NEW

Direct reference to the products in the Industry Mall from the selection and ordering data tables:

Article No.
www.siemens.com/product?Article No.
3VA2025-5HL36-0AA0

Paper catalog:
To get more product information enter the Web address plus Article No.

PDF catalog:
Get more product information with just a mouse click.

For further technical product information:

Configuration Manual

Fuse Systems
Article No.: 3ZW1012-3NW10-0AC1

Siemens Industry Online Support:

www.siemens.com/lowvoltage/product-support

→ Entry type:
Application example
Certificate
Characteristic
Download
FAQ
Manual
Product note
Software archive
Technical data

Introduction

Overview

Devices		Page	Application	Standards	Used in		
					Non-residential buildings	Residential buildings	Industry
	**NEOZED fuse systems**	5/4	MINIZED switch disconnectors, bases, fuse links from 2 A to 63 A of operational class gG and accessories. Everything you need for a complete system.	Fuse system: IEC 60269-3; DIN VDE 0636-3 Safety switching devices: IEC/EN 60947-3 DIN VDE 0638; EN 60947-3 (VDE 0660-107)	✓	✓	✓
	**DIAZED fuse systems**	5/12	Fuse links from 2 A to 100 A in various operational classes, base versions with classic screw base connections. A widely used fuse system.	IEC 60269-3; DIN VDE 0635; DIN VDE 0636-3; CEE 16	✓	✓	✓
Cylindrical fuse systems							
	**Cylindrical fuse links and cylindrical fuse holders**	5/18	Line protection or protection of switching devices. The fuse holders with touch protection ensure the safe "no-voltage" replacement of fuse links. Auxiliary switches can be retrofitted.	IEC 60269-1, -2, -3; NF C 60-200; NF C 63-210, -211; NBN C 63269-2, CEI 32-4, -12 Fuse holders: File No. E171267	✓	✓	✓
	**Fuse holders in size 10 x 38 mm and Class CC**	5/22	For installing fused loaded motor starter combinations.	IEC 60269-1,-2; IEC 60947-4; UL 4248-1, File No. E171267 CSA 250269, 6225-01 Auxiliary switches: UL 508, File No. E334003	✓	--	✓
	**Class CC fuse systems**	5/26	These comply with the American standard and have UL and CSA approval, for customers exporting OEM products and machine builders. Modern design with touch protection according to BGV A3 for use in "branch circuit protection".	Fuse holders: UL 4248-1, E171267 CSA 22.2 Fuse links: UL 248-4, File No. E258218, CSA 231237, 1422-02 and 1422-82	✓	✓	✓
	**Busbar systems**	5/28	Busbars for NEOZED fuse bases, NEOZED fuse disconnectors, MINIZED switch disconnectors, DIAZED fuse systems and for the cylindrical fuse systems. Compact cylindrical fuse holders for busbars	EN 60439-1 (VDE 0660-500) UL 4248-1, E337131	✓	✓	✓

Devices		Page	Application	Standards	Used in		
					Non-residential buildings	Residential buildings	Industry
3NA, 3ND LV HRC fuse systems							
	**LV HRC fuse links**	5/34	Fuse links from 2 A to 1250 A for selective line protection and system protection in non-residential buildings, industry and power utilities.	IEC 60269-1, -2; EN 60269-1; DIN VDE 0636-2; CSA 16325 - 1422-02	✓	✓	✓
	**LV HRC signal detectors**	5/43	Signal detectors for when a fuse is tripped on all LV HRC fuse links with combination or front indicators with non-insulated grip lugs. Plus the comprehensive accessory range required for LV HRC fuse systems.	--	✓	✓	✓
	**LV HRC fuse bases and accessories**	5/45	Fuse bases for screw or snap-on mounting onto standard mounting rails, available as 1-pole or 3-pole version.	IEC 60269-1, -2; EN 60269-1; DIN VDE 0636-2 UL 4248-1, File No. E171267-IZLT2 (only downstream from the branch protection) CSA C22.2 No. 4248.1-07	✓	✓	✓
SITOR semiconductor fuses							
	**LV HRC design**	5/53	Fuse links in LV HRC design and a huge variety of models support a wide range of applications from 500 V to 1500 V and 150 A to 1600 A. Fuses with slotted blade contacts, bolt-on links or female thread and special designs.	UL 4248-13, File No. E167357-JFHR2	--	--	✓
	**Cylindrical fuse design**	5/63	Fuse links, fuse holders – usable as fuse switch disconnectors and fuse bases up to 600/690 V AC and 400/700 V DC from 1 A to 100 A in the sizes 10 × 38 mm, 14 × 51 mm and 22 × 58 mm.	Fuse links: UL 4248-13, File No. E167357-JFHR2 CSA 248170, 1422-30 Fuse holders: UL 4248-1, File No. E171267- IZLT CSA 248170, 6225-01	--	--	✓
	**NEOZED, DIAZED design**	5/67	NEOZED fuse links for 400 V AC and 250 V DC and DIAZED for 500 V AC and 500 V DC.	--	--	--	✓
Photovoltaic fuses							
	**PV cylindrical fuses**	5/70	Fuses with a rated voltage of 1000 V DC and 1500 V and gPV operational class for the protection of photovoltaic modules, their connecting cables and other components.	IEC 60269-6	✓	✓	✓
	**PV cumulative fuses**	5/72	Fuses with a rated voltage of 1000 V and 1500 V DC, a rated current of 63 A to 630 A and operational class gPV for the protection of connecting cables and other components.	IEC60269-6	✓	✓	✓

5

Introduction

Overview

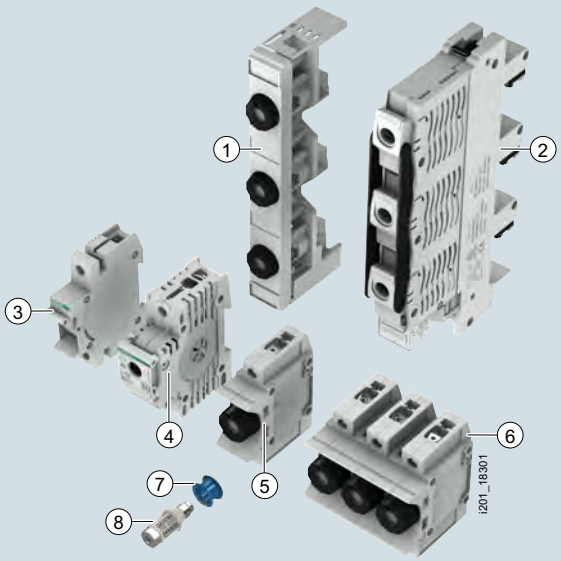
The NEOZED fuse system is primarily used in distribution technology and industrial switchboard assemblies. The system is easy to use and is also approved for domestic installation.

The MINIZED switch disconnectors are primarily used in switchboard assemblies and control engineering. They are approved for switching loads as well as for safe switching in the event of short circuits. The MINIZED D02 is also suitable for use upstream of the meter in household applications in compliance with the recommendations of the VDEW according to TAB.

Due to its compact design, the MINIZED D01 fuse switch disconnector is primarily used in control engineering.

The NEOZED fuse bases are the most cost-effective solution for using NEOZED fuses. All NEOZED bases must be fed from the bottom to ensure that the threaded ring is insulated during removal of the fuse link. The terminals of the NEOZED bases are available in different versions and designs to support the various installation methods.

