** **3LD21** **3LD22** **3LD25** **3LD27** **3LD28**

### SENTRIC LD main control and EMERGENCY-STOP switches from 16 A to 125 A

<b>Rated uninterrupted current <math>I_U</math></b> at 35 °C ambient temperature	A	16	25	32	63	100	125
<b>Rated operating voltage <math>U_e</math></b>	V	690	690	690	690	690	690
<b>AC-3 motor load switch</b> operational switching of individual motors							
at 220 ... 240 V	kW	3.0	4.0	5.5	11.0	18.5	22.0
at 380 ... 440 V	kW	5.5	7.5	9.5	18.5	30.0	37.0
at 660/690 V	kW	5.5	7.5	9.5	15.0	22.0	30.0
<b>AC-23A main control switch, maintenance switch</b> Frequent, but not operational switching of individual motors							
at 220 ... 240 V	kW	4.0	5.0	6.0	11.0	18.5	22.0
at 380 ... 440 V	kW	7.5	9.5	11.5	22.0	37.0	45.0
at 660/690 V	kW	7.5	9.5	11.5	18.5	30.0	37.0
<b>Switch versions</b>							
Front mounting							
• Central		✓	✓	✓	✓	–	–
• Four-hole		✓	✓	✓	✓	✓	✓
Base mounting							
• Central		✓	✓	✓	✓	–	–
• Four-hole		✓	✓	✓	✓	✓	✓
Distribution board mounting		✓	✓	✓	✓	✓	✓
Molded-plastic enclosure							
• Heavy-gauge threaded joints		✓	✓	✓	✓	✓	✓
• Metric screws		✓	✓	✓	✓	✓	✓
<b>Switch accessories</b>							
4th pole (N conductor) (leading switch-on, delayed switch-off contact)		✓	✓	✓	✓	✓	✓
N terminal		✓	✓	✓	✓	✓	✓
PE/ground terminal		✓	✓	✓	✓	✓	✓
Auxiliary contacts							
1 NO + 1 NC		✓	✓	✓	✓	✓	✓
1 NO		✓	✓	✓	✓	✓	✓
1 NC		✓	✓	✓	✓	✓	✓



3NP



3K

Type

**SENTRIC**

<b>Rated uninterrupted current <math>I_U</math></b> at 35 °C ambient temperature	A	160 ... 630	63 ... 1000
<b>Rated operating voltage <math>U_e</math></b>	V	690	690
<b>AC-21</b>			
at 400 V		✓	✓
at 500 V		✓	✓
at 690 V		✓	✓
<b>AC-22</b>			
at 400 V		✓	✓
at 500 V		✓	✓
at 690 V		✓	✓
<b>AC-23</b>			
at 400 V		✓	✓
at 500 V		–	✓
at 690 V		–	✓
<b>Switch versions</b>			
Front mounting		–	✓
Base mounting		✓	✓
Busbars			
• 40 mm		✓	–
• 60 mm		✓	✓
• 185 mm		–	–
Molded-plastic enclosure		✓	✓
<b>Switch accessories</b>			
4th pole (N conductor) (leading switch-on, delayed switch-off contact)		–	✓
Auxiliary contacts			
1 NO + 1 NC		–	✓
1 CO		✓	✓
Fuse monitoring			
• with circuit-breakers		✓	✓
• with electronics		✓	✓

# SENTRIC Switch Disconnectors

## SENTRIC LD Main Control and EMERGENCY STOP Switches from 16 A to 125 A

### General data

### Technical specifications

Standards		DIN VDE 0660, IEC 60947						
Switch	Type	3LD2 0	3LD2 1	3LD2 2	3LD2 5	3LD2 7	3LD2 8	
Number of contacts		3/4	3/4	3/4	3/4	3/4	3/4	
<b>Rated insulation voltage <math>U_i</math></b>	V	690	690	690	690	690	690	
<b>Rated operating voltage <math>U_e</math></b>	AC V	690	690	690	690	690	690	
<b>Rated frequency</b>	Hz	50 ... 60	50 ... 60	50 ... 60	50 ... 60	50 ... 60	50 ... 60	
<b>Rated impulse withstand voltage <math>U_{imp}</math></b>	kV	6	6	6	6	6	6	
<b>Rated short-time withstand current (1 s current, rms value)</b>	A	340	640	640	1260	2000	2000	
<b>Short-circuit protection, max. back-up fuse (gL)</b>	A	20	25	50	63	100	125	
<b>Rated uninterrupted current <math>I_u</math></b>	A	16	25	32	63	100	125	
AC-21A load-break switch	Rated operating current $I_e$	A	16	25	32	63	100	125
AC-3 motor load switch	Rating							
in-service switching	at 220 V ... 240 V	kW	3.0	4.0	5.5	11.0	18.5	22.0
of individual motors	at 380 V ... 440 V	kW	5.5	7.5	9.5	18.5	30.0	37.0
	at 660 V/690 V	kW	5.5	7.5	9.5	15.0	22.0	30.0
AC-23A main control switch	Rating							
Maintenance switch	at 220 V ... 240 V	kW	4.0	5.0	6.0	11.0	18.5	22.0
frequent, but not	at 380 V ... 440 V	kW	7.5	9.5	11.5	22.0	37.0	45.0
in-service switching	at 660 V/690 V	kW	7.5	9.5	11.5	18.5	30.0	37.0
of individual motors								
<b>Power loss per conducting path at <math>I_e</math></b>	W	0.5	1.1	1.8	4.5	7.5	12	
<b>Touch protection</b> to DIN VDE 0106 Part 100		yes	yes	yes	yes	yes	yes	
<b>Mechanical endurance</b>	Operating cycles	100 000	100 000	100 000	100 000	100 000	100 000	
<b>Operating frequency</b>	1/h	50	50	50	50	50	50	
<b>Permissible ambient temperature</b>	°C	-25 ... +55	-25 ... +55	-25 ... +55	-25 ... +55	-25 ... +55	-25 ... +55	
<b>Isolating characteristics</b>	up to ... V	690	690	690	690	690	690	
<b>Main control and EMERGENCY-STOP switch characteristics<sup>1)</sup></b>		yes	yes	yes	yes	yes	yes	
<b>Conductor cross-sections for main conductors</b>								
Connection type	mm <sup>2</sup>	Clamp connections						
solid or stranded		1 ... 6	1.5 ... 16	1.5 ... 16	2.5 ... 35	4 ... 50	4 ... 50	
flexible with end sleeve (max.)	mm <sup>2</sup>	4	10	10	16	35	35	
<b>Auxiliary switches</b>								
<b>Rated insulation voltage <math>U_i</math></b>	V	500	500	500	500	500	500	
<b>Rated operating voltage <math>U_e</math></b>	AC V	500	500	500	500	500	500	
<b>Rated uninterrupted current <math>I_u</math></b>	A	10	10	10	10	10	10	
<b>Rated operating current <math>I_e</math></b> AC-15								
	at 120 V	A	6	6	6	6	6	
	at 220 V ... 240 V	A	3	3	3	3	3	
	at 380 V ... 415 V	A	1.8	1.8	1.8	1.8	1.8	
	at 500 V	A	1.4	1.4	1.4	1.4	1.4	
<b>Short-circuit protection, auxiliary switch, max. back-up fuse (gL/gG)</b>	A	10	10	10	10	10	10	
<b>Conductor cross-section for auxiliary conductors</b>								
Connection type	mm <sup>2</sup>	Clamp connections						
solid or stranded		2 x (0.75 ... 2.5)	1 x (0.75 ... 4)	1 x (0.75 ... 4)	1 x (0.75 ... 4)	1 x (0.75 ... 4)	1 x (0.75 ... 4)	
Finely stranded with end sleeve	mm <sup>2</sup>	2 x (0.75 ... 2.5)	1 x (0.75 ... 2.5)	1 x (0.75 ... 2.5)	1 x (0.75 ... 2.5)	1 x (0.75 ... 2.5)	1 x (0.75 ... 2.5)	

Standards		UL/CSA						
Switch	Type	3LD2 0	3LD2 1	3LD2 2	3LD2 5	3LD2 7	3LD2 8	
<b>Rated operating voltage <math>U_e</math></b>	AC V	600	600	600	600	600	600	
<b>Rated uninterrupted current <math>I_u</math></b>	A	10	20	30	60	100	125	
	Current rating	600 A	600 A	600 A	-	-	-	
	Pilot duty	P600	P600	P600				
<b>Conventional thermal current <math>I_{th}</math></b>	A	16	25	32	63	100	125	
<b>Max. rating (AC-3)</b>								
<b>AC motors 40 Hz ... 60 Hz (HP = PS)</b>								
	3 ~ 120 V	HP	1	-	-	-	-	
	240 V	HP	3	7.5	10	15	30	
	480 V	HP	7.5	10	20	40	60	
	600 V	HP	10	15	30	50	75	
	1 ~ 120 V	HP	0.5	2	2	-	-	
	240 V	HP	1.5	3	3	10	-	
<b>Conductor cross-sections</b>	copper cable	AWG	18 ... 10	14 ... 8	14 ... 8	14 ... 6	12 ... 1	12 ... 1
<b>Tightening torque</b>		Nm	1.5 ... 2	2 ... 2.5	2 ... 2.5	2.5 ... 3	2.5 ... 3	2.5 ... 3

1) With appropriate operating mechanisms according to DIN VDE 0113 (see selection and ordering data).

# SENTRIC Switch Disconnectors

## SENTRIC LD Main Control and EMERGENCY STOP Switches from 16 A to 125 A

Front mounting

### Area of application

The SENTRIC 3LD2 switches are used for switching main control and auxiliary circuits, but they are also implemented for switching three-phase induction motors and other loads for maintenance and repair.

They can be used as

- On-Off switches,
- EMERGENCY-STOP switches and
- Main control switches according to EN 60204-1.

Main control and EMERGENCY-STOP switches are, in accordance with IEC 60947-3/VDE 0660 Part 107 (EN 60947-3), manually operated switch disconnectors and comply with the isolation conditions and the requirements of machine guideline EN 60204-1.

### Selection and ordering data

Number and version of contacts		Rated data at 50 Hz ... 60 Hz 380 V ... 440 V		DT	Four-hole mounting	PS*	Weight per PU approx.	DT	center-hole mounting Ø 22.5 mm	PS*	Weight per PU approx.
Main contacts	Auxiliary contacts	P/AC-23A	I <sub>u</sub>		Order No.		kg		Order No.		kg

#### Main control and EMERGENCY-STOP switch with rotary operating mechanism<sup>1)2)</sup>

- Lockable in 0 position with max. 3 padlocks
- IP65 degree of protection at the front
- Front plate
  - 3LD2 0, 3LD2 1, 3LD2 2: 67 mm × 67 mm
  - 3LD2 5 to 3LD2 8: 90 mm × 90 mm.



3LD2 203-0TK53

3	-	7.5	16	▶	<b>3LD2 003-0TK..</b>	1 unit	0.207 A	<b>3LD2 054-0TK..</b>	1 unit	0.215		
		9.5	25	▶	<b>3LD2 103-0TK..</b>	1 unit	0.206 A	<b>3LD2 154-0TK..</b>	1 unit	0.215		
		11.5	32	▶	<b>3LD2 203-0TK..</b>	1 unit	0.206 A	<b>3LD2 254-0TK..</b>	1 unit	0.214		
		22	63	▶	<b>3LD2 504-0TK..</b>	1 unit	0.424 A	<b>3LD2 555-0TK..</b>	1 unit	0.443		
		37	100	▶	<b>3LD2 704-0TK..</b>	1 unit	0.501	-	-	-		
		45	125	A	<b>3LD2 804-0TK..</b>	1 unit	0.503	-	-	-		
		3 + N	-	7.5	16	▶	<b>3LD2 003-1TL..</b>	1 unit	0.217 A	<b>3LD2 054-1TL..</b>	1 unit	0.230
				9.5	25	A	<b>3LD2 103-1TL..</b>	1 unit	0.243 A	<b>3LD2 154-1TL..</b>	1 unit	0.256
				11.5	32	A	<b>3LD2 203-1TL..</b>	1 unit	0.243 A	<b>3LD2 254-1TL..</b>	1 unit	0.260
				22	63	▶	<b>3LD2 504-0TK.. +<sup>3)</sup></b>	1 unit	0.424 A	<b>3LD2 555-0TK.. +<sup>3)</sup></b>	1 unit	0.443
				▶	<b>3LD9 250-0B</b>	1 unit	0.079 ▶	<b>3LD9 250-0B</b>	1 unit	0.079		
37	100			▶	<b>3LD2 704-0TK.. +<sup>3)</sup></b>	1 unit	0.501	-	-			
				▶	<b>3LD9 280-0B</b>	1 unit	0.101	-	-			
45	125			A	<b>3LD2 804-0TK.. +<sup>3)</sup></b>	1 unit	0.503	-	-			
				▶	<b>3LD9 280-0B</b>	1 unit	0.101	-	-			

Actuator  
black  
red/yellow (EMERGENCY-STOP)

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- 1) Screw fixing or snap-on mounting on 35 mm rail is standard.
- 2) A terminal cover for the infeed side is included in the scope of supply.
- 3) 4th contact as N conductor to be ordered separately, see Accessories.

# SENTRIC Switch Disconnectors

## SENTRIC LD Main Control and EMERGENCY STOP Switches from 16 A to 125 A

### Front mounting

Number and version of the contacts		Rated data at 50 Hz ... 60 Hz 380 V ... 440 V			DT	Order No.	PS*	Weight per PU approx. kg
Main contacts	Auxiliary contacts	P/ AC-3	P/ AC-23A	I <sub>u</sub>				



3LD2 103-3VK53

#### Main control and EMERGENCY-STOP switch with rotary operating mechanism

- IP65 degree of protection at the front

6	–	7.5	9.5	25	A	<b>3LD2 103–3VK..</b>	1 unit	0.380
		9.5	11.5	32	A	<b>3LD2 203–3VK..</b>	1 unit	0.381
		18.5	22.0	63	A	<b>3LD2 504–3VK..</b>	1 unit	0.854



3LD2 123-7UK01

#### Selector switch with knob mechanism, knob cannot be locked

- black actuator, IP65 degree of protection at the front

3	–	7.5	9.5	25	A	<b>3LD2 123–7UK01</b>	1 unit	0.374
		9.5	11.5	32	A	<b>3LD2 223–7UK01</b>	1 unit	0.378
		18.5	22.0	63	A	<b>3LD2 524–7UK01</b>	1 unit	0.841
		30.0	37.0	100	A	<b>3LD2 724–7UK01</b>	1 unit	1.060


Actuator  
black  
red/yellow (EMERGENCY-STOP)

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# SENTRIC Switch Disconnectors

## SENTRIC LD Main Control and EMERGENCY STOP Switches from 16 A to 125 A

### Mounting in distribution boards

Number and version of contacts		Rated data at 50 Hz ... 60 Hz 380 V ... 440 V		DT	Order No.	PS*	Weight per PU approx.	
Main contacts	Auxiliary contacts	P/ AC-23A kW	I <sub>u</sub> A					kg
 3LD2 530-0TK13	3	-	7.5	16	A	<b>3LD2 030-0TK..</b>	1 unit	0.169
			9.5	25	A	<b>3LD2 130-0TK..</b>	1 unit	0.171
			11.5	32	A	<b>3LD2 230-0TK..</b>	1 unit	0.168
			22	63	A	<b>3LD2 530-0TK..</b>	1 unit	0.311
			37	100	A	<b>3LD2 730-0TK..</b>	1 unit	0.379
			45	125	A	<b>3LD2 830-0TK..</b>	1 unit	0.379
3 + N	-	7.5	16	A	<b>3LD2 030-1TL..</b>	1 unit	0.183	
		9.5	25	A	<b>3LD2 130-0TK.. +<sup>1)</sup></b>	1 unit	0.171	
					▶ <b>3LD9 220-0C</b>	1 unit	0.039	
		11.5	32	A	<b>3LD2 230-0TK.. +<sup>1)</sup></b>	1 unit	0.168	
					▶ <b>3LD9 220-0C</b>	1 unit	0.039	
		22	63	A	<b>3LD2 530-0TK.. +<sup>1)</sup></b>	1 unit	0.311	
					▶ <b>3LD9 250-0C</b>	1 unit	0.080	
		37	100	A	<b>3LD2 730-0TK.. +<sup>1)</sup></b>	1 unit	0.379	
			▶ <b>3LD9 280-0C</b>	1 unit	0.102			
	45	125	A	<b>3LD2 830-0TK.. +<sup>1)</sup></b>	1 unit	0.379		
			▶ <b>3LD9 280-0C</b>	1 unit	0.102			

Actuator  
black  
red/yellow (EMERGENCY-STOP)

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13

1) 4th contact as N-conductor to be ordered separately; see Accessories for base mounting and distribution board mounting.

# SENTRIC Switch Disconnectors

## SENTRIC LD Main Control and EMERGENCY STOP Switches from 16 A to 125 A

### Molded-plastic enclosures

Number and version of contacts		Rated data at 50 Hz ... 60 Hz 380 V ... 440 V		DT	Order No.	PS*	Weight per PU approx.
Main contacts	Auxiliary contacts	P/ AC-23A kW	I <sub>u</sub> A				

#### Main control and EMERGENCY-STOP switches

- With N or PE/ground terminal
- Heavy-gauge threaded joints
- Lockable in 0 position with max. 3 padlocks
- IP 65 degree of protection at the front



3LD2 261-0TB13

3	-	7.5	16	-	-		
		9.5	25	A	<b>3LD2 161-0TB..</b>	1 unit	0.415
		11.5	32	A	<b>3LD2 261-0TB..</b>	1 unit	0.420
		22	63	A	<b>3LD2 562-0TB..</b>	1 unit	0.801
		37	100	A	<b>3LD2 7630TB..</b>	1 unit	2.000
		45	125	A	<b>3LD2 8630TB..</b>	1 unit	2.000
		3 + N	-	7.5	16	-	-
3LD2 261-0TB13		9.5	25	A	<b>3LD2 161-1TC..</b>	1 unit	0.439
		11.5	32	A	<b>3LD2 261-1TC53</b>	1 unit	0.444
		22	63	A	<b>3LD2 562-1TC53</b>	1 unit	0.863
		37	100	A	<b>3LD2 7630TB..</b> + <sup>1)</sup>	1 unit	2.000
					▶ <b>3LD9 280-0C</b>	1 unit	0.102
		45	125	A	<b>3LD2 8630TB..</b> + <sup>1)</sup>	1 unit	2.000
					▶ <b>3LD9 280-0C</b>	1 unit	0.102

#### Main control and EMERGENCY-STOP switches

- With N or PE/ground terminals
- metric screwed glands
- Lockable in 0 position with max. 3 padlocks
- IP65 degree of protection at the front



3LD2 164-0TB53

3	-	7.5	16	A	<b>3LD2 064-0TB..</b>	1 unit	0.463
		9.5	25	A	<b>3LD2 164-0TB..</b>	1 unit	0.463
		11.5	32	A	<b>3LD2 264-0TB..</b>	1 unit	0.465
		22	63	A	<b>3LD2 565-0TB..</b>	1 unit	0.906
		37	100	A	<b>3LD2 7660TB..</b>	1 unit	1.890
		45	125	A	<b>3LD2 8660TB..</b>	1 unit	1.890
3 + N	-	7.5	16	A	<b>3LD2 064-1TC..</b>	1 unit	0.453
		9.5	25	A	<b>3LD2 164-1TC..</b>	1 unit	0.487
		11.5	32	A	<b>3LD2 264-1TC53</b>	1 unit	0.500
		22	63	A	<b>3LD2 565-1TC53</b>	1 unit	0.960
		37	100	A	<b>3LD2 7660TB..</b> + <sup>1)</sup>	1 unit	1.890
					▶ <b>3LD9 280-0C</b>	1 unit	0.102
		45	125	A	<b>3LD2 8660TB..</b> + <sup>1)</sup>	1 unit	1.890
			▶ <b>3LD9 280-0C</b>	1 unit	0.102		

Actuator  
black  
red/yellow (EMERGENCY-STOP)

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1) 4th contact as N-conductor to be ordered separately; see Accessories for base mounting and distribution board mounting.



