

# sentron

SWITCH DISCONNECTORS WITH FUSES

3NJ62 switch  
disconnectors with  
fuses up to 630 A



**SIEMENS**

## Related catalogs

### Low-Voltage Controls and Distribution

Order No.:

Catalog E86060-K1002-A101-A6-7600 LV 1

Technical Information incl. LV 1 T



### Industrial Communication

Industrial Communication for Automation and Drives

Order No.: E86060-K6710-A101-B5-7600

IK PI



### SICUBE

System Cubicles and Cubicle Air-Conditioning

Order No.: E86060-K1920-A101-A3-7600

LV 50



### SIDAC

Reactors and Filters

Order No.: E86060-K2803-A101-A4-7600

LV 60



### SIVACON 8PS

Busway systems  
CD-K, BD01, BD2 to 1250 A

Order No.: E86060-K1870-A101-A2-7600

LV 70



### Automation & Drives

The A&D Offline Mall

CD-ROM: E86060-D4001-A110-C5-7600

DVD: E86060-D4001-A510-C5-7600

CA 01



### A&D Mall

Internet:  
<http://www.siemens.com/automation/mall>



### Catalog-PDF

Internet:  
<http://www.automation.siemens.com/cd>



## Contents

Systems • Contactors and contactor assemblies, solid-state switching devices • Protection equipment • Load feeders, motor starters and soft starters • Monitoring and control devices • Detecting devices • Commanding and signaling devices • Transformers • Power supplies • Planning and configuration with SIRIUS • SIVACON Power, distribution boards, busway and cubicle systems • Air circuit breakers, molded case circuit breakers, switch disconnectors • Software for power distribution • BETA low-voltage circuit protection

PROFINET/Industrial Ethernet • Industrial Mobile Communicator • PROFIBUS to IEC 61158/EN 50170 • SIMATIC ET 200 distributed I/Os • AS-Interface to EN 50295/IEC 61158 • Remote operation with SINAUT Telecontrol • Routers • ECOFAST system

System cubicles • Cubicle modifications • Cubicle expansion components • Accessories • Special cubicles • Cubicle solutions in applications • Cubicle air-conditioning • Special colors

Commutating reactors for converters • Mains reactors for frequency converters • Iron-core output reactors • Ferrite output reactors • Iron-core smoothing reactors • Smoothing air-core reactors • Filter reactors • Application-specific reactors • Radio interference suppression filters • dv/dt filters • Sinewave filters

Busway systems, overview • CD-K system (25 A to 40 A) • BD01 system (40 A to 160 A) • BD2 system (160 A to 1250 A)

All Automation and Drives products, including those in the catalogs listed above.

All Automation and Drives products, including those in the catalogs listed above.

All catalogs for low-voltage controls and distribution can be downloaded as PDF files.

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## Technical Assistance



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# 3NJ62 Switch Disconnectors with Fuses up to 630 A

## Catalog LV 37 · 03/2007

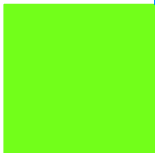


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# SIEMENS

## Introduction

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## Switching and Protecting with SENTRON – 3NJ62 Switch Disconnectors with Fuses up to 630 A

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## Appendix

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# Explanations

## Delivery times (DT)

▶ Preferred type	Preferred types are available immediately from stock, i.e. are dispatched within 24 hours.
A 2 working days	
B 1 week	Normal quantities of the products are usually delivered within the specified time following receipt of your order at our branch.
C 3 weeks	
D 6 week	
X on request	In exceptional cases, the actual delivery period may differ from that specified.

The delivery periods apply up to the ramp at Siemens AG (products ready for dispatch). The transport times depend on the destination and type of shipping. The standard transport time for Germany is 1 day.

The delivery times specified here represent the state of 10/2006. They are permanently optimized. Up-to-date information can be found at <http://www.siemens.com/automation/mall>.

## Price units (PU)

The price unit defines the number of units, sets or meters to which the specified price and weight apply.

## Packaging sizes (PS)

The packaging size defines the number, e.g. of units, sets or meters, for outer packaging.

Only the quantity defined by the packaging size or a multiple thereof can be ordered!

## Price groups (PG)

Each product is assigned to a price group.

## Weight

The defined weight in kg refers to the price unit (PU).

## Dimensions

All dimensions in mm.

# Introduction



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**Siemens Automation and Drives.  
Welcome**

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**Sharpen your competitive edge.  
Totally Integrated Automation**

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**Integrated energy distribution from a  
single source. Totally Integrated Power**

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**Low-Voltage Controls and Distribution.  
The basis for progressive solutions.**





## Siemens Automation and Drives. Welcome

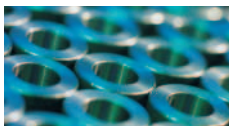
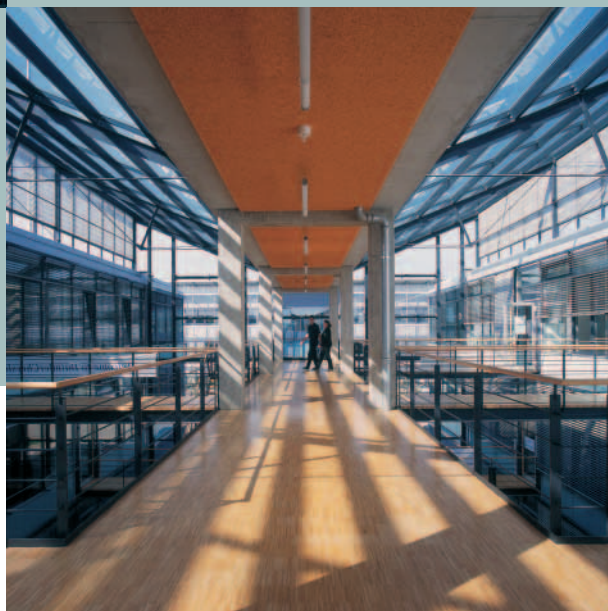
More than 60,000 people aiming for the same goal: increasing your competitiveness. That's Siemens Automation and Drives.

We offer you a comprehensive portfolio for sustained success in your sector, whether you're talking automation engineering, drives or electrical installation systems. Totally Integrated Automation (TIA) and Totally Integrated Power (TIP) form the core of our offering. TIA and TIP are the basis of our integrated range of products and systems for the manufacturing and process industries as well as building automation. This portfolio is rounded off by innovative services over the entire life cycle of your plants.

Learn for yourself the potential our products and systems offer. And discover how you can permanently increase your productivity with us.

Your regional Siemens contact can provide more information. He or she will be glad to help.

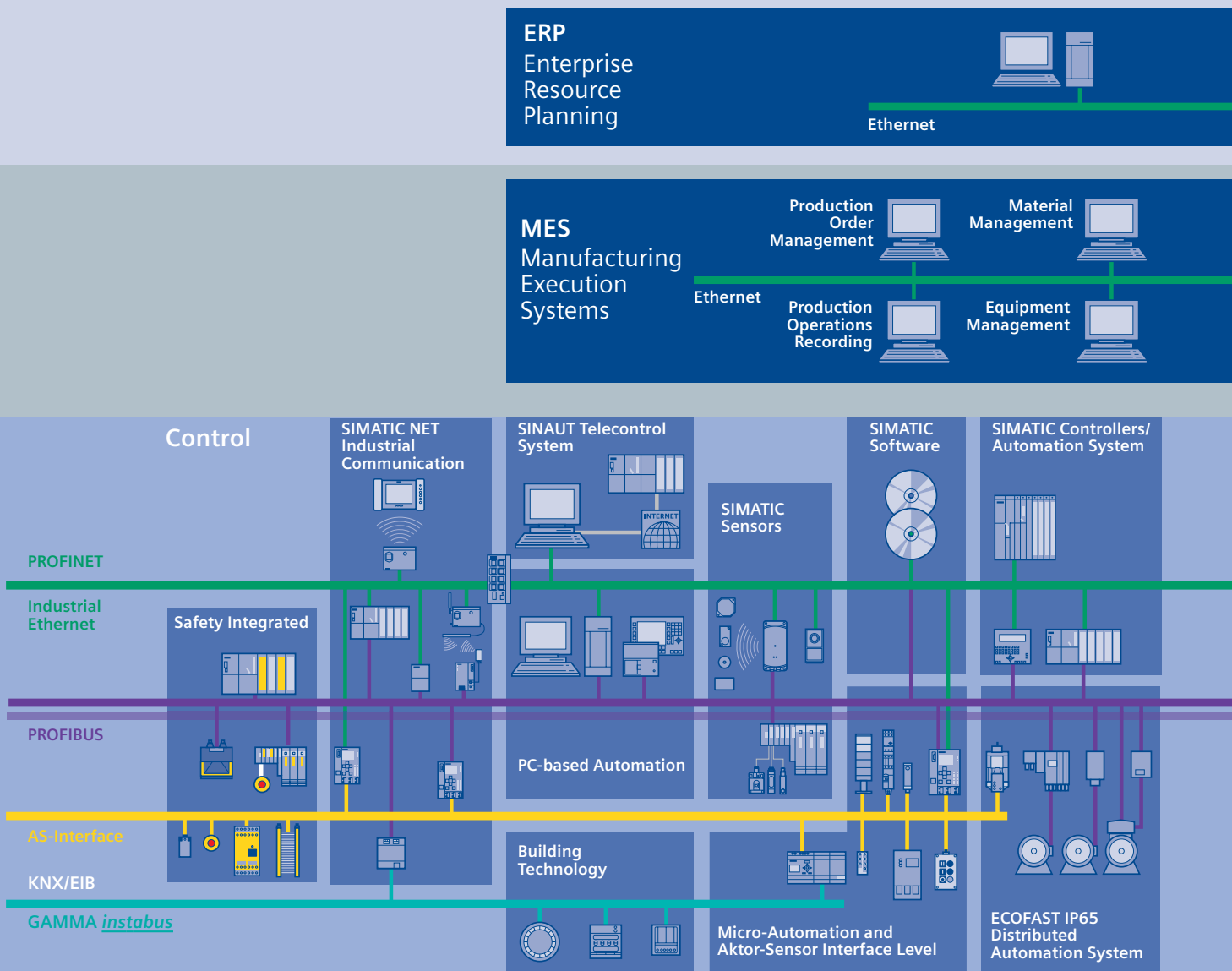




# Sharpen your competitive edge. Totally Integrated Automation

With Totally Integrated Automation (TIA), Siemens is the only manufacturer to offer an integrated range of products and systems for automation in all sectors - from incoming goods to outgoing goods, from the field level through the production control level to connection with the corporate management level.