Benefits



1. NEOZED D02 bus-mounting base for 60 mm busbar system, with NEOZED screw cap
2. NEOZED D02 bus-mounting switch disconnector for 60 mm busbar system
3. MINIZED D01 fuse switch disconnector
4. MINIZED D02 switch disconnector
5. NEOZED comfort base, 1-pole (fuse base with touch protection BGV A3), with NEOZED screw cap
6. NEOZED comfort base, 3-pole (fuse base with touch protection BGV A3), with NEOZED screw cap
7. NEOZED adapter sleeve
8. NEOZED fuse link

Compared to the older DIAZED fuse system, the NEOZED fuse system is significantly more modern:

- Much more compact which saves space in the distribution board
- Modern devices like the MINIZED switching devices, which combine the functions of a switch disconnector and a fuse base
- Wide range of accessories, such as busbars for one, two, or three-phase wiring
- Modern terminals for MINIZED D02 and NEOZED comfort bases: Visible, clear and controllable connection simplifies cable entry

Double terminal chambers permit connection of two wires of different cross-sections

- Lower power loss of the fuse links

Even when compared to the internationally prevalent cylindrical fuse system, the NEOZED fuse system has considerable advantages:

- Non-interchangeability – thanks to use of adapter sleeves (i.e. it is not possible to insert a fuse for larger currents). This is a requirement of numerous wiring regulations in Germany and other European countries.
- Switching devices with load switching characteristics allow the safe switching of load currents up to 63 A

Technical specifications

		NEOZED fuse links 5SE2
Standards		IEC 60269-3; DIN VDE 0636-3
Operational class		gG
Rated voltage U_n	V AC	400
	V DC	250
Rated current I_n	A	2 ... 100
Rated breaking capacity	kA AC	50
	kA DC	8
Non-interchangeability		Using adapter sleeves
Resistance to climate	°C	Up to 45 at 95 % rel. humidity
Ambient temperature	°C	-5 ... +40, humidity 90 % at 20

		MINIZED switch disconnectors	MINIZED fuse switch disconnectors	Fuse bases, made of ceramic			Comfort bases	Fuse bases
		D02 5SG71	D01 5SG76	D01 5SG15 5SG55	D02 5SG16 5SG56	D03 5SG18	D01/02 5SG1.01 5SG5.01	 5SG1.30 5SG1.31 5SG5.30
Standards		DIN VDE 0638; EN 60947-3 (VDE 0660-107) IEC/EN 60947-3		IEC 60269-3; DIN VDE 0636-3				
Main switch characteristic EN 60204-1		Yes	--	--				
Insulation characteristic EN 60664-1		Yes	--	--				
Rated voltage U_n	V AC	230/400, 240/415		400				
• 1P	V DC	65	48	250				
• 2P in series	V DC	130	110	250				
Rated current I_n	A	63	16	16	63	100	16/63	16/63
Rated insulation voltage	V AC	500	690	--				
Rated impulse withstand voltage	kV AC	6	6	--				
Overvoltage category		IV	IV	--				
Utilization category acc. to VDE 0638								
• AC-22	A	63	16	--				
Utilization category acc. to EN 60947-3								
• AC-22 A	A	--	16	--				
• AC-22 B	A	63	--	--				
• AC-23 B	A	35	--	--				
• DC-22 B	A	63	--	--				
Sealable When switched on		Yes		Yes, with sealable screw caps				
Mounting position		Any, preferably vertical						
Reduction factor of I_n with 18 pole								
• Side-by-side mounting		0.9	--					
• On top of one another, with vertical standard mounting rail		0.87	--					
Degree of protection acc. to IEC 60529		IP20, with connected conductors[1)]						
Terminals With touch protection acc. to BGV A3		Yes		No			Yes	
Ambient temperature	°C	-5 ... +40, humidity 90 % at 20						
Terminal versions		Box terminals	Box terminal	B	K, S	K/S	Box terminal	Box terminal
Conductor cross-sections								
• Solid and stranded	mm^2	1.5 ... 35	1.5 ... 16	1.5 ... 4	2.5 ... 25	10 ... 50	0.75 ... 35	1.5 ... 35
• Flexible, with end sleeve	mm^2	1.5 ... 35	1.5 … 10	1.5 … 4	1.5 … 16	10 … 35	--	--
Tightening torque	Nm	2.5 ... 3	2.5	1.2	2	3.5/2.5	3.5	3

1) Degree of protection IP20 is tested according to regulations using a straight test finger (from the front), with the device mounted and equipped with a cover, housing or some other enclosure.

More information

Fuse bases D01 with terminal version BB

- Incoming feeders, clamp-type terminal B
- Outgoing feeders, clamp-type terminal B

Fuse bases D02, with terminal version KS

- Incoming feeders, screw head contact K
- Outgoing feeders, saddle terminal S

Fuse bases D02, with terminal version SS

- Incoming feeders, saddle terminal S
- Outgoing feeders, saddle terminal S

Selection and ordering data

	Size	I_n	Identification color	Mounting width	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A		MW							kg
	NEOZED fuse links, rated voltage 400 V AC/250 V DC, operational class gG										
	D01	2	Pink	--	►	**5SE2302**		1	10 units	1BM	0.006
		4	Brown		►	**5SE2304**		1	10 units	1BM	0.006
		6	Green		►	**5SE2306**		1	10/500 units	1BM	0.007
		10	Red	--	►	**5SE2310**		1	10/500 units	1BM	0.007
		13	Black			**5SE2013-2A**		1	10 units	1BM	0.007
		16	Gray		►	**5SE2316**		1	10/500 units	1BM	0.007
	D02	20	Blue	--	►	**5SE2320**		1	10 units	1BM	0.012
		25	Yellow		►	**5SE2325**		1	10 units	1BM	0.012
		32	Violet			**5SE2332**		1	10 units	1BM	0.014
		35	Black	--	►	**5SE2335**		1	10 units	1BM	0.014
		40	Black			**5SE2340**		1	10 units	1BM	0.013
		50	White		►	**5SE2350**		1	10 units	1BM	0.014
		63	Copper		►	**5SE2363**		1	10 units	1BM	0.015
	D03	80	Blue	--	►	**5SE2280**		1	10 units	1BM	0.038
		100	Red		►	**5SE2300**		1	10 units	1BM	0.040

* You can order this quantity or a multiple thereof.