# SENTRIC Switch Disconnectors

## SENTRIC LD Main Control and EMERGENCY STOP Switches from 16 A to 125 A

Molded-plastic enclosures

Number and version of contacts		Rated data at 50 Hz ... 60 Hz 380 V ... 440 V			DT	Order No.	PS*	Weight per PU approx. kg
Main contacts	Auxiliary contacts	P/ AC-3 kW	P/ AC-23A kW	I <sub>u</sub> A				

### Main control and EMERGENCY-STOP switches with rotary operating mechanism

- metric screwed glands
- With N or PE/ground terminals
- IP65 degree of protection



3LD2 165-3VB53

6	–	7.5	9.5	25	A	<b>3LD2 165-3VB..</b>	1 unit	0.880
		9.5	11.5	32	A	<b>3LD2 265-3VB..</b>	1 unit	0.878
		18.5	22.0	63	A	<b>3LD2 566-3VB..</b>	1 unit	2.100

### Selector switch with knob mechanism, knob not lockable

- metric screwed glands
- With N or PE/ground terminals
- Black actuator



3LD2 165-7UB01

3	–	7.5	9.5	25	A	<b>3LD2 165-7UB01</b>	1 unit	0.888
		9.5	11.5	32	A	<b>3LD2 265-7UB01</b>	1 unit	0.888
		18.5	22.0	63	A	<b>3LD2 566-7UB01</b>	1 unit	2.100
		30.0	37.0	100	A	<b>3LD2 766-7UB01</b>	1 unit	2.330

Actuator  
black  
red/yellow (EMERGENCY-STOP)

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# SENTRIC Switch Disconnectors

## SENTRIC LD Main Control and EMERGENCY STOP Switches from 16 A to 125 A

### Accessories











#### Selection and ordering data

		DT	3LD2 0	PS*	Weight per PU approx.	DT	3LD2 1 and 3LD2 2	PS*	Weight per PU approx.
			Order No.		kg		Order No.		kg
<b>For front mounting</b>									
									
3LD9 2.0-0B	3LD9 2.0-2B								
									
3LD9 2.0-3B	3LD9 2.0-5B								
<b>For front and base mounting</b>									
									
3LD9 286-1A	3LD9 2.4-1A								
									
3LD9 2.1-0A	3LD9 2.1-2A								
<b>For base mounting and for distribution board mounting</b>									
									
3LD9 2.0-0C									
									
3LD9 2.0-2C									

# SENTRIC Switch Disconnectors

## SENTRIC LD Main Control and EMERGENCY STOP Switches from 16 A to 125 A

### Accessories

		DT	3LD2 5	PS*	Weight per PU approx.	DT	3LD2 7 and 3LD2 8	PS*	Weight per PU approx.
			Order No.				Order No.		
<b>For mounting on the front</b>									
		<b>4th contact (N conductor)</b> for front mounting leading switch-on, delayed switch-off	▶ 3LD9 250-0B		1 unit	0.079	▶ 3LD9 280-0B		1 unit 0.101
3LD9 2.0-0B	3LD9 2.0-2B	<b>N or PE/ground terminal</b> continuous	▶ 3LD9 250-2B		1 unit	0.072	▶ 3LD9 280-2B		1 unit 0.092
		<b>Auxiliary switch</b> for mounting on the left and/or right delayed switch-on, leading switch-off 1 NO + 1 NC	A 3LD9 250-5B A 3LD9 250-3B A 3LD9 250-4B		1 unit 1 unit 1 unit	0.047 0.029 0.028	A 3LD9 280-5B A 3LD9 280-3B A 3LD9 280-4B		1 unit 0.047 1 unit 0.030 1 unit 0.029
3LD9 2.0-3B	3LD9 2.0-5B	<b>Auxiliary switch</b> for mounting on left and/or right delayed switch-on, with gold-plated contacts for SIMATIC request	A 3LD9 220-3B		1 unit	0.029	A 3LD9 220-3B		1 unit 0.029
		<b>Labelling plate</b> English/German	A 3LD9 286-1A		1 unit	0.005	A 3LD9 286-1A		1 unit 0.005
<b>For front and base mounting</b>									
		<b>Rotary operating mechanism</b> lockable in 0 position with max. 3 padlocks							
3LD9 286-1A	3LD9 2.4-1A	<b>For four-hole mounting</b> black red/yellow	A 3LD9 284-1B A 3LD9 284-3B		1 unit 1 unit	0.154 0.152	A 3LD9 284-1B A 3LD9 284-3B		1 unit 0.154 1 unit 0.152
		<b>For center-hole mounting</b> black red/yellow	A 3LD9 284-1D A 3LD9 284-3D		1 unit 1 unit	0.155 0.155	– –		
		<b>Labelling plate</b> English/German	A 3LD9 286-1A		1 unit	0.005	A 3LD9 286-1A		1 unit 0.005
		<b>Terminal cover as additional touch protection</b> For snapping on at top and bottom							
3LD9 2.1-0A	3LD9 2.1-2A	1-pole (1 pack = 100 units)	A 3LD9 251-2A		4 units	0.125	A 3LD9 281-2A		1 unit 0.006
		3-pole (1 pack = 4 units)	A 3LD9 251-0A		1 unit	0.009	–		
		4-pole (1 pack = 4 units)	–				–		
<b>For base mounting and for distribution board mounting</b>									
		<b>4th contact (N conductor)</b> for mounting on the rear leading switch-on delayed switch-off	▶ 3LD9 250-0C		1 unit	0.080	▶ 3LD9 280-0C		1 unit 0.102
3LD9 2.0-0C		<b>N or PE/ground terminal</b> continuous	▶ 3LD9 250-2C		1 unit	0.073	▶ 3LD9 280-2C		1 unit 0.093
		<b>Auxiliary switch</b> for mounting on the left and/or right delayed switch-on, leading switch-off 1 NO + 1 NC	A 3LD9 250-5C A 3LD9 250-3C A 3LD9 250-4C		1 unit 1 unit 1 unit	0.047 0.030 0.029	A 3LD9 280-5C A 3LD9 280-3C A 3LD9 280-4C		1 unit 0.047 1 unit 0.029 1 unit 0.029
3LD9 2.0-2C		<b>Labelling plate</b> English/German	A 3LD9 286-1A		1 unit	0.005	A 3LD9 286-1A		1 unit 0.005

\* This quantity or a multiple thereof can be ordered.

# SENTRIC Switch Disconnectors

## SENTRIC K Switch Disconnectors from 63 A to 1000 A

### General data

### Technical specifications

Standards		IEC 60947-1, IEC 60947-3, VDE 0660 Part 107						
Type		3KA50	3KA51	3KA52	3KA53 <sup>1)</sup>	3KA55	3KA57 <sup>1)</sup>	3KA58
<b>Rated uninterrupted current <math>I_u</math></b>	A	63	80	125	160	250	400	630 <sup>3)</sup>
<b>Continuous thermal current <math>I_{th}</math><sup>2)</sup></b>	A	63	80	125	160	250	400	630 <sup>3)</sup>
<b>Rated insulation voltage <math>U_i</math></b>	V	690	690	1000	1000	1000	1000	1000
<b>Rated impulse withstand voltage <math>U_{imp}</math></b>	kV	6	6	8	8	8	8	8
<b>Rated operating voltage <math>U_e</math></b>		690						
AC 50 Hz/60 Hz	V	440 (3 conducting paths series-connected),						
DC	V	220 (2 conducting paths series-connected)						
<b>Rated short-circuit making capacity with back-up fuses<sup>4)</sup></b> at AC 50 Hz/60 Hz 690 V	kA (peak value)	220	220	220	220	220	220	220
<b>Rated conditional short-circuit current with series-connected fuses<sup>4)</sup></b> at AC 50 Hz/60 Hz 690 V	kA (rms value)	100	100	100	100	80	80	50
Max. rated current $I_n$ of the fuses	A	63	80	160	160	400	400	630
Permissible let-through current of the fuses	kA	8	10	17	17	30 <sup>5)</sup>	30 <sup>5)</sup>	40 <sup>5)</sup>
Maximum permissible let-through $I^2t$ value	kA <sup>2</sup> s	55	55	223	223	1000	1000	2600
<b>Permissible let-through current of a series-connected circuit-breaker</b> at AC 50 Hz/60 Hz 690 V	kA (peak value)	7	8	8	15	25	25	32
<b>Rated short-circuit making capacity without fuses</b> at AC 50 Hz/60 Hz 690 V	kA (peak value)	7	7	7	9	20	25	35
<b>Switching capacity (infeed top or bottom)</b>								
at AC 400 V								
Breaking current $I_C$ (p.f. = 0,35)	A (rms value)	500	650	1000	1280	2000	3200	5040
Rated operating current $I_e$ at AC-21A, AC-22A, AC-23A	A	63	80	125	160	250	400	630 <sup>6)</sup>
Motor switching capacity at AC-23A	kW	30	40	65	80	132	200	350
At AC 500 V								
Breaking current $I_C$ (p.f. = 0,35)	A (rms value)	500	640	1000	1280	2000	3200	3200
Rated operating current $I_e$ at AC-21A, AC-22A	A	63	80	125	160	250	400	630
AC-23A	A	63	80	125	160	250	400	400 <sup>6)</sup>
Motor switching capacity at AC-23A	kW	40	50	90	110	185	280	280
at AC 690 V								
Breaking current $I_C$ (p.f. = 0,35)	A (rms value)	500	500	1000	1280	2000	3200	3200
Rated operating current $I_e$ at AC-21A, AC-22A	A	63	80	125	160	250	400	630
AC-23A	A	63	63	125	160	250	400	400 <sup>6)</sup>
Motor switching capacity at AC-23A	kW	50	50	110	150	220	375	375
at DC 440 V (3 conducting paths connected in series)								
Breaking current $I_C$ ( $L/R = 15$ ms)	A	250	260	500	640	1000 <sup>7)</sup>	1600	1600
Rated operating current $I_e$ at DC-23A	A	63	63	125	160	250 <sup>8)</sup>	400	400
<b>Rated short-time current (1 s current)</b>	kA (rms value)	2.5	2.5	3.2	3.2	8	11	15
<b>Permissible load</b> depending on the ambient temperature for open-type installation in switchboards (e.g. 8NA1) in switchgear cubicles or switchgear racks at								
35 °C	A	63	80	125	160	250	400	630
40 °C	A	63	80	125	160	250	400	620
45 °C	A	63	80	125	160	250	400	600
50 °C	A	63	80	125	160	250	400	580
55 °C	A	63	80	125	160	250	400	560
60 °C	A	63	80	125	160	250	400	550
<b>Permissible ambient temperature</b>	°C	-25 ... +55 for operation, -50 ... +80 for storage <sup>3)</sup>						

- 1) Technical specifications for CSA approval on request.
- 2) Configuring note: max. permissible operating temperature at connections 100 °C.
- 3) With 3KA58 for operation -25 °C ... +35 °C, 570 A at 55 °C.
- 4) Only for 3NA38, 3NA32 or 3ND18, 3ND12 fuses (105 kA/50 kA for others).
- 5) 3ND1 switchgear protection fuses.
- 6) AC-23B.
- 7) At 440 V  $L/R = 4$  ms, at 220 V  $L/R = 15$  ms.
- 8) At 440 V DC-22A, at 220 V DC-23A.

# SENTRIC Switch Disconnectors

## SENTRIC K Switch Disconnectors from 63 A to 1000 A

### General data

Standards		IEC 60947-1, IEC 60947-3, VDE 0660 Part 107						
Type		3KA50	3KA51	3KA52	3KA53 <sup>1)</sup>	3KA55	3KA57 <sup>1)</sup>	3KA58
<b>Mechanical endurance</b>	operations	15000	15000	15000	15000	12000	12000	12000
<b>Required operating torque</b>	Nm	3	3	7.5	7.5	16	16	16
<b>Degree of protection</b>		IP00/IP20 (from operator side, with busbar and terminal covers)						
<b>Power loss of the switch at <math>I_{th}</math></b>	W	7	12	22	22	33	72	170
<b>Main conductor connection</b>								
Busbar systems, max. dimensions (w × t)	mm × mm	25 × 9	25 × 9	45 × 10	45 × 10	40 × 12	40 × 12	40 × 15
Cable lug, max. conductor cross-section (stranded)	mm <sup>2</sup>	35	35	70	120	150	2 × 150 or 1 × 240	2 × 240
Tightening torque	Nm	6 ... 7.5	6 ... 7.5	7 ... 10	18 ... 22	35 ... 45	35 ... 45	35 ... 45
Terminal screws		M 6	M 6	M 6	M 8	M 10	M 10	M 10
<b>PE/ground-conductor connection</b>								
Flat bars	mm × mm	–	–	–	–	20 × 2.5	20 × 2.5	20 × 2.5
Cable lug, max. conductor cross-section (stranded)	mm <sup>2</sup>	–	–	–	–	70	120	120
<b>4th pole</b>								
Rated uninterrupted current $I_U$	A	–	–	–	125	400	400	400
Rated operating current $I_o$ at AC-21A, AC 690 V	A	–	–	–	125	400	400	400
Main conductor connection								
Flat bars	mm × mm	–	–	–	15 × 3	25 × 4	25 × 4	25 × 4
Cable lug max. conductor cross-section (stranded)	mm <sup>2</sup>	–	–	–	70	240	240	240
<b>Auxiliary switch 1 NO + 1 NC (accessory)</b>								
Max. number to be plugged		1	1	2	2	2	2	2
Rated operating current $I_o$ at AC 50 Hz/60 Hz								
$I_o/AC-12$	A	10						
$I_o/AC-15$ at $U_o = 220$ V/230 V	A	6						
$I_o/AC-15$ at $U_o = 380$ V/400 V	A	4						
$I_o/AC-15$ at $U_o = 500$ V	A	2.5						
$I_o/AC-15$ at $U_o = 690$ V	A	21.2						
Rated operating current $I_o$ at DC								
$I_o/DC-13$ at $U_o = 24$ V	A	10						
$I_o/DC-13$ at $U_o = 48$ V	A	4						
$I_o/DC-13$ at $U_o = 110$ V	A	1.2						
$I_o/DC-13$ at $U_o = 220$ V	A	0.4						
$I_o/DC-13$ at $U_o = 440$ V	A	0.2						
Connection								
solid	mm <sup>2</sup>	2 × (1 ... 2.5)						
flexible with end sleeve	mm <sup>2</sup>	2 × (0.5 ... 1.5)						
<b>Weight</b>								
Complete version	kg	1.324	1.322	2.560	2.560	5.400	5.360	6.401
Basic version	kg	1.040	1.039	2.200	2.200			5.963

1) Technical specifications for CSA approval on request.

# SENTRIC Switch Disconnectors

## SENTRIC K Switch Disconnectors from 63 A to 1000 A

### Base mounting

#### Area of application

SENTRIC KA switch disconnectors are implemented as main control switches and EMERGENCY-STOP switches for normal switching duty and isolation of main circuits and auxiliary circuits. Another area of application is the switching of three-phase induction motors and other loads for maintenance and repair work.

Main control switches and EMERGENCY-STOP switches are hand-operated switch disconnectors acc. to IEC 60947-3 and VDE 0660 Part 107 (EN 60947-3) and comply with the isolation conditions and the requirements of machine guideline EN 60204-1.

#### Selection and ordering data

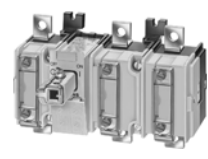
All switch disconnectors to the IP00 degree of protection  
Conductor connecting screws are generally included in the scope of supply.

Rated uninterrupted current $I_u$	DT	Complete version with 8UC6 door-coupling rotary operating mechanism (black handle)	PS*	Weight per PU approx.	DT	Basic switch version without handle	PS*	Weight per PU approx.	DT	8UC6 EMERGENCY-STOP door-coupling rotary operating mechanism (red handle, yellow indicator plate)	PS*	Weight per PU approx.
A		Order No.				Order No.		kg		Order No.		kg
<b>3-pole for motor loads</b>												
63	B	3KA50 30-1EE01	1 unit	1.440	▶	3KA50 30-1AE01	1 unit	0.946	▶	8UC61 21-3BB10	1 unit	0.353
80	B	3KA51 30-1EE01	1 unit	1.400	▶	3KA51 30-1AE01	1 unit	0.918	▶	8UC61 21-3BB10	1 unit	0.353
125	B	3KA52 30-1EE01	1 unit	2.380	▶	3KA52 30-1AE01	1 unit	1.880	▶	8UC62 22-3BB20	1 unit	0.426
160	B	3KA53 30-1EE01	1 unit	2.420	▶	3KA53 30-1AE01	1 unit	2.020	▶	8UC62 22-3BB20	1 unit	0.426
250	B	3KA55 30-1EE01	1 unit	5.470	▶	3KA55 30-1AE01	1 unit	4.510	▶	8UC63 23-3BB30	1 unit	0.999
400	B	3KA57 30-1EE01	1 unit	5.550	▶	3KA57 30-1AE01	1 unit	4.630	▶	8UC63 23-3BB30	1 unit	0.999
630	B	3KA58 30-1EE01	1 unit	6.120	▶	3KA58 30-1AE01	1 unit	5.150	▶	8UC63 23-3BB30	1 unit	0.999
<b>3-pole for power distribution</b>												
63	B	3KA50 30-1EE01	1 unit	1.440	▶	3KA50 30-1AE01	1 unit	0.946	▶	8UC61 21-3BB10	1 unit	0.353
80	B	3KA51 30-1EE01	1 unit	1.400	▶	3KA51 30-1AE01	1 unit	0.918	▶	8UC61 21-3BB10	1 unit	0.353
125	B	3KA52 30-1EE01	1 unit	2.380	▶	3KA52 30-1AE01	1 unit	1.880	▶	8UC62 22-3BB20	1 unit	0.426
160	B	3KA53 30-1EE01	1 unit	2.420	▶	3KA53 30-1AE01	1 unit	2.020	▶	8UC62 22-3BB20	1 unit	0.426
250	B	3KA55 30-1EE01	1 unit	5.470	▶	3KA55 30-1AE01	1 unit	4.510	▶	8UC63 23-3BB30	1 unit	0.999
400	B	3KA57 30-1EE01	1 unit	5.550	▶	3KA57 30-1AE01	1 unit	4.630	▶	8UC63 23-3BB30	1 unit	0.999
630	B	3KA58 30-1EE01	1 unit	6.120	▶	3KA58 30-1AE01	1 unit	5.150	▶	8UC63 23-3BB30	1 unit	0.999
<b>4-pole<sup>1)</sup> for power distribution</b>												
63	B	3KA50 40-1EE01	1 unit	2.490	B	3KA50 40-1AE01	1 unit	2.100	▶	8UC62 22-3BB20	1 unit	0.426
80	B	3KA51 40-1EE01	1 unit	2.540	B	3KA51 40-1AE01	1 unit	2.110	▶	8UC62 22-3BB20	1 unit	0.426
125	B	3KA52 40-1EE01	1 unit	2.490	B	3KA52 40-1AE01	1 unit	2.090	▶	8UC62 22-3BB20	1 unit	0.426
160	B	3KA53 40-1EE01	1 unit	2.450	B	3KA53 40-1AE01	1 unit	2.240	▶	8UC62 22-3BB20	1 unit	0.426
250	B	3KA55 40-1EE01	1 unit	6.030	C	3KA55 40-1AE01	1 unit	5.040	▶	8UC63 23-3BB30	1 unit	0.999
400	B	3KA57 40-1EE01	1 unit	5.150	B	3KA57 40-1AE01	1 unit	5.190	▶	8UC63 23-3BB30	1 unit	0.999
630	C	3KA58 40-1EE01	1 unit	6.590	B	3KA58 40-1AE01	1 unit	5.740	▶	8UC63 23-3BB30	1 unit	0.999

1) The nominal values are reduced in the case of strong harmonics due to frequency converter operation.



3KA53 30-1AE01



3KA53 30-1AE01



3KA53 40-1AE01

# SENTRIC Switch Disconnectors

## SENTRIC K Switch Disconnectors from 63 A to 1000 A

Molded-plastic enclosures

### Benefits

- Lockable with 3 padlocks
- Generous terminal compartment
- IP65 degree of protection
- Maintenance-free
- Easy to install.

### Area of application

Our master and EMERGENCY-STOP switches provide absolute safety, even during maintenance and repair work. All-round safety for people and machines.

With their high degree of protection of IP65, they can even withstand dust and water spray, providing unparalleled safety in the building and industrial installations as well as the food and chemical industry. Even with their enclosures open, they conform to protection class 2. IP20 is the minimum degree of protection.

### Functions

The concept and mechanical construction of these switches are designed for reliable function even under the harshest conditions. In emergencies, every second counts, and our switches allow immediate isolation.

Our enclosed master and EMERGENCY-STOP switches can be locked with up to three padlocks and are available in two ergonomically designed versions: from 16 A to 1000 A.

### Selection and ordering data

Main contacts	Auxiliary contacts	P/AC-23 A		$I_u$	Conductor cross-section main conductor/PEN	DT	Order No.	PS*	Weight per PU approx.
		at 380 ... 400 V	at 660/690 V						
		kW	kW	A	mm <sup>2</sup>				kg
<b>Main control switch complete with rotary operating mechanism, black<sup>1)</sup></b>									
3	-	65	110	125	35/35 <sup>2)</sup>	C	<b>8HP27 07</b>	1 unit	5.240
		80	150	160	120/70 <sup>2)</sup>	C	<b>8HP27 11</b>	1 unit	8.030
		132	220	250	150/70 <sup>2)</sup>	C	<b>8HP27 12</b>	1 unit	12.200
		200	375	400	2 × 150 or 1 × 240/120	C	<b>8HP27 17</b>	1 unit	12.300
		350	375	630	2 × 240/120	C	<b>8HP27 18</b>	1 unit	13.000
		315	315	800 <sup>3)</sup>	2 × 240/240	C	<b>8HP27 38</b>	1 unit	14.200
<b>EMERGENCY-STOP switch complete with rotary operating mechanism, red/yellow<sup>1)</sup></b>									
3	-	65	110	125	35/35 <sup>2)</sup>	C	<b>8HP27 47</b>	1 unit	5.210
		80	150	160	120/70 <sup>2)</sup>	C	<b>8HP27 48</b>	1 unit	7.990
		132	220	250	150/70 <sup>2)</sup>	C	<b>8HP27 61</b>	1 unit	12.300
		200	375	400	2 × 150 or 1 × 240/120	C	<b>8HP27 62</b>	1 unit	12.300
		350	375	630	2 × 240/120	C	<b>8HP27 63</b>	1 unit	12.800
		315	315	800 <sup>3)</sup>	2 × 240/240	C	<b>8HP27 58</b>	1 unit	14.300

1) With PE/ground/ N terminal.

2) For a 5th conductor another terminal of this type can be installed.

3) For ambient temperatures up to 35 °C.



8HP27..





### Area of application

SENTRIC NP fuse switch disconnectors are switching devices for the occasional manual connection and disconnection of loads and distribution boards. They are designed to connect the specified rated nominal current (including a specified overload), to carry it and to disconnect it.

SENTRIC NP fuse switch disconnectors are used to isolate all poles of downstream electrical loads safely under load conditions.

The SENTRY NP fuse switch disconnectors are ideally suited for surface mounting or installation in distribution boards (e.g. ALPHA, SIKUS), meter cabinets (e.g. ALPHA 400-ZS), and molded-plastic distribution panels e.g. SENTRY HP.

The ability to mount these devices onto many different busbar systems supports a wide range of applications in the construction of control cabinets and control systems.

SENTRIC NP size NH 000<sup>2)</sup> and NH 00 can be snapped onto 35 mm standard mounting rails and are optimized for use with other switching devices, for example, in capacitor units for the purpose of reactive-power compensation.

SENTRIC NP fuse switch disconnectors are used in combination with semiconductor protection fuses (e.g. SITOR) for the effective protection of frequency converters and soft starters.

### SENTRIC NP fuse switch disconnectors



**3NP40 10**      **3NP40 70**      **3NP52** with open fuse carrier

The SENTRY NP fuse switch disconnectors are suitable for use in any climate and comply with the specifications of IEC 60947-1, IEC 60947-3 and DIN VDE 0660 Part 107.

The 3NP40 1 and 3NP40 7 variants are available tin-plated for use in extremely sulphurous atmospheres (available on request).

In addition, the SENTRY 3NP5 series of fuse switch disconnectors complies with the requirements of BS 5419 and is also approved for marine applications.<sup>1)</sup>

All SENTRY NP fuse switch connectors are either sealable as standard or using accessories.

1) Use only approved fuse links.

2) Corresponds to fuse sizes NH 000 (NH 00C) or NH 00 with smaller dimensions; maximum width 21 mm according to IEC 60269-2-1 and DIN VDE 43620.

### Design

The SENTRY NP fuse switch disconnectors comprise a fuse base and a removable fuse carrier with an inspection and measuring function window.

Lyre-shaped contacts, arc chambers and connection pieces are integrated in the fuse base. The fuse links or isolating links are stored in the fuse carrier.

The fuse links can be replaced or changed without the need for any tools.

The three conducting paths in the fuse base as well as the fuse links in the fuse carrier are separated by partition walls that overlap when the device is opened and closed.

This strong self-protection is known as "full compartmentalization" and effectively and reliably prevents inter-phase arcing.

LV HRC fuses of sizes NH 000 to NH 3 according to IEC 60269-2-1 and DIN VDE 43620 are used in the SENTRY NP fuse switch disconnectors. Furthermore, SITOR semiconductor protection fuses are also used.

For further details, see the operating instructions for the SENTRY NP fuse switch disconnectors.

### Auxiliary switches

The SENTRY NP fuse switch disconnectors can be retrofitted with auxiliary switches for signaling the switch position of the fuse carrier.

