

Reliable – from experience.



# sentron

SWITCH DISCONNECTORS

Every-  
thing.  
Great.

**SIEMENS**

Everything. Great. With low-voltage power distribution from Siemens.



## **SENTRON switch disconnectors:** Full range – full power!

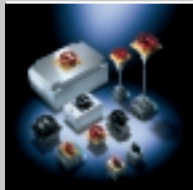
**Buildings are becoming increasingly more intelligent, production plants and systems continually more flexible and this means that low-voltage power distribution is truly becoming a “main artery” – as never before. The current to power electric loads must flow – reliably, cost-effectively and safely.**

**So that this really happens, we are offering something quite unique: Products that are harmonized with one another so that your requirements can be mastered easily. This technology has a name: SENTRON – the complete range of devices from 16 A to 6300 A, from well-proven switch disconnectors up to the intelligent circuit-breakers 3VL and 3WL.**

**Let yourself be inspired.**

**For every task, every application and every concept. The optimum disconnecter.**

**Take the time and see for yourself.**



**3LD main control and EMERGENCY-STOP switches:**

For safe disconnection if the plant must be isolated from the line supply for a longer period of time. . . . . Pages 04–05



**3K switch disconnectors:**

Whether with or without fuses – complete safety and performance in every version up to the moulded-plastic enclosure with IP65. . . . . Pages 06–09



**3NP fuse switch disconnectors:**

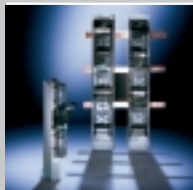
For 100% protection against overload and short-circuit without any residual risk. . . . . Pages 10–11

**3NP4 standard series of switch disconnectors –**

the universal solution for practically every application from the meter cabinet up to power distribution in large industrial plants and systems. . . . . Pages 10–11

**3NP5 compact series of load switch disconnectors –**

can also be used when the going gets tough. . . . . Pages 10–11



**3NJ fuse in-line switch disconnectors –**

the strong combination for switching loads and isolating with integrated low-voltage HRC fuses. . . . . Pages 12–13

**3NJ4 fuse switch disconnectors –**

continue to conduct the short-circuit current so that the plant or system can be ramped down in a controlled fashion. . . . . Pages 12–13

**3NJ6 plug-in switch disconnectors with fuses –**

the solution also when it comes to manually switching and disconnecting load feeders and cable distribution systems. . . . . Pages 12–13



## **SENTRON switch disconnectors:** Well-proven, cost-effective – but always up-to-date!

When all is said and done, there is one main issue when it comes to power circuits: Safe switching. In this area, switch disconnectors have always played an extremely important role as reliable circuit elements. Whether with fuses or without fuses. And there are at least five good reasons why these switch disconnectors should be called SENTRON.

■ **Because SENTRON switch disconnectors represent the experience gained from millions of applications** – and therefore nothing can throw them. And especially not when it comes to safety-related applications, in environments containing sulfur or in potentially hazardous zones.

■ **Because SENTRON switch disconnectors only have one claim: Maximum quality.** We have achieved this as our production environment and highest quality standards have been fine-tuned over many years – a SENTRON switch disconnector never lets anybody down.

- **Because SENTRON switch disconnectors can be used to address new requirements.** As we continue to develop and innovate well-proven products.
- **Because SENTRON switch disconnectors offer many application solutions** – with a complete portfolio of products and a seamless range of associated accessories.
- **Because SENTRON switch disconnectors ensure professional planning and safe operation** – the reasons range from the clear, complete documentation up to Siemens' global support.

#### Switch disconnectors – the highlights:

- Wide product range
- Extensive range of accessories
- Can be simply retrofitted
- Fast mounting and installation