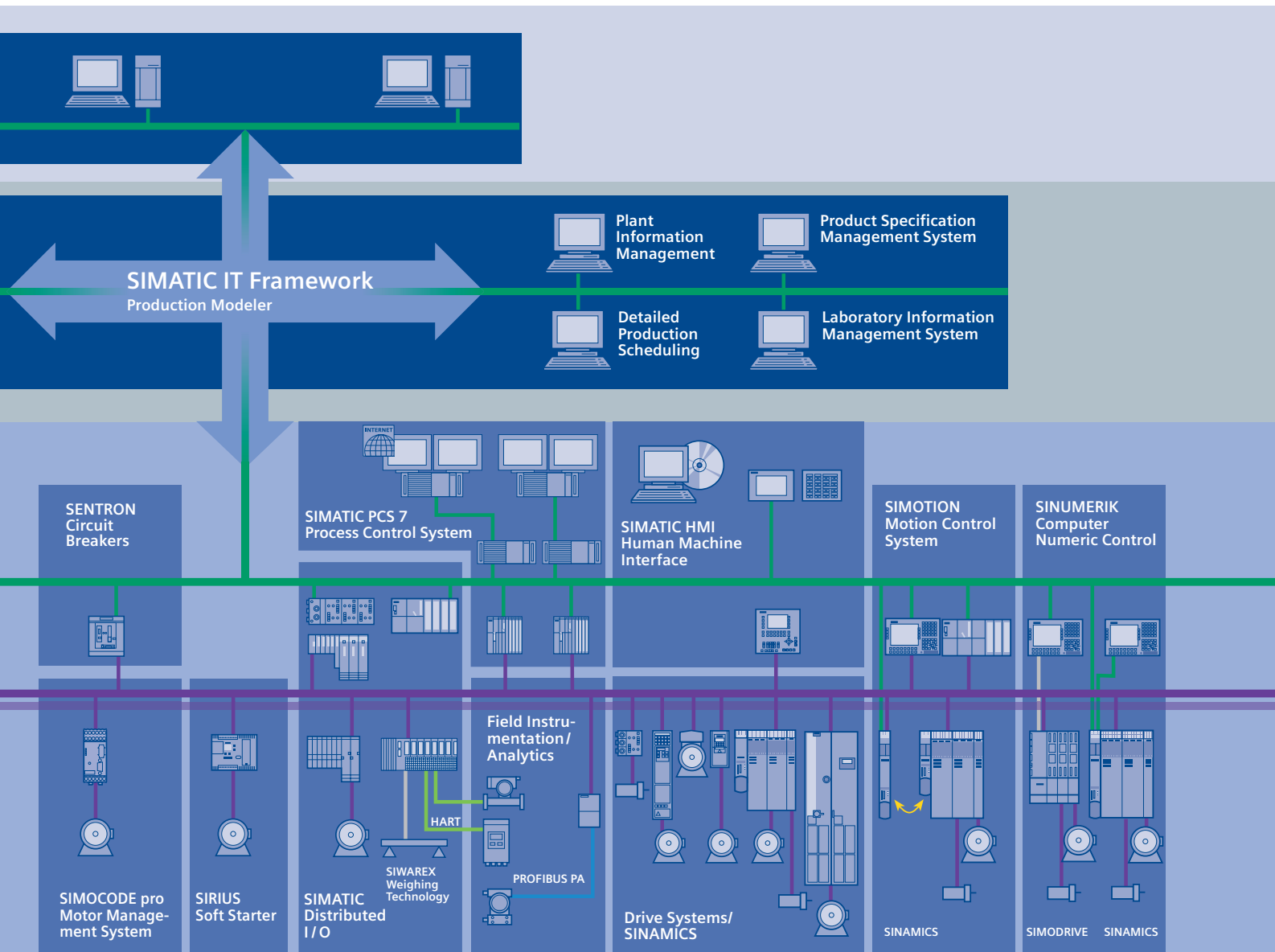
On the basis of TIA, we implement solutions that are perfectly tailored to your specific requirements and are characterized by a unique level of integration. This integration not only ensures significant reductions in interface costs but also guarantees the highest level of transparency across all levels.





It goes without saying that you profit from Totally Integrated Automation during the entire life cycle of your plants - from the first planning steps, through operation, right up to modernization. Consistent integration in the further development of our products and systems guarantees a high degree of investment security here.

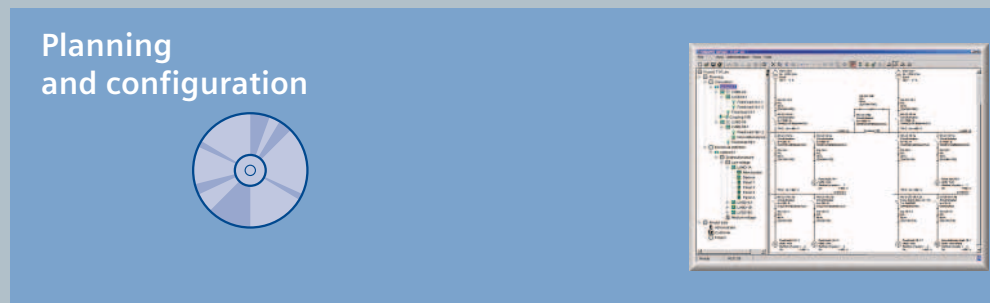
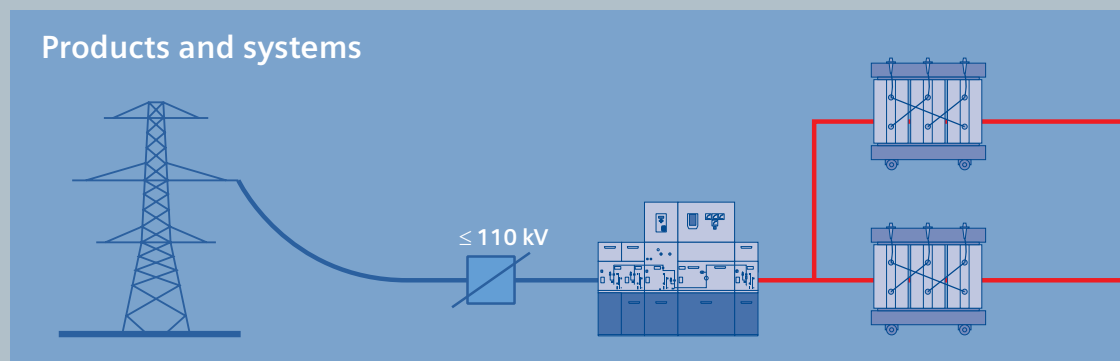
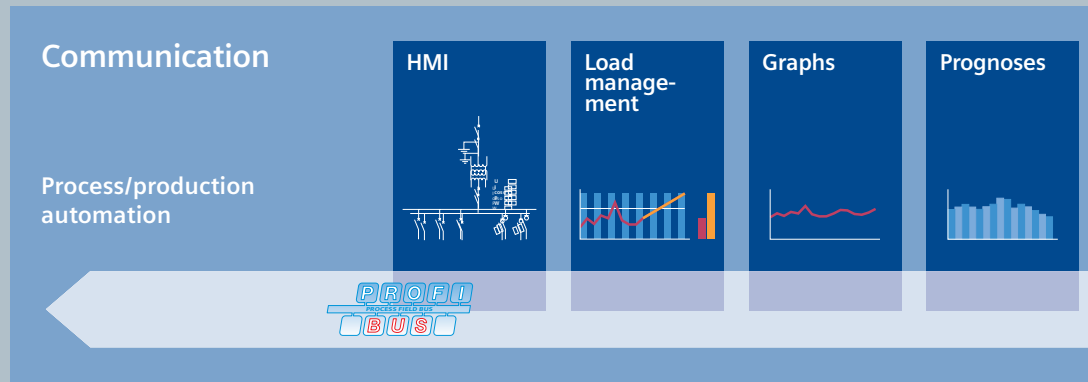
Totally Integrated Automation makes a crucial contribution towards optimizing everything that happens in the plant and thus creates the conditions for a significant increase in productivity.



# Integrated energy distribution from a single source. Totally Integrated Power

Totally Integrated Power (TIP) brings together all the components of electrical energy distribution into an integrated whole. Thus TIP provides the answer to growing market demands in the planning, construction and use of utility buildings and industrial buildings.

On the basis of TIP, we offer integrated solutions for energy distribution, from medium voltage to the power outlet. Totally Integrated Power is based here on integration in planning and configuring as well as on perfectly matched products and systems.



# Low-Voltage Controls and Distribution.

## The basis for progressive solutions.

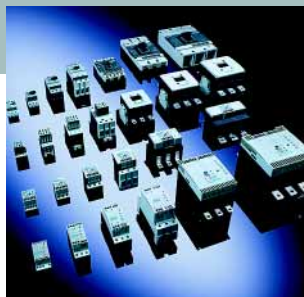
Extremely high demands are made on modern low-voltage controls and distribution: users want cost-effective solutions that are easy to integrate in control cabinets, distribution boards and distributed systems and can communicate perfectly with each other. Siemens has the answer: SIRIUS industrial controls and low-voltage power distribution with SIVACON, SENTRON and SIMARIS.

### **SIRIUS industrial controls**

The SIRIUS range has everything you need for switching, protecting and starting loads. Products for monitoring, control, detection, commanding, signaling and power supply round off the spectrum of industrial controls. Combined with Totally Integrated Automation, Safety Integrated and ECOFAST, our product portfolio can be bundled to create optimized systems. All in all, Siemens provides innovative controls with modern features, such as integrated communication and safety technology that work to your advantage:

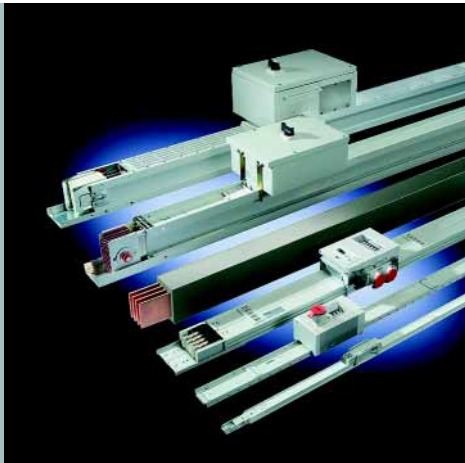
The basis for ground-breaking integrated solutions.