One contact element (1 CO) can be mounted on size NH 000 of the SENTRY 3NP4 fuse switch disconnector and two contact elements (1 CO) can be mounted on sizes NH 00 to NH 3.

Further variants and accessories for the SENTRY NP fuse switch disconnectors as well as the complete SENTRY NP series in industry-compatible design for increased technical requirements can be found in Catalog LV 30.

# SENTRIC NP Fuse Switch Disconnectors

## General data

### Technical specifications

Standards		IEC 60947-1, IEC 60947-3, VDE 0660 Part 107				
Type		3NP40 1	3NP40 7	3NP42 7	3NP43 7	3NP44 7
<b>Rated uninterrupted current <math>I_u</math></b>	A	160 <sup>1)</sup>	160	250	400	630
For fuse links acc. to DIN 43620	Size	00C/000	00	1 and 0	2 and 1	3 and 2
<b>Continuous thermal current <math>I_{th}</math></b>	A	160 <sup>1)</sup>	160	250	400	630
<b>Rated operating voltage <math>U_e</math></b>						
AC 50 Hz/60 Hz	V	690		690		
DC	V	220		440		
		(3 conducting paths in series)		(2 conducting paths in series)		
<b>Rated insulation voltage <math>U_i</math></b>	V	690	690	800 <sup>4)</sup>	800 <sup>4)</sup>	800 <sup>4)</sup>
<b>Rated impulse withstand voltage <math>U_{imp}</math></b>	kV	6	6	6	6	6
<b>Rated conditional short-circuit current with fuses</b> (on rapid closing)						
With fuse links						
Rated current at AC 400 V (690 V)	Size/A kA (rms value)	000/100 (35) 50 (50)	00/160 50	1/250 50	2/400 50	3/630 50
Maximum permissible let-through $I^2t$ value	kA <sup>2</sup> s	56 (7.8)	158	551	1515	4340
Permissible let-through current of the fuse	kA (peak value)	11 (5)	15	25	35	55
<b>Short-circuit strength with fuses</b> (with closed disconnector)						
With fuse links						
Rated current at 690 V	Size/A kA (rms value)	000/100 100	00/160 50	1/250 50	2/400 50	3/630 50
Permissible let-through current of the fuse	kA (peak value)	15	15	25	35	55
<b>Rated making and breaking capacity</b> (Feed-in from top or bottom)						
At AC 400 V, with fuse links or isolating links	Size	<u>000</u>	<u>00</u>	<u>1</u>	<u>2</u>	<u>3</u>
Rated breaking current $I_C$ (p.f. = 0.35)	A (rms value)	800 (p.f. = 0.45)	800	2000	3200	5040
Rated operating current $I_e$ at AC-21B, AC-22B	A	160	160	250	400	630
AC-23B	A	100	100	250	400	630
At AC 500 V, with fuse links or isolating links	Size	<u>000</u>	<u>00</u>	<u>1</u>	<u>2</u>	<u>3</u>
Rated breaking current $I_C$ (p.f. = 0.35)	A (rms value)	320 (p.f. = 0.45)	320	750	1200	1890
Rated operating current $I_e$ at AC-21 B	A	160	160	250	400	630
AC-22B	A	100	100	250	400	630
AC-23B	A	40	40	–	–	–
At AC 690 V, with fuse links or isolating links	Size	<u>000</u>	<u>00</u>	<u>1</u>	<u>2</u>	<u>3</u>
Rated breaking current $I_C$ (p.f. = 0.35)	A (rms value)	200/240 (p.f. = 0.45/0.95)	200/240 (p.f. = 0.45/0.95)	375	600	945
Rated operating current $I_e$ at AC-21 B	A	160	160	250	400	630
AC-22B	A	50	50	–	–	–
AC-23B	A	25	25	–	–	–
At DC 220 V/240 V, with fuse links <sup>3)5)6)</sup> or isolating links	Size	<u>000</u>	<u>00</u>	<u>1</u>	<u>2</u>	<u>3</u>
Rated operating current $I_e$ at 220 V DC-23B/DC-21B	A	80/160	80/160	–	–	–
440 V DC-21B	A	–	–	250	400	630

1) 125/160 A only with 3NY1 236 supply terminals and with 21 mm wide fuse links 3NY1 822 (125 A) and 3NY1 824 (160 A); see Accessories.

2) Only for isolating links; otherwise note instructions of the fuse manufacturer.

3) For no-load switching (AC-20 B, DC-20 B), DC voltages up to DC 690 V can be applied.

4) For safety monitoring max. 690 V.

5) For pollution severity 2, the switch disconnectors can be used up to 1000 V AC-20 B, DC-20 B (no-load switching).

6) Conducting paths in series: 3 at 3NP40; 2 at 3NP42, 3NP43 and 3NP44.

# SENTRIC NP Fuse Switch Disconnectors

## General data

Standards		IEC 60 947-1, IEC 60 947-3, VDE 0660 Part 107				
Type		3NP40 1	3NP40 7	3NP42 7	3NP43 7	3NP44 7
<b>Capacitor switching capacity</b>						
at AC 400 V						
Capacitor power	kvar	50	50	–	–	–
Rated current $I_n$	A	72	72	–	–	–
at AC 525 V						
Capacitor power	kvar	50	50	–	–	–
Rated current $I_n$	A	55	55	–	–	–
<b>Permissible ambient temperature</b>	°C	–25 ... +55 <sup>1)</sup> for operation, –50 ... +80 for storage				
<b>Mechanical endurance</b>	Operations	2000	2000	1600	1000	1000
<b>Degree of protection</b> (with respect to the operator side)						
Without molded-plastic masking frame/cable lug cover		IP00 (3NP40 with box terminal and properly connected conductors: IP20)				
With molded-plastic blanking plate/cable lug cover		IP30 (contacts closed), IP20 (contacts open)				
<b>Power loss of the switch disconnector at <math>I_{th}</math></b> (plus power loss of the fuse links)						
				a		
Without busbar adapter	W	4.5 (at 100 A)	10	15	30	47
With busbar adapter	W	8.5 (at 100 A)	20	47	83	127
<b>Main conductor connection</b>						
Flat pad connection for cable lug, max. conductor cross-section (stranded)	mm <sup>2</sup>	–	up to 2 × 70 (M 8)	up to 150 (M 10)	up to 240 (M 10)	up to 2 × 240 (M 12)
Box terminal/supply terminal (finely stranded with end sleeve)	mm <sup>2</sup>	1.5 ... 50 (35)	2.5 ... 70 (50)	70 ... 150	120 ... 240	150 ... 300
Conductor bar (width x thickness)	mm	–	22 × 5	22–30 × 5–10	22–30 × 5–10	25–40 × 5–10
Louvered Cu strips, unperforated in terminals (width x thickness)	mm	8 × 8	up to 9 × 8	up to 16 × 8	up to 20 × 10	up to 24 × 10
<b>Tightening torque for terminal screws</b>						
For flat pad connection	Nm	–	10 ... 12	25	25	30
With SIGUT box terminal/connection terminal	Nm	3 ... 3.5	8 ... 10	6	8	8
<b>Auxiliary switch 1 CO</b> (Accessory)						
<b>3NY3 035</b> AC 50 Hz/60 Hz up to 230 V Rated operating current $I_e$ at AC-14	A	0.25 ( $I_{th} = 5$ A), at DC 24 V: $I_e = 0.45$ A; flat connector to DIN 46244: A 2.8 × 0.5				
<b>3NY3 030</b> AC 50 Hz/60 Hz up to 230 V Rated operating current $I_e$ at AC-13	A	0.1 ( $I_{th} = 0.1$ A); plug-in sleeve to DIN 46245: A 2.8 – 1				
Permissible mounting position		Vertical or horizontal (no reduction in specified switching capacity)				

1) Only for isolating links; otherwise note instructions of the fuse manufacturer.

# SENTRIC NP Fuse Switch Disconnectors

For power distribution

## Selection and ordering data

Rated uninterrupted current $I_u$	Conductor connections (on both sides)		For fuse links to DIN 43620 <sup>1)</sup>	For isolating links <sup>2)</sup>	DT	Degree of protection IP00, without fuse links, without isolating links, with terminal screws	PS*	Weight per unit/set/meter appr.
	Connection	For conductor cross-section						
A		mm <sup>2</sup>	Size			Order No.		kg

### For surface mounting and for installation

up to 160 A for snapping onto standard mounting rail



3NP40 10

160 <sup>3)</sup>	Box terminal	1.5 ... 50	000 <sup>4)</sup>	00	▶	<b>3NP40 10-0CH01</b>	1 unit	0.512
160	Flat connector	up to 2 × 70 (M 8)	00 and 000	00	▶	<b>3NP40 70-0CA01</b>	1 unit	0.749
	Box terminal	2.5-70 or 2 × 2.5-16				<b>3NP40 70-0CH01</b>	1 unit	0.800
250	Flat connector	up to 150 (M 10)	1 and 0	1 and 0	▶	<b>3NP42 70-0CA01</b>	1 unit	2.430
400	Flat connector	up to 240 (M 10)	2 and 1	2 and 1	▶	<b>3NP43 70-0CA01</b>	1 unit	3.610
630	Flat connector	up to 2 × 240 (M 12)	3 and 2	3 and 2	▶	<b>3NP44 70-0CA01</b>	1 unit	4.980

### For snapping onto busbars, 40 mm busbar center-line spacing

Busbars with a width of 12 mm or 15 mm and a thickness of 5 mm or 10 mm<sup>5)</sup>

• With adapter, deep, e.g. for mounting in ALPHA meter cabinets (ALPHA 400-ZS) and ALPHA distribution boards (STAB/SIKUS)



3NP40 70

160 <sup>3)</sup>	Box terminal	1.5 ... 50	• Connection on the top • Connection on the bottom	000 <sup>4)</sup>	00	▶	<b>3NP40 15-0CK01</b>	1 unit	0.952
							<b>3NP40 15-0CJ01</b>	1 unit	0.970
160	Flat connector	up to 2 × 70 (M 8)	• Connection on the top • Connection on the bottom	00 and 000	00	▶	<b>3NP40 75-0CE01</b>	1 unit	1.210
							<b>3NP40 75-0CF01</b>	1 unit	1.240
	Box terminal	2.5-70 or 2 × 2.5-16	• Connection on the top • Connection on the bottom	00 and 000	00	▶	<b>3NP40 75-0CK01</b>	1 unit	1.290
							<b>3NP40 75-0CJ01</b>	1 unit	1.270

• With adapter, flat, acc. to DIN 43620 Part 6, for general applications and ALPHA distribution boards (STAB/SIKUS)



3NP42 70

160 <sup>3)</sup>	Box terminal	1.5 ... 50	• Connection on the top • Connection on the bottom	000 <sup>4)</sup>	00	▶	<b>3NP40 15-1CK01</b>	1 unit	0.892
							<b>3NP40 15-1CJ01</b>	1 unit	0.888
160	Flat connector	up to 2 × 70 (M 8)	• Connection on the top	00 and 000	00 and 000	▶	<b>3NP40 75-1CE01</b>	1 unit	1.180
							<b>3NP40 75-1CF01</b>	1 unit	1.180
	Box terminal	2.5-70 or 2 × 2.5-16	• Connection on the top • Connection on the bottom	00 and 000	00 and 000	▶	<b>3NP40 75-1CK01</b>	1 unit	1.260
							<b>3NP40 75-1CJ01</b>	1 unit	1.210
250	Flat connector	up to 240 (M 10)	• Connection on the top	1 and 0	1 and 0	▶	<b>3NP42 75-1CG01</b>	1 unit	3.710

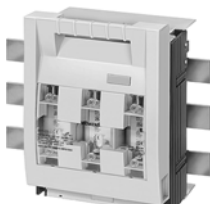
### For snapping onto busbars, 60 mm busbar center-line spacing

Busbars of 12 mm to 30 mm in width and 5 mm or 10 mm in thickness<sup>5)</sup>; flat, T and double-T profiles, and on Rittal PLS systems



3NP40 16

160 <sup>3)</sup>	Box terminals <sup>6)</sup>	1.5-50	• Connection on the top • Connection on the bottom	000 <sup>4)</sup>	00	▶	<b>3NP40 16-1CK01</b>	1 unit	0.916
							<b>3NP40 16-1CJ01</b>	1 unit	0.950
160	Flat connector	up to 2 × 70 (M 8)	• Connection on the top • Connection on the bottom	00 and 000	00	▶	<b>3NP40 76-1CE01</b>	1 unit	1.200
							<b>3NP40 76-1CF01</b>	1 unit	1.200
	Box terminals <sup>6)</sup>	2.5-70 or 2 × 2.5-16	• Connection on the top • Connection on the bottom	00 and 000	00	▶	<b>3NP40 76-1CK01</b>	1 unit	1.290
							<b>3NP40 76-1CJ01</b>	1 unit	1.240
250	Flat connector	up to 150 (M 10)	• Connection on the top • Connection on the bottom	1 and 0	1 and 0	▶	<b>3NP42 76-1CG01</b>	1 unit	3.710
400	Flat connector	up to 240 (M 10)	• Connection on the top • Connection on the bottom	2 and 1	2 and 1	▶	<b>3NP43 76-1CG01</b>	1 unit	5.440
630	Flat connector	up to 2 × 240 (M 12)	• Connection on the top • Connection on the bottom	3 and 2	3 and 2	▶	<b>3NP44 76-1CG01</b>	1 unit	7.680



3NP42 76

For all fuse switch disconnectors with flat connection, the appropriate cable lug covers (3NY7 101 to 3NY7 141) must be used for finger-safe cover acc. to VBG4, see Accessories.

- 1) For fuse links, see BETA protect installation equipment.
- 2) Use silver-plated isolating links.

3) 125/160 A only possible with 21 mm wide 3NY1 822 (125 A) and 3NY1 824 (160 A) fuse links, see Accessories.


4) Corresponds to size 00 with maximum width of 21 mm (acc. to IEC 60269-2-1 and DIN 43620).

5) For mounting on only 5 mm thick busbars, a busbar thickness compensator is required for 3NP42 and 3NP43; see Accessories. 3NP44 can only be fitted on 10 mm thick busbars.

# SENTRIC NP Fuse Switch Disconnectors

## Accessories

### Selection and ordering data

	For fuse switch disconnectors	Version	DT	Order No.	PS*	Weight per unit/ set/ meter approx. kg
	<b>Quick fitting retaining plate</b> between 2 rails to EN 50022 and EN 50023					
	Center-line spacing of mounting rails 125 mm	3NP40 10, 3NP40 70		B	<b>3NY1 995</b>	1 unit 0.135
3NY1 995	Center-line spacing of mounting rails 125 mm	3NP42 70		B	<b>3NY7 322</b>	1 unit 0.249
	<b>Cable lug cover</b> and finger-safe cover acc. to VBG 4 (1 set=2 units) for 1 setup or 2 adapter units	3NP40 7 with flat connector <sup>1)</sup>			▶	<b>3NY7 101</b>
3NP42 7				▶	<b>3NY7 121</b>	1 set 0.220
3NP43				▶	<b>3NY7 131</b>	1 set 0.221
3NP44				▶	<b>3NY7 141</b>	1 set 0.319
<b>Supply terminals</b> (1 set=3 units)	3NP42 7	Cable cross-section 70 mm <sup>2</sup> ... 150 mm <sup>2</sup>	B	<b>3NY7 120</b>	1 set 0.333	
	3NP43	120 mm <sup>2</sup> ... 240 mm <sup>2</sup>	B	<b>3NY7 130</b>	1 set 0.583	
	3NP44	150 mm <sup>2</sup> ... 300 mm <sup>2</sup>	B	<b>3NY7 140</b>	1 set 0.725	
<b>Triple terminal</b> (1 set = 3 units)	Cable cross-section					
	For fitting to box terminals	3NP40 1, 3NP40 7		B	<b>3NY7 102</b>	1 set 0.131
3NY7 102	For fitting to flat connections	3NP40 7		B	<b>3NY7 105</b>	1 set 0.113
	<b>Three-phase busbar</b> Modular width 90 mm = 5 MW	for $I_{U \max} = 225$ A				
For 2 switch disconnectors						
For 3 switch disconnectors						
For 4 switch disconnectors						
3NY1 263	Conductor of 25 mm <sup>2</sup> can be connected or infeed terminal					
	Connecting bar					
3NY1 237	A					
	A					
3NY1 238	A					
	A					
<b>Covering cap</b> for 1 blank space in 3NY1 238	3NP40 1					
	A					
3NY1 236	A					
	A					
<b>Infeed terminal</b> (1 set = 3 units) for $I_{U \max} = 225$ A	3NP40 1					
	Cable cross-section					
3NY1 238	• Solid/stranded: 25 mm <sup>2</sup> ... 95 mm <sup>2</sup>					
	• Finely stranded with end sleeve: 16 mm <sup>2</sup> ... 70 mm <sup>2</sup>					
<b>Overreach protection</b>	3NP42 7, 3NP43, 3NP44					
	B					
3NY1 236	B					
	B					
<b>Sealing pin</b> (1 packing = 10 units)	3NP42 7, 3NP43, 3NP44					
	B					
3NY7 481	B					
	B					
<b>Busbar thickness compensator</b> (1 set = 5 units) only for 5 mm thick busbars	3NP42 7, 3NP43					
	B					
3NY7 482	B					
	B					
<b>Fuse carrier</b> grey with inscription plate with voltage testing holes	3NP40 1					
	B					
3NY3 035	3NP40 7					
	B					
<b>Auxiliary switch 1 CO</b> For sizes 000 and 00 with self-tapping screws for sizes 1 to 3 for top mounting	3NP40 1 to 3NP44					
	▶					
<b>Electronics-compatible</b>	B					
	B					
<b>Fuse links size 000</b> with non-insulated grip lugs operational classgL/gG for cable and line protection width 21 mm acc. to IEC 60269-2-1 and DIN 43620	3NP40 1					
	400 V/125 A					
3NY1 822	400 V/160 A					
	B					
3NY1 824	B					
	B					
<b>Signal cable</b> For connection to output socket of the fuse monitoring size 00	1 m cable with plug					
	3NP40 7					
3NY1 910	3 m cable with plug					
	3NP40 7					
3NY1 911	B					
	B					

1) The fuse switch disconnector can be used in the meter cabinet with the cable lug cover mounted in combination with molded-plastic masking frames for the distribution board or switchpanel or the incoming-feeder panel without any problems.

\* This quantity or a multiple thereof can be ordered.

Siemens LV 10 · 2004

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# SENTRIC KL Switch Disconnectors with Fuses

## General data

### Area of application

SENTRIC KL switch disconnectors with fuses protect against overload and short-circuits as main control and EMERGENCY-STOP switches of switchpanels, distribution boards, power supply and motor feeders. In conjunction with SITOR semiconductor protection fuses, they are also used in UPS systems, frequency converters and capacitor control systems.

For use in the paper and pulp processing industry, a special variant that is resistant to strongly sulphurous atmospheres can be supplied.

All SENTRIC KL switch disconnectors are climate-proof and meet the requirements of IEC 60947-1, IEC 60947-3 and VDE 0660 Part 107.

### Technical specifications

Standards		IEC 60947-1, IEC 60947-3, VDE 0660 Part 107						
Type		3KL50	3KL52	3KL53	3KL55 <sup>1)</sup>	3KL57 <sup>1)</sup>	3KL61 <sup>1)</sup>	3KL62 <sup>1)</sup>
<b>Rated uninterrupted current <math>I_u</math></b> For fuse links to DIN 43620 (when semiconductor fuse links are used, derating is necessary, see Catalog SITOR Configuration SENTRIC KL Switch Disconnectors with Fuses Order No. E20001-A700-P302-X-7600)	A Size	63 00 and 000	125 00 and 000	160 00 and 000	250 1 and 2	400 1 and 2	630 3 and 2	800 3 and 2
<b>Continuous thermal current <math>I_{th}</math><sup>3)</sup></b>	A	63	125	160	250	400	630	800
<b>Rated insulation voltage <math>U_i</math></b>	V	690	1000	1000	1000	1000	1000	1000
<b>Rated impulse withstand voltage <math>U_{imp}</math></b>	kV	6	8	8	8	8	8	8
<b>Rated operating voltage <math>U_e</math></b> AC 50 Hz/60 Hz DC	V V	690 440 (3 conducting paths series-connected), 220 (2 conducting paths series-connected)						
<b>Rated short-circuit making capacity with fuses<sup>2)</sup></b> at AC 50 Hz/60 Hz 690 V	kA (peak value)	220	220	220	176	176	105	105
<b>Rated conditional short-circuit current with fuses<sup>2)</sup></b> at AC 50 Hz/60 Hz 690 V	kA (rms value)	100	100	100	80	80	50	50
Max. rated current $I_n$ of the fuses	A	80	160	160	400	400	630	800
Max. permissible power loss of the installed fuse	W							
NH	W	6	9	11.5	32	45	48	62
BS	W	8 (A2/A3)	11.5 (A4)	11.5	32	45	48	60.5
Permissible let-through current of the fuses	kA	8	17	17	30 <sup>4)</sup>	30 <sup>4)</sup>	50	50
Maximum permissible cut-off $I^2t$ value	kA <sup>2</sup> s	55	223	223	1000	1000	5400	10500
<b>Switching capacity</b> (infeed top or bottom)								
at AC 400 V								
Breaking current $I_c$ (p.f. = 0.35)	A (rms value)	500	1000	1280	2000	3200	5100	6400
Rated operating current $I_o$ at AC-21A, AC-22A, AC-23A	A	63	125	160	250	400	630 <sup>5)</sup>	800 <sup>5)</sup>
Motor switching capacity at AC-23A	kW	30	65	80	132	200	335	400
at AC 500 V								
Breaking current $I_c$ (p.f. = 0.35)	A (rms value)	500	1000	1280	2000	3200	5100	6400
Rated operating current $I_o$ at AC-21A, AC-22A, AC-23A	A	63	125	160	250	400	630 <sup>5)</sup>	800 <sup>5)</sup>
Motor switching capacity at AC-23A	kW	40	90	110	185	280	425	500
at AC 690 V								
Breaking current $I_c$ (p.f. = 0.35)	A (rms value)	500	1000	1280	2000	3200	5100	6400
Rated operating current $I_o$ at AC-21A, AC-22A, AC-23A	A	63	125	160	250	400	630 <sup>5)</sup>	800 <sup>5)</sup>
Motor switching capacity at AC-23A	kW	50	110	150	220	375	560	700
at DC 440 V (3 series-connected current path)								
Breaking current $I_c$ ( $L/R = 15$ ms)	A	250	500	640	100 <sup>6)</sup>	1600	2520 <sup>7)</sup>	2520 <sup>7)</sup>
Rated operating current $I_o$ at DC-23A	A	63	125	160	250 <sup>8)</sup>	400	630 <sup>8)</sup>	800 <sup>8)</sup>
<b>Rated short-time current (1 s current)</b>	kA (rms value)	2.5	3.2	3.2	8	11	32	32
<b>Permissible load</b> depending on the ambient temperature for open-type installation in switchboards (e.g. 8NA1) in switchgear cubicles or switchgear racks at								
35 °C	A	63	125	160	250	400	630	800
40 °C	A	63	125	155	250	390	630	780
45 °C	A	63	125	150	250	380	610	760
50 °C	A	63	125	145	250	370	590	740
55 °C	A	63	125	140	240	360	570	720
<b>Permissible ambient temperature</b>	°C	-25 ... +55 for operation <sup>4)</sup> , -50 ... +80 for storage						
<b>Mechanical endurance</b>	Operations	15000	15000	15000	12000	12000	3000	3000
<b>Required operating torque</b>	Nm	3	7.5	7.5	16	16	30	30
<b>Degree of protection</b>		IP00/IP20 (from operator side, with fuse and terminal covers)						
<b>Power loss of the disconnector at <math>I_{th}</math></b> (plus power loss of the fuses)	W	8.5	22	36	33	86	140	225

1) Technical specifications for CSA approval on request.