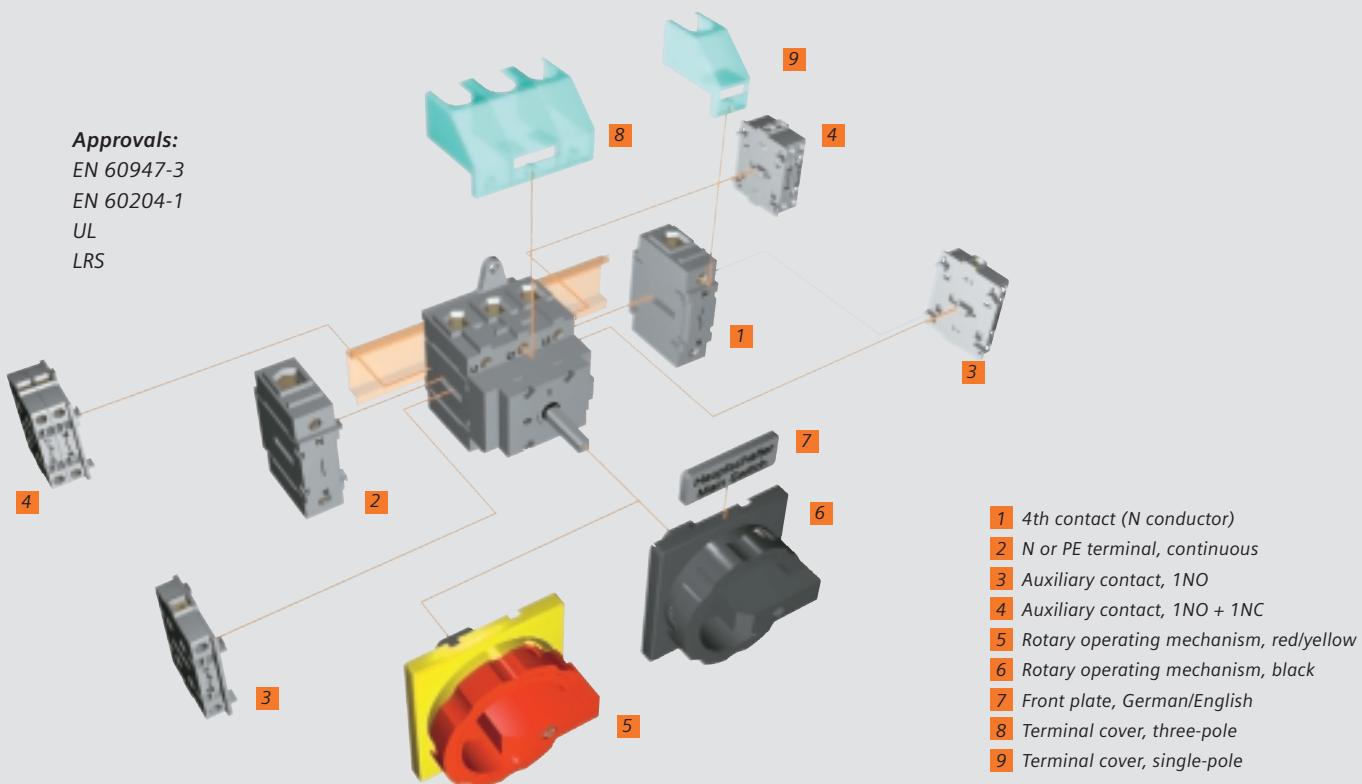


# SETRON main control and EMERGENCY-STOP switches 3LD: Simple. Modular.

**When repair or maintenance work is being carried out, the plant or system is disconnected and isolated from the line supply – naturally also when faults occur. Disconnectors that isolate systems from the line supply ensure that the complete electrical equipment can be safely disconnected and isolated.**

Main control and EMERGENCY-STOP switches are here to stay – especially in all types of processing machines in the machinery and conveyor system construction, in the chemical and food & beverage industries. They cover an extremely broad range of applications: They can switch three-phase motors just the same as HVAC systems up to 45 kW.

**Approvals:**  
EN 60947-3  
EN 60204-1  
UL  
LRS



Main control and EMERGENCY-STOP switches 3LD can be used as switches for front or base mounting, as switches in distribution panels and as switches in moulded-plastic enclosures in conjunction with rotary door-coupling drive mechanisms.



#### Technical data: Main control and EMERGENCY-STOP switches 3LD

Standards		IEC 60947, VDE 0660					
Disconnecter	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 insulating 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 strength <math>U_{imp}</math></b>	kV	6	6	6	6	6	6
<b>Rated short-time current strength</b> (1-s current, RMS value)	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 continuous current <math>I_u</math></b>	A	16	25	32	63	100	125
AC-21A load switch							
<b>Rated operating current <math>I_e</math></b>	A	16	25	32	63	100	125
AC-3 motor switch, individual motors can be operationally switched							
<b>Rated operating power</b>							
at 220 V ... 240 V	kW	3.0	4.0	5.5	11.0	18.5	22.0
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 switch, repair switch individual motors can be frequently switched but not operationally							
<b>Rated operating power</b>							
at 220 V ... 240 V	kW	4.0	5.0	6.0	11.0	18.5	22.0
at 380 V ... 440 V	kW	7.5	9.5	11.5	22.0	37.0	45.0
at 660 V/690 V	kW	7.5	9.5	11.5	18.5	30.0	37.0