MINIZED switch disconnectors and MINIZED fuse switch disconnectors

Selection and ordering data

	Size	Number of poles	I_n	Mounting width	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
			A	MW							kg
	MINIZED switch disconnectors with fuses using draw-out technology with touch protection to BGV A3 (adapter sleeves not included in the scope of delivery)										
	D02	1P	63	1.5	▶	**5SG7113**		1	1 unit	1BM	0.135
		1P+N	63	3		**5SG7153**		1	1 unit	1BM	0.255
		2P	63	3		**5SG7123**		1	1 unit	1BM	0.269
		3P	63	4.5	▶	**5SG7133**		1	1 unit	1BM	0.381
		3P+N	63	6		**5SG7163**		1	1 unit	1BM	0.491
	Versions for Austria only, with permanently fitted adapter sleeves, incl. fuse link										
	D02	3P	25	4.5		**5SG7133-8BA25**		1	1 unit	1BM	0.421
			35			**5SG7133-8BA35**		1	1 unit	1BM	0.423
			50			**5SG7133-8BA50**		1	1 unit	1BM	0.449
	Reducers										
	For fuse links D01 in MINIZED switch disconnectors D02					**5SH5527**		1	10/100 units	1CU	0.001
	Auxiliary switches (AS)										
	For MINIZED D02 switch disconnectors										
	1 NO + 1 NC			0.5	▶	**5ST3010**		1	1 unit	1AD	0.055
	2 NO					**5ST3011**		1	1 unit	1AD	0.066
	2 NC					**5ST3012**		1	1 unit	1AD	0.067
	Technical specifications see chapter "Miniature Circuit Breakers"–> Additional components"										
	Auxiliary switches (AS) with TEST button										
	For MINIZED D02 switch disconnectors										
	1 NO + 1 NC			0.5		**5ST3010-2**		1	1 unit	1AD	0.071
	2 NO					**5ST3011-2**		1	1 unit	1AD	0.068
	2 NC					**5ST3012-2**		1	1 unit	1AD	0.071
	For technical specifications see chapter "Miniature Circuit Breakers"–> Additional components"										
	MINIZED fuse switch disconnectors Using draw-out technology with touch protection acc. to BGV A3										
	D01	1P	6[1]	1		**5SG7611-0KK06**		1	12 units	1BM	0.079
		3P	6[1]	3		**5SG7631-0KK06**		1	4 units	1BM	0.238
		1P	10	1		**5SG7611-0KK10**		1	12 units	1BM	0.077
		3P	10	3		**5SG7631-0KK10**		1	4 units	1BM	0.237
		1P	16	1		**5SG7611-0KK16**		1	12 units	1BM	0.076
		1P+N	16	2		**5SG7651-0KK16**		1	6 units	1BM	0.153
		2P	16	2		**5SG7621-0KK16**		1	6 units	1BM	0.158
		3P	16	3		**5SG7631-0KK16**		1	4 units	1BM	0.236
		3P+N	16	4		**5SG7661-0KK16**		1	3 units	1BM	0.317

[1] For 2 A, 4 A, 6 A fuses.

For busbars, see page 5/30.

* You can order this quantity or a multiple thereof.

Selection and ordering data

	Size	Number of poles	I_n A	Matching cover[1]	Terminals[2]	Mounting width MW	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx. kg
	NEOZED comfort bases made of molded plastic With touch protection according to BGV A3												
	D01	1P	16	--		1.5	▶	**5SG1301**		1	3 units	1BM	0.134
	D02		63	--			▶	**5SG1701**		1	3 units	1BM	0.130
	D01	3P	16	--		4.5	▶	**5SG5301**		1	1 unit	1BM	0.397
	D02		63	--			▶	**5SG5701**		1	1 unit	1BM	0.392
	NEOZED fuse bases made of molded plastic												
	For snap-on mounting on standard mounting rails, with cover												
	D01	1P	16	(A1)		1.5		**5SG1330**		1	6 units	1BM	0.075
	D02		63	(A1)		1.5		**5SG1730**		1	6 units	1BM	0.089
	For snap-on mounting on standard mounting rails, without cover												
	D01	1P	16	A1		1.5		**5SG1331**		1	6 units	1BM	0.069
	D02		63	A1		1.5		**5SG1731**		1	6 units	1BM	0.083
	For snap-on mounting on standard mounting rails, with cover												
	D01	3P	16			4.5		**5SG5330**		1	2 units	1BM	0.226
	D02		63			4.5		**5SG5730**		1	2 units	1BM	0.268
	NEOZED fuse bases made of ceramic												
	For snap-on mounting on standard mounting rails, with cover												
	D01	1P	16	(A4)	BB	1.5	▶	**5SG1553**		1	6 units	1BM	0.072
	D02		63	(A10)	SS	1.5		**5SG1653**		1	6 units	1BM	0.092
	D02		63	(A10)	KS	1.5	▶	**5SG1693**		1	6 units	1BM	0.085
	For snap-on mounting on standard mounting rails, without cover												
	D01	1P	16	A4, A8	BB	1.5		**5SG1595**		1	6 units	1BM	0.064
	D02		63	A10, A8	SS	1.5		**5SG1655**		1	6 units	1BM	0.085
	D02		63	A10, A8	KS	1.5		**5SG1695**		1	6 units	1BM	0.077
	D03		100	A6, A9	KS	2.5		**5SG1812**		1	10 units	1BM	0.204
	For snap-on mounting on standard mounting rails, with cover												
	D01	3P	16		BB	4.5	▶	**5SG5553**		1	2 units	1BM	0.215
	D02		63		SS	4.5	▶	**5SG5653**		1	2 units	1BM	0.290
	D02		63		KS	4.5		**5SG5693**		1	2 units	1BM	0.265

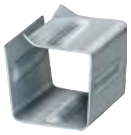
[1] Covers with brackets are part of the scope of delivery.
Covers without brackets are not part of the scope of delivery.

[2] For terminal versions, see page 5/6.

NEOZED fuse bases and accessories

	Size	I_n	Matching cover	Mounting width	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A		MW							kg
	NEOZED covers										
	Made of molded plastic, plug-in, for fuse bases made of molded plastic										
	D01, D02		A1	1.5		5SH5244		1	15 units	1BM	0.007
	For fuse bases made of ceramic										
	D01		A4	1.5		5SH5251		1	15 units	1BM	0.009
	D02		A10	1.5		5SH5253		1	15 units	1BM	0.009
	Screw-on										
	D03		A6	2.5		5SH5233		1	20 units	1BM	0.021
	NEOZED caps										
	Made of molded plastic, plug-in										
	D01, D02		A8			5SH5235		1	5 units	1BM	0.029
	Screw-on										
	D03		A9			5SH5234		1	10 units	1BM	0.065

* You can order this quantity or a multiple thereof.

	Size	For fuse links A	Identification color	Mounting width MW	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx. kg
	NEOZED screw caps										
	Molded plastic, with inspection hole										
	D01				►	**5SH4116**		1	10/1000 units	1BM	0.009
	D02				►	**5SH4163**		1	10/200 units	1BM	0.011
	Ceramic										
	D01, sealable					**5SH4316**		1	20 units	1BM	0.016
	D02, sealable					**5SH4363**		1	20 units	1BM	0.022
	D03					**5SH4100**		1	10 units	1BM	0.074
	Ceramic, with inspection hole										
	D01				►	**5SH4317**		1	20 units	1BM	0.017
	D02				►	**5SH4362**		1	20 units	1BM	0.017
	NEOZED adapter sleeves										
	D01	2	Pink		►	**5SH5002**		1	50 units	1BM	0.001
		4	Brown			**5SH5004**		1	50 units	1BM	0.001
		6	Green		►	**5SH5006**		1	50 units	1BM	0.001
		10/13	Red		►	**5SH5010**		1	50 units	1BM	0.001
	D02	20	Blue		►	**5SH5020**		1	50 units	1BM	0.001
		25	Yellow		►	**5SH5025**		1	50 units	1BM	0.001
		32	Violet			**5SH5032**		1	50 units	1BM	0.002
		35/40	Black		►	**5SH5035**		1	50 units	1BM	0.001
		50	White			**5SH5050**		1	50 units	1BM	0.001
	D03	80	Silver			**5SH5080**		1	25 units	1BM	0.002
	For fuse links D01 in base D02 and MINIZED D02 switch disconnectors										
	D02	2	Pink			**5SH5402**		1	10 units	1BM	0.002
		4	Brown			**5SH5404**		1	10 units	1BM	0.002
		6	Green			**5SH5406**		1	10 units	1BM	0.002
		10/13	Red			**5SH5410**		1	10 units	1BM	0.002
		16	Gray			**5SH5416**		1	10 units	1BM	0.002
	NEOZED adapter sleeve fitters										
						**5SH5100**		1	1/10 units	1BM	0.029
	NEOZED retaining springs										
	For fuse links D01 in screw caps										
	D02	2 ... 16				**5SH5400**		1	25 units	1BM	0.002

5

* You can order this quantity or a multiple thereof.