2) With 3KL61 for operation -25 °C ... +35 °C, at +55 °C:  $I_{th} = 570$  A.

3) Configuring note: max. permissible operating temperature for fuse blades 135 °C, for connections 100 °C.

4) 3ND1 switchgear protection fuses.

5) AC-23B.

6) At 440 V  $L/R = 4$  ms, at 220 V  $L/R = 15$  ms.

7)  $L/R = 2.5$  ms.

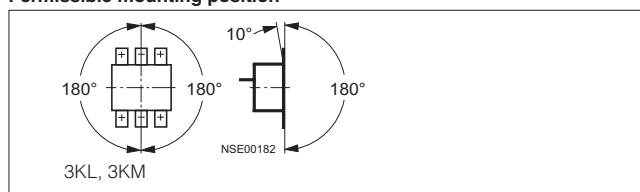
8) At 440 V DC-22A, at 220 V DC-23A.

# SENTRIC KL Switch Disconnectors with Fuses

## General data

Specifications		IEC 60947-1, IEC 60947-3, VDE 0660 Part 107						
Type		3KL50 3KM50	3KL52 3KM52	3KL53 3KM53	3KL55 <sup>1)</sup> 3KM55 <sup>1)</sup>	3KL57 <sup>1)</sup> 3KM57 <sup>1)</sup>	3KL61 <sup>1)</sup>	3KL62
<b>Main conductor connection</b>								
Busbar systems, max. dimensions (w × t)	mm × mm	25 × 9	45 × 10	45 × 10	40 × 12	40 × 15	40 × 17	40 × 17
Cable lug, max. conductor cross-section (stranded)	mm <sup>2</sup>	35	70	120	150	2 × 150 or 1 × 240	2 × 240	2 × 240
Tightening torque	Nm	6 ... 7.5	7 ... 10	18 ... 22	35 ... 45	35 ... 45	56	56
Terminal screws		M 6	M 6	M 8	M 10	M 10	M 12	M 12
<b>PE/ground-conductor connection</b>								
Flat bars	mm × mm	–	–	–	20 × 2.5	20 × 2.5	–	–
Cable lug, max. conductor cross-section (stranded)	mm <sup>2</sup>	–	–	–	70	120	–	–
<b>4th pole mountable (accessory)</b>								
Rated uninterrupted current $I_U$	A	–	125	125	400	400	–	–
Rated operating current $I_e$ at AC-21A, AC 690 V	A	–	125	125	400	400	–	–
Main conductor connection								
Flat bars	mm × mm	–	15 × 3	15 × 3	25 × 4	25 × 4	–	–
Cable lug, max. conductor cross-section (stranded)	mm <sup>2</sup>	–	70	70	240	240	–	–
<b>Auxiliary switch 1 NO + 1 NC (accessory)</b>								
Max. number to be plugged		1	2	2	2	2	3	3
Rated operating current $I_e$ at AC 50 Hz/60 Hz								
$I_e$ /AC-12	A	10						
$I_e$ /AC-15 at $U_e = 220$ V/230 V	A	6						
$I_e$ /AC-15 at $U_e = 380$ V/400 V	A	4						
$I_e$ /AC-15 at $U_e = 500$ V	A	2.5						
$I_e$ /AC-15 at $U_e = 690$ V	A	1.2						
Rated operating current $I_e$ at DC								
$I_e$ /DC-13 at $U_e = 24$ V	A	10						
$I_e$ /DC-13 at $U_e = 48$ V	A	4						
$I_e$ /DC-13 at $U_e = 110$ V	A	1.2						
$I_e$ /DC-13 at $U_e = 220$ V	A	0.4						
$I_e$ /DC-13 at $U_e = 440$ V	A	0.2						
Connection								
Solid	mm <sup>2</sup>	2 × (0.5–1.5)						
Finely stranded with end sleeve	mm <sup>2</sup>	2 × (1–2.5)						
<b>Weight</b>								
Complete version								
3KL	kg	1.150	2.560	2.560	5.400	5.700	–	–
3KM	kg	1.936	2.960	2.960	7.160	7.450	–	–
Basic version								
3KL	kg	0.850	2.200	2.200	4.500	4.800	14.000	14.000
3KM	kg	1.820	2.600	2.600	6.147	6.443	–	–

### Permissible mounting position



### Accessories

For the SENTRIC KL switch disconnectors, complete kits for standard and EMERGENCY-STOP use are available for installation in the side and rear panels of switchgear cabinets.





# SENTRIC KL Switch Disconnectors with Fuses

## Surface and flush mounting

### Selection and ordering data

All switch disconnectors in IP00 degree of protection

Conductor connecting screws and fuse partitions are generally included in the scope of delivery

A	Rated uninter- rupted current $I_u$	Fuse links <sup>1)</sup> to DIN 43620 <sup>2)</sup>		DT	Complete version with 8UC6 door-coupling rotary operating mechanism (black handle)	PS*	Weight per PU approx.	DT	Basic switch version without handle	PS*	Weight per PU approx.
		Size	Opera- tional class								
<b>3-pole for LV HRC fuses</b>											
	63	00 and 000	gG, aM	B	<b>3KL50 30-1EB01</b>	1 unit	1.460	▶	<b>3KL50 30-1AB01</b>	1 unit	1.050
	125	00 and 000	gG, aM	B	<b>3KL52 30-1EB01</b>	1 unit	2.410	▶	<b>3KL52 30-1AB01</b>	1 unit	1.980
	160	00 and 000	gG, aM	B	<b>3KL53 30-1EB01</b>	1 unit	2.600	▶	<b>3KL53 30-1AB01</b>	1 unit	2.200
	250	1 and 2	gG, aM	B	<b>3KL55 30-1EB01</b>	1 unit	6.110	▶	<b>3KL55 30-1AB01</b>	1 unit	5.710
	400	2 and 1	gG, aM	B	<b>3KL57 30-1EB01</b>	1 unit	6.060	▶	<b>3KL57 30-1AB01</b>	1 unit	5.400
	630	3 and 2	gG, aM	B	<b>3KL61 30-1EB00</b>	1 unit	18.000	X	<b>3KL61 30-1AB0</b>	1 unit	17.600
	800	3 and 2	gG, aM	D	<b>3KL62 30-1EB02</b>	1 unit	15.200	D	<b>3KL62 30-1AB02</b>	1 unit	15.200
3KL52 30-1AB01											
<b>4-pole for LV HRC fuses</b>											
	63	00 and 000	gG, aM	B	<b>3KL50 40-1EB01</b>	1 unit	2.540	B	<b>3KL50 40-1AB01</b>	1 unit	2.210
	125	00 and 000	gG, aM	B	<b>3KL52 40-1EB01</b>	1 unit	2.620	B	<b>3KL52 40-1AB01</b>	1 unit	2.190
	160	00 and 000	gG, aM	C	<b>3KL53 40-1EB01</b>	1 unit	2.770	B	<b>3KL53 40-1AB01</b>	1 unit	2.340
	250	1 and 2	gG, aM	B	<b>3KL55 40-1EB01</b>	1 unit	6.640	B	<b>3KL55 40-1AB01</b>	1 unit	5.570
	400	2 and 1	gG, aM	B	<b>3KL57 40-1EB01</b>	1 unit	6.880	B	<b>3KL57 40-1AB01</b>	1 unit	5.670
630	3 and 2	gG, aM	B	<b>3KL61 40-1EB00</b>	1 unit	16.600	A	<b>3KL61 40-1AB00</b>	1 unit	15.400	
3KL52 40-1AB01											
<b>3-pole for fuses to BS 88</b>											
	63	Form A2/A3		B	<b>3KL50 30-1EG01</b>	1 unit	1.450	B	<b>3KL50 30-1AG01</b>	1 unit	0.993
	125	Form A2/A3		B	<b>3KL52 30-1EG01</b>	1 unit	2.360	B	<b>3KL52 30-1AG01</b>	1 unit	1.930
	125	Form A4		B	<b>3KL52 30-1EJ01</b>	1 unit	2.400	B	<b>3KL52 30-1AJ01</b>	1 unit	2.030
	160	Form A4		B	<b>3KL53 30-1EJ01</b>	1 unit	2.570	B	<b>3KL53 30-1AJ01</b>	1 unit	2.170
	250	Form B1-B3		B	<b>3KL55 30-1EG01</b>	1 unit	6.110	B	<b>3KL55 30-1AG01</b>	1 unit	5.140
	400	Form B1-B3		B	<b>3KL57 30-1EG01</b>	1 unit	6.580	B	<b>3KL57 30-1AG01</b>	1 unit	5.660
	630	Form C1-C3		C	<b>3KL61 30-1EG00</b>	1 unit	16.200	A	<b>3KL61 30-1AG00</b>	1 unit	15.000
800	Form C1-C3		D	<b>3KL62 30-1EG00</b>	1 unit	15.400	D	<b>3KL62 30-1AG00</b>	1 unit	14.200	
3KL52 30-1AJ01											
<b>4-pole for fuses to BS 88</b>											
	63	Form A2/A3		B	<b>3KL50 40-1EG01</b>	1 unit	2.560	B	<b>3KL50 40-1AG01</b>	1 unit	2.140
	125	Form A2/A3		B	<b>3KL52 40-1EG01</b>	1 unit	2.560	B	<b>3KL52 40-1AG01</b>	1 unit	2.160
	125	Form A4		B	<b>3KL52 40-1EJ01</b>	1 unit	2.610	B	<b>3KL52 40-1AJ01</b>	1 unit	2.120
	160	Form A4		B	<b>3KL53 40-1EJ01</b>	1 unit	2.780	B	<b>3KL53 40-1AJ01</b>	1 unit	2.230
	250	Form B1-B3		B	<b>3KL55 40-1EG01</b>	1 unit	6.630	B	<b>3KL55 40-1AG01</b>	1 unit	5.660
	400	Form B1-B3		B	<b>3KL57 40-1EG01</b>	1 unit	7.140	B	<b>3KL57 40-1AG01</b>	1 unit	6.440
	630	Form C1-C3		C	<b>3KL61 40-1EG00</b>	1 unit	16.900	C	<b>3KL61 40-1AG00</b>	1 unit	15.700
3KL52 40-1AJ01 with fuses											

Fuse monitoring through 5TT3 170 safety monitor with a floating 1S signal contact, see Catalog ET B1 "BETA Installation Equipment".

1) Silver-plated fuse blade.

Silver-plated isolating links can be used if desired.

2) When using SITOR semiconductor protection fuse inserts, see page 7/29.







# SENTRIC KL Switch Disconnectors with Fuses

Surface and flush mounting

All switch disconnectors in IP00 degree of protection

Conductor connecting screws and fuse partitions are generally included in the scope of delivery

Rated uninter- rupted current $I_u$	Fuse links <sup>1)</sup> to DIN 43620 <sup>2)</sup>		DT	Basic switch version without handle	PS*	Weight per PU approx.	DT	8UC6 EMERGENCY- STOP door-coupling rotary operating mech- anism (red handle, yellow indicator plate)	PS*	Weight per PU approx.
	Size	Operational class								
<b>3-pole for LV HRC fuses</b>										
 3KL52 30-1AB01	63	00 and 000	gG, aM	▶	<b>3KL50 30-1AB01</b>	1 unit	1.050 ▶	<b>8UC61 21-3BB10</b>	1 unit	0.353
	125	00 and 000	gG, aM	▶	<b>3KL52 30-1AB01</b>	1 unit	1.980 ▶	<b>8UC62 22-3BB20</b>	1 unit	0.426
	160	00 and 000	gG, aM	▶	<b>3KL53 30-1AB01</b>	1 unit	2.200 ▶	<b>8UC62 22-3BB20</b>	1 unit	0.426
	250	1 and 2	gG, aM	▶	<b>3KL55 30-1AB01</b>	1 unit	5.710 ▶	<b>8UC63 23-3BB30</b>	1 unit	0.999
	400	2 and 1	gG, aM	▶	<b>3KL57 30-1AB01</b>	1 unit	5.400 ▶	<b>8UC63 23-3BB30</b>	1 unit	0.999
	630	3 and 2	gG, aM	X	<b>3KL61 30-1AB0</b>	1 unit	17.600 ▶	<b>8UC64 24-3BB44</b>	1 unit	1.180
	800	3 and 2	gG, aM	D	<b>3KL62 30-1AB02</b>	1 unit	15.200 ▶	<b>+8UC92 53</b>	1 unit	0.115
								<b>8UC64 24-3BB44</b>	1 unit	1.180
								<b>+8UC92 53</b>	1 unit	0.115
<b>4-pole for LV HRC fuses</b>										
 3KL52 40-1AB01	63	00 and 000	gG, aM	B	<b>3KL50 40-1AB01</b>	1 unit	2.210 ▶	<b>8UC62 22-3BB20</b>	1 unit	0.426
	125	00 and 000	gG, aM	B	<b>3KL52 40-1AB01</b>	1 unit	2.190 ▶	<b>8UC62 22-3BB20</b>	1 unit	0.426
	160	00 and 000	gG, aM	B	<b>3KL53 40-1AB01</b>	1 unit	2.340 ▶	<b>8UC62 22-3BB20</b>	1 unit	0.426
	250	1 and 2	gG, aM	B	<b>3KL55 40-1AB01</b>	1 unit	5.570 ▶	<b>8UC63 23-3BB30</b>	1 unit	0.999
	400	2 and 1	gG, aM	B	<b>3KL57 40-1AB01</b>	1 unit	5.670 ▶	<b>8UC63 23-3BB30</b>	1 unit	0.999
	630	3 and 2	gG, aM	A	<b>3KL61 40-1AB00</b>	1 unit	15.400 ▶	<b>8UC64 24-3BB44</b>	1 unit	1.180
								<b>+8UC92 53</b>	1 unit	0.115
<b>3-pole for fuses to BS 88</b>										
 3KL52 30-1AJ01	63	Form A2/A3		B	<b>3KL50 30-1AG01</b>	1 unit	0.993 ▶	<b>8UC61 21-3BB10</b>	1 unit	0.353
	125	Form A2/A3		B	<b>3KL52 30-1AG01</b>	1 unit	1.930 ▶	<b>8UC62 22-3BB20</b>	1 unit	0.426
	125	Form A4		B	<b>3KL52 30-1AJ01</b>	1 unit	2.030 ▶	<b>8UC62 22-3BB20</b>	1 unit	0.426
	160	Form A4		B	<b>3KL53 30-1AJ01</b>	1 unit	2.170 ▶	<b>8UC62 22-3BB20</b>	1 unit	0.426
	250	Form B1-B3		B	<b>3KL55 30-1AG01</b>	1 unit	5.140 ▶	<b>8UC63 23-3BB30</b>	1 unit	0.999
	400	Form B1-B3		B	<b>3KL57 30-1AG01</b>	1 unit	5.660 ▶	<b>8UC63 23-3BB30</b>	1 unit	0.999
	630	Form C1-C3		A	<b>3KL61 30-1AG00</b>	1 unit	15.000 ▶	<b>8UC64 24-3BB44</b>	1 unit	1.180
800	Form C1-C3		D	<b>3KL62 30-1AG00</b>	1 unit	14.200 ▶	<b>+8UC92 53</b>	1 unit	0.115	
								<b>8UC64 24-3BB44</b>	1 unit	1.180
								<b>+8UC92 53</b>	1 unit	0.115
<b>4-pole for fuses to BS 88</b>										
 3KL52 40-1AJ01 with fuses	63	Form A2/A3		B	<b>3KL50 40-1AG01</b>	1 unit	2.140 ▶	<b>8UC62 22-3BB20</b>	1 unit	0.426
	125	Form A2/A3		B	<b>3KL52 40-1AG01</b>	1 unit	2.160 ▶	<b>8UC62 22-3BB20</b>	1 unit	0.426
	125	Form A4		B	<b>3KL52 40-1AJ01</b>	1 unit	2.120 ▶	<b>8UC62 22-3BB20</b>	1 unit	0.426
	160	Form A4		B	<b>3KL53 40-1AJ01</b>	1 unit	2.230 ▶	<b>8UC62 22-3BB20</b>	1 unit	0.426
	250	Form B1-B3		B	<b>3KL55 40-1AG01</b>	1 unit	5.660 ▶	<b>8UC63 23-3BB30</b>	1 unit	0.999
	400	Form B1-B3		B	<b>3KL57 40-1AG01</b>	1 unit	6.440 ▶	<b>8UC63 23-3BB30</b>	1 unit	0.999
	630	Form C1-C3		C	<b>3KL61 40-1AG00</b>	1 unit	15.700 ▶	<b>8UC64 24-3BB44</b>	1 unit	1.180
								<b>+8UC92 53</b>	1 unit	0.115

Fuse monitoring through 5TT3 170 safety monitor with a floating 1S signal contact, see Catalog ET B1 "BETA Installation Equipment".

- 1) Silver-plated fuse blade.  
Silver-plated isolating links can be used if desired.
- 2) When using SITOR semiconductor protection fuse inserts, see page 7/29.

# SENTRIC KL Switch Disconnectors with Fuses

## Accessories

### Selection and ordering data

	DT	3KL50 30	PS*	Weight per PU approx. kg	DT	3KL50 40/3KL52/3KL53	PS*	Weight per PU approx. kg		
		Order No.				Order No.				
 3KX3 5.7-3AA		<b>Terminal cover</b> (1 set = 6 units) for 3-pole devices	▶	<b>3KX3 552-3DA01</b>	1 set	0.077	▶	3KA52 <b>3KX3 552-3DA01</b> 3KA53 <b>3KX3 553-3DA01</b>	1 set	0.077
	B	(1 set = 8 units) for 4-pole devices	B	<b>3KX3 552-3DB01</b>	1 set	0.102	B	3KA52 <b>3KX3 552-3DB01</b> 3KA53 <b>3KX3 553-3DB01</b>	1 set	0.102
 3KX 507-0BA		<b>Fuse cover<sup>2)</sup></b> (lock only detachable in the OFF setting)	▶	<b>3KX3 517-3AA</b>	1 unit	0.041	▶	<b>3KX3 527-3AA</b>	1 unit	0.071
	B	<b>Fuse partition</b> (1 set = 5 units)	▶	<b>3KX3 507-0AA01</b>	1 set	0.044	▶	<b>3KX3 507-0AA01</b>	1 set	0.044
 3KX3 176-1E		<b>Lyre-shaped fuse cover</b> (1 set = 6 units)	B	<b>3KX3 507-0BA01</b>	1 set	0.033	B	<b>3KX3 507-0BA01</b>	1 set	0.033
		<b>Door-coupling rot. op. mech.</b> IP65 handle black, shaft 300 mm	▶	<b>8UC61 11-1BB10</b>	1 unit	0.347	▶	<b>8UC62 12-1BB20</b>	1 unit	0.404
 3KX3 176-1E		<b>Door-coupling op. mech.</b> IP65 EMERGENCY-STOP (yellow/red), shaft 300 mm	▶	<b>8UC61 21-3BB10</b>	1 unit	0.353	▶	<b>8UC62 22-3BB20</b>	1 unit	0.426
		<b>Op. mech. for fixed mounting</b> black handle, shaft 250 mm	▶	<b>3KX3 516-1AA</b>	1 unit	0.088	▶	<b>3KX3 536-1AA</b>	1 unit	0.155
 3SB14 00-0A	B	<b>Extension shaft 300 mm long</b>	B	<b>8UC60 31</b>	1 unit	0.068	B	<b>8UC60 32</b>	1 unit	0.132
	B	<b>Extension shaft 600 mm long</b>	B	<b>8UC60 81</b>	1 unit	0.136	B	<b>8UC60 82</b>	1 unit	0.265
	B	<b>Shaft connection piece</b>	B	<b>8UC60 21</b>	1 unit	0.031	B	<b>8UC60 22</b>	1 unit	0.023
	A	<b>Auxiliary switches</b> 1 NO + 1 NC <sup>1)</sup>	A	<b>3SB14 00-0A</b>	1 unit	0.019	A	<b>3SB14 00-0A</b>	1 unit	0.019
	<b>20 ms leading</b> 1 NO + 1 NC		–				B	<b>3KX3 552-3EA01</b>	1 unit	0.019
	<b>Fuse monitor connection</b> (1 set = 6 units)	B	<b>3KX3 505-0AA</b>	1 set	0.014	B	<b>3KX3 505-0AA</b>	1 set	0.014	
			DT	3KL55/3KL57	PS*	Weight per PU approx. kg	DT	3KL61	PS*	Weight per PU approx. kg
				Order No.				Order No.		
 3KX3 5.7-3AA		<b>Terminal cover</b> (1 set = 6 units) for 3-pole devices	▶	<b>3KX3 557-3DA01</b>	1 set	0.277	▶	<b>3KX3 561-3DA01</b>	1 set	0.263
	B	(1 set = 8 units) for 4-pole devices	B	<b>3KX3 557-3DB01</b>	1 set	0.362	B	<b>3KX3 561-3DB01</b>	1 set	0.365
 3KX3 507-0BA		<b>Fuse cover<sup>2)</sup></b> (lock only detachable in the OFF setting)	▶	<b>3KX3 557-3AA</b>	1 unit	0.212	–			
		<b>Fuse cover</b> Cover plate Complete cover		–			C	<b>3KX3 561-0AA00</b> <b>3KX3 561-1AA00</b>	1 unit	0.408
 3KX3 176-1E		<b>Fuse partition</b> (1 set = 5 units)	▶	<b>3KX3 557-0AA01</b>	1 set	0.162	–			
		<b>Lyre-shaped fuse cover</b> (1 set = 6 units)		–			–			
 8UC92 53		<b>Door-coupling rot. op. mech.</b> IP65 black handle shaft 300 mm	▶	<b>8UC63 13-1BB30</b>	1 unit	0.973	▶	<b>8UC62 14-1BB44</b> <b>+8UC92 53</b>	1 unit	0.115
		<b>Door-coupling rot. op. mech.</b> IP65 EMERGENCY-STOP (yellow/red), shaft 300 mm	▶	<b>8UC63 23-3BB30</b>	1 unit	0.999	▶	<b>8UC64 24-3BB44</b> <b>+8UC92 53</b>	1 unit	1.180
 3KX3 176-1E		<b>Op. mech. for fixed mounting</b> black handle, shaft 250 mm	▶	<b>3KX3 176-1E</b>	1 unit	0.285	▶	<b>3KX3 616-1A</b>	1 unit	0.490
	C	<b>Extension shaft 300 mm long</b>	C	<b>8UC60 33</b>	1 unit	0.217	B	<b>8UC60 34</b>	1 unit	0.315
 3SB14 00-0A	B	<b>Extension shaft 600 mm long</b>	B	<b>8UC60 83</b>	1 unit	0.430	B	<b>8UC60 84</b>	1 unit	0.640
	B	<b>Shaft connection piece</b>	B	<b>8UC60 23</b>	1 unit	0.085	B	<b>8UC60 24</b>	1 unit	0.077
	<b>Auxiliary switches</b> 1 NO + 1 NC <sup>1)</sup>	A	<b>3SB14 00-0A</b>	1 unit	0.019	D	<b>3KX3 612-1A</b>	1 unit	0.201	
	<b>20 ms leading</b> 1 NO + 1 NC	B	<b>3KX3 552-3EA01</b>	1 unit	0.019	–				
	<b>Fuse monitor connection</b> (1 set = 6 units)	B	<b>3KX3 505-0AA</b>	1 set	0.014	–				

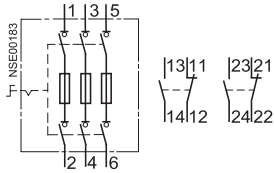
1) For further 3SB14 00-0 switching elements with other contact types, see "Pushbuttons and Indicator Lights".