# SENTRON

## switch disconnectors 3KA/3KE:

### Switching without fuses.

#### The specialists for fuseless disconnection

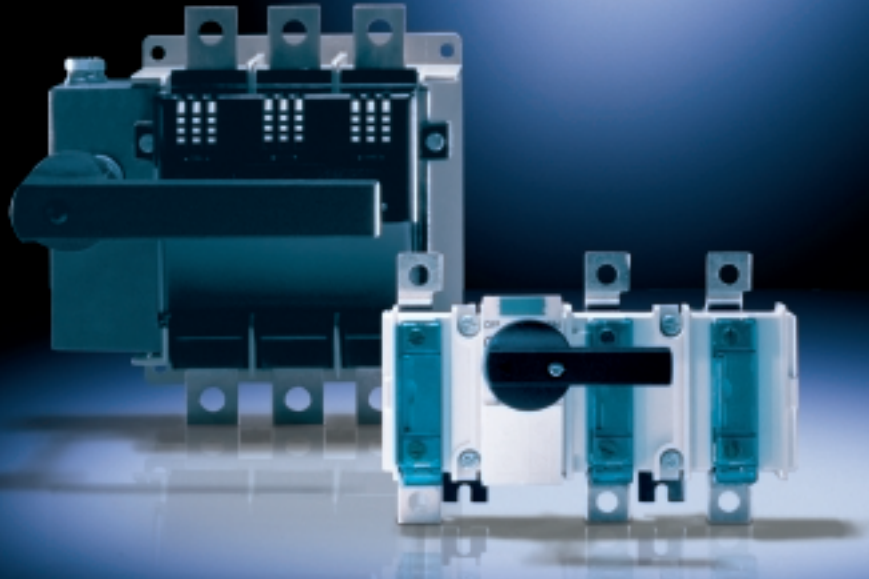
These switch disconnectors without fuses are used in distribution systems in residential and commercial buildings as well as in industrial switchboards. Switch disconnectors 3KA and 3KE reliably "isolate" and "switch under load" the specified rated current through either three or four phases. This means that they are predestined as main control, EMERGENCY-STOP, repair or line changeover switch – and they guarantee safe isolation in all low-voltage networks.

#### Technical data: Switch disconnectors 3KA

Standards		IEC 60947-1, IEC 60947-3, VDE 0660 Part 107						
Disconnector	Type	3KA50	3KA51	3KA52	3KA53	3KA55	3KA57	3KA58
<b>Rated continuous current <math>I_n</math></b>	A	63	80	125	160	250	400	630
<b>Rated operating voltage <math>U_e</math></b>								
50 Hz/60 Hz AC	V	690						
DC	V	440 (3 conducting paths connected in series)						
	V	220 (2 conducting paths connected in series)						
<b>Rated short-circuit making capacity with upstream fuses</b>								
at 690 V AC 50Hz/60 Hz	kA (peak value)	220	220	220	220	220	220	220
<b>Rated conditional short-circuit current with upstream fuses</b>								
at 690 V AC 50 Hz/60 Hz	kA (peak 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 fuses	kA	8	10	17	17	30	30	40
Max. permissible $I^2t$ let-through value	kA <sup>2</sup> s	55	55	223	223	1000	1000	2600
<b>Switching capacity (feed from either the top or bottom)</b>								
<b>at 400 V AC</b>								
Breaking current $I_c$ ( $\cos \varphi = 0.35$ )	A (RMS value)	500	650	1000	1280	2000	3200	5040
AC-21A, AC-22A, AC-23A	A	63	80	125	160	250	400	630
Motor switching capacity AC-23A	kW	30	40	65	80	132	200	350
<b>at 500 V AC</b>								
Breaking current $I_c$ ( $\cos \varphi = 0.35$ )	A (RMS value)	500	640	1000	1280	2000	3200	3200
Rated operating current $I_e$ at								
AC-21A, AC-22A	A	63	80		160	250	400	630
AC-23A	A	63	80	125	160	250	400	400
Motor switching capacity AC-23A	kW	40	50	90	110	185	280	280
<b>at 690 V AC</b>								
Breaking current $I_c$ ( $\cos \varphi = 0.35$ )	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
Motor switching capacity AC-23A	kW	50	50	110	150	220	375	375
<b>at 440 V DC (3 conducting paths connected in series)</b>								
Breaking current $I_c$ ( $L/R = 15$ ms)	A (RMS value)	250	260	500	640	1000	1600	1600
Rated operating current $I_e$ for DC-23A	A	63	63	125	160	250	400	400