*SIRIUS modular system*



*SIRIUS Safety Integrated product range*

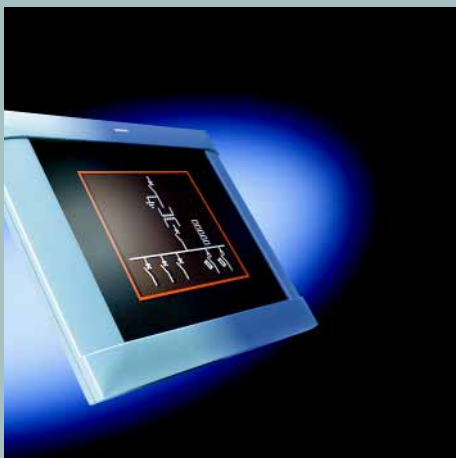




*SIVACON 8PS busbar trunking systems*



*SENTRON switching devices*



*Software for power distribution*

### **Low-voltage power distribution with SIVACON, SENTRON and SIMARIS**

Non-residential buildings and industrial plants have one thing in common: without electricity, everything comes to a halt. The availability, safety and cost effectiveness of the power distribution system is of utmost importance – from the medium voltage supply point through to the socket outlet. And only integrated solutions can ensure maximum efficiency for planning, configuration and operation.

The concept is called Totally Integrated Power from Siemens. Total integration in planning and configuration creates synergies and saves costs. Perfectly matched products and systems provide efficient engineering and reliable operation. In the field of low-voltage power distribution, the following product ranges are available:

**SIVACON:** From flexible busbar trunking systems through to safe power distribution boards and motor control centers.

**SENTRON:** From well-proven switch disconnectors through to intelligent circuit breakers.

**Software for power distribution:** Everything for dimensioning, configuring, visualizing and controlling your power distribution.





# Switching and Protecting with SENTRON – Switch Disconnectors

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## Catalog

### 3NJ62 Switch Disconnectors with Fuses

#### Introduction

- 2/2 - Overview
- 2/2 - Benefits
- 2/2 - Application

#### For LV HRC fuse links, 3-pole

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## Technical Information

### 3NJ62 Switch Disconnectors with Fuses

#### For LV HRC fuse links, 3-pole

- 2/7 - Design
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- 2/11 - Dimensional drawings
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For LV HRC fuses, see  
LV 1 · 2007, Chapter 19  
"BETA Low-Voltage  
Circuit Protection"



# 3NJ62 Switch Disconnectors with Fuses

## Introduction

### Overview

#### All key product features at a glance

- Type-tested according to IEC 60947-3
- Voltage levels up to 690 V AC/500 V DC
- 160 A to 630 A for LV HRC fuse links, according to IEC 60269-1/EN 60269-1
- 3-pole versions available
- 185 mm phase center distance of plug-in contacts
- Developed for switchgears in plug-in design
- Horizontal or vertical mounting position
- Front panel locked in ON position
- Degree of protection IP41.



3NJ62 switch disconnectors with fuses

### Application

The plug-in 3NJ6 in-line switch disconnectors with fuses are installed in low-voltage distribution boards where a minimum amount of space is available for a maximum number of cable ducts to the power distribution. They can be easily fitted in all common control cabinets (minimum depth: 400 mm).

The plug-in 3NJ62 in-line switch disconnectors with fuses are available for rated uninterrupted currents of 160 A to 630 A. LV HRC fuse links according to IEC 60269-1/EN 60269-1 (sizes LV HRC 00 to LV HRC 3) provide overload and short-circuit protection up to 690 V AC/500 V DC.

The in-line switch disconnectors can be retrofitted at any time with auxiliary switches, an ammeter (48 mm x 48 mm) and current transformers, with no extra space required. For installation in control cabinets of > 400 mm depth, the mounting depth of the in-line switch disconnectors can be increased by 200 mm using a contact extension. Further installation accessories, such as guide rails and blanking covers, complete the product range.

### Benefits

#### Key advantages for switchgear manufacturers due to the following:

- Compact, modular design
- Simple and efficient mounting due to incoming plug-in contact
- High packing density in the field
- Cable connection with cable clamps or cable lugs
- Can be mounted in different control cabinet depths
- Comprehensive range of accessories

#### The advantages for users are:

- Conversion, retrofitting and replacement without switching off the switchgear
- Dead-state fuse replacement
- Maintenance free
- High personal safety
- Operating handle can be locked in OFF position
- Clear and unambiguous switch position indicator

# 3NJ62 Switch Disconnectors with Fuses

For LV HRC fuse links  
3-pole

## Selection and ordering data

Size	Rated uninter- rupted current $I_u$ at 500 V AC	For fuse links according to DIN 43620	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
A		Size							
<b>3-pole, standard switching capacity S, manually operated</b>									
00	160	00/000	▶	3NJ62 03-1AA00-0AA0		1	1 unit	113	3.630
1	250	1	▶	3NJ62 13-1AA00-0AA0		1	1 unit	113	6.750
2	400	2/1	▶	3NJ62 23-1AA00-0AA0		1	1 unit	113	15.000
3	630	3/2	▶	3NJ62 33-1AA00-0AA0		1	1 unit	113	15.360
<b>3-pole, high switching capacity H, manually operated</b>									
00	160	00/000	▶	3NJ62 03-3AA00-0AA0		1	1 unit	113	3.630
1	250	1	▶	3NJ62 13-3AA00-0AA0		1	1 unit	113	6.750
2	400	2/1	▶	3NJ62 23-3AA00-0AA0		1	1 unit	113	15.000
3	630	3/2	▶	3NJ62 33-3AA00-0AA0		1	1 unit	113	15.360






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\* You can order this quantity or a multiple thereof.

# 3NJ62 Switch Disconnectors with Fuses

For LV HRC fuse links  
3-pole







## Accessories

	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Size LV HRC 00							
 3NJ69 23-1BA00	<b>Terminals</b> Single terminal for 2/3-pole devices, 10 ... 95 mm <sup>2</sup>		A	3NJ69 23-1BA00	1	3 units	113 0.210
	<b>Contact extensions</b> 3-pole		A	3NJ69 23-1EB00	1	1 unit	113 1.700
 3NJ69 00-2.C00	<b>For the 1st auxiliary switch</b> 1 NO contact (1 NO) with cover		A	3NJ69 20-2BB00	1	1 unit	113 0.080
	1 NC contact (1 NC) with cover		A	3NJ69 20-2CB00	1	1 unit	113 0.080
	<b>For the 2nd to 4th auxiliary switches</b> 1 NO contact (1 NO)		A	3NJ69 00-2BC00	1	1 unit	113 0.020
	1 NC contact (1 NC)		A	3NJ69 00-2CC00	1	1 unit	113 0.020
	<b>Holders for ammeters</b> For sizes 00, 1, 2, 3		A	3NJ69 00-4GA00	1	1 unit	113 0.040
	<b>Current transformer busbars</b> For 1 current transformer		A	3NJ69 20-3DB00	1	1 unit	113 0.070
 3NJ69 20-3DB00 3NJ69 20-3DC00	For 3 current transformers		A	3NJ69 20-3DC00	1	1 unit	113 0.210
	<b>Multi-function plugs</b> 6 x 2.5 mm <sup>2</sup> , with fixing screws		A	3NJ69 20-3EB00	1	1 unit	113 0.047
		8 x 2.5 mm <sup>2</sup> , without fixing screws	A	3NJ69 20-3ED00	1	1 unit	113 0.047
		10 x 1.5 mm <sup>2</sup> and 8 x 2.5 mm <sup>2</sup> , without fixing screws	A	3NJ69 20-3EE00	1	1 unit	113 0.070
Size LV HRC 1							
	<b>Terminals</b> Single terminal for 2/3-pole devices, 16 ... 300 mm <sup>2</sup>		A	3NJ69 33-1BA00	1	3 units	113 0.230
	<b>Terminal covers</b> Internal terminal covers for 2/3-pole devices		A	3NJ69 33-1DB00	1	1 unit	113 0.020
	<b>Contact extensions</b> 3-pole		A	3NJ69 33-1EB00	1	1 unit	113 2.400
	<b>For the 1st auxiliary switch</b> 1 NO contact (1 NO) with cover		A	3NJ69 30-2BB00	1	1 unit	113 0.050
 3NJ69 00-2.C00	1 NC contact (1 NC) with cover		A	3NJ69 30-2CB00	1	1 unit	113 0.050
	<b>For the 2nd to 4th auxiliary switches</b> 1 NO contact (1 NO)		A	3NJ69 00-2BC00	1	1 unit	113 0.020
	1 NC contact (1 NC)		A	3NJ69 00-2CC00	1	1 unit	113 0.020
	<b>Holders for ammeters</b> For sizes 00, 1, 2, 3		A	3NJ69 00-4GA00	1	1 unit	113 0.040
	<b>Current transformer busbars</b> For 1 current transformer		A	3NJ69 30-3DB00	1	1 unit	113 0.210
	 3NJ69 00-4GA00	For 3 current transformers		A	3NJ69 30-3DC00	1	1 unit
For 4 current transformers		A	3NJ69 30-3DD00	1	1 unit	113 0.410	
	<b>Multi-function plugs</b> 6 x 2.5 mm <sup>2</sup> , with fixing screws		A	3NJ69 20-3EB00	1	1 unit	113 0.047
	8 x 2.5 mm <sup>2</sup> , without fixing screws		A	3NJ69 20-3ED00	1	1 unit	113 0.047
	10 x 1.5 mm <sup>2</sup> and 8 x 2.5 mm <sup>2</sup> , without fixing screws		A	3NJ69 20-3EE00	1	1 unit	113 0.070