5

Overview

The DIAZED fuse system is one of the oldest fuse systems in the world. It was developed by Siemens as far back as 1906. It is still the standard fuse system in many countries to this day. It is particularly widely used in the harsh environments of industrial applications.

The series is available with rated voltages from 500 V to 750 V.

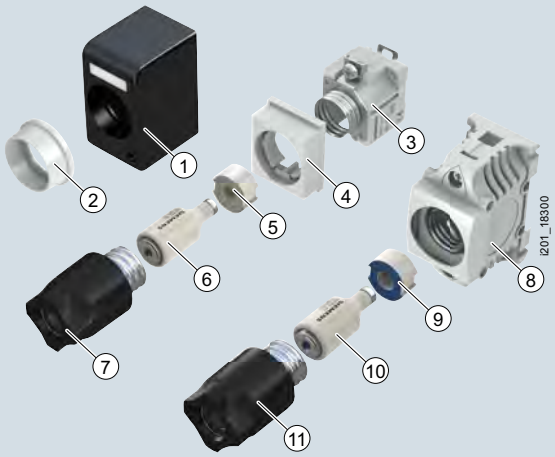
All DIAZED bases must be fed from the bottom to ensure an insulated threaded ring when the fuse link is being removed. Reliable contact of the fuse links is only ensured when used together with DIAZED screw adapters.

The terminals of the DIAZED bases are available in different versions and designs to support the various installation methods.

The high-performing EZR bus-mounting system for screw fixing is an outstanding feature. The busbars, which are particularly suited for bus-mounting bases, have a load capacity of up to 150 A with lateral infeed.

DIAZED stands for **Dia**metral gestuftes **z**weiteiliges Sicherungssystem mit **Ed**isongewinde (diametral two-step fuse system with Edison screw).

Benefits



1 DIAZED cap for fuse bases
2 DIAZED collar for fuse bases
3 DIAZED fuse bases
4 DIAZED cover for fuse bases
5 9 DIAZED screw adapter
6 10 DIAZED fuse link
7 11 DIAZED screw cap
8 DIAZED fuse base (with touch protection BGV A3)

Technical specifications

			5SA, 5SB, 5SC, 5SD, 5SF
Standards			IEC 60269-3; DIN VDE 0635; DIN VDE 0636-3; CEE 16
Operational class	Acc. to IEC 60269; DIN VDE 0636		gG
Characteristic	Acc. to DIN VDE 0635		Slow and quick
Rated voltage U_n		V AC V DC	500, 690, 750 500, 600, 750
Rated current I_n		A	2 ... 100
Rated breaking capacity		kA AC kA DC	50, 40 at E16 8, 1.6 at E16
Overvoltage category			III II (DIAZED fuse bases made of molded plastic for use at 690 V AC / 600 V DC)
Mounting position			Any, preferably vertical
Non-interchangeability			Using screw adapter or adapter sleeves
Degree of protection	Acc. to IEC 60529		IP20, with connected conductors[1)]
Resistance to climate		°C	Up to 45, at 95 % rel. humidity
Ambient temperature		°C	-5 ... +40, humidity 90 % at 20

1) Degree of protection IP20 is tested according to regulations using a straight test finger (from the front), with the device mounted and equipped with a cover, housing or some other enclosure.

		Terminal version								
		B		K			S		R	
Size		DII	DIII	NDz	DII	DIII	DIII	DIV	DII	DIII
Conductor cross-sections										
• Rigid, min.	mm^2	1.5	2.5	1.0	1.5	2.5	2.5	10	1.5	1.5
• Rigid, max.	mm^2	10	25	6	10	25	25	50	35	35
• Flexible, with end sleeve	mm^2	10	25	6	10	25	25	50	35	35
Tightening torque										
• Screw M4	Nm	1.2							--	
• Screw M5	Nm	2.0							--	
• Screw M6	Nm	2.5							3.0	
• Screw M8	Nm	3.5							--	

Selection and ordering data

	Size	U_n	I_n	Identification color	Thread	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		V AC/V DC	A									kg
	DIAZED fuse links											
	Operational class gG											
	DII	500/500	2	Pink	E27	▶	**5SB211**		1	25 units	1BM	0.026
			4	Brown		▶	**5SB221**		1	25 units	1BM	0.026
			6	Green		▶	**5SB231**		1	25 units	1BM	0.026
			10	Red		▶	**5SB251**		1	25 units	1BM	0.027
			16	Gray		▶	**5SB261**		1	25 units	1BM	0.028
			20	Blue		▶	**5SB271**		1	25 units	1BM	0.030
			25	Yellow		▶	**5SB281**		1	25 units	1BM	0.032
	DIII	500/500	32	Violet	E33		**5SB4010**		1	25 units	1BM	0.049
			35	Black			**5SB411**		1	25 units	1BM	0.050
			50	White			**5SB421**		1	25 units	1BM	0.051
			63	Copper			**5SB431**		1	25 units	1BM	0.054
	DIV	500/400	80	Silver	R1¼"		**5SC211**		1	3 units	1BM	0.114
			100	Red			**5SC221**		1	3 units	1BM	0.117
	Characteristic: Slow											
	TNDz	500/500	2	Pink	E16		**5SA211**		1	10 units	1BM	0.011
			4	Brown			**5SA221**		1	10 units	1BM	0.011
			6	Green			**5SA231**		1	10 units	1BM	0.012
			10	Red			**5SA251**		1	10 units	1BM	0.012
			16	Gray			**5SA261**		1	10 units	1BM	0.014
			20	Blue			**5SA271**		1	10 units	1BM	0.015
			25	Yellow			**5SA281**		1	10 units	1BM	0.012
	For operational class gG, use 5SF1 and 5SF5 fuse base made of ceramic **For 2 A ... 25 A, use screw adapter DII**											
	DIII	690/600	2	Pink	E33		**5SD8002**		1	5 units	1BM	0.068
			4	Brown			**5SD8004**		1	5 units	1BM	0.070
			6	Green			**5SD8006**		1	5 units	1BM	0.069
			10	Red			**5SD8010**		1	5 units	1BM	0.069
			16	Gray			**5SD8016**		1	5 units	1BM	0.071
			20	Blue			**5SD8020**		1	5 units	1BM	0.074
			25	Yellow			**5SD8025**		1	5 units	1BM	0.074
			35	Black			**5SD8035**		1	5 units	1BM	0.076
			50	White			**5SD8050**		1	5 units	1BM	0.080
			63	Copper			**5SD8063**		1	5 units	1BM	0.081

* You can order this quantity or a multiple thereof.