The complete series of SENTRON switch disconnectors without fuses: 3LD, 3KA, 3KE



#### Technical data: Switch disconnectors 3KE

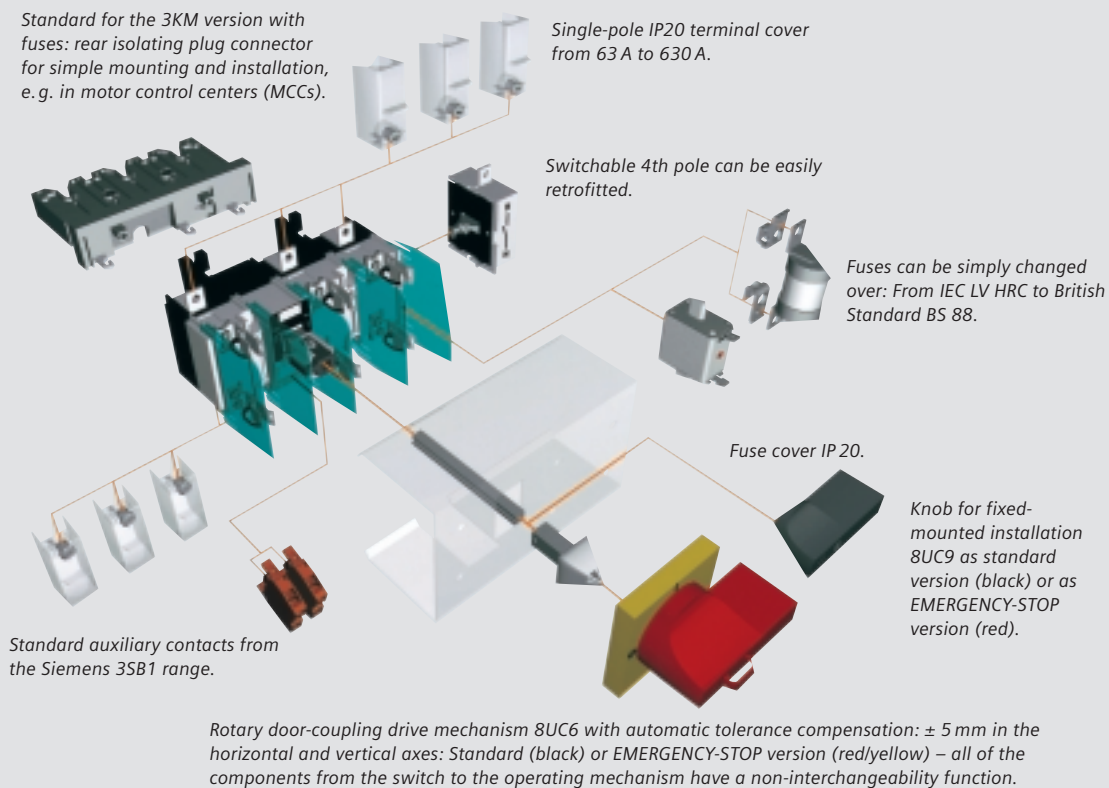
Standards		IEC 60947-1, IEC 60947-3, VDE 0660 Part 107			
Disconnector	Type	3KE42	3KE43	3KE44	3KE45
<b>Rated continuous current <math>I_u</math></b>	A	250	400	630	1000
<b>Rated operating voltage <math>U_e</math></b>		690			
50 Hz/60 Hz AC	V	440 (3 conducting paths connected in series)			
DC	V	220 (2 conducting paths connected in series)			
<b>Rated short-circuit making capacity at 690 V AC 50Hz/60 Hz</b>	kA (peak value)	35	35	60	60
<b>Rated short-circuit making capacity with upstream fuses at 690 V AC 50Hz/60 Hz</b>	kA (peak value)	105	105	105	84
<b>Rated conditional short-circuit current with upstream fuses at 690 V AC 50 Hz/60 Hz</b>	kA (RMS value)	50	50	50	40
<b>Switching capacity (feed from either the top or bottom) at 400 V AC</b>					
Breaking current $I_c$ ( $\cos \varphi = 0.35$ )	A (RMS value)	1000	1000	2520	2520
Rated operating current $I_e$ at					
AC-21A	A	250	440	630	1000
AC-22A	A	250	330	630	800
AC-23A	A	125	125	315	315
<b>at 500 V AC</b>					
Breaking current $I_c$ ( $\cos \varphi = 0.35$ )	A (RMS value)	1000	1000	2520	2520
Rated operating current $I_e$ at					
AC-21A	A	250	400	630	1000
AC-22A	A	250	330	630	800
AC-23A	A	125	125	315	315
<b>at 690 V AC</b>					
Breaking current $I_c$ ( $\cos \varphi = 0.35$ )	A (RMS value)	1000	1000	2520	2520
Rated operating current $I_e$ at					
AC-21A	A	250	400	630	1000
AC-22A	A	250	330	630	800
AC-23A	A	125	315	315	315
<b>at 440 V DC (3 conducting paths connected in series)</b>					
Breaking current $I_c$ ( $L/R = 5$ ms)	A	1000	1000	2520	2520
Rated operating current $I_e$ at					
DC-21A	A	250	400	630	1000
DC-22A	A	250	250	630	630