# 3NJ62 Switch Disconnectors with Fuses






For LV HRC fuse links  
3-pole

	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
<b>Size LV HRC 2, LV HRC 3</b>							
 3NJ69 43-1CA00		<b>Terminals</b>					
		Double terminal for 2/3-pole devices, 2 x 16 ... 300 mm <sup>2</sup>					
	A	<b>3NJ69 43-1CA00</b>		1	6 units	113	0.450
		<b>Contact extensions</b>					
		3-pole					
	A	<b>3NJ69 43-1EB00</b>		1	1 unit	113	8.400
 3NJ69 00-2.C00		<b>For the 1st auxiliary switch</b>					
	A	1 NO contact (1 NO) with cover		1	1 unit	113	0.024
	A	1 NC contact (1 NC) with cover		1	1 unit	113	0.024
		<b>For the 2nd to 4th auxiliary switches</b>					
	A	1 NO contact (1 NO)		1	1 unit	113	0.020
	A	1 NC contact (1 NC)		1	1 unit	113	0.020
 3NJ69 00-4GA00		<b>Holders for ammeters</b>					
		For sizes 00, 1, 2, 3					
	A	<b>3NJ69 00-4GA00</b>		1	1 unit	113	0.040
 3NJ69 40-3EC00  3NJ69 40-3ED00  3NJ69 40-3EF00		<b>Multi-function plugs</b>					
	A	8 x 2.5 mm <sup>2</sup> , with fixing screws		1	1 unit	113	0.147
	A	8 x 2.5 mm <sup>2</sup> , without fixing screws		1	1 unit	113	0.147
	A	12 x 1.5 mm <sup>2</sup> and 8 x 2.5 mm <sup>2</sup> , without fixing screws		1	1 unit	113	0.170

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# 3NJ62 Switch Disconnectors with Fuses

For LV HRC fuse links  
3-pole

	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
<b>Common accessories</b>							
 3NJ69 16-4EA00	<b>Busbar covers</b>						
		Overall height 200 mm, IP20	A	<b>3NJ69 16-4EA00</b>	1	1 unit	113 0.472
 3NJ69 00-4CB00	<b>Blanking covers</b>						
		Overall height 50 mm, IP41	A	<b>3NJ69 00-4CB00</b>	1	1 unit	113 0.800
 3NJ69 15-3BA00	<b>Connection modules</b>						
		For power takeoff from field distribution bus up to 400 A	A	<b>3NJ69 15-3BA00</b>	1	1 unit	113 1.524
 3NJ69 00-4FB00	<b>Guide rails</b>						
		Depth 200 mm (1 x left and 1 x right)	C	<b>3NJ69 00-4FB00</b>	1	1 unit	113 1.300
 3NJ69 00-4FC00							
		Depth 400 mm (1 x left and 1 x right)	C	<b>3NJ69 00-4FC00</b>	1	1 unit	113 1.800

# 3NJ62 Switch Disconnectors with Fuses

For LV HRC fuse links  
3-pole

## Design

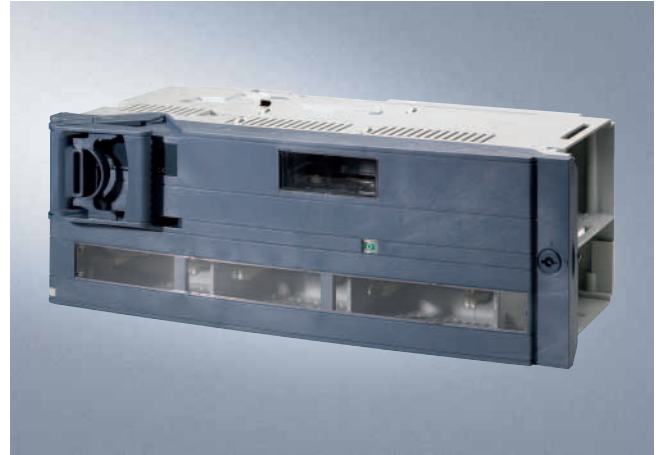
### Compact and modular design

All sizes fit busbar systems with a 185-mm center-to-center clearance, have the same width and depth, as well as a uniform 50-mm grid with regard to mounting height (50, 100 and 200 mm). This enables the setup of an in-line switch disconnector panel with any combinations of different sizes.

Easy subsequent replacement of the in-line switch disconnectors of different sizes. Furthermore, the user-friendly hinged handle is retractable in both the ON and the OFF state, so that the compact design is retained in both switch positions.



Size LV HRC 00, 160 A



Size LV HRC 2, 400 A, LV HRC 3, 630 A

2

### Overview of current transformer types and current transformer busbar sets

<b>Size LV HRC 00</b>	LV HRC 00 with 1 current transformer	LV HRC 00 with 3 current transformers	LV HRC 00 with 4 current transformers
Current transformer busbar set Order No.	3NJ69 20-3DB00	3NJ69 20-3DC00	3NJ69 20-3DD00
<b>Size LV HRC 1</b>	LV HRC 1 with 1 current transformer	LV HRC 1 with 3 current transformers	LV HRC 1 with 4 current transformers
Current transformer busbar set Order No.	3NJ69 30-3DB00	3NJ69 30-3DC00	3NJ69 30-3DD00
<b>Size LV HRC 2/LV HRC 3</b>	LV HRC 2/LV HRC 3 with 1 current transformer	LV HRC 2/LV HRC 3 with 3 current transformers	LV HRC 2/LV HRC 3 with 4 current transformers
No current transformer busbar set required			

### Connection method

All plug-in in-line switch disconnectors supplied for cable lug connection as standard.

Size	Cable lug connections	Terminal connections
LV HRC 00	1 x 10 ... 95 mm <sup>2</sup>	1 x 10 ... 95 mm <sup>2</sup>
LV HRC 1	1 x 95 ... 240 mm <sup>2</sup>	1 x 16 ... 300 mm <sup>2</sup>
LV HRC 2/LV HRC 3	1 x 300 mm <sup>2</sup> or 2 x 95 ... 240 mm <sup>2</sup>	2 x 16 ... 300 mm <sup>2</sup>

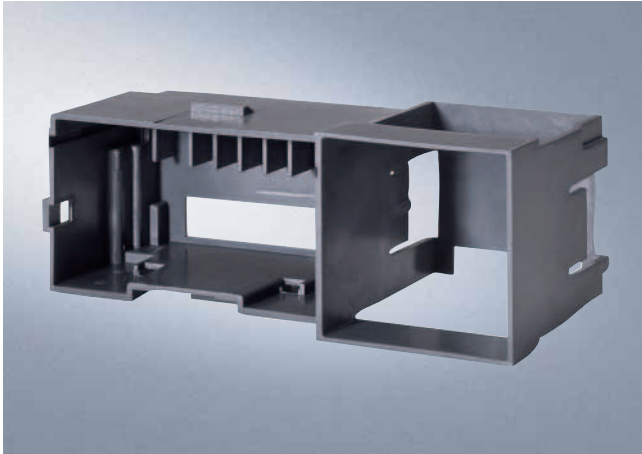
# 3NJ62 Switch Disconnectors with Fuses

## For LV HRC fuse links 3-pole

### Ammeter

An ammeter according to DIN 43718 with dimensions 48 mm x 48 mm can be installed. Moving-iron measuring instruments of type SQ48DE/L or bi-metal measuring instruments of type BIQ48 can be used.

A holder for the ammeter must be ordered as a separate accessory part.



Holder for ammeter



Ammeter (moving-iron measuring instrument, left) and (bi-metal measuring instrument, right)

# 3NJ62 Switch Disconnectors with Fuses

For LV HRC fuse links  
3-pole

## Function

### Mode of operation

#### Operation

The plug-in in-line switch disconnectors are fitted with a snap-action mechanism and are switched by turning the handle approx. 45°. Once actuated, the handle is folded against the front panel in the ON or OFF position for safety reasons.

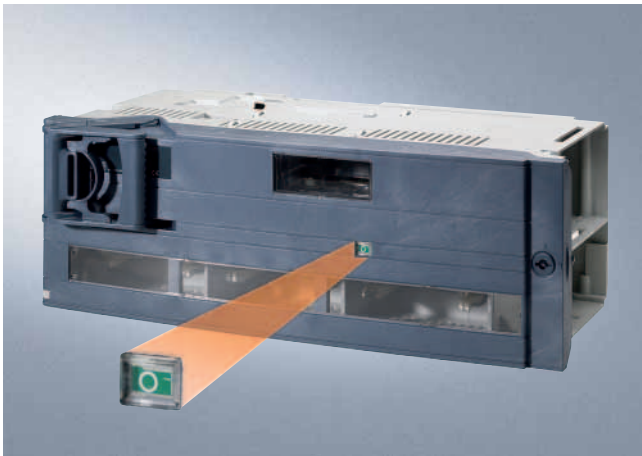
A unique switch position indication is output by the indicator in the inspection window of the in-line switch disconnector (On "I" = red, OFF "O" = green) The switch position indicator is mechanically linked to the moving switching contacts

#### Voltage test

In the event of a voltage test on the fuse links, the transparent insert in the front panel is opened.

#### Switch position

##### OFF



3NJ62 switch disconnectors, "OFF" position

#### Personnel safety

The in-line switch disconnectors are type-tested according to IEC 60947-3 and have the degree of protection IP41.

The special locking mechanism on the handle ensures that the in-line switch disconnector must be switched off before it is possible to open the cover and remove the fuse. A switchgear key according to DIN 43668 is also required to open the cover. In the OFF position, the handle can also be padlocked to protect against unintentional restarting.

The disconnection during the switching process (snap-action mechanism) is implemented before and after the fuse link. This ensures that, if power is supplied over the busbars or over the cable connecting side, the fuse links are in a dead state when switched off.