DIAZED fuse systems

	Size	U_n	I_n	Identification color	Thread	Terminals	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		V AC/V DC	A										kg
	DIAZED fuse links												
	Characteristic: Quick, also for direct current railway facilities For 2 A ... 25 A, use screw adapter DII												
	DIII	750/750	2	Pink	E33			5SD601		1	5 units	1BM	0.068
			4	Brown				5SD602		1	5 units	1BM	0.074
			6	Green				5SD603		1	5 units	1BM	0.069
			10	Red				5SD604		1	5 units	1BM	0.069
			16	Gray				5SD605		1	5 units	1BM	0.071
			20	Blue				5SD606		1	5 units	1BM	0.074
			25	Yellow				5SD607		1	5 units	1BM	0.077
			35	Black				5SD608		1	5 units	1BM	0.077
			50	White				5SD610		1	5 units	1BM	0.080
			63	Copper				5SD611		1	5 units	1BM	0.083
	DIAZED fuse bases made of ceramic												
	1P, for standard mounting rail												
	NDz	500/500	25		E16	KK[2]		5SF1012		1	5 units	1BM	0.065
	DII		25		E27	BB[2]	▶	5SF1005		1	5 units	1BM	0.099
	DIII[1]		63		E33	BS[2]	▶	5SF1205		1	5 units	1BM	0.144
	DIII[1]		63		E33	SS[2]		5SF1215		1	5 units	1BM	0.144
	1P, for screw fixing												
	NDz	500/500	25		E16	KK[2]		5SF101		1	5 units	1BM	0.062
	DII		25		E27	BB[2]		5SF1024		1	5 units	1BM	0.098
	DIII[1]		63		E33	BS[2]		5SF1224		1	5 units	1BM	0.143
	DIAZED fuse bases made of molded plastic With touch protection according to BGV A3												
	1P, for standard mounting rail or screw fixing												
	DII	500/500	25		E27	RR	▶	5SF1060		1	3/108 units	1BM	0.154
	DIII[1]		63		E33	RR	▶	5SF1260		1	3/132 units	1BM	0.193
	3P, for standard mounting rail or screw fixing												
	DII	500/500	25		E27	RR	▶	5SF5068		1	1/36 units	1BM	0.454
	DIII[1]		63		E33	RR	▶	5SF5268		1	1/44 units	1BM	0.580
	DIAZED EZR bus-mounting bases												
	1P, to snap onto EZR busbars for screw fixing												
	DII	500/500	25	E27		B[2]		5SF6005		1	5 units	1BM	0.084
	DIII	500/500	63	E33		B[2]		5SF6205		1	5 units	1BM	0.127

[1] Also for 690 V AC/600 V DC. For overvoltage category, see page 5/12.

[2] For terminal versions, see page 5/17.

* You can order this quantity or a multiple thereof.

	Size	U_n	I_n	Thread	Terminals	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		V AC/V DC	A									kg
	DIAZED components 750 V											
	DIAZED fuse bases 1P, for screw fixing with fine thread and cap											
	DIII	750/750	63	E33S	KK[1]		5SF4230		1	1 unit	1BM	0.501
	DIAZED screw caps made of ceramic, with fine thread											
	DIII	750/750	63	E33S			5SH1161		1	5 units	1BM	0.116
	DIAZED screw caps											
	Molded plastic, with inspection hole, black, not for SILIZED fuse links											
	NDz	500/500	25	E16			5SH1112		1	20 units	1BM	0.012
	DII		25	E27		►	5SH1221		1	5/200 units	1BM	0.024
	DIII		63	E33		►	5SH1231		1	5/5000 units	1BM	0.033
	Ceramic											
	DII	500/500	25	E27		►	5SH112		1	50/30000 units	1BM	0.035
	DIII		63	E33		►	5SH113		1	30 units	1BM	0.063
	Ceramic, with inspection hole, sealable											
	DII	500/500	25	E27			5SH122		1	50/5000 units	1BM	0.040
	DIII		63	E33			5SH123		1	30/5000 units	1BM	0.066
	Ceramic, extended version											
	DIII	690/600	63	E33			5SH1170		1	5 units	1BM	0.105

[1] For terminal versions, see page 5/17.

DIAZED fuse systems

	Size	Thread	For fuse links A	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx. kg
	DIAZED screw adapters									
	NDz	E16	2		5SH328		1	20 units	1BM	0.003
			4		5SH331		1	20 units	1BM	0.001
			6		5SH305		1	20 units	1BM	0.001
			10		5SH306		1	20 units	1BM	0.002
			16		5SH307		1	20 units	1BM	0.001
	Also for 5SF230 to 750 V									
	DII	E27	2	▶	5SH310		1	25/1500 units	1BM	0.014
			4	▶	5SH311		1	25/1500 units	1BM	0.012
			6	▶	5SH312		1	25/1500 units	1BM	0.015
			10	▶	5SH313		1	25/1500 units	1BM	0.014
			16	▶	5SH314		1	25/1500 units	1BM	0.014
			20	▶	5SH315		1	25/1500 units	1BM	0.015
			25	▶	5SH316		1	25/1500 units	1BM	0.013
	Also for 5SF230 to 750 V									
	DIII	E33	32		5SH327		1	25 units	1BM	0.024
			35	▶	5SH317		1	25/850 units	1BM	0.024
			50	▶	5SH318		1	25/850 units	1BM	0.022
			63	▶	5SH320		1	25/850 units	1BM	0.020
	DIAZED adapter sleeves for screw caps									
	For DII fuse links in DIII base				5SH302		1	10 units	1BM	0.011
	DIAZED adapter sleeve fitters									
	DII/DIII				5SH3703		1	10 units	1BM	0.046
	DIAZED caps made of molded plastic									
	NDz	E16			5SH201		1	5 units	1BM	0.044
	DII	E27			5SH202		1	5 units	1BM	0.052
	DIII	E33			5SH222		1	5 units	1BM	0.070

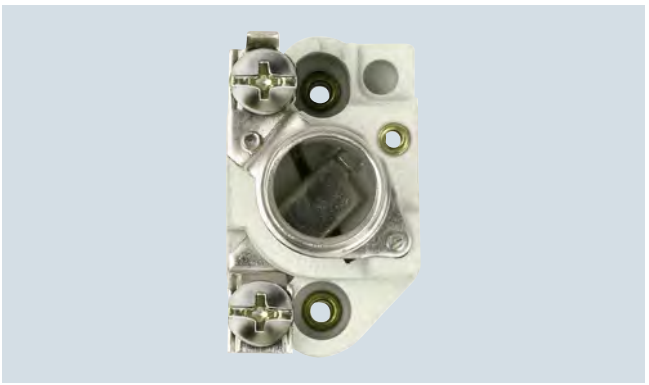
* You can order this quantity or a multiple thereof.

	Size	Thread	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx. kg
	DIAZED cover rings								
	Ceramic DII and DIII, also for EZR bus-mounting base								
	DII	E27		5SH332		1	10 units	1BM	0.022
	DIII	E33		5SH334		1	10 units	1BM	0.037
	Made of molded plastic, also for EZR bus-mounting base								
	DII	E27		5SH3401		1	5/60 units	1BM	0.013
	DIII	E33		5SH3411		1	5/60 units	1BM	0.015

5

More information

DIII fuse bases with terminal version BS
- Outgoing feeders (top), saddle terminal S
- Incoming feeders (bottom), clamp-type terminal B



NDZ fuse bases with terminal version KK
- Outgoing feeders (top), screw head contact K
- Incoming feeders (bottom), screw head contact K

DIII fuse bases with terminal version BB
- Outgoing feeders (top), clamp-type terminal B
- Incoming feeders (bottom), clamp-type terminal B

DIII fuse bases with terminal version SS
- Outgoing feeders (top), saddle terminal S
- Incoming feeders (bottom), saddle terminal S

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

Cylindrical fuse links and cylindrical fuse holders

Overview

Cylindrical fuses are standard in Europe. There are a range of different cylindrical fuse links and holders that comply with the standards IEC 60269-1, -2 and -3, and which are suitable for use in industrial applications. In South West Europe they are also approved for use in residential buildings.