# SETRON switch disconnectors 3KL/3KM: Switching with fuses.

## Fuse protection against short-circuit and overload

Switch disconnectors 3KL and 3KM have fuses which means that they additionally provide protection against overload and short-circuit. Their ideal application: As main control and EMERGENCY-STOP switch for switchboards, distribution panels and motor feeders.

Switch disconnectors 3KL and 3KM can be retrofitted in compliance with IEC or British Standard, as frequency converter protection or for fast mounting onto busbars. When they are equipped with SITOR semiconductor protection fuses, they are even suitable for the highest requirements – e.g. in UPS systems, frequency converters or capacitor control systems.



The complete series of SENTRON switch disconnectors with fuses: 3KL, 3KM and the rotary door-coupling drive mechanism 8UC.



### Technical data: Switch disconnectors 3KL/3KM

Standards		IEC 60947-1, IEC 60947-3, VDE 0660 Part 107						
Disconnector	Type	3KL50 3KM50	3KL52 3KM52	3KL53 3KM53	3KL55 3KM55	3KL57 3KM57	3KL61	3KL62
<b>Rated continuous current <math>I_n</math></b>	A	63	125	160	250	400	630	800
for fuse links acc. to DIN 43620 (when semiconductor protection fuse links are used, the rated current must be reduced, refer to the SITOR Catalog, Engineering (order No. E20001-A700-P302)	Size	00 and 000	00 and 000	00 and 000	1 and 2	1 and 2	3 and 2	3 and 2
<b>Rated operating voltage <math>U_e</math></b>		690						
50 Hz/60 Hz AC	V	440 (3 conducting paths connected in series)						
DC	V	220 (2 conducting paths connected in series)						
<b>Rated short-circuit making capacity with fuses</b>								
at 690 V AC 50Hz/60 Hz	kA (peak value)	220	220	220	176	176	105	105
<b>Rated short-circuit making capacity with fuses</b>								
at 690 V AC 50Hz/60 Hz	kA (peak value)	100	100	100	80	80	50	50
max. operating current $I_n$ of the fuses	A	80	160	160	400	400	630	800
max. permissible power loss of the mounted fuse								
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	30	30	50	50	50
Max. permissible $I^2t$ let-through value	kA <sup>2</sup> s	55	223	223	1000	1000	5400	10500
<b>Rated conditional short-circuit current with upstream fuses</b>								
at 690 V AC 50 Hz/60 Hz	kA (RMS value)	50	50	50	40			
<b>Switching capacity (feed from either the top or bottom) at AC 400 V</b>								
Breaking current $I_c$ ( $\cos \varphi = 0.35$ )	A (RMS value)	500	1000	1280	2000	3200	5100	6400
Rated operating current $I_e$ at AC-21A, AC-22A, AC-23A	A	63	125	160	250	400	630	800
Motor switching capacity AC-23A	kW	30	65	80	132	200	335	400
<b>at AC 500 V</b>								
Breaking current $I_c$ ( $\cos \varphi = 0.35$ )	A (RMS value)	500	1000	1280	2000	3200	5100	6400
Rated operating current $I_e$ at AC-21A, AC-22A, AC-23A	A	63	125	160	250	400	630	630
Motor switching capacity AC-23A	kW	40	90	110	185	280	425	500
<b>at AC 690 V</b>								
Breaking current $I_c$ ( $\cos \varphi = 0.35$ )	A (RMS value)	500	1000	1280	2000	3200	5100	6400
Rated operating current $I_e$ at AC-21A, AC-22A, AC-23A	A	63	125	160	250	400	630	800
Motor switching capacity AC-23A	kW	50	110	150	220	375	560	700
<b>at DC 440 V (3 conducting paths connected in series)</b>								
Breaking current $I_c$ (L/R = 15 ms)	A	250	500	640	100	1600	2520	2520
Rated operating current $I_e$ at DC-23A	A	63	125	160	250	400	630	630
<b>Rated short-time current (1-s current)</b>	A (RMS value)	2.5	3.2	3.2	8	11	32	32

## **SENTRON** **fuse switch disconnectors 3NP:** Protection against overload and short-circuit.

*Optimally solved: The matching frame and complete TTA type-tested mounting kits are available for the 8HP moulded-plastic distribution system as well as for the various SIKUS distribution cabinets.*

When it comes to high requirements, there are no alternatives to our fuse switch disconnector 3NP. The reasons are quite clear: Even high short-circuit currents are safely handled and controlled, competitively priced back-up protection is provided, as well as straightforward selectivity calculations and absolute reliability – even when short-circuits occur. The fuse ruptures 100% – this means that there is absolutely no chance of any residual risk because of welded contacts.