##### ON



3NJ62 switch disconnectors, "ON" position



3NJ62 switch disconnectors, "OFF" position, operating lever in off position



3NJ62 switch disconnectors, "ON" position, operating lever in off position



3NJ62 switch disconnectors, "OFF" position, operating lever in end position



3NJ62 switch disconnectors, "ON" position, operating lever in end position



# 3NJ62 Switch Disconnectors with Fuses

For LV HRC fuse links  
3-pole

## Technical specifications

Standards			IEC 60947-3							
Type			3NJ62 0.-1	3NJ62 0.-3	3NJ62 1.-1	3NJ62 1.-3	3NJ62 2.-1	3NJ62 2.-3	3NJ62 3.-1	3NJ62 3.-3
Switching capacity			NO	H	NO	H	NO	H	NO	H
Rated uninterrupted current $I_u$ <sup>1)</sup> For fuse links according to IEC 60269	A		160		250		400		630	
Rated operational voltage $U_e$	V AC		690							
• At rated frequency	Hz		50/60							
Rated insulation voltage $U_i$	V		1000							
Rated peak withstand voltage $U_{imp}$	V		8000							
Rated conditional short-circuit current										
• Short-circuit strength (rms value)	kA		100							
• Short-circuit making capacity (rms value)	kA		55	66	55	66	55	66	55	66
Rated operational current $I_o$										
• At 500 V AC										
AC-22B	A		160	160	250	250	400	400	630	630
AC-23B	A		--	160	--	250	--	400	--	630
• At 690 V AC										
AC-22B	A		160	160	200	200	400	400	630	630
AC-23B	A		--	125	--	200	--	315	--	500
Rated switching capacity										
• At 500 V AC										
p.f. = 0.65	A		480	480	750	750	1200	1200	1890	1890
p.f. = 0.35	A		--	1280	--	2000	--	3200	--	5040
• At 690 V AC										
p.f. = 0.95	A		480	480	600	600	1200	1200	1890	1890
p.f. = 0.35	A		--	1000	--	1600	--	2520	--	4000
Endurance										
• Total		Operating cycles	1600		1600		1000		1000	
• Mechanical		Operating cycles	1400		1400		800		800	
• Electrical (690 V, p.f. = 0.65)		Operating cycles	200		200		200		200	
Power loss (Incl. LV HRC fuses with low power loss according to VDE 0636 Part 2)	W		39		73		114		215	
Permissible mounting positions			Horizontal							
Degree of protection (in operating state)			IP41							
Main conductor connections										
• Cable lug connection										
- Conductor cross-section (Al/Cu, solid or stranded) according to DIN 46235 (Cu) and DIN 46239 (Al)	mm <sup>2</sup>		1 x 10 ... 95		1 x 95 ... 240		1 x 300, 2 x 95 ... 240		1 x 300, 2 x 95 ... 240	
- Screw size			M8		M12		2 x M12		2 x M12	
- Torque	Nm		15		30		30		30	
• Terminal connection										
- Conductor cross-section (Al/Cu), rm	mm <sup>2</sup>		1 x 10 ... 50		1 x 16 ... 35		2 x 16 ... 35		2 x 16 ... 35	
- Conductor cross-section (Al/Cu), re	mm <sup>2</sup>		1 x 10 ... 50		1 x 16 ... 70		2 x 16 ... 70		2 x 16 ... 70	
- Conductor cross-section (Al/Cu), sm	mm <sup>2</sup>		1 x 35 ... 95		1 x 35 ... 240		2 x 35 ... 240		2 x 35 ... 240	
- Conductor cross-section (Al/Cu), se	mm <sup>2</sup>		1 x 50 ... 95		1 x 35 ... 300		2 x 35 ... 300		2 x 35 ... 300	
- Required torque	Nm		15		25		25		25	

<sup>1)</sup> In accordance with IEC 60439, the rated uninterrupted current must be reduced when the in-line switch disconnectors are installed in cubicles.

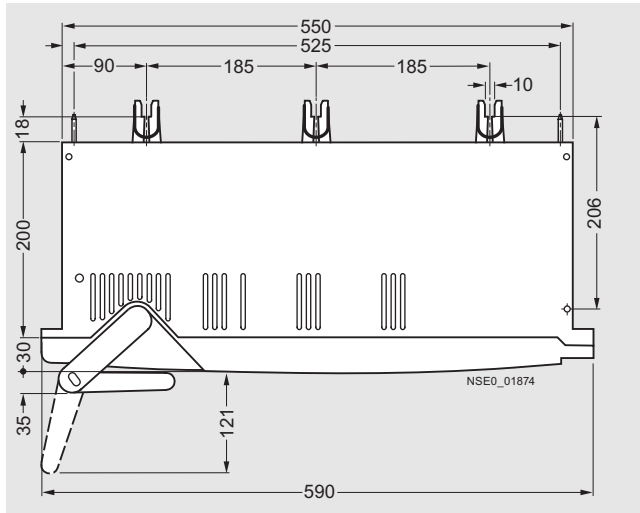
# 3NJ62 Switch Disconnectors with Fuses

For LV HRC fuse links  
3-pole

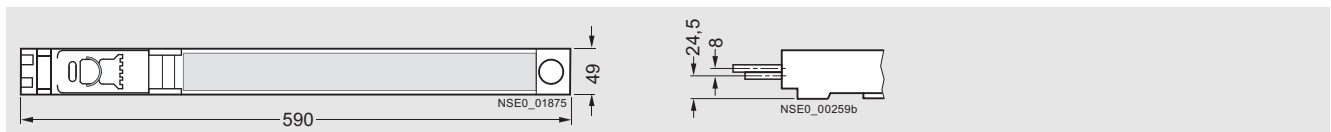
## Dimensional drawings

### 3-pole

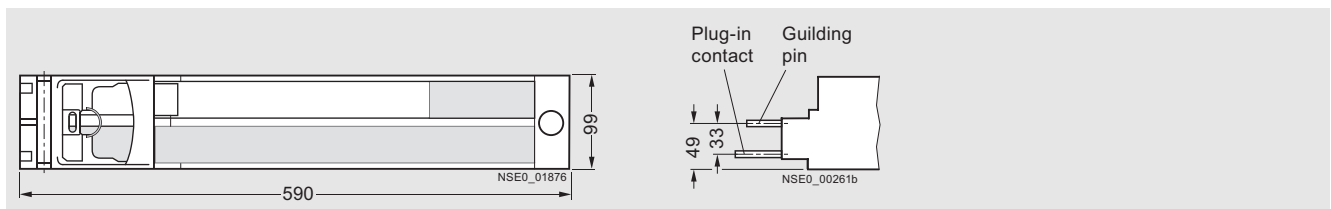
3NJ62 switch disconnectors, top view



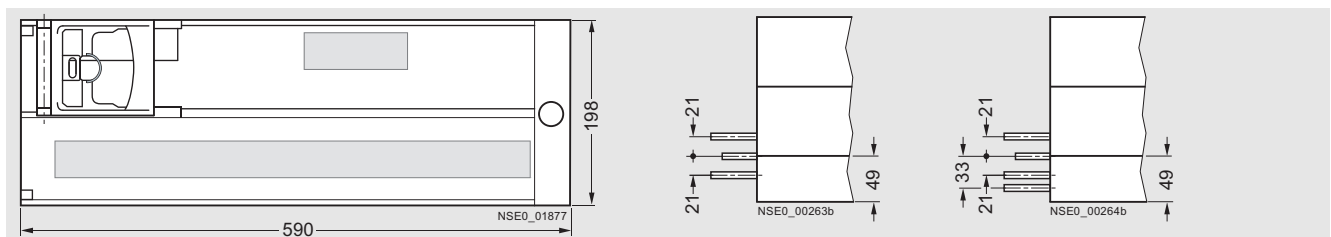
3NJ62 0, size 00



3NJ62 1, size 1

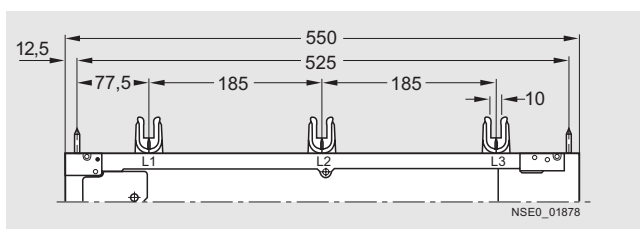


3NJ62 3 and 3NJ62 4, sizes 2 and 3

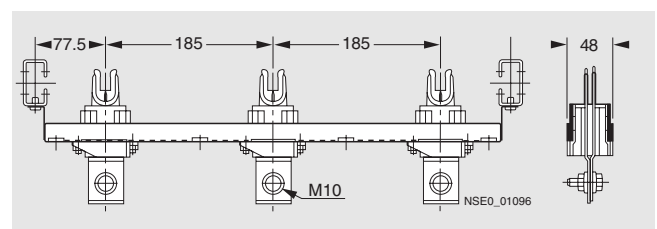


### Clearance between phases

Alternating voltage versions, 3-pole



### Connection modules



# 3NJ62 Switch Disconnectors with Fuses

For LV HRC fuse links  
3-pole

## Configuration

### Installation data

3NJ62 in-line switch disconnectors	Rated current	Size	Height requirements of in-line switch disconnectors
Type	A		mm
3NJ62 0	160	00	50
3NJ62 1	250	1	100
3NJ62 2	400	2	200
3NJ62 3	630	3	200

Further built-in components	Designation	Height requirements
Type		mm
3NJ69 00-4CB00	Blanking covers for empty compartments/connection module	50
3NJ69 15-3BA00	Connection module 400 A for device compartment (without front panel)	50

### Rated currents

- Rated current of device sizes =  $0.8 \times I_N$  of the biggest fuse link
- For summation current of all feeders in the SIVACON cubicle  $\leq 2000$  A.

Device size	Fuse $I_N$ A	Rated current $= 0.8 \times I_N$ A
00	160 125 80	125 100 64
1	250 224 125	200 180 100
2	400 355 315	320 284 252
3	630 500 400	504 400 320

### Configuration rules

Configuration rules for ventilated SIVACON cubicles with 3NJ6 switch disconnectors with fuses

- For the fully equipped cubicle, the rated diversity factor according to IEC 60439-1 applies. Failure to comply with these instructions may lead to premature ageing of fuses and uncontrolled tripping as a result of local overheating.
- All data refer to ambient temperatures of the control cabinet of 35 °C in 24 h-average value.

# 3NJ62 Switch Disconnectors with Fuses

For LV HRC fuse links  
3-pole

## Rated diversity factor according to IEC 60439-1

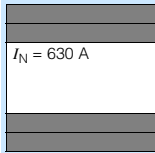
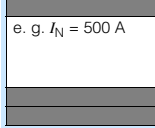
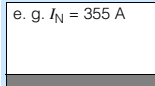
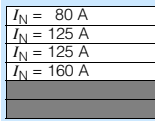
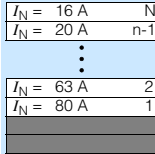
Number of main circuits	Rated diversity factor
2 and 3	0.9
4 and 5	0.8
6 to 9	0.7
10 and more	0.6

## Conversion factors for other ambient temperatures

Ambient temperature of the system	°C	20	25	30	35	40	45	50	55
Conversion factor		1.1	1.07	1.04	1.00	0.95	0.9	0.85	0.8

2

Rated current of fuse links	
	<b>Summation current of all feeders in the cubicle <math>\leq 2000 \text{ A} = 0.8 \times I_N</math> of fuse</b>
	<b>Permissible exceptions:</b> summation current of all feeders in cubicle $\leq 1500 \text{ A}$ Size 00 to 2 = $0.90 \times I_N$ Size 3 = $0.85 \times I_N$ Group formation is not permitted in this case. Each device, sizes 00 and 1 must be assigned a 50 mm high blanking cover.
<b>In-line switch disconnector arrangement</b>	Equipment in the field, from top to bottom, decreasing from size 3 to size 00.
	In-line switch disconnectors of size 2 > 280 A continuous load current In-line switch disconnectors of size 3 > 440 A continuous load current should - where possible - be distributed among different cubicles.