2) For 3KX3 527-3AA: Not suitable for use with type A BS fuses.

# SENTRIC KL Switch Disconnectors with Fuses

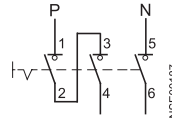
## Circuit diagrams

### Internal circuit diagram for SENTRIC KL



(for 3KL50 and 3KL51, only one auxiliary switch possible, not included in scope of supply; 4th pole is possible as main contact)

### Internal circuit diagram for SENTRIC KL



(auxiliary switch not included in scope of supply)  
used with direct voltage at DC-23A 440 V

# Fuses and Fuse Systems

## Introduction

### Overview

#### Applications

Applications for fuses range from installation systems in residential buildings, non-residential buildings, trade and industry through to switchgear installations of the utilities.

Fuses protect cables and conductors against overload and short-circuit currents.

They are also suitable for protecting equipment and devices, such as

- protecting motors during temporary overloads resulting from the operating mode
- or short-circuits that occur occasionally.

They protect people in the event of a fault against impermissible touch voltages in TN and TT networks.

They are used as back-up protection for miniature circuit-breakers and residual-current operated circuit-breakers. The high degree of discrimination guarantees optimum protection in radial and grid networks.

#### Fuse systems

Low-voltage fuses up to 1000 V fall into the following categories:

- Fuse systems that can be operated by non-specialists, such as:  
**NEOZED and DIAZED**, which are designed to prevent mistakes regarding the nominal current and which provide protection against touch.
- Fuse systems that must only be operated by the specialist, such as:  
**LV HRC fuses** which do not have to be designed to prevent mistakes regarding the nominal current and which do not need to provide protection against touch.

#### Sizes

The sizes of low-voltage fuses and, for example, the non-interchangeability for operation by the non-specialists are defined in DIN VDE 0636.

- NEOZED fuses are available in sizes D01, D02 and D03
- DIAZED fuses are available in sizes E 16, DII, DIII and DIV
- LV HRC fuses are available in sizes 000, 00, 0, 1, 2, 3, 4 and 4a

#### Operational classes

The operational classes of low-voltage fuses are defined in IEC 60269. Operational class gG is defined for cable and line protection.

According to DIN VDE 0636, cable and line protection was previously designated as gL, now gG is also applicable. During the transition period, for the sake of clarity, gL/gG is specified in the catalog.

The operational class aM for switchgear protection in the short-circuit range is defined identically in IEC 60269 and DIN VDE 0636.

#### Planning, characteristics

Detailed information and characteristics are available for planning purposes on the Internet at [www.siemens.de/installationstechnik](http://www.siemens.de/installationstechnik).

### Technical specifications

		NEOZED	DIAZED	LV HRC fuses	SITOR	Cylinder fuses
<b>Standards</b>		DIN VDE 0636 DIN VDE 0680 IEC 60269 EN 60269	DIN VDE 0635 DIN VDE 0636 DIN VDE 0680 IEC 60269 IEC 60241 CEE 16 EN 60269	DIN VDE 0636 DIN VDE 0680 IEC 60269 EN 60269	DIN VDE 0636 IEC 60269 EN 60269	IEC 60269 NF C 60200 NF C 63210 NF C 63211 NBN C 63269-2-EN-2-1 CEI 32-4
<b>Dimensions</b>		DIN VDE 49522 DIN VDE 49523 DIN VDE 49524 DIN VDE 49525	DIN VDE 49510 DIN VDE 49511 DIN VDE 49514 DIN VDE 49515 DIN VDE 49516	DIN 43620	DIN 43620 DIN 43623	IEC 60269-2-1
<b>Operational classes</b>		gL/gG	gL/gG, gR slow, quick	gL/gG, aM	aR, gR	gG, aM
<b>Rated voltage</b>	AC V	400	500/690/750	500/690	600/690/1000	400/500
	DC V	250	500/600/750	250/440		
<b>Rated current range</b>	A	2 ... 100		2 ... 1250	16 ... 630	0.5 ... 100
<b>Rated breaking capacity</b>	AC kA	50	50, 40 (E16), 8, 1.6 (E16)	120	> 50	
	DC kA	8		25		
<b>Mounting position</b>		Any, but preferably vertical				
<b>Climatic stability</b>	°C	up to 45 at 95 % rel. humidity		-30 ... +50 at 95 % rel. humidity		up to 45 at 95 % rel. humidity
<b>Non-interchangeability</b>		Due to gauge pieces	Due to gauge screws	Not necessary		

### Benefits

For the 3KL switch disconnectors with fuse, a UL approval has been granted in combination with the new 3NE1 ...-2 fuse series.

### Area of application

When SITOR semiconductor protection fuses are used in SENTRIC NP, SENTRIC KL and 3KM switch disconnectors, a partial reduction of the rated current of the fuse is necessary due to the higher power loss in comparison with LV HRC fuses for line protection. The use of SITOR semiconductor protection fuses in switch disconnectors may at times result in current values above the rated currents of the switches. These increased currents occur only when the switch is used with SITOR semiconductor protection fuses; they cannot be utilized when the switch is used with standard LV HRC fuses. Details are given in the table below.

When SITOR semiconductor protection fuses of series 3NC24, 3NC84, 3NE33 and 3NE43 are used, the switching capacity of the switch disconnectors as specified in the catalog must not be fully utilized, as the blades of these fuses (in contrast to LV HRC line-protection fuses) are slotted. Occasional switching of currents up to the rated currents of the fuses is permissible.

Due to the mechanical stress on the relatively long fuse blades, 3NE41 SITOR semiconductor protection fuses should be switched only occasionally and only at zero current. If it is only

permissible to switch at zero current, the switch must be marked accordingly.

The use of SITOR semiconductor protection fuses rated above 63 A for overload protection is also not permitted when gR fuses (except 3NE1) are used.

The operating voltage is limited by the rated voltage of the switch disconnector or the fuses. During current-free switching, the limit value is the rated insulation voltage of the switch disconnector.

The 3NE1 "double protection fuses" can be used both as all-range fuses (gR/gS) as well as for semiconductor and line protection.

Due to the dimensions of SITOR semiconductor protection fuses, only the fuses shown in the Selection and ordering data below can be used in the SENTRIC NP, SENTRIC KL and 3KM switch disconnectors.

### Selection and ordering data

For switch disconnectors				SITOR semiconductor protection fuse							
Type	Type	Permissible load current of the SITOR semiconductor protection fuse in the switch disconnector <sup>1)</sup>	Required conductor cross-section Cu	Size	Operational class	Rated current	Rated voltage	DT	Order No.	PS*	Weight per PU approx.
		A	mm <sup>2</sup>			A	V				kg
<b>For SENTRIC 3NP fuse switch disconnectors</b>											
3NP35, 3NP50	3NP40 1, 3NP40 7	16 20 25 35 40 50 63 80	1.5 2.5 4 6 10 10 16 25	000	gR/gS gR/gS gR/gS gR/gS gR/gS gR/gS gR/gS gR/gS	16 20 25 35 40 50 63 80	690	▶ ▶ ▶ ▶ ▶ ▶ ▶ ▶	<b>3NE1 813-0</b> <b>3NE1 814-0</b> <b>3NE1 815-0</b> <b>3NE1 803-0</b> <b>3NE1 802-0</b> <b>3NE1 817-0</b> <b>3NE1 818-0</b> <b>3NE1 820-0</b>	9 units 9 units 9 units 9 units 9 units 9 units 9 units 9 units	0.127 0.128 0.127 0.128 0.127 0.128 0.128 0.129
3NP50	3NP40 7	100 125 125 (105) <sup>2)</sup>	35 50 50	00	gR/gS gR/gS gR	100 125 125	690	▶ ▶ ▶	<b>3NE1 021-0</b> <b>3NE1 022-0</b> <b>3NE1 022-2</b>	3 units 3 units 3 units	0.202 0.202 0.203
3NP52	3NP42 7	160 160 200 200 (190) <sup>2)</sup> 250 250 (235) <sup>2)</sup>	70 70 95 95 120 120	1	gR/gS gR gR/gS gR gR/gS gR	160 160 200 200 250 250	690	▶ ▶ ▶ ▶ ▶ ▶	<b>3NE1 224-0</b> <b>3NE1 224-2</b> <b>3NE1 225-0</b> <b>3NE1 225-2</b> <b>3NE1 227-0</b> <b>3NE1 227-2</b>	3 units 3 units 3 units 3 units 3 units 3 units	0.580 0.613 0.582 0.612 0.580 0.626
3NP53	3NP43 7	315 315	2 × 70 2 × 70	2	gR/gS gR	315 315		▶ ▶	<b>3NE1 230-0</b> <b>3NE1 230-2</b>	3 units 3 units	0.581 0.615
3NP53	3NP43 7	350 350 400	2 × 95 2 × 95 2 × 95	2 2	gR/gS gR gR/gS	350 350 400	690	▶ ▶ ▶	<b>3NE1 331-0</b> <b>3NE1 331-2</b> <b>3NE1 332-0</b>	3 units 3 units 3 units	0.766 0.754 0.743
3NP54	3NP44 7, 3NP44 76	450 450 (425) <sup>2)</sup> 500 (480) <sup>2)</sup> 500 (465) <sup>2)</sup>	2 × 120 2 × 120 2 × 120 2 × 120		gR/gS gR gR/gS gR	450 450 500 500		▶ ▶ ▶ ▶	<b>3NE1 333-0</b> <b>3NE1 333-2</b> <b>3NE1 334-0</b> <b>3NE1 334-2</b>	3 units 3 units 3 units 3 units	0.760 0.768 0.766 0.768

1) If a cyclic load is applied, it may be necessary to further reduce the currents (please inquire about precise values).

2) Values in brackets apply to the SENTRIC 3NP4 fuse switch disconnector.

# Fuses and Fuse Systems

## Introduction

### Selection and ordering data

For switch disconnectors				SITOR semiconductor protection fuse												
Type	Type	Permissible load current of the SITOR semiconductor protection fuse in the switch disconnector <sup>1)</sup>	Required conductor cross-section Cu	Size	Operational class	Rated current	Rated voltage	DT	Order No.	PS*	Weight per PU approx.					
		A	mm <sup>2</sup>			A	V				kg					
<b>For 3NP fuse switch disconnectors</b>																
3NP54	3NP44 70,	560 (510) <sup>2)</sup>	2 × 150	3	gR/gS	560	690	▶	<b>3NE1 435-0</b>	1 unit	1.110					
	3NP44 76	560 (540) <sup>2)</sup>	2 × 150		gR	560		▶				<b>3NE1 435-2</b>	1 unit	1.140		
		630 (535) <sup>2)</sup>	2 × 185		gR/gS	630		▶				<b>3NE1 436-0</b>	1 unit	1.110		
	3NP44 76	630 (600) <sup>2)</sup>	2 × 185		gR	630		▶				<b>3NE1 436-2</b>	1 unit	1.170		
3NP54	3NP44 70,	710 (600) <sup>2)</sup>	2 × (40 × 5)	3	gR/gS	710	690	▶	<b>3NE1 437-0</b>	1 unit	1.110					
	3NP44 76	690 (570) <sup>2)</sup>			gR	690		C				<b>3NE1 437-1</b>	1 unit	1.120		
		710 (685) <sup>2)</sup>			gR	710		▶				<b>3NE1 437-2</b>	1 unit	1.150		
3NP54	3NP44 70	800 (630) <sup>2)</sup>	2 × (50 × 5)	3	gR/gS	800	690	▶	<b>3NE1 438-0</b>	1 unit	1.120					
	3NP44 76	750 (600) <sup>2)</sup>			gR	750		C				<b>3NE1 438-1</b>	1 unit	1.110		
		800 (770) <sup>2)</sup>			gR	800		▶				<b>3NE1 438-2</b>	1 unit	1.180		
		670 (655) <sup>2)</sup>			2 × (40 × 5)	gR		670				▶	<b>3NE1 447-2</b>	1 unit	1.170	
		850 (820) <sup>2)</sup>			2 × (40 × 8)	gR		850				▶	<b>3NE1 448-2</b>	1 unit	1.200	
<b>For SENTRIC 3KL5, 3KL6 and 3KM5 switch disconnectors with fuses</b>																
3KL50 30	3KM50 30	16	1.5	000 <sup>3)</sup>	gR/gS	16	690	▶	<b>3NE1 813-0</b>	9 units	0.127					
		20	2.5			▶		<b>3NE1 814-0</b>				9 units	0.128			
		25	4			▶		<b>3NE1 815-0</b>				9 units	0.127			
		35	6			▶		<b>3NE1 803-0</b>				9 units	0.128			
		40	10			gR/gS		40				690	▶	<b>3NE1 802-0</b>	9 units	0.127
		50	10					▶					<b>3NE1 817-0</b>	9 units	0.128	
		63	16					▶					<b>3NE1 818-0</b>	9 units	0.128	
3KL52 30	3KM52 30	80	25			80		▶	<b>3NE1 820-0</b>	9 units	0.129					
3KL52 30	3KM52 30	100	35	00	gR/gS	100	690	▶	<b>3NE1 021-0</b>	3 units	0.202					
		125	50			▶		<b>3NE1 022-0</b>				3 units	0.202			
		125	50			▶		<b>3NE1 022-2</b>				3 units	0.203			
3KL55 30	3KM55 30	160	70	1	gR/gS	160	690	▶	<b>3NE1 224-0</b>	3 units	0.580					
		160				gR		160				▶	<b>3NE1 224-2</b>	3 units	0.613	
		200	95			gR/gS		200				▶	<b>3NE1 225-0</b>	3 units	0.582	
		200				gR		200				▶	<b>3NE1 225-2</b>	3 units	0.612	
		250	120			gR/gS		250				▶	<b>3NE1 227-0</b>	3 units	0.580	
		245				gR		250				▶	<b>3NE1 227-2</b>	3 units	0.626	
3KL57 30	3KM57 30	315	2 × 70		gR/gS	315		▶	<b>3NE1 230-0</b>	3 units	0.581					
		280				gR		315				▶	<b>3NE1 230-2</b>	3 units	0.615	
3KL57; 3KL61 30	3KM57 30	350 (330) <sup>3)</sup>	2 × 95	2	gR/gS	350	690	▶	<b>3NE1 331-0</b>	3 units	0.766					
		350 (300) <sup>3)</sup>				gR		350				▶	<b>3NE1 331-2</b>	3 units	0.754	
		400 (375)				gR/gS		400				▶	<b>3NE1 332-0</b>	3 units	0.743	
3KL61 30	3KM57 30	450 (400) <sup>3)</sup>	2 × 120		gR/gS	450		▶	<b>3NE1 333-0</b>	3 units	0.760					
		450 (325) <sup>3)</sup>				gR		450				▶	<b>3NE1 333-2</b>	3 units	0.768	
		500 (400) <sup>3)</sup>				gR/gS		500				▶	<b>3NE1 334-0</b>	3 units	0.766	
		500 (350) <sup>3)</sup>				gR		500				▶	<b>3NE1 334-2</b>	3 units	0.768	
3KL61 30, 3KL62	-	560	2 × 150	3	gR/gS	560	690	▶	<b>3NE1 435-0</b>	1 unit	1.110					
		560				gR		560				▶	<b>3NE1 435-2</b>	1 unit	1.140	
		630				gR/gS		630				▶	<b>3NE1 436-0</b>	1 unit	1.110	
		615 (630)				gR		630				▶	<b>3NE1 436-2</b>	1 unit	1.170	
3KL61 30, 3KL62	-	710	2 × (40 × 5)	3	gR/gS	710	690	▶	<b>3NE1 437-0</b>	1 unit	1.110					
		710 (700)				gR		600				C	<b>3NE1 437-1</b>	1 unit	1.120	
		630				gR		710				▶	<b>3NE1 437-2</b>	1 unit	1.150	
3KL61 30, 3KL62	-	800	2 × (50 × 5)	3	gR/gS	800	690	▶	<b>3NE1 438-0</b>	1 unit	1.120					
		770 (800)				gR		600				C	<b>3NE1 438-1</b>	1 unit	1.110	
		630 (760)				gR		800				▶	<b>3NE1 438-2</b>	1 unit	1.180	
		630 (670)				2 × (40 × 5)		gR				670	▶	<b>3NE1 447-2</b>	1 unit	1.170
		630 (790)				2 × (40 × 8)		gR				850	▶	<b>3NE1 448-2</b>	1 unit	1.200

1) If a cyclic load is applied, it may be necessary to further reduce the currents (please inquire about precise values).

2) Values in brackets apply to the 3NP4 fuse switch disconnector.

3) Values in brackets apply to the 3KL5/3KM5 switch disconnectors.

For switch disconnectors			SITOR semiconductor protection fuse							PS*	Weight per PU approx. kg			
Type	Permissible load current of the SITOR semiconductor protection fuse in the switch disconnector <sup>1)</sup>	Required conductor cross-section Cu	Size	Operational class	Rated current	Rated voltage <sup>2)</sup>	DT	Order No.						
	A	mm <sup>2</sup>			A	V								
<b>For SENTRIC 3NP fuse switch disconnectors</b>														
3NP40 7, 3NP50 (3NP40 75/3NP40 76)	25	4	00	gR	25	690	▶	3NE8 015-1	1 unit	0.205				
	33	6			35			3NE8 003-1	1 unit	0.204				
	45	10			50			3NE8 017-1	1 unit	0.203				
	54 (53)	16			63			3NE8 018-1	1 unit	0.205				
	68	25			80			690	▶	3NE8 020-1	1 unit	0.203		
	89 (85)	35								3NE8 021-1	1 unit	0.205		
	106 (100)	50								3NE8 022-1	1 unit	0.213		
130 (125)	70	160	3NE8 024-1	1 unit	0.207									
3NP42, 3NP52	32	6	0 <sup>3)</sup>	gR	32	1000	▶	3NE4 101	1 unit	0.278				
	38, 40	10			40			3NE4 102	1 unit	0.277				
	45, 50	10			50			3NE4 117	1 unit	0.276				
	59, 63	16			63			3NE4 118	1 unit	0.279				
	76, 80	25			80			1000	▶	3NE4 120	1 unit	0.276		
	90, 95	35								3NE4 121	1 unit	0.278		
	115, 120	50								3NE4 122	1 unit	0.279		
	144, 150	70								3NE4 124	1 unit	0.279		
3NP43, 3NP53 (3NP43 76)	100 (100)	35	1	aR	100	1000	▶	3NE3 221	1 unit	0.580				
	120 (125)	50			125			3NE3 222	1 unit	0.568				
	150 (160)	70			160			3NE3 224	1 unit	0.573				
	190 (200)	95			200			3NE3 225	1 unit	0.570				
	230 (250)	120			250			3NE3 227	1 unit	0.580				
3NP43 7, 3NP53 (3NP43 76)	270, 285 (285)	185	aR	315	1000	▶	3NE3 230-0B	1 unit	0.585					
	290, 310 (310)	240					350	3NE3 231	1 unit	0.590				
	310, 330 (330)	240					400	3NE3 232-0B	1 unit	0.576				
	330, 360 (360)	2 × 150					450	3NE3 233	1 unit	0.720				
3NP44 7, 3NP54 (3NP44 76)	345 (340)	240	2	aR	400	1000	▶	3NE3 332-0B	1 unit	0.759				
	385 (370)	2 × 150						450	3NE3 333	1 unit	0.748			
	430, 450 (410)	2 × 150						500	3NE3 334-0B	1 unit	0.753			
	490, 510 (450)	2 × 185						560	3NE3 335	1 unit	0.756			
	560, 580 (500)	2 × 185						630	1000	▶	3NE3 336	1 unit	0.760	
	590, 630 (510)	2 × 200		710	900	3NE3 337-8	1 unit				0.762			
	605, 630 (520)	2 × 200		800	800	3NE3 338-8	1 unit				0.764			
	630, 630 (530)	2 × (50 × 5)		900	690	B	3NE3 340-8	1 unit	0.753					
	3NP44 7, 3NP53 (3NP44 76)	205, 210 (235)		120	aR	250	800	▶	3NE4 327-0B	1 unit	0.753			
		260, 270 (280)		240					315	3NE4 330-0B	1 unit	0.760		
375, 400 (390)		2 × (30 × 5)	450	3NE4 333-0B					1 unit	0.760				
3NP44 7, 3NP54 (3NP44 76)	410, 450 (415)	2 × (30 × 5)	aR	500	800	▶	3NE4 334-0B	1 unit	0.754					
	540, 600 (480)	2 × (40 × 5)					710	3NE4 337	1 unit	0.761				
3NP44 7, 3NP54 (3NP44 76)	140, 145 (140)	70	3	gR	150	500	▶	3NC2 423-3	3 units	1.060				
	175, 180 (175)	95						200	3NC2 425-3	3 units	1.050			
	220, 225 (215)	120						250	3NC2 427-3	3 units	1.060			
	250, 255 (245)	185						300	500	▶	3NC2 428-3	3 units	1.070	
	320, 330 (315)	240									350	3NC2 431-3	3 units	1.050
	370, 400 (360)	240									400	3NC2 432-3	3 units	1.060
	120, 135 (120)	70		gR	150	660	▶	3NC8 423-3	3 units	1.060				
	160, 180 (155)	95						200	3NC8 425-3	3 units	1.060			
	200, 225 (195)	120						250	3NC8 427-3	3 units	1.060			
	270, 300 (260)	240						350	3NC8 431-3	3 units	1.070			
	385, 425 (375)	2 × 150						500	3NC8 434-3	3 units	1.060			
	630, 800 (630)	3 × (60 × 6)						aR	1000	600	C	3NC8 444-3	1 unit	1.080

- 1) If a cyclic load is applied, it may be necessary to further reduce the currents (please inquire about precise values).
- 2) If overvoltage category 2 (instead of 3) and pollution degree 2 (instead of 3) in accordance with EN 60947-1 is maintained, the rated insulation voltage of the SENTRIC 3NP switch disconnectors also amounts to  $U_i = 1000$  V.
- 3) Due to the mechanical stress on the relatively long fuse blades, 3NE41 SITOR semiconductor protection fuses should be switched only occasionally and only at zero current.