The cylindrical fuse holders are also approved according to UL 512. The cylindrical fuse holders are tested and approved as fuse disconnectors according to the switching device standard IEC 60947-3. They are not suitable for switching loads.

Cylindrical fuse holders can be supplied with or without signal detectors. In the case of devices with signal detector, a small electronic device with LED is located behind an inspection window in the plug-in module. If the inserted fuse link is tripped, this is indicated by the LED flashing.

The switching state of the fuse holder can be signaled over a laterally retrofitted auxiliary switch, which enables the integration of the fuses in the automation process.

Benefits

- Devices with pole number 1P+N are available in a single modular width. This reduces the footprint by 50 %
- The sliding catch for type ranges 8 x 32 mm and 10 x 38 mm enables the removal of individual devices from the assembly
- Space for a spare fuse in the plug-in module enables the fast replacement of fuses. This saves time and money and increases system availability
- A flashing LED signals that a fuse link has been tripped. This enables fast detection during runtime

Technical specifications

			Cylindrical fuse links						
			3NW63..	**3NW60..**	**3NW61..**	**3NW62..**	**3NW80..**	**3NW81..**	**3NW82..**
Size		mm × mm	8 × 32	10 × 38	14 × 51	22 × 58	10 × 38	14 × 51	22 × 58
Standards			IEC 60269-1, -2, -3; NF C 60-200; NF C 63-210, -211; NBN C 63269-2, CEI 32-4, -12						
Operational class			gG				aM		
Rated voltages U_n		V AC	400	400 or 500					
Rated current I_n		A	2 ... 20	0.5 ... 32	4 ... 50	8 ... 100	0.5 ... 32	2 ... 50	10 ... 100
Rated breaking capacity									
• 500 V version		kA AC	--	120	100		120	100	
• 400 V version		kA AC	20	120	20		120	20	
Mounting position			Any, preferably vertical						

			Cylindrical fuse holders			
			3NW73..	**3NW70..**	**3NW71..**	**3NW72..**
Size		mm × mm	8 × 32	10 × 38	14 × 51	22 × 58
Standards			IEC 60269-1, -2, -3; NF C 60-200, NF C 63-210, -211; NBN C 63269-2-1; CEI 32-4, -12; UL 4248-1			
Approvals	Acc. to UL		--			--
	Acc. to CSA		--		--	--
Rated voltage U_n		V AC	400	690		
	Acc. to UL/CSA	V AC	400	600		
Rated current I_n		A AC	20	32	50	100
Rated breaking capacity		kA	20	100		
Breaking capacity						
• Utilization category			AC-20B (switching without load), DC-20B			
No-voltage changing of fuse links			Yes			
Sealable when installed			Yes			
Mounting position			Any, preferably vertical			
Degree of protection	Acc. to IEC 60529		IP20, with connected conductors[1]			
Terminals with touch protection according to BGV A3 at incoming and outgoing feeder			Yes			
Ambient temperature		°C	-5 ... +40, humidity 90 % at +20			
Conductor cross-sections						
• Rigid		mm^2	0.5 ... 10		2.5 ... 10	4 ... 10
• Stranded		mm^2	0.5 ... 10		2.5 ... 25	4 ... 50
• Finely stranded, with end sleeve		mm^2	0.5 ... 10[2]		2.5 ... 16	4 ... 35
• AWG (American Wire Gauge)		AWG	--	10 ... 20	6 ... 10	--
Tightening torque		Nm	1.2		2.0	2.5

1) Degree of protection IP20 is tested according to regulations using a straight test finger (from the front), with the device mounted and equipped with a cover, housing or some other enclosure.

2) Max. cross-section 10 mm^2 with K28 crimper from Klauke.

Selection and ordering data

	Size	I_n	U_n	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
	mm × mm	A	V AC							kg
	Cylindrical fuse links, operational class gG									
	8 × 32	2	400		3NW6302-1		1	10 units	1BM	0.005
		4			3NW6304-1		1	10 units	1BM	0.005
		6			3NW6301-1		1	10 units	1BM	0.005
		10			3NW6303-1		1	10 units	1BM	0.004
		16			3NW6305-1		1	10 units	1BM	0.005
		20			3NW6307-1		1	10 units	1BM	0.005
	10 × 38	0.5	500		3NW6000-1		1	10 units	1BM	0.007
		1			3NW6011-1		1	10 units	1BM	0.008
		2		▶	3NW6002-1		1	10 units	1BM	0.008
		4		▶	3NW6004-1		1	10 units	1BM	0.008
		6		▶	3NW6001-1		1	10 units	1BM	0.008
		8			3NW6008-1		1	10 units	1BM	0.008
		10		▶	3NW6003-1		1	10 units	1BM	0.008
		12			3NW6006-1		1	10/100 units	1BM	0.008
		16		▶	3NW6005-1		1	20 units	1BM	0.008
		20			3NW6007-1		1	20 units	1BM	0.009
		25			3NW6010-1		1	20 units	1BM	0.009
		32	400		3NW6012-1		1	20 units	1BM	0.009
	14 × 51	4	500		3NW6104-1		1	10 units	1BM	0.018
		6			3NW6101-1		1	10 units	1BM	0.012
		8			3NW6108-1		1	10/100 units	1BM	0.018
		10			3NW6103-1		1	10 units	1BM	0.021
		12			3NW6106-1		1	10/100 units	1BM	0.017
		16			3NW6105-1		1	10 units	1BM	0.021
		20			3NW6107-1		1	10 units	1BM	0.021
		25			3NW6110-1		1	10 units	1BM	0.021
		32			3NW6112-1		1	10 units	1BM	0.022
		40			3NW6117-1		1	10 units	1BM	0.022
		50	400		3NW6120-1		1	10 units	1BM	0.022
	22 × 58	16	500		3NW6205-1		1	10 units	1BM	0.052
		20			3NW6207-1		1	10 units	1BM	0.054
		25			3NW6210-1		1	10 units	1BM	0.045
		32			3NW6212-1		1	10 units	1BM	0.053
		40			3NW6217-1		1	10 units	1BM	0.048
		50			3NW6220-1		1	10 units	1BM	0.053
		63			3NW6222-1		1	10 units	1BM	0.055
		80			3NW6224-1		1	10 units	1BM	0.055
		100	400		3NW6230-1		1	10 units	1BM	0.055
	Cylindrical fuse links, operational class aM									
	10 × 38	0.5	500		3NW8000-1		1	10 units	1BM	0.008
		1			3NW8011-1		1	10 units	1BM	0.008
		2			3NW8002-1		1	10 units	1BM	0.008
		4			3NW8004-1		1	10 units	1BM	0.008
		6			3NW8001-1		1	10 units	1BM	0.008
		8			3NW8008-1		1	10 units	1BM	0.008
		10			3NW8003-1		1	10 units	1BM	0.008
		12			3NW8006-1		1	10/100 units	1BM	0.008
		16			3NW8005-1		1	20 units	1BM	0.009
		20	400		3NW8007-1		1	20 units	1BM	0.009
		25			3NW8010-1		1	20 units	1BM	0.009
		32			3NW8012-1		1	20 units	1BM	0.008
	14 × 51	2	500		3NW8102-1		1	10/50 units	1BM	0.018
		4			3NW8104-1		1	10 units	1BM	0.018
		6			3NW8101-1		1	10/50 units	1BM	0.019
		8			3NW8108-1		1	10/50 units	1BM	0.018
		10			3NW8103-1		1	10 units	1BM	0.022
		12			3NW8106-1		1	10/50 units	1BM	0.021
		16			3NW8105-1		1	10 units	1BM	0.021
		20			3NW8107-1		1	10 units	1BM	0.021
		25			3NW8110-1		1	10 units	1BM	0.186
		32			3NW8112-1		1	10 units	1BM	0.019
		40			3NW8117-1		1	10 units	1BM	0.021
		50	400		3NW8120-1		1	10 units	1BM	0.019