Blanking covers	
	<b>Permissible current</b> <b>Total covered height to be allocated</b> <b>Arrangement of in-line switch disconnectors + respective blanking covers</b>
With ventilation slots, 50 mm high	(continuous load current at 35 °C system ambient temperature)
<b>In-line switch disconnectors size 3</b> (Group formation not permissible)	$\geq 440 \text{ A}$ of single device 200 mm = 4 units per in-line switch disconnector  $I_N \times 0.8 = 500 \text{ A}$ = permissible continuous load current
	$< 440 \text{ A}$ of single device 150 mm = 3 units per in-line switch disconnector  $I_N \times 0.8 = 400 \text{ A}$ = permissible continuous load current
<b>In-line switch disconnectors size 2</b> (Group formation not permissible)	$\leq 320 \text{ A}$ of single device 50 mm = 1 units per in-line switch disconnector  $I_N \times 0.8 = 284 \text{ A}$ = permissible continuous load current
<b>Groups of in-line switch disconnectors sizes 00 and 1</b>	$\leq 400 \text{ A}$ = summation current of fuse links, group $\times 0.8$ 100 mm = 2 units per group  Total $I_N \times 0.8 \leq 400 \text{ A}$ = permissible continuous load current
<b>Any sized groups of in-line switch disconnectors of size 00</b>	$\leq 64 \text{ A}$ of single device 100 mm = 2 units per group In combination with size 2 and 3 in a panel are the rated currents size 2 = 280 A and size 3 = 440 A. Devices with size 2 and 3 must be allocated blanking covers (see above).  $(\text{Total } 1 \text{ to } I_N) \times \alpha$ = permissible continuous load current $\alpha$ = rated diversity factor n = 4 and 5 $\alpha = 0.8$ n = 6 to 9 $\alpha = 0.7$ n $\geq 10$ $\alpha = 0.6$

# 3NJ62 Switch Disconnectors with Fuses

## For LV HRC fuse links 3-pole

### Assignment of blanking covers with 50-mm high ventilation slots

Group		Single device	
Size 00	Size 1	Size 2	Size 3
Summation current of group $\leq 500$ A  permissible continuous load current $\leq 400$ A  <div> <math>I_N = 80</math> A  <math>I_N = 125</math> A  <math>I_N = 125</math> A  <math>I_N = 160</math> A  </div> Summation current of group $490 \text{ A} \times 0.8 = 392$ A  2 blanking covers/group	Summation current of group = 500 A  permissible continuous load current $\leq 40$ A  <div> <math>I_N = 250</math> A  <math>I_N = 250</math> A  </div> Summation current of group $500 \text{ A} \times 0.8 = 400$ A  2 blanking covers/group	permissible continuous load current of single device $\leq 320$ A $0.8 \times I_N = 280$ A  <div>           e. g.  <math>I_N = 355</math> A  </div> 1 blanking cover/device	permissible continuous load current of single device $\leq 440$ A $0.8 \times I_N = 400$ A  <div>           e. g.  <math>I_N = 500</math> A  </div> 3 blanking covers/device  <div> <math>440 \text{ A} &gt; I \leq 500</math> A  <math>= 500</math> A  </div> <div> <math>I_N = 630</math> A  </div> 4 blanking covers/device

Group		Group	Example:
Size 00	permissible continuous load current of single device $\leq 64$ A	Sizes 00 and 1	Group size 00 and sizes 2 and 3 When combining size 00 with $I_N 80$ A with other sizes, in the case of sizes 2 to 3, the rated currents must be reduced to $0.7 \times I_N$ :
Size 00 with $I_N \leq 80$ A  <div> <math>I_N = 20</math> A  <math>I_N = 32</math> A  <math>I_N = 32</math> A  <math>I_N = 40</math> A  <math>I_N = 40</math> A  <math>I_N = 40</math> A  <math>I_N = 50</math> A  <math>I_N = 50</math> A  <math>I_N = 50</math> A  <math>I_N = 80</math> A  <math>I_N = 80</math> A  <math>I_N = 80</math> A  <math>I_N = 80</math> A  <math>I_N = 80</math> A  <math>I_N = 80</math> A  </div> Any group size, up to 33 in-line switch disconnectors/panel  16 A 26 A 26 A 32 A 32 A 32 A 40 A 40 A 40 A 64 A 64 A 64 A 64 A 64 A 64 A 2 blanking covers/group		<div> <math>I_N = 40</math> A  <math>I_N = 100</math> A  <math>I_N = 100</math> A  <math>I_N = 250</math> A  </div> Summation current of group $490 \text{ A} \times 0.8 = 392$ A  2 blanking covers/group	<div> <math>I_N = 20</math> A  <math>I_N = 32</math> A  <math>I_N = 32</math> A  <math>I_N = 40</math> A  <math>I_N = 40</math> A  <math>I_N = 50</math> A  <math>I_N = 50</math> A  <math>I_N = 80</math> A  <math>I_N = 80</math> A  <math>I_N = 80</math> A  <math>I_N = 80</math> A  <math>I_N = 80</math> A  </div> Please observe assignment of blanking covers for devices of sizes 1 to 3 (see adjacent example of a panel not fully equipped)!  <div>           Size 2  <math>I_N = 400</math> A  </div> Rated current: 280 A  <div>           Size 3  <math>I_N = 630</math> A  </div> Rated current: 440 A



# Appendix

# 3



3/2	Ordering notes
3/3	Further documentation
3/4	Standards and approvals
3/5	Quality management
3/6	Siemens contacts
3/7	Online services
3/8	Customer support
3/9	Subject index, Order number index
3/10	Terms and conditions of sale and delivery Export regulations

# Appendix

## Ordering notes

### Ag and Cu surcharges

Surcharges for copper (Cu) and silver (Ag) will be added to the prices of certain products. The amount of the surcharge depends on the percentage taken from the current list price.

Calculation of the surcharges is governed by the official Ag quotation for refined silver and the applicable Cu-DEL quotation on the date of receipt of order or of call-off.

You will find a current table with the percentages according to products on the Internet at:

<http://www.siemens.de/lowvoltage/zuschlagsfaktoren>.

### Small orders

When small orders are placed, the costs associated with order processing are greater than the order value. We recommend therefore that you combine several small orders. Where this is not possible, we unfortunately find it necessary to charge a processing supplement of € 20.-- to cover our costs for order processing and invoicing for all orders with a net goods value of less than € 250.--.

### Orders for special designs

For ordering products that differ from the versions listed in the catalog, the order number specified in the catalog must be supplemented with "-Z"; the required features must be specified by means of the alphanumeric order codes or in plain text.

## Overview

You will find all the latest information material, such as brochures, catalogs, manuals and operating instructions on low-voltage, controls and distribution on the Internet at:

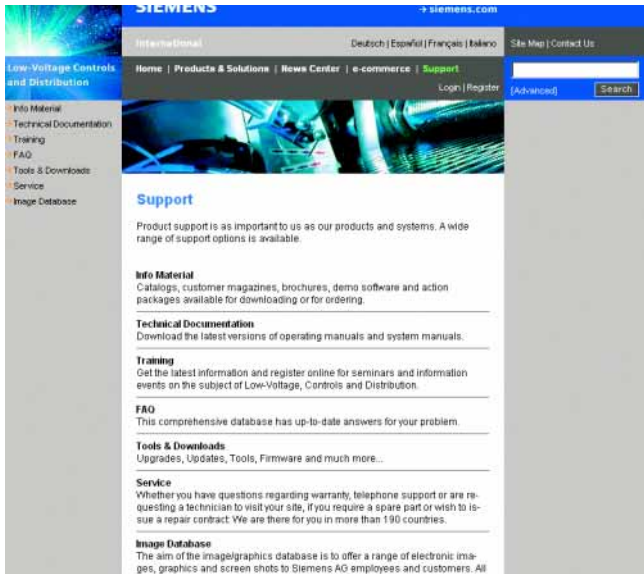
<http://www.siemens.com/lowvoltage/info>

Here you can order your copy of the available documentation or download it in common file formats (PDF, ZIP).

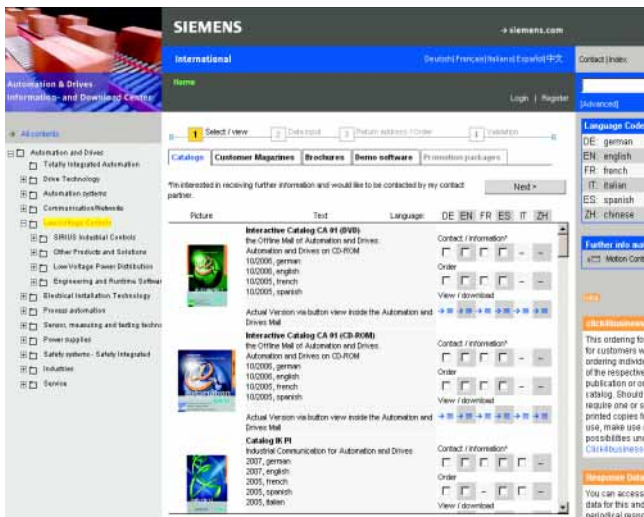
We regard product support as just as important as the products and systems themselves. Visit our Support site on the Internet for a comprehensive range of material on SIRIUS, SENTRON and SIVACON, such as

- Catalogs available to order free of charge
- Operating instructions and manuals for direct download
- Online registration for seminars and events
- Up-to-date answers to your queries and problems
- Software upgrades and updates for fast download
- Telephone assistance in more than 190 countries
- Photos and graphics for external use

and much, much more - all conveniently and easily accessible.