# Fuses and Fuse Systems

## Introduction

For switch disconnectors				SITOR semiconductor protection fuse							
Type	Type	Permissible load current of the SITOR semiconductor protection fuse in the switch disconnector <sup>1)</sup>	Required conductor cross-section Cu	Size	Operational class	Rated current	Rated voltage	DT	Order No.	PS*	Weight per PU approx.
		A	mm <sup>2</sup>			A	V				kg
<b>For SENTRIC 3KL5, 3KL6 and 3KM5 switch disconnectors with fuses</b>											
3KL50	3KM50	25 33 45 54	4 6 10 16	00	gR	25 35 50 63	690	▶	<b>3NE8 015-1</b> <b>3NE8 003-1</b> <b>3NE8 017-1</b> <b>3NE8 018-1</b>	1 unit 1 unit 1 unit 1 unit	0.205 0.204 0.203 0.205
3KL52	3KM52	68 89 105 130	25 35 50 70		aR	80 100 125 160	690	▶	<b>3NE8 020-1</b> <b>3NE8 021-1</b> <b>3NE8 022-1</b> <b>3NE8 024-1</b>	1 unit 1 unit 1 unit 1 unit	0.203 0.205 0.213 0.207
3KL55	3KM55	32 40 50 63 80 95 120 150	6 10 10 16 25 35 50 70	0	gR	32 40 50 63	1000	▶	<b>3NE4 101</b> <b>3NE4 102</b> <b>3NE4 117</b> <b>3NE4 118</b>	1 unit 1 unit 1 unit 1 unit	0.278 0.277 0.276 0.279
					aR	80 100 125 160	1000	▶	<b>3NE4 120</b> <b>3NE4 121</b> <b>3NE4 122</b> <b>3NE4 124</b>	1 unit 1 unit 1 unit 1 unit	0.276 0.278 0.279 0.279
3KL55	3KM55	90 110 140 175 210	35 50 70 95 120	1	aR	100 125 160 200 250	1000	▶	<b>3NE3 221</b> <b>3NE3 222</b> <b>3NE3 224</b> <b>3NE3 225</b> <b>3NE3 227</b>	1 unit 1 unit 1 unit 1 unit 1 unit	0.580 0.568 0.573 0.570 0.580
3KL57	3KM57	240 265 290 320	185 240 240 2 × 150		aR	315 350 400 450	1000	▶	<b>3NE3 230-0B</b> <b>3NE3 231</b> <b>3NE3 232-0B</b> <b>3NE3 233</b>	1 unit 1 unit 1 unit 1 unit	0.585 0.590 0.576 0.720
3KL61, 3KL62	3KM57	340, 360 (290) <sup>2)</sup> 380, 400 (320) <sup>2)</sup> 440, 470 (360) <sup>2)</sup> 500, 530 (400) <sup>2)</sup> 540, 580 (400) <sup>2)</sup> 600, 640 (400) <sup>2)</sup> 630, 720 (400) <sup>2)</sup> 630, 800 (460) <sup>2)</sup>	240 2 × 150 2 × 150 2 × 185 2 × 185 2 × 200 2 × 200 2 × (50 × 5)	2	aR	400 450 500 560	1000	▶	<b>3NE3 332-0B</b> <b>3NE3 333</b> <b>3NE3 334-0B</b> <b>3NE3 335</b>	1 unit 1 unit 1 unit 1 unit	0.759 0.748 0.753 0.756
					aR	630 710 800 900	1000 900 800 690	▶	<b>3NE3 336</b> <b>3NE3 337-8</b> <b>3NE3 338-8</b> <b>3NE3 340-8</b>	1 unit 1 unit 1 unit 1 unit	0.760 0.762 0.764 0.753
3KL61, 3KL62		200, 200 (175) <sup>2)</sup> 260, 260 (230) <sup>2)</sup> 370, 370 (340) <sup>2)</sup> 425, 450 (380) <sup>2)</sup> 600, 630 (400) <sup>2)</sup>	120 240 240 or 40 × 8 2 × (30 × 5) 2 × (40 × 5)		aR	250 315 450 500 710	800 800 800 800	▶	<b>3NE4 327-0B</b> <b>3NE4 330-0B</b> <b>3NE4 333-0B</b> <b>3NE4 334-0B</b> <b>3NE4 337</b>	1 unit 1 unit 1 unit 1 unit 1 unit	0.753 0.760 0.760 0.754 0.761
3KL61, 3KL62		145 180 225 255 330 400 135 180 225 300 425 800 (630)	70 95 120 185 240 240 70 95 120 240 2 × 150 2 × (60 × 6)	3	gR	150 200 250	500	▶	<b>3NC2 423-3</b> <b>3NC2 425-3</b> <b>3NC2 427-3</b>	3 units 3 units 3 units	1.060 1.050 1.060
					gR	300 350 400	500	▶	<b>3NC2 428-3</b> <b>3NC2 431-3</b> <b>3NC2 432-3</b>	3 units 3 units 3 units	1.070 1.050 1.060
					gR	150 200 250 350 500 1000	660	▶	<b>3NC8 423-3</b> <b>3NC8 425-3</b> <b>3NC8 427-3</b> <b>3NC8 431-3</b> <b>3NC8 434-3</b> <b>3NC8 444-3</b>	3 units 3 units 3 units 3 units 3 units 1 unit	1.060 1.060 1.060 1.070 1.060 1.080

1) If a cyclic load is applied, it may be necessary to further reduce the currents (please inquire about precise values).







## Further information

Further combinations are available on request!

For further information on fuses, see Catalog SITOR Configuration, Order No.: E20001-A700-P302-X-7600.



### Selection and ordering data













No. of poles	Size	Rated current $I_n$	MW	DT	Order No.	PS*	Weight per PU approx.
		A					kg
<b>NEOZED fuse disconnectors</b>							
	Draw-out version, FR1 box terminal, 70 mm mounting depth						
	Single-pole	D01	16	1	A	<b>5SG7 610</b>	12 units 0.070
	Single-pole + N	D01	16	2	A	<b>5SG7 650</b>	6 units 0.150
	2-pole	D01	16	2	A	<b>5SG7 620</b>	6 units 0.150
	3-pole	D01	16	3	A	<b>5SG7 630</b>	4 units 0.220
	3-pole + N	D01	16	4	A	<b>5SG7 660</b>	3 units 0.300
<b>MINIZED switch disconnectors</b>							
	Draw-out version, FR1 box terminal, 55 mm mounting depth						
	Single-pole	D01	16	1	A	<b>5SG7 713</b>	3 units 0.080
	Single-pole + N	D01	16	2	A	<b>5SG7 753</b>	2 units 0.150
	2-pole	D01	16	2	A	<b>5SG7 723</b>	2 units 0.160
	3-pole	D01	16	3	A	<b>5SG7 733</b>	1 unit 0.254
	3-pole + N	D01	16	4	A	<b>5SG7 763</b>	1 unit 0.310
	Draw-out version, FR2 box terminal, 70 mm mounting depth						
	Single-pole	D02	63	1.5	A	<b>5SG7 112</b>	3 units 0.132
	Single-pole + N	D02	63	3	A	<b>5SG7 152</b>	2 units 0.265
	2-pole	D02	63	3	A	<b>5SG7 122</b>	2 units 0.226
	3-pole	D02	63	4.5	A	<b>5SG7 132</b>	1 unit 0.410
	3-pole + N	D02	63	6	A	<b>5SG7 162</b>	1 unit 0.520
	Auxiliary switch for MINIZED D02 switch disconnector for contact position indication and for retrofitting on the right-hand-side using factory-fitted terminals Contact: AC 230 V, 6 A AC 24 V, 50 mA DC 24 V, 50 mA			0.5	A	<b>5SH5 528</b>	10 units 0.050
<b>NEOZED bases</b>							
	BGV A2 finger-safe cover, FR1 box terminal, 70 mm mounting depth						
	Single-pole	D01	16	1.5	A	<b>5SG1 300</b>	6 units 0.150
	3-pole	D01	16	4.5	A	<b>5SG5 300</b>	2 units 0.450
	Single-pole	D02	63	1.5	A	<b>5SG1 700</b>	6 units 0.150
	3-pole	D02	63	4.5	A	<b>5SG5 700</b>	2 units 0.450
	Molded plastic, box terminal R, with cover, 70 mm mounting depth						
	Single-pole	D01	16	1.5	A	<b>5SG1 330</b>	15 units 0.068
	3-pole	D01	16	4.5	A	<b>5SG5 330</b>	5 units 0.216
	Single-pole	D02	63	1.5	A	<b>5SG1 730</b>	15 units 0.087
	3-pole	D02	63	4.5	A	<b>5SG5 730</b>	5 units 0.252
	Ceramic with cover, 70 mm mounting depth						
	BB: infeed cleat, outgoing cleat						
	Single-pole	D01	16	1.5	X	<b>5SG1 553</b>	20 units 0.083
	3-pole	D01	16	4.5	X	<b>5SG5 553</b>	5 units 0.263
	SS: infeed/outgoing saddle terminal						
	Single-pole	D02	63	1.5	X	<b>5SG1 653</b>	20 units 0.093
	3-pole	D02	63	4.5	X	<b>5SG5 653</b>	5 units 0.293
	KS: infeed screw terminal, outgoing feeder saddle terminal						
	Single-pole	D02	63	1.5	X	<b>5SG1 693</b>	20 units 0.090
	3-pole	D02	63	4.5	X	<b>5SG5 693</b>	5 units 0.290

\* This quantity or a multiple thereof can be ordered.













# Fuses and Fuse Systems

## NEOZED fuses

### Selection and ordering data

Version	Size	For fuses up to	Identification color	DT	Order No.	PS*	Weight per PU approx.			
		A					kg			
<b>Mounting components for MINIZED DO2 switch disconnectors</b>										
	<b>Guide piece</b>	20	blue	A	<b>5SH5 521</b>	50 units	0.001			
	For non-interchangeable mounting of NEOZED DO2 fuse links	25	yellow	A	<b>5SH5 522</b>	50 units	0.001			
		35	black	A	<b>5SH5 523</b>	50 units	0.001			
		50	white	A	<b>5SH5 524</b>	50 units	0.001			
	<b>Adapter</b>			A	<b>5SH5 520</b>	20 units	0.020			
	For adapting D01/D02									
<b>Mounting components for NEOZED fuses</b>										
<b>NEOZED gauge pieces</b>										
	D01	2	pink	A	<b>5SH5 002</b>	50 units	0.001			
		4	brown	A	<b>5SH5 004</b>	50 units	0.001			
		6	green	A	<b>5SH5 006</b>	50 units	0.001			
		10	red	A	<b>5SH5 010</b>	50 units	0.001			
	D02	20	blue	A	<b>5SH5 020</b>	50 units	0.001			
		25	yellow	A	<b>5SH5 025</b>	50 units	0.001			
		35	black	A	<b>5SH5 035</b>	50 units	0.001			
		50	white	A	<b>5SH5 050</b>	50 units	0.001			
	D02	2	pink	A	<b>5SH5 402</b>	50 units	0.001			
		4	brown	A	<b>5SH5 404</b>	50 units	0.001			
		6	green	A	<b>5SH5 406</b>	50 units	0.001			
		10	red	A	<b>5SH5 410</b>	50 units	0.001			
		16	gray	A	<b>5SH5 416</b>	50 units	0.001			
<b>Mounting components for NEOZED retaining spring</b>										
	For adapting NEOZED DO2 screw caps to adapt NEOZED DO1 fuse links									
	D02	2 ... 16		A	<b>5SH5 400</b>	25 units	0.001			
<b>NEOZED guide piece keys</b>										
	to DIN VDE 0680			A	<b>5SH5 100</b>	1 unit	0.016			
Size	Length	Conductor cross-section	Load rating up to	For terminals	MW	DT	Order No.	PS*	Weight per PU approx.	
	approx. mm	mm <sup>2</sup>	A						kg	
<b>Busbars</b>										
	Spade terminals, not insulated									
	Single-phase									
	D01	1000	20	116	R, K	1.5	A	<b>5SH5 321</b>	50 units	0.214
	D02	1000	36	168	R, K	1.5	A	<b>5SH5 322</b>	50 units	0.321
	Spade terminals, insulated									
	Single-phase									
	D01/D02	1000	24	160	R, FR2, K	1.5	A	<b>5SH5 517</b>	50 units	0.550
	3-phase									
	D01/D02	1000	16	120	R, K	1.5	A	<b>5SH5 320</b>	20 units	0.843
	D01/D02	1000	16	120	FR2, K	1.5	A	<b>5SH5 515</b>	10 units	0.584
	Male contacts, insulated									
	Single-phase									
	D01/D02	1000	16	130	S	1.5	A	<b>5SH5 324</b>	50 units	0.320
	3-phase									
	D01/D02	1000	16	120	S	1.5	A	<b>5SH5 323</b>	20 units	0.843
	D01	1000	16	120	FR1	1	A	<b>5SH5 512</b>	15 units	0.630
	D01	216	16	120	FR2, K	1.5	A	<b>5U2 204</b>	25 units	0.090

### Selection and ordering data

Size	Rated current $I_n$ A	Identification color	DT	Order No.	PS*	Weight per PU approx. kg
<b>End caps</b>						
	For 5SH5 320, 5SH5 323, 5SH5 512, 5U2 204		A	<b>5SH5 514</b>	10 units	0.001
	For 5SH5 515, 5SH5 517, 5SH5 324		A	<b>5U2 156</b>	10 units	0.017
<b>Terminals for busbars</b>						
	Not insulated, spade terminal for conductors from 6 mm <sup>2</sup> ... 25 mm <sup>2</sup>		A	<b>5SH5 325</b>	50 units	0.012
	Insulated, spade terminal for conductors from 6 mm <sup>2</sup> ... 25 mm <sup>2</sup>		A	<b>5SH5 328</b>	10 units	0.014
	Insulated, male contact for conductors from 2 mm <sup>2</sup> ... 25 mm <sup>2</sup>		A	<b>5SH5 327</b>	10 units	0.014
	Non-insulated, male contact for two conductors each 2 mm <sup>2</sup> ... 16 mm <sup>2</sup>		A	<b>5SH5 326</b>	10 units	0.016
<b>NEOZED screw caps</b>						
	Molded plastic, with inspection hole D01 16		A	<b>5SH4 116</b>	20 units	0.007
	D02 63		A	<b>5SH4 163</b>	20 units	0.008
	Ceramic, sealable D01 16		A	<b>5SH4 316</b>	20 units	0.014
	D02 63		A	<b>5SH4 363</b>	20 units	0.015
	Ceramic, with inspection hole D01 16		A	<b>5SH4 317</b>	20 units	0.014
	D02 63		A	<b>5SH4 362</b>	20 units	0.017
<b>NEOZED fuse links</b>						
	AC 50 kA, DC 8 kA; AC 400 V, DC 250 V; Operational class gL/gG; for cable and line protection					
	D01 2	pink	A	<b>5SE2 202</b>	50 units	0.006
	4	brown	A	<b>5SE2 204</b>	50 units	0.006
	6	green	A	<b>5SE2 206</b>	50 units	0.006
	10	red	A	<b>5SE2 210</b>	50 units	0.007
	16	gray	A	<b>5SE2 216</b>	50 units	0.007
	D02 20	blue	A	<b>5SE2 220</b>	50 units	0.012
	25	yellow	A	<b>5SE2 225</b>	50 units	0.013
	35	black	A	<b>5SE2 235</b>	50 units	0.014
	50	white	A	<b>5SE2 250</b>	50 units	0.015
	63	copper	A	<b>5SE2 263</b>	50 units	0.016
	Pack of 10, fuse links can be removed individually					
	D01 2	pink	A	<b>5SE2 302</b>	10 units	0.006
	4	brown	A	<b>5SE2 304</b>	10 units	0.006
	6	green	A	<b>5SE2 306</b>	10 units	0.006
	10	red	A	<b>5SE2 310</b>	10 units	0.007
	13	black	X	<b>5SE2 013-2A</b>	50 units	0.007
	16	gray	A	<b>5SE2 316</b>	10 units	0.007
	D02 20	blue	A	<b>5SE2 320</b>	10 units	0.012
	25	yellow	A	<b>5SE2 325</b>	10 units	0.013
	32	black	A	<b>5SE2 235</b>	50 units	0.014
	35	black	A	<b>5SE2 335</b>	10 units	0.014
	40	black	A	<b>5SE2 340</b>	10 units	0.014
	50	white	A	<b>5SE2 350</b>	10 units	0.015
	63	copper	A	<b>5SE2 363</b>	10 units	0.016

\* This quantity or a multiple thereof can be ordered.

# Fuses and Fuse Systems









## DIAZED fuses

### Selection and ordering data

- NDz, DII, DIII
- AC/DC 500 V
- Snap-on mounting

	Terminal	Rated current $I_n$	Conductor cross-section	Base width	Thread	DT	Order No.	PS*	Weight per PU approx.	
	Size	A	up to mm <sup>2</sup>	mm					kg	
<b>DIAZED bases</b>										
	KK: infeed/outgoing screw terminal									
	NDz	25	6	29	E 16	A	<b>5SF1 012</b>	20 units	0.060	
	KB: infeed screw terminal, outgoing cleat									
	DII	25	10	38	E 27	A	<b>5SF1 005</b>	15 units	0.093	
	BS: infeed cleat, outgoing saddle terminal									
DIII	63	25	46	E 33	A	<b>5SF1 205</b>	15 units	0.191		
SS: infeed/outgoing saddle terminal										
DIII	63	25	46	E 33	A	<b>5SF1 215</b>	15 units	0.154		
<b>DIAZED cover rings</b>										
	Porcelain									
	NDz			33	E 16	A	<b>5SH3 30</b>	100 units	0.020	
	DIAZED cover for shock protection									
Molded plastic, not suitable for SILIZED fuse links										
DII				41	E 27	A	<b>5SH2 032</b>	20 units	0.017	
(5 devices, approx. 11.5 MW)										
DIII				53	E 33	A	<b>5SH2 232</b>	20 units	0.020	
(4 devices, approx. 12 MW)										
<b>DIAZED busbars</b>										
	Copper, longitudinal hole shape for DIAZED flush-mounting fuse base									
	For DII 12 mm x 2 mm									
	Length 1023 mm, for max. 25 bases, load rating up to 80 A						C	<b>5SH3 500</b>	25 units	0.095
For DII 13 mm x 3 mm,										
Length 967 mm, for max. 19 bases, load rating up to 120 A						C	<b>5SH3 501</b>	25 units	0.180	
	Terminal clamp for busbar connection									
	(the terminal clamp supplied for conductor connection must be removed)						C	<b>5SH3 503</b>	25 units	0.005
<b>DIAZED guide screws for DIAZED and SILIZED fuse link</b>										
	NDz		2		E 16	A	<b>5SH3 28</b>	100 units	0.002	
			4			A	<b>5SH3 31</b>	100 units	0.002	
			6			A	<b>5SH3 05</b>	100 units	0.002	
			10			A	<b>5SH3 06</b>	100 units	0.002	
			16			A	<b>5SH3 07</b>	100 units	0.002	
	DII		2		E 27	A	<b>5SH3 10</b>	25 units	0.015	
	suitable for fitting into		4			A	<b>5SH3 11</b>	25 units	0.015	
DIAZED		6			A	<b>5SH3 12</b>	25 units	0.015		
fuse base,		10			A	<b>5SH3 13</b>	25 units	0.015		
AC/DC 750 V		16			A	<b>5SH3 14</b>	25 units	0.014		
		20			A	<b>5SH3 15</b>	25 units	0.012		
		25			A	<b>5SH3 16</b>	25 units	0.012		
	DIII		35		E 33	A	<b>5SH3 17</b>	25 units	0.019	
	AC/DC 750 V		50			A	<b>5SH3 18</b>	25 units	0.018	
			63			A	<b>5SH3 20</b>	25 units	0.017	
	DIAZED guide screw key DII/DIII									
Suitable up to AC/DC 750 V						A	<b>5SH3 703</b>	1 unit	0.025	





### Selection and ordering data

Size	Rated current $I_n$	Identification color	Thread	DT	Order No.	PS*	Weight per PU approx. kg	
<b>DIAZED screw caps</b>								
	Molded plastic, not suitable for SILIZED fuse links With inspection hole, gray							
	DII	25		E 27	A	<b>5SH1 221</b>	20 units 0.026	
	DIII	63		E 33	A	<b>5SH1 231</b>	20 units 0.042	
	Ceramic							
	NDz	25		E 16	A	<b>5SH1 11</b>	50 units 0.016	
	Ceramic With inspection hole, sealable							
	DII	25		E 27	A	<b>5SH1 22</b>	50 units 0.050	
	DIII	63		E 33	A	<b>5SH1 23</b>	50 units 0.080	
	For rated voltage AC 690 V, DC 600 V Only for DIAZED 5SD8 fuse links, ceramic, longer version							
	DIII	63		E 33	A	<b>5SH1 170</b>	25 units 0.086	
<b>DIAZED fuse links</b>								
AC 50 kA, DC 8 kA; AC 500 V, DC 500 V								
	Slow characteristic							
	TNDz	2	pink	E 16	A	<b>5SA2 11</b>	20 units 0.013	
		4	brown			<b>5SA2 21</b>	20 units 0.013	
		6	green			<b>5SA2 31</b>	20 units 0.013	
		10	red			<b>5SA2 51</b>	20 units 0.013	
	TNDz	16	gray	E 16	A	<b>5SA2 61</b>	20 units 0.013	
		20	blue	A	<b>5SA2 71</b>	20 units 0.015		
25		yellow	A	<b>5SA2 81</b>	20 units 0.016			
	Quick characteristic							
	NDz	2	pink	E 16	A	<b>5SA1 11</b>	20 units 0.013	
		4	brown			<b>5SA1 21</b>	20 units 0.013	
		6	green			<b>5SA1 31</b>	20 units 0.013	
		10	red			<b>5SA1 51</b>	20 units 0.013	
	NDz	16	gray	E 16	A	<b>5SA1 61</b>	20 units 0.013	
		20	blue	A	<b>5SA1 71</b>	20 units 0.015		
25		yellow	A	<b>5SA1 81</b>	20 units 0.016			
	For 5SB1 41, a DIAZED guide screw for 6 A is used.							
	DII	2	pink	E 27	A	<b>5SB1 11</b>	5 units 0.026	
		4	brown			<b>5SB1 21</b>	5 units 0.026	
		6	green			<b>5SB1 31</b>	5 units 0.026	
	DII	10	red	E 27	A	<b>5SB1 41</b>	5 units 0.026	
		10	red			<b>5SB1 51</b>	5 units 0.027	
		16	gray			<b>5SB1 61</b>	5 units 0.028	
	DII	20	blue	E 27	A	<b>5SB1 71</b>	5 units 0.029	
		25	yellow			<b>5SB1 81</b>	5 units 0.031	
	DIII	35	black	E 33	A	<b>5SB3 11</b>	5 units 0.050	
		50	white			<b>5SB3 21</b>	5 units 0.051	
		63	copper			<b>5SB3 31</b>	5 units 0.054	
		Operational class gL/gG						
		DII	2	pink	E 27	A	<b>5SB2 11</b>	5 units 0.026
			4	brown			<b>5SB2 21</b>	5 units 0.026
6			green	<b>5SB2 31</b>			5 units 0.026	
10			red	<b>5SB2 51</b>			5 units 0.027	
DII		16	gray	E 27	A	<b>5SB2 61</b>	5 units 0.028	
		20	blue			<b>5SB2 71</b>	5 units 0.029	
		25	yellow			<b>5SB2 81</b>	5 units 0.031	