There are two 3NP series in the SENTRON family. Both have some common features such as the large, clear window which allows the fuses to be clearly identified. The same goes for the visible isolating gap that is often required for maintenance and service purposes. Additional safety is provided when the optional fuse-monitoring function is used.

All of these features mean that the fuse switch disconnector 3NP is a device that fulfills the highest plant and system availability. We do quite a lot to achieve this: From shock and vibration testing up to special earthquake tests – to ensure safe and secure use in marine systems, nuclear power stations and other applications that are critical from a safety perspective.



### Quickly mounted onto all busbars

With our standard 3NP4 series (size NH000 up to NH3), you have made the optimum choice for the majority of applications – from power distribution in residential and commercial buildings through flexible distribution stations up to power distribution in large industrial plants. Our fuse switch disconnectors 3NP4 also shine when used as main and feed-in switches in industry, control panel building and in motor feeders as well as back-up protection for circuit-breakers. The sealing lug means that the 3NP4 fuse switch disconnectors can be used in meter cabinets and service entry boxes in residential buildings without any restrictions. The same applies for DIN rails, mounting panels, and busbar systems.

### For the highest requirements in tough environments

These really are rugged devices: Our 3NP5 fuse switch disconnectors (sizes NH00 to NH3) also provide reliable protection where switch disconnectors must stand up to a lot. This is especially true in mining, in the steel industry and also in the chemical industry. The 3NP5 series as well as the 3NP40 1 and 3NP40 7 versions are available in a galvanized design for use in environments with a significant amount of sulfur. These switch disconnectors provide the highest degree of safety for the plant and operating personnel when used as main control switches with good AC-23 characteristics – e.g. for motor loads.

#### Technical data: Fuse switch disconnectors 3NP

Standards		IEC 60947-1, IEC 60947-3, VDE 0660 Part 107					IEC 60947-1, IEC 60947-3, VDE 0660 Part 107						
Disconnector	Type	3NP40 1	3NP40 7	3NP42	3NP43	3NP44	3NP50	3NP52	3NP53	3NP54			
<b>Rated continuous current <math>I_u</math></b>	A	160	160	250	400	630	160	250	400	630			
<b>Rated operating voltage <math>U_e</math></b> for disconnectors with fuse monitoring max. up to 220 V DC 50 Hz/60 Hz AC	V	690		690			690						
DC	V	220 (3 conducting paths in series)		440 (2 conducting paths in series)			440 (3 conducting paths in series) 220 (2 conducting paths in series and for mounted fuse monitoring)						
<b>Rated conditional short-circuit current with fuses</b> (when quickly closing) with fuse links, rated currents	Size/A	000/100(35)	00/160	1/250	2/400	3/630	00/160	1/250	2/400	3/630			
at 400 V AC (690 V) (RMS value)	kA	50 (50)	50	50	50	50	50	50	50	50			
permissible fuse let-through current (peak value)	kA	11 (5)	15	25	35	55	15	25	40	50			
<b>Short-circuit strength with fuses</b> (with the disconnector closed) with fuse links, rated current	Size/A	000/100	000/160	1/250	2/400	3/630	00/160	1/250	2/400	3/630			
up to 690 V (RMS value)	kA	100	50	50	50	50	100	100	50	50			
permissible fuse let-through current (peak value)	kA	15	15	25	35	55	23	32	40	60			
<b>Rated operating current and switching capacity</b> (feed from either the top or bottom) <b>at 400 V AC</b> with fuse links or isolating links	Gr.	000	00	1	2	3	00	1	0	2	1	3	2
rated breaking current $I_c$ ( $\cos \varphi = 0.35$ ) (RMS value)	A	800	800	2000	3200	5040	1600	2500	1600	4000	2500	5040	4000
Rated operating current $I_e$ at <b>AC-21B, AC-22B</b>	A	160	160	250	400	630	160	250	160	400	250	630	400
<b>AC-23B</b>	A	100	100	250	400	630	100	160	125	315	200	400	315
<b>at 690 V AC</b> with fuse links or isolating links	Gr.	000	00	1	2	3							
rated breaking current $I_c$ ( $\cos \varphi = 0.35$ ) (RMS value)	Gr.	00	1	0	2	1	00	1	0	2	1	3	2
Rated operating current $I_e$ at <b>AC-21B</b>	A	240	240	375	600	945	800	1280	1000	2520	1600	3200	2520
<b>AC-22B</b>	A	160	160	250	400	630	160	250	160	400	250	630	400
<b>AC-23B</b>	A	50	50	–	–	–	160	250	160	400	250	630	400
	A	25	25	–	–	–	100	160	125	315	200	400	315

# SETRON

## fuse switch disconnectors 3NJ:

Offer the maximum level of safety with minimum width.