We also provide further support for SIRIUS - SENTRON - SIVACON



Brochures, catalogs and CDs offer fast and more in-depth information

# Appendix

## Standards and approvals

### Overview

#### Verification certificates and characteristic curves

To find the latest overview of the certificates available for our low-voltage controls and distribution products, as well as other technical documentation, please visit our Internet site at:

The screenshot shows the Siemens website interface. The left sidebar contains a navigation tree with categories like 'Product Information', 'Drive Technology', 'Automation systems', 'Communication/Networks', 'Low Voltage Controls', 'SIRIUS Industrial Controls', 'System', 'Controls', 'Protection Equipment', 'Load Feeder, Motor Start', 'Monitoring and Control Devices', 'Selecting Devices', 'Commanding and Signals', 'Transformers and Power Supply', 'Planning and Configuration', 'Other Products and Solutions', 'Low Voltage Power Distribution', 'Components', 'Engineering and Runtime Software', and 'Electrical Installation Technology'. The main content area is titled 'Approvals/Certificates [264]' and displays a table of documents in subfolders. The table lists documents such as 'USA/Canada UL-USTED / Report, E31518 Vol 10 Sec. 1 [206 KB], english' and 'USA/Canada UL-USTED / Report, E44653 Vol 12 Sec. 1 [26 KB], english'. The bottom of the page shows 'Entry 1 - 10 of 264' and a 'Show archived entries' checkbox.

Product support: Approvals / Certificates

<http://www.siemens.com/lowvoltage/support>

The screenshot shows the Siemens website interface. The left sidebar is identical to the previous screenshot. The main content area is titled 'Characteristic curves [166]' and displays a table of documents in subfolders. The table lists documents such as 'Tripping Characteristics, 4NED9890095.07 [82 KB], german' and 'Tripping Characteristics, 4NED9890095.02 [66 KB], german'. The bottom of the page shows 'Entry 1 - 10 of 166' and a 'Show archived entries' checkbox.

Product support: Characteristic curves

## Quality management

The quality management system of our A&D division complies with the international standard EN ISO 9001.

The products and systems described in this catalog are sold under application of a quality management system certified by DQS and TÜV Management Service GmbH in accordance with ISO 9001. The certificates are recognized in all IQ Net countries.

### DQS Registered Certificate Nos.:

Siemens AG  
Automation and Drives

- Industrial Automation Systems  
Reg. No.: 001323 QM
- Industrial Communication SIMATIC NET  
Reg. No.: 002613 QM.

### TÜV (German Technical Inspectorate) Registered Certificate No.:

Siemens AG  
Automation and Drives

- Low-Voltage Controls  
Reg. No.: 12 100 16950 TMS.

### BVQI Registered Certificate No.:

Siemens AG  
Automation and Drives

- Electrical Installation Technology  
Reg. No.: 117779

## Certificates

An overview of the certificates available for SIMATIC NET products (CE, UL, CSA, FM, shipping authorizations) can be found on the Internet at:

<http://www.siemens.com/simatic-net>

Other certificates for SIMATIC products can be found on the Internet at:

<http://www.siemens.com/simatic>

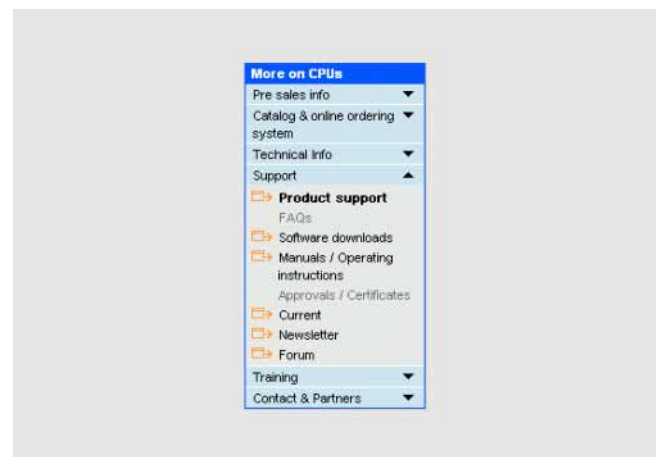
These lists are continuously revised and updated and data for products not yet included in the overview are continuously collected and prepared for subsequent editions.

You can find certificates, approvals, verification certificates and characteristic material at:

Support\Info material\Certificates



or by going directly to the Link Box:



# Appendix

## Siemens contacts

### Siemens contacts worldwide

**SIEMENS** Find (Home | Personalization | About us | English)

Local Partners Worldwide

Germany

Are you looking for a local contact to help you with questions regarding Siemens Automation and Drives products, solutions and services?

O.K. First, please select the city nearest to your location:

→ (or to select a different country click here)

Berlin

Now select the appropriate team who you would like to deal with your enquiry:

Sales

Next >

Contact

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Webmaster

At

<http://www.siemens.com/automation/partner>

you can find details of Siemens contact partners worldwide responsible for particular technologies.

You can obtain in most cases a contact partner for

- Technical Support,
- Spare parts/repairs,
- Service,
- Training,
- Sales or
- Consultation/engineering.

You start by selecting a

- Country,
- Product or
- Sector.

By further specifying the remaining criteria you will find exactly the right contact partner with his/her respective expertise.

3

**SIEMENS** Find (Home | Personalization | About us | English)

Local Partners Worldwide

Please select a sector

Select area/sector Select city Your contact(s)

Sectors Search a Sector

Which sector\* is your question regarding?

AND Select

- ☒ Video Systems, Visualization Systems
- ☐ Technical Wholesale
- ☐ Material Flow Controlling, Distribution and Logistics
- ☐ Assembly Control
- ☐ Paper Machines
- ☐ Production Automation in the Automotive Industry and Suppliers
- ☐ Production Logistics and Control Systems
- ☐ Production Machines; Textiles, Plastics, Metal Forming, Wood, Glass, Ceramic processing, Stone processing, Packaging, Printing, Cranes
- ☐ Process Control Systems
- ☐ Testing/Final Assembly

\* This list contains industry sectors covered by Siemens Automation and Drives products and solutions.

Please select the team who you would like to deal with your enquiry:

Sales

Next >

Contact

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Webmaster

**SIEMENS** Find (Home | Personalization | About us | English)

Local Partners Worldwide

Please select a Siemens product group

Select area/product Select city Your contact(s)

Product Catalog Search a Product

Which product\* does your question refer to?

AND Product Catalog

- ☒ Drive Technology
- ☐ Automation systems
- ☐ Communication Networks
- ☐ Low-Voltage Controls
- ☐ Electrical Installation Technology
- ☐ Process automation
- ☐ Sensor, measuring and testing technology
- ☐ Power supplies
- ☐ Safety systems - Safety Integrated
- ☐ System solutions and products for branches

\* This list contains products and solutions provided by Siemens Automation and Drives.

Please select the team who you would like to deal with your enquiry:

Sales

Next >

Contact

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Webmaster



## A&amp;D in the WWW



A detailed knowledge of the range of products and services available is essential when planning and configuring automation systems. It goes without saying that this information must always be fully up-to-date.

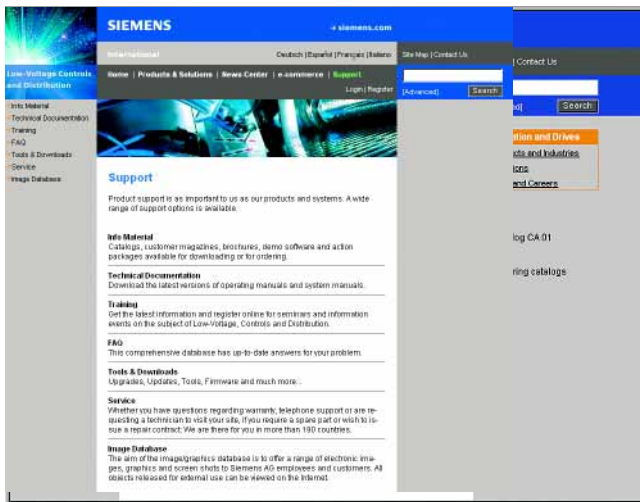
The Siemens Automation and Drives Group (A&D) has therefore built up a comprehensive range of information in the World Wide Web, which offers quick and easy access to all data required.

Under the address

<http://www.siemens.com/automation>

you will find everything you need to know about products, systems and services.

## Product Selection Using the Offline Mall of Automation and Drives



Detailed information together with convenient interactive functions:

The Offline Mall CA 01 covers more than 80,000 products and thus provides a full summary of the Siemens Automation and Drives product base.

Here you will find everything that you need to solve tasks in the fields of automation, switchgear, installation and drives. All information is linked into a user interface which is easy to work with and intuitive.

After selecting the product of your choice you can order at the press of a button, by fax or by online link.

Information on the Offline Mall CA 01 can be found in the Internet under

<http://www.siemens.com/automation/ca01>

or on CD-ROM or DVD.

## Easy Shopping with the A&amp;D Mall



The A&D Mall is the virtual department store of Siemens AG in the Internet. Here you have access to a huge range of products presented in electronic catalogs in an informative and attractive way.

Data transfer via EDIFACT allows the whole procedure from selection through ordering to tracking of the order to be carried out online via the Internet.

Numerous functions are available to support you.

For example, powerful search functions make it easy to find the required products, which can be immediately checked for availability. Customer-specific discounts and preparation of quotes can be carried out online as well as order tracking and tracing.

Please visit the A&D Mall on the Internet under:

<http://www.siemens.com/automation/mall>



# Appendix

## Customer Support



In the face of harsh competition you need optimum conditions to keep ahead all the time:

A strong starting position. A sophisticated strategy and team for the necessary support - in every phase.

Service & Support from Siemens provides this support with a complete range of different services for automation and drives.

In every phase: from planning and startup to maintenance and upgrading.

Our specialists know when and where to act to keep the productivity and cost-effectiveness of your system running in top form.

### Configuration and Software Engineering



Support in configuring and developing with customer-oriented services from actual configuration to implementation of the automation project.<sup>2)</sup>

### Technical Support



Competent consulting in technical questions covering a wide range of customer-oriented services for all our products and systems.

**Tel.: +49 (0) 180 50 50 222**

**Fax: +49 (0) 180 50 50 223**

<http://www.siemens.com/automation/support-request>

### Online Support



The comprehensive information system available round the clock via Internet ranging from Product Support and Service & Support services to Support Tools in the Shop.

<http://www.siemens.com/automation/service&support>

### Service On Site



With Service On Site we offer services for startup and maintenance, essential for ensuring system availability.