# Fuses and Fuse Systems

## DIAZED fuses

### Selection and ordering data

Size	Rated current $I_n$ A	Identification color	Thread	DT	Order No.	PS*	Weight per PU approx. kg
<b>DIAZED fuse links</b>							
	AC 50 kA, DC 8 kA; AC 500 V, DC 500 V Operational class gL/gG						
	DIII	32	black	E 33	A	<b>5SB4 010</b>	5 units 0.048
		35	black		A	<b>5SB4 11</b>	5 units 0.050
		50	white		A	<b>5SB4 21</b>	5 units 0.051
		63	copper		A	<b>5SB4 31</b>	5 units 0.054
	AC 50 kA, DC 8 kA, AC 690 V, DC 600 V Operational class gL/gG						
	DIII	2	pink	E 33	A	<b>5SD8 002</b>	25 units 0.068
		4	brown		A	<b>5SD8 004</b>	25 units 0.068
		6	green		A	<b>5SD8 006</b>	25 units 0.068
	DIII	10	red	E 33	A	<b>5SD8 010</b>	25 units 0.068
		16	gray		A	<b>5SD8 016</b>	25 units 0.069
	DIII	20	blue	E 33	A	<b>5SD8 020</b>	25 units 0.071
		25	yellow		A	<b>5SD8 025</b>	25 units 0.072
	DIII	35	black	E 33	A	<b>5SD8 035</b>	25 units 0.078
		50	white		A	<b>5SD8 050</b>	25 units 0.080
	63	copper		A	<b>5SD8 063</b>	25 units 0.082	
For fuse links 2 ... 25 A, DIAZED guide screws DII are used							
<b>SILIZED fuse links</b>							
	AC 500 V, DC 500 V, yellow ring Operational class gR, super-quick						
	DII	16	gray	E 27	A	<b>5SD4 20</b>	5 units 0.028
		20	blue		A	<b>5SD4 30</b>	5 units 0.029
		25	yellow		A	<b>5SD4 40</b>	5 units 0.031
		30			A	<b>5SD4 80</b>	5 units 0.031
	DIII	35	black	E 33	A	<b>5SD4 50</b>	5 units 0.050
		50	white		A	<b>5SD4 60</b>	5 units 0.051
		63	Copper		A	<b>5SD4 70</b>	5 units 0.054
For 5SD4 80, the DIAZED guide screw 5SH3 16 for 25 A is used							

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### Selection and ordering data

Version	Size	Rated current $I_n$ A	DT	Order No.	PS*	Weight per PU approx. kg	
<b>LV HRC fuse bases</b>							
Size 0 ... 4: AC 690 V, DC 440 V, size 000 and 00: AC 690 V, DC 250 V							
	<b>Single-pole</b>						
	Flat connector, screw	000 and 00	160	A	<b>3NH3 030</b>	3 units 0.235	
	Plug-in connection	000 and 00	160	A	<b>3NH3 031</b>	3 units 0.230	
	Flat connector, nut	000 and 00	160	A	<b>3NH3 038</b>	3 units 0.207	
	Flat connector	0	160	A	<b>3NH3 120</b>	3 units 0.460	
	Plug-in connection	1	160	A	<b>3NH3 122</b>	3 units 0.460	
	Flat connector	1	250	A	<b>3NH3 230</b>	3 units 0.789	
	Twin bar connection	1	250	A	<b>3NH3 220</b>	3 units 0.789	
	Flat connector	2	400	A	<b>3NH3 330</b>	1 unit 0.843	
	Flat connector	3	630	A	<b>3NH3 430</b>	1 unit 1.100	
	Twin bar connection	3	630	A	<b>3NH3 420</b>	1 unit 1.100	
	Flat connector	4	1250	A	<b>3NH3 530</b>	1 unit 3.000	
		<b>3-pole with phase barriers</b>					
		Flat connector	000 and 00	160	A	<b>3NH4 030</b>	1 unit 0.700
Plug-in connection		000 and 00	160	A	<b>3NH4 031</b>	1 unit 0.800	
	LV HRC rail-mounted fuse bases, busbar spacing 40 mm						
	<b>Single-pole</b>						
	Saddle terminal, top	000 and 00	160	A	<b>3NH3 036</b>	3 units 0.150	
	LV HRC fuse base with swivel mechanism						
	flat connector, screw	000 and 00	160	A	<b>3NH7 030</b>	3 units 1.000	
		1	250	A	<b>3NH7 230</b>	1 unit 2.500	
		3	630	A	<b>3NH7 330</b>	1 unit 4.800	
		4a	1250	A	<b>3NH7 520</b>	1 unit 5.200	
<b>LV HRC contact covers</b>							
	As shock hazard protection for contact pieces						
		000 and 00		A	<b>3NX3 105</b>	20 units 0.013	
		0		A	<b>3NX3 114</b>	10 units 0.010	
		1		A	<b>3NX3 106</b>	20 units 0.027	
		2		A	<b>3NX3 107</b>	20 units 0.031	
	3		A	<b>3NX3 108</b>	20 units 0.038		
<b>LV HRC barriers</b>							
	For LV HRC fuse bases for butt-mounting and for terminating a row						
	<b>Type</b>						
	3NH3 0/3NH4 0	000 and 00		A	<b>3NX2 023</b>	20 units 0.025	
	3NH3 1	0		A	<b>3NX2 030</b>	10 units 0.050	
	3NH3 2	1		A	<b>3NX2 024</b>	20 units 0.053	
	3NH3 3	2		A	<b>3NX2 025</b>	10 units 0.066	
3NH3 4	3		A	<b>3NX2 026</b>	10 units 0.101		

# Fuses and Fuse Systems




## LV HRC fuses

### Selection and ordering data

Version	Size	DT	Order No.	PS*	Weight per PU approx. kg
<b>Mounting components for LV HRC fuses</b>					
	<b>LV HRC signaling output</b> For LV HRC fuse links with non-insulated grip lugs of size 000 ... 4a, Rated voltage up to AC 690 V	A	<b>3NX1 021</b>	4 units	0.036
	<b>Signaling unit</b> Operating value > 9 V; 2.5 A; for standard applications Operating value > 2 V; 7 A; for meshed systems only	A A	<b>3NX1 022</b> <b>3NX1 023</b>	12 units 12 units	0.015 0.015
	<b>Fuse puller</b> For LV HRC fuse links Without cuff	A	<b>3NX1 013</b>	1 unit	0.280
	With cuff	A	<b>3NX1 014</b>	1 unit	0.480
	<b>Disconnecting blade</b> With insulated grip lugs, silver-plated, for LV HRC fuse bases and fuse switch disconnectors	A A A A A	<b>3NG1 002</b> <b>3NG1 102</b> <b>3NG1 202</b> <b>3NG1 302</b> <b>3NG1 402</b>	6 units 6 units 3 units 3 units 3 units	0.080 0.110 0.170 0.240 0.290
	With non-insulated grip lugs, size 4 tin-plated, size 4a nickel-plated	A A	<b>3NG1 503</b> <b>3NG1 505</b>	6 units 3 units	0.708 0.730
	<b>Fuse base cover</b> For LV HRC fuse bases according to DIN 43620 Red with yellow label "Supply isolation point"	A A	<b>3NX1 003</b> <b>3NX1 004</b>	10 units 10 units	0.050 0.100
	<b>LV HRC protective cover IP2X</b> For LV HRC fuse bases of size 00 1 and 3-pole	A	<b>3NX3 115</b>	10 units	0.039
	<b>LV HRC shrouding cover IP2X</b> LV HRC protective cover IP2X	A	<b>3NX3 116</b>	10 units	0.014
	<b>LV HRC contact cover for LV HRC rail-mounting fuse bases</b> For plugging onto contact pieces for touch protection Outgoing side Infeed side	A A	<b>3NX3 105</b> <b>3NX3 113</b>	20 units 20 units	0.013 0.006
	<b>LV HRC barriers for LV HRC rail mounting fuse bases</b> Interphase barriers Terminating barrier For 3NH4 037 and 3NH4 047 fuse bases	A A A	<b>3NX2 027</b> <b>3NX2 028</b> <b>3NX2 031</b>	20 units 20 units 10 units	0.017 0.020 0.050



### Selection and ordering data





Size	Rated current $I_n$	Rated voltage $U_N$	DT	Non-insulated grip lugs	PS*	Weight per PU approx.	DT	Insulated grip lugs	PS*	Weight per PU approx.		
				Order No.				Order No.				
A		V				kg				kg		
<b>LV HRC fuse links with integrated indicator</b>												
<b>Duty class gL/gG for cable and line protection</b>												
	000	2	AC 500 V, DC 250 V	A	<b>3NA7 802</b>	9 units	0.135	A	<b>3NA6 802</b>	9 units	0.135	
	21 mm	4		A	<b>3NA7 804</b>	9 units	0.135	A	<b>3NA6 804</b>	9 units	0.135	
		6		A	<b>3NA7 801</b>	9 units	0.135	A	<b>3NA6 801</b>	9 units	0.135	
	10	10		A	<b>3NA7 803</b>	9 units	0.135	A	<b>3NA6 803</b>	9 units	0.136	
		16		A	<b>3NA7 805</b>	9 units	0.135	A	<b>3NA6 805</b>	9 units	0.136	
		20		A	<b>3NA7 807</b>	9 units	0.135	A	<b>3NA6 807</b>	9 units	0.136	
		25		A	<b>3NA7 810</b>	9 units	0.135	A	<b>3NA6 810</b>	9 units	0.136	
		32		A	<b>3NA7 812</b>	9 units	0.135	A	<b>3NA6 812</b>	9 units	0.136	
		35		A	<b>3NA7 814</b>	9 units	0.135	A	<b>3NA6 814</b>	9 units	0.136	
		40		A	<b>3NA7 817</b>	9 units	0.135	A	<b>3NA6 817</b>	9 units	0.136	
	50	50		A	<b>3NA7 820</b>	9 units	0.135	A	<b>3NA6 820</b>	9 units	0.136	
		63		A	<b>3NA7 822</b>	9 units	0.135	A	<b>3NA6 822</b>	9 units	0.136	
		80		A	<b>3NA7 824</b>	9 units	0.135	A	<b>3NA6 824</b>	9 units	0.136	
100		A	<b>3NA7 830</b>	9 units	0.135	A	<b>3NA6 830</b>	9 units	0.136			
00		80	AC 500 V, DC 250 V	A	<b>3NA7 824-7</b>	3 units	0.200	A	<b>3NA6 824-7</b>	3 units	0.211	
		100		A	<b>3NA7 830-7</b>	3 units	0.200	A	<b>3NA6 830-7</b>	3 units	0.211	
		125		A	<b>3NA7 832</b>	3 units	0.200	A	<b>3NA6 832</b>	3 units	0.211	
	160	A		<b>3NA7 836</b>	3 units	0.200	A	<b>3NA6 836</b>	3 units	0.211		
	1	16	AC 500 V, DC 440 V	A	<b>3NA7 105</b>	3 units	0.290	A	<b>3NA6 105</b>	3 units	0.290	
		20		A	<b>3NA7 107</b>	3 units	0.290	A	<b>3NA6 107</b>	3 units	0.290	
		25		A	<b>3NA7 110</b>	3 units	0.290	A	<b>3NA6 110</b>	3 units	0.290	
	30 mm	35		A	<b>3NA7 114</b>	3 units	0.290	A	<b>3NA6 114</b>	3 units	0.290	
		40		A	<b>3NA7 117</b>	3 units	0.290	A	<b>3NA6 117</b>	3 units	0.290	
		50		A	<b>3NA7 120</b>	3 units	0.290	A	<b>3NA6 120</b>	3 units	0.290	
		63		A	<b>3NA7 122</b>	3 units	0.290	A	<b>3NA6 122</b>	3 units	0.290	
		80		A	<b>3NA7 124</b>	3 units	0.290	A	<b>3NA6 124</b>	3 units	0.290	
		100		A	<b>3NA7 130</b>	3 units	0.290	A	<b>3NA6 130</b>	3 units	0.290	
		125		A	<b>3NA7 132</b>	3 units	0.290	A	<b>3NA6 132</b>	3 units	0.290	
	47.2 mm	160		A	<b>3NA7 136</b>	3 units	0.290	A	<b>3NA6 136</b>	3 units	0.290	
		200		A	<b>3NA7 140</b>	3 units	0.424	A	<b>3NA6 140</b>	3 units	0.440	
		224		A	<b>3NA7 142</b>	3 units	0.434	A	<b>3NA6 142</b>	3 units	0.440	
		250		A	<b>3NA7 144</b>	3 units	0.438	A	<b>3NA6 144</b>	3 units	0.440	
				2	35	AC 500 V, DC 440 V	A	<b>3NA7 214</b>	3 units	0.445	A	<b>3NA6 214</b>
47.2 mm	50		A		<b>3NA7 220</b>		3 units	0.445	A	<b>3NA6 220</b>	3 units	0.450
63	A		<b>3NA7 222</b>		3 units		0.445	A	<b>3NA6 222</b>	3 units	0.450	
57.8 mm	80		A	<b>3NA7 224</b>	3 units		0.450	A	<b>3NA6 224</b>	3 units	0.450	
	100		A	<b>3NA7 230</b>	3 units		0.446	A	<b>3NA6 230</b>	3 units	0.450	
	125		A	<b>3NA7 232</b>	3 units		0.446	A	<b>3NA6 232</b>	3 units	0.450	
	160		A	<b>3NA7 236</b>	3 units		0.446	A	<b>3NA6 236</b>	3 units	0.450	
	200		A	<b>3NA7 240</b>	3 units		0.446	A	<b>3NA6 240</b>	3 units	0.450	
	224		A	<b>3NA7 242</b>	3 units		0.446	A	<b>3NA6 242</b>	3 units	0.450	
	250		A	<b>3NA7 244</b>	3 units		0.446	A	<b>3NA6 244</b>	3 units	0.450	
	300		-	-	3 units		-	A	<b>3NA6 250</b>	3 units	0.650	
	315		A	<b>3NA7 252</b>	3 units		0.649	A	<b>3NA6 252</b>	3 units	0.660	
355	-	-	3 units	-	A	<b>3NA6 254</b>	3 units	0.660				
400	A	<b>3NA7 260</b>	3 units	0.653	A	<b>3NA6 260</b>	3 units	0.660				

Characteristics are available on the Internet at [www.siemens.de/installationstechnik](http://www.siemens.de/installationstechnik)

# Fuses and Fuse Systems

## LV HRC fuses

### Selection and ordering data

Size	Rated current $I_n$	Rated voltage $U_N$	DT	Insulated grip lugs	PS*	Weight per PU approx.	
				Order No.			
	A	V				kg	
<b>LV HRC fuses with combination indicator</b>							
<b>Operational class gL/gG, for cable and line protection</b>							
	000 21 mm	10	AC 400 V, DC 250 V	A	<b>3NA6 803-4</b>	9 units	0.135
		16		A	<b>3NA6 805-4</b>	9 units	0.135
	20	A		<b>3NA6 807-4</b>	9 units	0.135	
	25	A		<b>3NA6 810-4</b>	9 units	0.135	
	32	A		<b>3NA6 812-4</b>	9 units	0.135	
	35	A		<b>3NA6 814-4</b>	9 units	0.135	
	40	A		<b>3NA6 817-4</b>	9 units	0.135	
	50	A		<b>3NA6 820-4</b>	9 units	0.135	
	63	A		<b>3NA6 822-4</b>	9 units	0.135	
	80	A		<b>3NA6 824-4</b>	3 units	0.135	
100	A	<b>3NA6 830-4</b>	3 units	0.135			
	00 30 mm	80	AC 400 V, DC 250 V	A	<b>3NA6 824-4</b>	3 units	0.200
		100		A	<b>3NA6 830-4</b>	3 units	0.200
		125		A	<b>3NA6 832-4</b>	3 units	0.200
		160		A	<b>3NA6 836-4</b>	3 units	0.200
	1 30 mm	35	AC 400 V, DC 250 V	A	<b>3NA6 114-4</b>	3 units	0.290
		40		A	<b>3NA6 117-4</b>	3 units	0.290
	50	A		<b>3NA6 120-4</b>	3 units	0.290	
	63	A		<b>3NA6 122-4</b>	3 units	0.290	
	80	A		<b>3NA6 124-4</b>	3 units	0.290	
	100	A		<b>3NA6 130-4</b>	3 units	0.290	
	125	A		<b>3NA6 132-4</b>	3 units	0.290	
	160	A		<b>3NA6 136-4</b>	3 units	0.290	
	200	A		<b>3NA6 140-4</b>	3 units	0.430	
	224	A		<b>3NA6 142-4</b>	3 units	0.430	
250	A	<b>3NA6 144-4</b>	3 units	0.430			
	2 47.2 mm	50	AC 400 V, DC 250 V	A	<b>3NA6 220-4</b>	3 units	0.450
		63		A	<b>3NA6 222-4</b>	3 units	0.450
	80	A		<b>3NA6 224-4</b>	3 units	0.450	
	100	A		<b>3NA6 230-4</b>	3 units	0.450	
	125	A		<b>3NA6 232-4</b>	3 units	0.450	
	160	A		<b>3NA6 236-4</b>	3 units	0.450	
	200	A		<b>3NA6 240-4</b>	3 units	0.450	
	224	A		<b>3NA6 242-4</b>	3 units	0.450	
	250	A		<b>3NA6 244-4</b>	3 units	0.450	
	300	A		<b>3NA6 250-4</b>	3 units	0.650	
	315	A		<b>3NA6 252-4</b>	3 units	0.650	
	355	A		<b>3NA6 254-4</b>	3 units	0.650	
400	A	<b>3NA6 260-4</b>	3 units	0.650			





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### Selection and ordering data

Size	Rated current $I_n$		Rated voltage $U_N$	DT	Non-insulated grip lugs		PS*	Weight per PU approx.		DT	Insulated grip lugs		PS*	Weight per PU approx.	
	A	V			Order No.	Order No.		kg	kg		Order No.	kg			

### LV HRC fuses with combination indicator Operational class gG, for cable and line protection

The 300 A fuse links do not have VDE marking. They comply with the standard but are not allowed to bear the test mark.

	000	2	AC 690 V, DC 250 V	A	<b>3NA7 802-6</b>	3 units	0.135	A	<b>3NA6 802-6</b>	3 units	0.136	
	21 mm	4		A	<b>3NA7 804-6</b>	3 units	0.135	A	<b>3NA6 804-6</b>	3 units	0.136	
		6		A	<b>3NA7 801-6</b>	3 units	0.135	A	<b>3NA6 801-6</b>	3 units	0.136	
		10		A	<b>3NA7 803-6</b>	3 units	0.135	A	<b>3NA6 803-6</b>	3 units	0.136	
		16		A	<b>3NA7 805-6</b>	3 units	0.135	A	<b>3NA6 805-6</b>	3 units	0.136	
		20		A	<b>3NA7 807-6</b>	3 units	0.135	A	<b>3NA6 807-6</b>	3 units	0.136	
		25		A	<b>3NA7 810-6</b>	3 units	0.135	A	<b>3NA6 810-6</b>	3 units	0.136	
		32		A	<b>3NA7 812-6</b>	3 units	0.135	A	<b>3NA6 812-6</b>	3 units	0.136	
		35		A	<b>3NA7 814-6</b>	3 units	0.135	A	<b>3NA6 814-6</b>	3 units	0.136	
		00		40	AC 690 V, DC 250 V	A	<b>3NA7 817-6</b>	3 units	0.200	A	<b>3NA6 817-6</b>	3 units
50			A	<b>3NA7 820-6</b>		3 units	0.200	A	<b>3NA6 820-6</b>	3 units	0.211	
30 mm		63	A	<b>3NA7 822-6</b>		3 units	0.200	A	<b>3NA6 822-6</b>	3 units	0.211	
		80	A	<b>3NA7 824-6</b>		3 units	0.200	A	<b>3NA6 824-6</b>	3 units	0.211	
		100	A	<b>3NA7 830-6</b>		3 units	0.200	A	<b>3NA6 830-6</b>	3 units	0.211	
	1	50	AC 690 V, DC 440 V	A	<b>3NA7 120-6</b>	3 units	0.290	A	<b>3NA6 120-6</b>	3 units	0.290	
		63		A	<b>3NA7 122-6</b>	3 units	0.290	A	<b>3NA6 122-6</b>	3 units	0.290	
	30 mm	80		A	<b>3NA7 124-6</b>	3 units	0.290	A	<b>3NA6 124-6</b>	3 units	0.290	
		100		A	<b>3NA7 130-6</b>	3 units	0.290	A	<b>3NA6 130-6</b>	3 units	0.290	
		125		A	<b>3NA7 132-6</b>	3 units	0.290	A	<b>3NA6 132-6</b>	3 units	0.290	
		160		A	<b>3NA7 136-6</b>	3 units	0.290	A	<b>3NA6 136-6</b>	3 units	0.290	
47.2 mm	200	A	<b>3NA7 140-6</b>	3 units	0.426	A	<b>3NA6 140-6</b>	3 units	0.440			
	2	80	AC 690 V, DC 440 V	A	<b>3NA7 224-6</b>	3 units	0.426	A	<b>3NA6 224-6</b>	3 units	0.450	
		100		A	<b>3NA7 230-6</b>	3 units	0.426	A	<b>3NA6 230-6</b>	3 units	0.450	
	47.2 mm	125		A	<b>3NA7 232-6</b>	3 units	0.426	A	<b>3NA6 232-6</b>	3 units	0.450	
		160		A	<b>3NA7 236-6</b>	3 units	0.426	A	<b>3NA6 236-6</b>	3 units	0.450	
		200		A	<b>3NA7 240-6</b>	3 units	0.426	A	<b>3NA6 240-6</b>	3 units	0.450	
		224		A	<b>3NA7 242-6</b>	3 units	0.426	A	<b>3NA6 242-6</b>	3 units	0.660	
		57.8 mm		250	A	<b>3NA7 244-6</b>	3 units	0.426	A	<b>3NA6 244-6</b>	3 units	0.660
				300	A	<b>3NA7 250-6</b>	3 units	0.426	A	<b>3NA6 250-6</b>	3 units	0.660
	315	A	<b>3NA7 252-6</b>	3 units	0.660	A	<b>3NA6 252-6</b>	3 units	0.660			





Characteristics are available on the Internet at [www.siemens.de/installationstechnik](http://www.siemens.de/installationstechnik)

Further variants are available on request!