5

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

Cylindrical fuse links and cylindrical fuse holders

	Size	I_n	U_n	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
	mm × mm	A	V AC							kg
	22 × 58	16	500		3NW8205-1		1	10/50 units	1BM	0.045
		20			3NW8207-1		1	10 units	1BM	0.054
		25			3NW8210-1		1	10 units	1BM	0.055
		32			3NW8212-1		1	10 units	1BM	0.054
		40			3NW8217-1		1	10 units	1BM	0.049
		50			3NW8220-1		1	10 units	1BM	0.054
		63			3NW8222-1		1	10 units	1BM	0.046
		80			3NW8224-1		1	10 units	1BM	0.056
		100	400		3NW8230-1		1	10 units	1BM	0.050

	Number of poles	I_n	For fuse links of size	Mounting width	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A	mm × mm	MW							kg
	Cylindrical fuse holders with signal detector										
	1P										
		20	8 × 32	1		3NW7314		1	1 unit	1BM	0.069
		32	10 × 38	1		3NW7014		1	1 unit	1BM	0.067
		50	14 × 51	1.5		3NW7112		1	1 unit	1BM	0.101
		100	22 × 58	2		3NW7212		1	1 unit	1BM	0.146
	1P+N										
		20	8 × 32	1		3NW7354		1	1 unit	1BM	0.092
		32	10 × 38	1		3NW7054		1	1 unit	1BM	0.082
		50	14 × 51	3		3NW7152		1	1 unit	1BM	0.231
		100	22 × 58	4		3NW7252		1	1 unit	1BM	0.360
	2P										
		20	8 × 32	2		3NW7324		1	1 unit	1BM	0.141
		32	10 × 38	2		3NW7024		1	1 unit	1BM	0.140
		50	14 × 51	3		3NW7122		1	1 unit	1BM	0.222
		100	22 × 58	4		3NW7222		1	1 unit	1BM	0.329
	3P										
		20	8 × 32	3		3NW7334		1	1 unit	1BM	0.203
		32	10 × 38	3		3NW7034		1	1 unit	1BM	0.196
		50	14 × 51	4.5		3NW7132		1	1 unit	1BM	0.315
		100	22 × 58	6		3NW7232		1	1 unit	1BM	0.495
	3P+N										
		20	8 × 32	3		3NW7364		1	1 unit	1BM	0.218
		32	10 × 38	3		3NW7064		1	1 unit	1BM	0.216
		50	14 × 51	6		3NW7162		1	1 unit	1BM	0.439
		100	22 × 58	8		3NW7262		1	1 unit	1BM	0.686
	Cylindrical fuse holders without signal detector										
	1P										
		20	8 × 32	1		3NW7313		1	1 unit	1BM	0.067
		32	10 × 38	1	▶	3NW7013		1	1/12 units	1BM	0.006
		50	14 × 51	1.5	▶	3NW7111		1	1 unit	1BM	0.106
		100	22 × 58	2	▶	3NW7211		1	1 unit	1BM	0.167
	1P+N										
		20	8 × 32	1		3NW7353		1	1 unit	1BM	0.081
		32	10 × 38	1	▶	3NW7053		1	1 unit	1BM	0.079
		50	14 × 51	3		3NW7151		1	1 unit	1BM	0.234
		100	22 × 58	4		3NW7251		1	1 unit	1BM	0.365
	2P										
		20	8 × 32	2		3NW7323		1	1 unit	1BM	0.137
		32	10 × 38	2	▶	3NW7023		1	1/6 units	1BM	0.123
		50	14 × 51	3	▶	3NW7121		1	1 unit	1BM	0.214
		100	22 × 58	4	▶	3NW7221		1	1 unit	1BM	0.316

* You can order this quantity or a multiple thereof.

	Number of poles	I_n	For fuse links of size	Mounting width	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A	mm × mm	MW							kg
	Cylindrical fuse holders without signal detector										
	3P										
		20	8 × 32	3		3NW7333		1	1 unit	1BM	0.207
		32	10 × 38	3	▶	3NW7033		1	1/4 units	1BM	0.187
		50	14 × 51	4.5	▶	3NW7131		1	1 unit	1BM	0.306
		100	22 × 58	6	▶	3NW7231		1	1 unit	1BM	0.503
	3P+N										
		20	8 × 32	3		3NW7363		1	1 unit	1BM	0.210
		32	10 × 38	3	▶	3NW7063		1	1 unit	1BM	0.215
		50	14 × 51	6		3NW7161		1	1 unit	1BM	0.434
		100	22 × 58	8		3NW7261		1	1 unit	1BM	0.685
	Auxiliary switches										
	For indicating disconnection of the fuse link, solely for application of striker fuse links. For retrofitting using the factory-fitted brackets. Contact: 250 V AC, 5 A Minimum contact load: 12 V, 25 mA										
	For fuse bases		14 × 51	0.5		3NW7901		1	1 unit	1BM	0.055
	For fuse bases		22 × 58			3NW7902		1	1 unit	1BM	0.050
	For indicating the switching state of the fuse holder. For retrofitting using the factory-fitted brackets. Contact: 230 V AC, 6 A/110 V DC, 1 A Minimum contact load: 12 V, 25 mA Terminals 1.5 mm^2 - 0.5 Nm										
	For fuse holders		10 × 38	0.5		3NW7903		1	1 unit	1BM	0.042

More information

Mounting

Fuse holders, sizes 8 × 32 mm und 10 × 38 mm, have a sliding catch that enables the removal of individual devices from the assembly.

The infeed can be from the top or the bottom. Because the cylindrical fuse holders are fitted with the same anti-slip terminals at the top and the bottom, the devices can also be bus-mounted at the top or the bottom.

Auxiliary switches

Auxiliary switches are available for the cylindrical fuse holders. These are simply clipped onto the base using the factory-fitted brackets.

Sizes 8 × 32 mm und 10 × 38 mm:
The auxiliary switches support the remote display of the switching state ON or OFF of the fuse holder.

Sizes 14 × 51 mm und 22 × 58 mm:
The auxiliary switches support the remote display of fuse failure. However, fuse links with strikers are required for this function. When the fuse is tripped, a small striking pin – the striker – shoots out of the front of the fuse. Over an armature link in the auxiliary switch, the kinetic energy of this striker is used to switch a mini switch, which then initializes this signal over a floating contact.