**Tel.: +49 (0) 180 50 50 444<sup>2)</sup>**

### Technical Consulting



Support in the planning and designing of your project from detailed actual-state analysis, target definition and consulting on product and system questions right to the creation of the automation solution.<sup>2)</sup>

### Technical Assistance



Competent consulting in technical questions covering a wide range of customer-oriented services for all our products and systems<sup>1)</sup>

**Tel.: +49 (0) 9 11 8 95-59 00**

**Fax: +49 (0) 9 11 8 95-59 07**

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

### Repairs and spare parts



In the operating phase of a machine or automation system we provide a comprehensive repair and spare parts service ensuring the highest degree of operating safety and reliability.

**Tel.: +49 (0) 180 50 50 446<sup>2)</sup>**

### Optimization and upgrading



To enhance productivity and save costs in your project we offer high-quality services in optimization and upgrading.<sup>2)</sup>

<sup>2)</sup> For country-specific telephone numbers go to our Internet site at: <http://www.siemens.com/automation/service&support>

<sup>1)</sup> Contact:  
Technical assistance for product selection · Old/new coding · Competitor coding · Special versions · Special requirements · Sales promotion (Infoline).  
Your regional contacts for sales support (prices, discounts, delivery times).  
Technical Support for commissioning support and after-sales services.

## Subject index

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# Appendix

## Conditions of sale and delivery Export regulations

### Terms and Conditions of Sale and Delivery

By using this catalog you can acquire hardware and software products described therein from Siemens AG subject to the following terms. Please note! The scope, the quality and the conditions for supplies and services, including software products, by any Siemens entity having a registered office outside of Germany, shall be subject exclusively to the General Terms and Conditions of the respective Siemens entity. The following terms apply exclusively for orders placed with Siemens AG.

#### For customers with a seat or registered office in Germany

The "General Terms of Payment" as well as the "General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry" shall apply.

For software products, the "General License Conditions for Software Products for Automation and Drives for Customers with a Seat or registered Office in Germany" shall apply.

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The "General Terms of Payment" as well as the "General Conditions for Supplies of Siemens Automation and Drives for Customers with a Seat or registered Office outside of Germany" shall apply.

For software products, the "General License Conditions for Software Products for Automation and Drives for Customers with a Seat or registered Office outside of Germany" shall apply.

#### General

The dimensions are in mm. In Germany, according to the German law on units in measuring technology, data in inches only apply to devices for export.

Illustrations are not binding.

Insofar as there are no remarks on the corresponding pages, - especially with regard to data, dimensions and weights given - these are subject to change without prior notice.

The prices are in € (Euro) ex works, exclusive packaging.

The sales tax (value added tax) is not included in the prices. It shall be debited separately at the respective rate according to the applicable legal regulations.

Prices are subject to change without prior notice. We will debit the prices valid at the time of delivery.

Surcharges will be added to the prices of products that contain silver, copper, aluminum, lead and/or gold if the respective basic official prices for these metals are exceeded. These surcharges will be determined based on the official price and the metal factor of the respective product.

The surcharge will be calculated on the basis of the official price on the day prior to receipt of the order or prior to the release order.

The metal factor determines the official price as of which the metal surcharges are charged and the calculation method used. The metal factor, provided it is relevant, is included with the price information of the respective products.

An exact explanation of the metal factor and the text of the Comprehensive Terms and Conditions of Sale and Delivery are available free of charge from your local Siemens business office under the following Order Nos.:

- 6ZB5310-OKR30-0BA1  
(for customers based in Germany)
- 6ZB5310-OKS53-0BA1  
(for customers based outside Germany)

or download them from the Internet

<http://www.siemens.com/automation/mall>

(Germany: A&D Mall Online-Help System)

### Export regulations

The products listed in this catalog / price list may be subject to European / German and/or US export regulations.

Therefore, any export requiring a license is subject to approval by the competent authorities.

According to current provisions, the following export regulations must be observed with respect to the products featured in this catalog / price list:

AL	<p>Number of the <u>German Export List</u></p> <p>Products marked other than "N" require an export license.</p> <p>In the case of software products, the export designations of the relevant data medium must also be generally adhered to.</p> <p>Goods labeled with an "<u>AL" not equal to "N"</u>" are subject to a European or German export authorization when being exported out of the EU.</p>
ECCN	<p><u>Export Control Classification Number</u></p> <p>Products marked other than "N" are subject to a reexport license to specific countries.</p> <p>In the case of software products, the export designations of the relevant data medium must also be generally adhered to.</p> <p>Goods labeled with an "<u>ECCN" not equal to "N"</u>" are subject to a US re-export authorization.</p>

Even without a label or with an "AL: N" or "ECCN: N", authorization may be required due to the final destination and purpose for which the goods are to be used.

The deciding factors are the AL or ECCN export authorization indicated on order confirmations, delivery notes and invoices.

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A&D/VuL\_ohne MZ/En 05.09.06

# Catalogs of the Automation and Drives Group (A&D)

Further information can be obtained from our branch offices listed  
in the appendix or at [www.siemens.com/automation/partner](http://www.siemens.com/automation/partner)

<b>Automation and Drives</b>		<i>Catalog</i>
Interactive catalog on CD-ROM and on DVD		
• The Offline Mall of Automation and Drives	CA 01	
<b>Automation Systems for Machine Tools</b>		
SINUMERIK & SIMODRIVE	NC 60	
SINUMERIK & SINAMICS	NC 61	
<b>Drive Systems</b>		
<u>Variable-Speed Drives</u>		
SINAMICS G130 Drive Converter Chassis Units, SINAMICS G150 Drive Converter Cabinet Units	D 11	
SINAMICS G110 Inverter Chassis Units	D 11.1	
SINAMICS GM150/SINAMICS SM150 Medium-Voltage Converters	D 12	
SINAMICS S120 Drive Converter Systems	D 21.1	
SINAMICS S150 Drive Converter Cabinet Units	D 21.3	
Asynchronous Motors Standardline	D 86.1	
Synchronous Motors with Permanent-Magnet Technology, HT-direct	D 86.2	
DC Motors	DA 12	
SIMOREG DC MASTER 6RA70 Digital Chassis Converters	DA 21.1	
SIMOREG K 6RA22 Analog Chassis Converters	DA 21.2	
SIMOREG DC MASTER 6RM70 Digital Converter Cabinet Units	DA 22	
SIMOVERT PM Modular Converter Systems	DA 45	
SIEMOSYN Motors	DA 48	
MICROMASTER 410/420/430/440 Inverters	DA 51.2	
MICROMASTER 411/COMBIMASTER 411	DA 51.3	
SIMOVERT MASTERDRIVES Vector Control	DA 65.10	
SIMOVERT MASTERDRIVES Motion Control	DA 65.11	
Synchronous and asynchronous servomotors for SIMOVERT MASTERDRIVES	DA 65.3	
SIMODRIVE 611 universal and POSMO	DA 65.4	
<u>Low-Voltage Three-Phase-Motors</u>		
IEC Squirrel-Cage Motors	D 81.1	
<u>Automation Systems for Machine Tools SIMODRIVE</u>		NC 60
• Main Spindle/Feed Motors		
• Converter Systems SIMODRIVE 611/POSMO		
<u>Automation Systems for Machine Tools SINAMICS</u>		NC 61
• Main Spindle/Feed Motors		
• Drive System SINAMICS S120		
<u>Drive and Control Components for Hoisting Equipment</u>		HE 1
<b>Electrical Installation Technology</b>		
<i>PDF: ALPHA Small Distribution Boards and Distribution Boards, Terminal Blocks</i>	ETA 1	
<i>PDF: ALPHA 8HP Molded-Plastic Distribution System</i>	ETA 3	
<i>PDF: BETA Low-Voltage Circuit Protection</i>	ET B1	
<i>PDF: DELTA Switches and Socket Outlets</i>	ET D1	
GAMMA Building Controls	ET G1	
<b>Human Machine Interface Systems SIMATIC HMI</b>		ST 80
<b>Industrial Communication for Automation and Drives</b>		<i>Catalog</i> IK PI
<b>Low-Voltage</b>		
Controls and Distribution – SIRIUS, SENTRON, SIVACON	LV 1	
Controls and Distribution – Technical Information SIRIUS, SENTRON, SIVACON	LV 1 T	
SIDAC Reactors and Filters	LV 60	
SIVENT Fans	LV 65	
SIVACON 8PS Busbar Trunking Systems	LV 70	
<b>Motion Control System SIMOTION</b>		PM 10
<b>Process Instrumentation and Analytics</b>		
Field Instruments for Process Automation	FI 01	
Measuring Instruments for Pressure, Differential Pressure, Flow, Level and Temperature, Positioners and Liquid Meters		
<i>PDF: Indicators for panel mounting</i>	MP 12	
SIREC Recorders and Accessories	MP 20	
SIPART, Controllers and Software	MP 31	
SIWAREX Weighing Systems	WT 01	
Continuous Weighing and Process Protection	WT 02	
Process Analytical Instruments	PA 01	
<i>PDF: Process Analytics, Components for the System Integration</i>	PA 11	
<b>SIMATIC Industrial Automation Systems</b>		
SIMATIC PCS Process Control System	ST 45	
Products for Totally Integrated Automation and Micro Automation	ST 70	
SIMATIC PCS 7 Process Control System	ST PCS 7	
Add-ons for the SIMATIC PCS 7 Process Control System	ST PCS 7.1	
Migration solutions with the SIMATIC PCS 7 Process Control System	ST PCS 7.2	
pc-based Automation	ST PC	
SIMATIC Control Systems	ST DA	
<b>SIMATIC Sensors</b>		
Sensors for Factory Automation	FS 10	
<b>SIPOS Electric Actuators</b>		
Electric Rotary, Linear and Part-turn Actuators	MP 35	
Electric Rotary Actuators for Nuclear Plants	MP 35.1/2	
<b>Systems Engineering</b>		
Power supplies SITOP power	KT 10.1	
System cabling SIMATIC TOP connect	KT 10.2	
<b>System Solutions</b>		
Applications and Products for Industry are part of the interactive catalog CA 01		
<b>TELEPERM M Process Control System</b>		
<i>PDF: AS 488/TM automation systems</i>	PLT 112	

*PDF: These catalogs are only available as pdf files.*

[www.siemens.com/lowvoltage](http://www.siemens.com/lowvoltage)

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