These specialists combine the "load switching" and "isolating" functions in one device. And thanks to the integrated LV HRC fuses, they also provide full protection against overload and short-circuit. They distinguish themselves as a result of the compact design, which allows them to be mounted in the smallest space, and the versatile connection types: Whether horizontal or vertical, whether in low-voltage distribution systems, cable distribution cabinets or sub-stations and transformer stations – everything is possible using this sophisticated, well-proven system. And last but not least, also as a result of the wide range of accessories that fulfills every conceivable requirement.

### Fuse switch disconnectors 3NJ4

These are the SETRON devices that are responsible for handling occasional manual switching and disconnection of load feeders and power distribution systems.

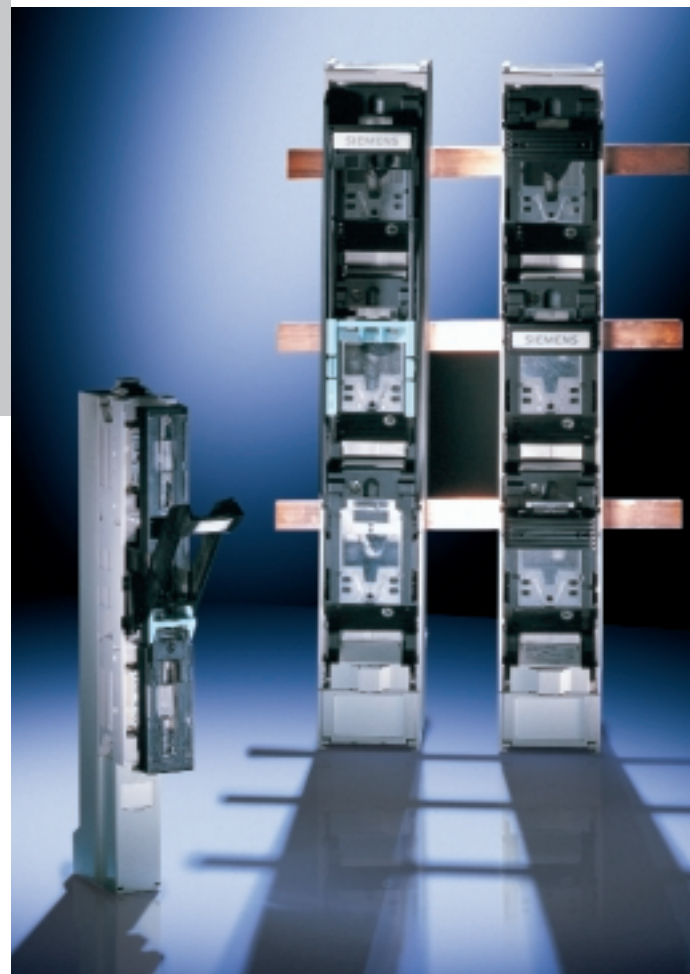
They are able to make and break the specified rated current. It goes without saying that even under overload and short-circuit conditions they completely fulfill the appropriate plant protection requirements.

### Fuse switch disconnectors 3NJ4 are used in

- Power stations and industry as overload and short-circuit protection for switchboards
- Sub-stations and transformer stations as well as cable distribution cabinets
- Main distribution systems in commercial buildings
- Cable outlets and distribution panels
- Distribution panels on construction sites and to feed busbar systems

### Plug-in switch disconnectors with fuses 3NJ6

These are closely related to our 3NJ4 in-line fuse switch disconnectors; the 3NJ6 series of in-line fuse disconnectors distinguishes itself as a result of the



essential difference – the integrated switching element with single or double interruption.

Mounting and installation are especially easy thanks to the straightforward plug-in system. Our 3NJ6 in-line switch disconnectors are also the optimum solution when load feeders and cable distribution systems must be occasionally and manually switched or disconnected.

### Plug-in switch disconnectors with fuses 3NJ6 are especially suitable...

- For cable distribution and electrical cabinets with busbar systems that are on end and vertically arranged – in this case, the plug-in system really comes into its own
- For overload and short-circuit protection for downstream plant components and loads
- To safely disconnect downstream plant components and loads – the switching operation itself is always inside the disconnector assembly independent of the actuation speed.