# Fuses and Fuse Systems



## LV HRC fuses

### Selection and ordering data

Size	Rated current $I_n$	Rated voltage $U_N$	DT	Non-insulated grip lugs	PS*	Weight per PU approx.
				Order No.		
	A	V				kg
<b>LV HRC fuses</b>						
<b>Operational class gG, for cable and line protection</b>						
	000 21 mm	AC 500 V, DC 250 V	A	<b>3NA3 802</b>	9 units	0.133
			A	<b>3NA3 804</b>	9 units	0.133
	A		<b>3NA3 801</b>	9 units	0.133	
	A		<b>3NA3 803</b>	9 units	0.133	
	A		<b>3NA3 805</b>	9 units	0.133	
	A		<b>3NA3 807</b>	9 units	0.133	
	A		<b>3NA3 810</b>	9 units	0.133	
	A		<b>3NA3 812</b>	9 units	0.133	
	A		<b>3NA3 814</b>	9 units	0.133	
	A		<b>3NA3 817</b>	9 units	0.133	
	A		<b>3NA3 820</b>	9 units	0.133	
	A		<b>3NA3 822</b>	9 units	0.133	
	A		<b>3NA3 824</b>	9 units	0.133	
	A		<b>3NA3 830</b>	9 units	0.133	
	00 30 mm	AC 500 V, DC 250 V	A	<b>3NA3 814-7</b>	3 units	0.200
			A	<b>3NA3 820-7</b>	3 units	0.200
			A	<b>3NA3 822-7</b>	3 units	0.200
			A	<b>3NA3 824-7</b>	3 units	0.200
			A	<b>3NA3 830-7</b>	3 units	0.200
			A	<b>3NA3 832</b>	3 units	0.217
			A	<b>3NA3 836</b>	3 units	0.217
	0 30 mm	AC 500 V, DC 440 V	A	<b>3NA3 001</b>	3 units	0.340
			A	<b>3NA3 003</b>	3 units	0.340
			A	<b>3NA3 005</b>	3 units	0.340
			A	<b>3NA3 007</b>	3 units	0.340
			A	<b>3NA3 010</b>	3 units	0.340
			A	<b>3NA3 012</b>	3 units	0.340
			A	<b>3NA3 014</b>	3 units	0.340
			A	<b>3NA3 017</b>	3 units	0.340
			A	<b>3NA3 020</b>	3 units	0.340
			A	<b>3NA3 022</b>	3 units	0.340
			A	<b>3NA3 024</b>	3 units	0.340
			A	<b>3NA3 030</b>	3 units	0.340
			A	<b>3NA3 032</b>	3 units	0.340
			A	<b>3NA3 036</b>	3 units	0.340
	1 30 mm	AC 500 V, DC 440 V	A	<b>3NA3 105</b>	3 units	0.290
			A	<b>3NA3 107</b>	3 units	0.290
			A	<b>3NA3 110</b>	3 units	0.290
			A	<b>3NA3 114</b>	3 units	0.300
			A	<b>3NA3 117</b>	3 units	0.300
			A	<b>3NA3 120</b>	3 units	0.300
			A	<b>3NA3 122</b>	3 units	0.300
			A	<b>3NA3 124</b>	3 units	0.300
			A	<b>3NA3 130</b>	3 units	0.300
			A	<b>3NA3 132</b>	3 units	0.300
			A	<b>3NA3 136</b>	3 units	0.300
			A	<b>3NA3 140</b>	3 units	0.440
			A	<b>3NA3 142</b>	3 units	0.440
			A	<b>3NA3 144</b>	3 units	0.440
47.2 mm	200	AC 500 V, DC 440 V	A	<b>3NA3 140</b>	3 units	0.440
			A	<b>3NA3 142</b>	3 units	0.440
			A	<b>3NA3 144</b>	3 units	0.440
			A	<b>3NA3 144</b>	3 units	0.440

Characteristics are available on the Internet at [www.siemens.de/installationstechnik](http://www.siemens.de/installationstechnik)

### Selection and ordering data


Size	Rated current $I_n$ A	Rated voltage $U_N$ V	DT	Non-insulated metal grip lugs	PS*	Weight per PU approx. kg	
				Order No.			
<b>LV HRC fuses</b>							
<b>Operational class gG, for cable and line protection</b>							
The 300 A, 355 A and 425 A fuse links do not have VDE marking. They comply with the standard but are not allowed to bear the test mark. Fuse links of size 4a can only be used in the LV HRC fuse base of size 4a 3NH7 520.							
	2 47.2 mm	35	AC 500 V, DC 440 V	A	<b>3NA3 214</b>	3 units	0.453
		50		A	<b>3NA3 220</b>	3 units	0.453
		63		A	<b>3NA3 222</b>	3 units	0.453
	57.8 mm	80	AC 500 V, DC 440 V	A	<b>3NA3 224</b>	3 units	0.453
		100		A	<b>3NA3 230</b>	3 units	0.453
		125		A	<b>3NA3 232</b>	3 units	0.453
		160		A	<b>3NA3 236</b>	3 units	0.453
		200		A	<b>3NA3 240</b>	3 units	0.453
		224		A	<b>3NA3 242</b>	3 units	0.453
		250		A	<b>3NA3 244</b>	3 units	0.453
		300		A	<b>3NA3 250</b>	3 units	0.647
	3 57.8 mm	315	AC 500 V, DC 440 V	A	<b>3NA3 252</b>	3 units	0.647
355		A		<b>3NA3 254</b>	3 units	0.647	
400		A		<b>3NA3 260</b>	3 units	0.647	
200		A		<b>3NA3 340</b>	3 units	0.647	
	3 71.2 mm	224	AC 500 V, DC 440 V	A	<b>3NA3 342</b>	3 units	0.640
		250		A	<b>3NA3 344</b>	3 units	0.647
		300		A	<b>3NA3 350</b>	3 units	0.647
	71.2 mm	315	AC 500 V, DC 440 V	A	<b>3NA3 352</b>	3 units	0.647
		355		A	<b>3NA3 354</b>	3 units	0.647
		400		A	<b>3NA3 360</b>	3 units	0.647
		425		A	<b>3NA3 362</b>	3 units	1.000
		500		A	<b>3NA3 365</b>	3 units	1.000
		630		A	<b>3NA3 372</b>	3 units	1.000
		630		AC 500 V, DC 440 V	A	<b>3NA3 472</b>	1 unit
800	A	<b>3NA3 475</b>	1 unit		2.500		
1000	A	<b>3NA3 480</b>	1 unit		2.500		
1250	A	<b>3NA3 482</b>	1 unit		2.500		
4 101.8 mm	4a 101.8 mm	500	AC 500 V, DC 440 V	A	<b>3NA3 665</b>	1 unit	2.700
		630		A	<b>3NA3 672</b>	1 unit	2.700
		800		A	<b>3NA3 675</b>	1 unit	2.700
		1000		A	<b>3NA3 680</b>	1 unit	2.840
		1250		A	<b>3NA3 682</b>	1 unit	2.840

Characteristics are available on the Internet at [www.siemens.de/installationstechnik](http://www.siemens.de/installationstechnik)

# Fuses and Fuse Systems

## LV HRC fuses

### Selection and ordering data

Size	Rated current $I_n$ A	Rated voltage $U_N$ V	DT	Non-insulated grip lugs	PS*	Weight per PU approx. kg
				Order No.		
<b>LV HRC fuse links</b>						
<b>Operational class aM, for switchgear protection in the short-circuit range</b>						
	000	6	AC 500 V	A	<b>3ND1 801</b>	3 units 0.130
	21 mm	10		A	<b>3ND1 803</b>	3 units 0.130
		16		A	<b>3ND1 805</b>	3 units 0.130
		20		A	<b>3ND1 807</b>	3 units 0.130
		25		A	<b>3ND1 810</b>	3 units 0.130
		32		A	<b>3ND1 812</b>	3 units 0.130
		35		A	<b>3ND1 814</b>	3 units 0.130
		40		A	<b>3ND1 817</b>	3 units 0.130
		50		A	<b>3ND1 820</b>	3 units 0.130
		63		A	<b>3ND1 822</b>	3 units 0.130
	80		A	<b>3ND1 824</b>	3 units 0.130	
00 30 mm	100	AC 500 V	A	<b>3ND1 830</b>	3 units 0.192	
	125		A	<b>3ND1 832</b>	3 units 0.192	
	160		A	<b>3ND1 836</b>	3 units 0.192	
1 46 mm	63	AC 690 V	A	<b>3ND2 122</b>	3 units 0.300	
	80		A	<b>3ND2 124</b>	3 units 0.300	
	100		A	<b>3ND2 130</b>	3 units 0.300	
	125		A	<b>3ND2 132</b>	3 units 0.440	
	160		A	<b>3ND2 136</b>	3 units 0.440	
	200		A	<b>3ND2 140</b>	3 units 0.440	
	250		A	<b>3ND2 144</b>	3 units 0.440	
2 57 mm	125	AC 690 V	A	<b>3ND2 232</b>	3 units 0.450	
	160		A	<b>3ND2 236</b>	3 units 0.450	
	200		A	<b>3ND2 240</b>	3 units 0.450	
	250		A	<b>3ND2 244</b>	3 units 0.450	
	315		A	<b>3ND2 252</b>	3 units 0.650	
	355		A	<b>3ND2 254</b>	3 units 0.650	
	400		A	<b>3ND2 260</b>	3 units 0.650	
3 71.2 mm	315	AC 690 V	A	<b>3ND2 352</b>	3 units 0.650	
	355		A	<b>3ND2 354</b>	3 units 0.650	
	400		A	<b>3ND2 360</b>	3 units 0.650	
	500		A	<b>3ND1 365</b>	3 units 1.030	
	630		A	<b>3ND1 372</b>	3 units 1.000	

Characteristics are available on the Internet at [www.siemens.de/installationstechnik](http://www.siemens.de/installationstechnik)

### Selection and ordering data

Size	Rated current $I_n$	Rated voltage $U_N$	DT	Non-insulated grip lugs	PS*	Weight per PU approx.
				Order No.		
	A	V				kg

### LV HRC fuses Operational class gG, for cable and line protection

The 300 A and 425 A fuse links do not have VDE marking. They comply with the standard but are not allowed to bear the test mark.



000 21 mm	2	AC 690 V, DC 250 V	A	<b>3NA3 802-6</b>	3 units	0.135
	4		A	<b>3NA3 804-6</b>	3 units	0.135
	6		A	<b>3NA3 801-6</b>	3 units	0.135
	10		A	<b>3NA3 803-6</b>	3 units	0.135
	16		A	<b>3NA3 805-6</b>	3 units	0.135
	20		A	<b>3NA3 807-6</b>	3 units	0.135
	25		A	<b>3NA3 810-6</b>	3 units	0.135
	32		A	<b>3NA3 812-6</b>	3 units	0.135
35	A	<b>3NA3 814-6</b>	3 units	0.135		



00 30 mm	40	AC 690 V, DC 250 V	A	<b>3NA3 817-6</b>	3 units	0.200
	50		A	<b>3NA3 820-6</b>	3 units	0.200
	63		A	<b>3NA3 822-6</b>	3 units	0.200
	80		A	<b>3NA3 824-6</b>	3 units	0.200
	100		A	<b>3NA3 830-6</b>	3 units	0.200

1 30 mm	50	AC 690 V, DC 440 V	A	<b>3NA3 120-6</b>	3 units	0.290
	63		A	<b>3NA3 122-6</b>	3 units	0.290
	80		A	<b>3NA3 124-6</b>	3 units	0.290
	100		A	<b>3NA3 130-6</b>	3 units	0.290
	125		A	<b>3NA3 132-6</b>	3 units	0.290
	160		A	<b>3NA3 136-6</b>	3 units	0.290
	200		A	<b>3NA3 140-6</b>	3 units	0.426

2 47.2 mm	80	AC 690 V, DC 440 V	A	<b>3NA3 224-6</b>	3 units	0.426
	100		A	<b>3NA3 230-6</b>	3 units	0.426
	125		A	<b>3NA3 232-6</b>	3 units	0.426
	160		A	<b>3NA3 236-6</b>	3 units	0.426
	200		A	<b>3NA3 240-6</b>	3 units	0.426
57.8 mm	224		A	<b>3NA3 242-6</b>	3 units	0.660
	250		A	<b>3NA3 244-6</b>	3 units	0.680
	300		A	<b>3NA3 250-6</b>	3 units	0.660
	315		A	<b>3NA3 252-6</b>	3 units	0.680























3 71.2 mm	250	AC 690 V, DC 440 V	A	<b>3NA3 344-6</b>	3 units	0.660
	315		A	<b>3NA3 352-6</b>	3 units	0.660
	355		A	<b>3NA3 354-6</b>	3 units	1.000
	400		A	<b>3NA3 360-6</b>	3 units	1.000
	425		A	<b>3NA3 362-6</b>	3 units	1.000
	500		A	<b>3NA3 365-6</b>	3 units	1.000

Characteristics are available on the Internet at [www.siemens.de/installationstechnik](http://www.siemens.de/installationstechnik)

# Fuses and Fuse Systems





## Cylindrical fuses

### Selection and ordering data

Contacts	Rated current $I_n$	For fuses of size	MW	DT	Order No.	PS*	Weight per PU approx.
	A	mm x mm					kg
<b>Base for cylindrical fuses, draw-out version, 70 mm mounting depth</b>							
<b>Without signal output</b>							
	Single-pole						
		20	8.5 x 31.5	1	A	<b>3NW7 310</b>	12 units 0.058
		32	10 x 38	1	A	<b>3NW7 011</b>	12 units 0.080
		50	14 x 51	1.5	A	<b>3NW7 111</b>	6 units 0.095
		100	22 x 58	2	A	<b>3NW7 211</b>	6 units 0.145
	Single-pole + N						
		20	8.5 x 31.5	2	A	<b>3NW7 350</b>	6 units 0.120
		32	10 x 38	2	A	<b>3NW7 051</b>	6 units 0.167
		50	14 x 51	3	A	<b>3NW7 151</b>	3 units 0.215
		100	22 x 58	4	A	<b>3NW7 251</b>	3 units 0.330
	2-pole						
		20	8.5 x 31.5	2	A	<b>3NW7 320</b>	6 units 0.112
		32	10 x 38	2	A	<b>3NW7 021</b>	6 units 0.162
		50	14 x 51	3	A	<b>3NW7 121</b>	1 unit 0.195
		100	22 x 58	4	A	<b>3NW7 221</b>	1 unit 0.300
	3-pole						
		20	8.5 x 31.5	3	A	<b>3NW7 330</b>	4 units 0.167
		32	10 x 38	3	A	<b>3NW7 031</b>	4 units 0.243
		50	14 x 51	4.5	A	<b>3NW7 131</b>	1 unit 0.295
		100	22 x 58	6	A	<b>3NW7 231</b>	1 unit 0.691
	3-pole + N						
		20	8.5 x 31.5	4	A	<b>3NW7 360</b>	3 units 0.227
		32	10 x 38	4	A	<b>3NW7 061</b>	3 units 0.327
		50	14 x 51	6	A	<b>3NW7 161</b>	1 unit 0.315
		100	22 x 58	8	A	<b>3NW7 261</b>	1 unit 0.475
<b>With signaling output</b>							
	Single-pole						
		20	8.5 x 31.5	1	A	<b>3NW7 312</b>	12 units 0.058
		32	10 x 38	1	A	<b>3NW7 012</b>	12 units 0.080
		50	14 x 51	1.5	A	<b>3NW7 112</b>	6 units 0.095
		100	22 x 58	2	A	<b>3NW7 212</b>	6 units 0.145
	Single-pole + N						
		20	8.5 x 31.5	2	A	<b>3NW7 352</b>	6 units 0.120
		32	10 x 38	2	A	<b>3NW7 052</b>	6 units 0.167
		50	14 x 51	3	A	<b>3NW7 152</b>	3 units 0.215
		100	22 x 58	4	A	<b>3NW7 252</b>	3 units 0.330
	2-pole						
		20	8.5 x 31.5	2	A	<b>3NW7 322</b>	6 units 0.112
		32	10 x 38	2	A	<b>3NW7 022</b>	6 units 0.162
		50	14 x 51	3	A	<b>3NW7 122</b>	1 unit 0.195
		100	22 x 58	4	A	<b>3NW7 222</b>	1 unit 0.300
	3-pole						
		20	8.5 x 31.5	3	A	<b>3NW7 332</b>	4 units 0.167
		32	10 x 38	3	A	<b>3NW7 032</b>	4 units 0.243
		50	14 x 51	4.5	A	<b>3NW7 132</b>	1 unit 0.295
		100	22 x 58	6	A	<b>3NW7 232</b>	1 unit 0.691
	3-pole + N						
		20	8.5 x 31.5	4	A	<b>3NW7 362</b>	3 units 0.227
		32	10 x 38	4	A	<b>3NW7 062</b>	3 units 0.327
		50	14 x 51	6	A	<b>3NW7 162</b>	1 unit 0.315
		100	22 x 58	8	A	<b>3NW7 262</b>	1 unit 0.475



### Selection and ordering data

Size mm × mm	Rated current $I_n$ A	Rated voltage $U_N$ V	DT	Operational class gG	PS*	Weight per PU approx. kg	DT	Operational class aM	PS*	Weight per PU approx. kg					
				Order No.			Order No.								
<b>Cylindrical fuses, operational class gL/gG, for cable and line protection, operational class aM, for switchgear protection in the short-circuit range</b>															
	8.5 × 31.5	2 4 6 10 16 20	400	A	<b>3NW6 302-1</b>	10 units	0.004	-							
				A	<b>3NW6 304-1</b>	10 units	0.004	-							
				A	<b>3NW6 301-1</b>	10 units	0.004	-							
				A	<b>3NW6 303-1</b>	10 units	0.004	-							
				A	<b>3NW6 305-1</b>	10 units	0.004	-							
				A	<b>3NW6 307-1</b>	10 units	0.004	-							
	10 × 38	0.5 1	500	-	-	-	-	A	<b>3NW8 000-1</b>	10 units	0.003				
				-	-	-	-	A	<b>3NW8 011-1</b>	10 units	0.008				
		A	<b>3NW6 002-1</b>	10 units	0.008	A	<b>3NW8 002-1</b>	10 units	0.008						
		A	<b>3NW6 004-1</b>	10 units	0.008	A	<b>3NW8 004-1</b>	10 units	0.008						
		A	<b>3NW6 001-1</b>	10 units	0.008	A	<b>3NW8 001-1</b>	10 units	0.008						
		A	<b>3NW6 008-1</b>	10 units	0.008	A	<b>3NW8 008-1</b>	10 units	0.003						
		A	<b>3NW6 003-1</b>	10 units	0.008	A	<b>3NW8 003-1</b>	10 units	0.008						
		A	<b>3NW6 006-1</b>	10 units	0.008	A	<b>3NW6 006-1</b>	10 units	0.008						
		A	<b>3NW6 005-1</b>	10 units	0.008	A	<b>3NW8 005-1</b>	10 units	0.008						
		A	<b>3NW6 007-1</b>	10 units	0.008	A	<b>3NW8 007-1</b>	10 units	0.008						
		A	<b>3NW6 010-1</b>	10 units	0.008	A	<b>3NW8 010-1</b>	10 units	0.008						
		A	<b>3NW6 012-1</b>	10 units	0.008	-	-	-	-						
			14 × 51	2 4 6 8 10 12 16 20 25 32 50	500	-	-	-	-	A	<b>3NW8 102-1</b>	10 units	0.019		
						A	<b>3NW6 104-1</b>	10 units	0.019	A	<b>3NW8 104-1</b>	10 units	0.019		
A	<b>3NW6 101-1</b>					10 units	0.019	A	<b>3NW8 101-1</b>	10 units	0.019				
A	<b>3NW6 108-1</b>					10 units	0.019	A	<b>3NW8 108-1</b>	10 units	0.019				
A	<b>3NW6 103-1</b>					10 units	0.019	A	<b>3NW8 103-1</b>	10 units	0.019				
A	<b>3NW6 106-1</b>					10 units	0.019	A	<b>3NW8 106-1</b>	10 units	0.019				
A	<b>3NW6 105-1</b>					10 units	0.019	A	<b>3NW8 105-1</b>	10 units	0.019				
A	<b>3NW6 107-1</b>					10 units	0.019	A	<b>3NW8 107-1</b>	10 units	0.019				
A	<b>3NW6 110-1</b>					10 units	0.019	A	<b>3NW8 110-1</b>	10 units	0.019				
A	<b>3NW6 112-1</b>					10 units	0.019	A	<b>3NW8 112-1</b>	10 units	0.019				
A	<b>3NW6 120-1</b>					10 units	0.019	A	<b>3NW8 120-1</b>	10 units	0.019				
	22 × 58					8 10 12 16 20 25 32 40 50 63 80 100	500	A	<b>3NW6 208-1</b>	10 units	0.051	-	-	-	-
								A	<b>3NW6 203-1</b>	10 units	0.051	A	<b>3NW8 203-1</b>	10 units	0.051
								A	<b>3NW6 206-1</b>	10 units	0.051	-	-	-	-
		A	<b>3NW6 205-1</b>	10 units	0.051			A	<b>3NW6 205-1</b>	10 units	0.051				
		A	<b>3NW6 207-1</b>	10 units	0.051			A	<b>3NW8 207-1</b>	10 units	0.051				
		A	<b>3NW6 210-1</b>	10 units	0.051			A	<b>3NW8 210-1</b>	10 units	0.051				
		A	<b>3NW6 212-1</b>	10 units	0.051			A	<b>3NW8 212-1</b>	10 units	0.051				
		A	<b>3NW6 217-1</b>	10 units	0.051			A	<b>3NW8 217-1</b>	10 units	0.051				
		A	<b>3NW6 220-1</b>	10 units	0.051			A	<b>3NW8 220-1</b>	10 units	0.051				
		A	<b>3NW6 222-1</b>	10 units	0.051			A	<b>3NW8 222-1</b>	10 units	0.051				
A	<b>3NW6 224-1</b>	10 units	0.051	A	<b>3NW8 224-1</b>	10 units	0.051								
A	<b>3NW6 230-1</b>	10 units	0.051	A	<b>3NW8 230-1</b>	10 units	0.051								

\* This quantity or a multiple thereof can be ordered.

# Fuses and Fuse Systems

Notes

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