### Technical data: Fuse switch disconnectors 3NJ4

Standards		IEC 60947-1, IEC 60947-3, DIN VDE 0660 Part 107						
Disconnector	Type	3NJ41 0	3NJ41 2	3NJ41 3	3NJ41 4	3NJ41 8	3NJ41 5	3NJ56
<b>Conventional thermal currents</b>								
in air $I_{th}$	A	160	250	400	630	910	1000	1250
in the enclosure $I_{the}$	A	160	225	360	567	–	–	–
<b>Rated insulating voltage <math>U_i</math></b>	V	750	1000	1000	1000	500	1000	1000
<b>Rated operating voltage <math>U_e</math></b> AC 40...60 Hz V		690	690	690	690	400	690	690
<b>Rated conditional short-circuit current with fuses</b>								
at 690 V AC 40 to 60 Hz	kA (RMS value)	50	50	50	50	50	–	50
Rated current $I_n$ of the fuses	A	160	250	400	630	910	–	1250
Permissible fuse let-through current (peak value)	kA	15	28	39	52	53	–	80
For fuse links Acc. to IEC 60269-2-1 and isolating links	Size/A	00/160	1/250	1 and 2/250	2 and 3/400 and 400	3/910 and 630	–	4a/1250
<b>Rated operating current <math>I_e</math> at</b>								
400 V AC AC-22B	A	160	250	400	630	910	1000	1250
500 V AC AC-22B	A	160	250	400	630	–	1000	1250
690 V AC AC-21B	A	160	250	400	630	–	1000	1250
690 V AC AC-22B	A	100	200	315	500	–	600	–
220 V DC DC-21B	A	160	250	400	630	–	–	–
<b>Permissible ambient temperature</b>	°C	–25 to +55						
<b>Mechanical endurance</b>	Operating cycles	1400	1400	800	800	800	800	800
<b>Electrical endurance</b>	Operating cycles	200	200	200	200	100	100	100
<b>Main phase connection</b>								
Flat busbars	mm	24	42	42	42	80	80	80
Cable lug, max. conductor cross section (multi-conductor)	mm <sup>2</sup>	95	240	240	240	2x240	2x240	2x300
Clamping bar	mm <sup>2</sup>	1.5–70	25–300	25–300	25–300	–	–	–
Tightening torque (Cable lug, flat busbar)	Nm	10–15	30–35	30–35	30–35	30–35	30–35	50–60

### Technical data: Plug-in switch disconnectors with fuses 3NJ6

Standards		IEC 60947-3			
Disconnector	Type	3NJ61 10	3NJ61 20	3NJ61 40	3NJ61 60
<b>Rated continuous current <math>I_n</math></b> for fuse links according to DIN 43620	A	160	250	400	630
<b>Rated operating voltage <math>U_e</math></b> 50 Hz/60 Hz AC	V	690/500	690	690	690
<b>Rated operating voltage <math>U_i</math></b>	V	100 ( $U_{imp} = 8000$ V)			
<b>Rated conditional short-circuit current</b>					
Short-circuit strength	kA (RMS value)	100	100	100	100
Short-circuit making capacity	kA (RMS value)	50	50	50	50
<b>Rated operating current <math>I_e</math></b>					
for single interruption (3NJ61 ...-3E...)					
at 500 V AC AC-22B	A	160	250	400	630
at 690 V AC AC-21B	A	100	250	400	630
for double interruption (3NJ61 ...-3M...)					
at 500 V AC AC-23B	A	160	250	400	630
at 690 V AC AC-23B	A	100	250	400	630

### Fuse switch disconnectors 3NJ – the highlights:

- Standard grid dimensions for extremely straightforward engineering
- High packaging density for distribution systems with several cable outlets
- Connection either at the top or bottom
- Fast mounting and installation using the clip-on mounting elements at the rear (for sizes 1 to 3)
- Extended shock hazard protection – safe from touch from the back of the hand when the upper section is removed (degree of protection: IP10)
- Can be locked and sealed against unauthorized operation
- TTA type-tested installation versions in the SIKUS in-line electrical cabinet system
- Wide conductor clamping range using V terminal with pressure contact that can be rotated

## Would you like more information? **Our pleasure!**

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### Distribution with

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- SIVACON busbar distributors

### Planning, engineering and managing with

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If you have technical questions, please contact the following:

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**E-Mail: [technical-assistance@siemens.com](mailto:technical-assistance@siemens.com)**

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