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

Fuse holders in size 10 x 38 mm and Class CC

Overview

A key feature of our three-pole fuse holders is their ultra compact design. With a width of only 45 mm, they are ideal for use with fused motor starter combinations. Because the contactor and the fuse holder have the same 45 mm width, they are easy to mount on top of one another. The strong current-limiting fuses ensure a type 2 protection level (coordination according to IEC 60947-4, no damage protection) for the contactor.

The UL version has an SCCR value of 200 kA. The accessories are generally UL-certified.

Customers can mount an auxiliary switch which signals the switching state or prevents the fuse holder from switching off under load by interrupting the contactor control, thus increasing safety for the operator and process. Busbars and a matching three-phase feeder terminal complete the product range.

Benefits

- Compact design, especially for motor starter combinations
- For IEC fuses of size 10 x 38 mm up to 32 A and Class CC UL fuses up to 30 A
- Meets the requirements of UL 508 with regard to clearances
- UL-approved microswitches, busbars and adapters for 60 mm busbar systems
- Optical signal detector for fast fault locating

Compact fuse holder Class CC with signal detector and mounted auxiliary switch.

Installation configuration of a cylindrical fuse holder and a SIRIUS contactor on busbar device for the 60 mm busbar system.

Technical specifications

		Cylindrical fuse holders 3NW70..-1	Fuse holders 3NW75..-1HG
Size	mm × mm	10 × 38	Class CC
Standards		IEC 60269; UL4248-1; CSA	UL4248-1; CSA
Approvals • Acc. to UL • Acc. to CSA		 , UL File Number E171267 	 , UL File Number E171267
Rated voltage U_n	V AC	690	600
Rated current I_n	A AC	32	30
Rated short-circuit strength	kA	120 (at 500 V) 80 (at 690 V)	200
Breaking capacity • Utilization category		 AC-20B (switching without load)	 --
Rated impulse withstand voltage	kV	6	
Overvoltage category		III	
Pollution degree		2	
Max. power dissipation of the fuse link	W	3	
No-voltage changing of fuse links	°C	-5 ... +40, humidity 90 % at +20	
Sealable when installed		Yes	
Lockable with padlock		Yes	
Mounting position		Any, preferably vertical	
Current direction		Any	
Degree of protection Acc. to IEC 60529		IP20, with connected conductors[1)]	
Terminals with touch protection according to BGV A3 at incoming and outgoing feeder		Yes	
Ambient temperature	°C	-5 ... +40, humidity 90 % at +20	
Conductor cross-sections • Finely stranded, with end sleeve • AWG cables (American Wire Gauge)	 mm^2 AWG	 1 ... 4 18 ... 10	
Tightening torque • Terminal screws	Nm lbs/in. 	1.5 13 PZ2	

1) Degree of protection IP20 is tested according to regulations using a straight test finger (from the front), with the device mounted and equipped with a cover, housing or some other enclosure.

		Auxiliary switches 3NW7903-1							
Standards		IEC 60947							
Approvals		, , UL 508, UL File Number E334003							
Utilization category		AC-12	DC-13			AC-15			Acc. to UL
Rated voltage U_n	V AC V DC	250 --	-- 24	-- 120	-- 240	24 --	120 --	240 --	240 --
Rated current I_n	A	5	2	0.5	0.25	4	3	1.5	5

		Busbars 5ST260.	
For cylindrical fuse holders		3NW70..-1	3NW75..-1HG
Pin spacing	mm	15	
Standards		EN 60974-1 (VDE 0660-100), IEC 60947-1:2004, UL 508, CSA 22.2	
Approvals		, UL 4248-1, UL File Number E337131	
Busbar material		E-Cu 58 F25	
Partition material		PA66-V0	
Lamp wire resistance/1.5 mm^2	°C	960	
Insulation coordination		Overvoltage category III, degree of pollution 2	
Rated voltage U_n • Acc. to UL • Acc. to IEC	 V AC V AC	 -- 690	 600 --
Maximum busbar current I_n • Acc. to UL • Acc. to IEC	 A A	 -- 80	 65 --

Fuse holders in size 10 x 38 mm and Class CC

		Terminals 5ST2600	
For cylindrical fuse holders		3NW70..-1	3NW75..-1HG
Pin spacing	mm	15	
Standards		IEC 60999:2000, UL 508	
Approvals		UL, UL 4248-1, UL File Number E337131	
Enclosure/cover material		PA66-V0	
Lamp wire resistance/1 mm²	°C	960	
Temperature resistance PA66-V0, HDT B ISO 179, UL 94-V0/1.5	°C	200	
Insulation coordination		Overvoltage category III, degree of pollution 2	
Max. operational voltage U_{max}			
• Acc. to UL	V AC	--	600
• Acc. to IEC	V AC	690	--
Maximum electrical load I_{max}			
• Acc. to UL	A	--	65
• Acc. to IEC	A	80	--
Rated current I_n	A	63	
Conductor cross-sections			
• Solid/stranded	mm²	2.5 ... 35	
• Finely stranded, with end sleeve	mm²	2.5 ... 25	
Tightening torque of clamping screw	Nm	2.5 ... 3.5	

Selection and ordering data

	Number of poles	I_n	For fuse links of size	Mounting width	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A	mm x mm	MW							kg
3NW7 cylindrical fuse holders											
	**Cylindrical fuse holders**										
	3P	32	10 x 38	2.5							
	Without signal detector					3NW7033-1		1	1 unit	1BM	0.188
	With signal detector					3NW7034-1		1	1 unit	1BM	0.194
	Fuse holders class CC										
	3P	30	Class CC	2.5							
	Without signal detector					3NW7533-1HG		1	1 unit	1DN	0.196
	With signal detector					3NW7534-1HG		1	1 unit	1DN	0.201
Accessories											
	Auxiliary switches										
	AC-12, 5 A, max. 250 V, 1 NO, 1 NC			2.5		3NW7903-1		1	1 unit	1BM	0.017

	Version	I_n	Pin spacing	Length	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A	mm	mm							kg
5ST2 60. busbar system											
	**Busbars**										
	2 x 3P	63	15	45		5ST2601		1	10 units	1AD	0.038
	3 x 3P			90		5ST2602		1	10 units	1AD	0.061
	4 x 3P			135		5ST2603		1	10 units	1AD	0.084
	5 x 3P			180		5ST2604		1	10 units	1AD	0.107
Accessories											
	**Terminals**										
	For conductor cross-section 2.5 mm² ... 35 mm²					5ST2600		1	10 units	1AD	0.046

		Length of adapter	Width of adapter	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		mm	mm							kg
Device adapters										
	**Busbar device adapters[1] with connecting cables (above)**									
	Size S00, rated voltage 690 V AC, rated current 25 A, 1 support rail (35 mm), connection cable AWG 12									
		200	45	►	8US1251-5DS10		1	1 unit	1CU	0.285
		260		►	8US1251-5DT10		1	1 unit	1CU	0.312
Accessories										
	**Mounting rails for busbar device adapter**									
	For assembly of additional devices		45		8US1998-7CB45		1	10 units	1CU	0.015

[1] For further device adapters and accessories, see chapter "Busbar Systems".

5

Class CC fuse systems

Overview

Class CC fuses are used for "branch circuit protection".

The characteristic of the fuse links is designed and tested to comply with the US National Electrical Code NEC 210.20(A). This means that when subject to continuous operation, only 80 % of the rated current is permissible as operational current.

An operational current of 100 % of the rated current (30 A) is only permissible short-time.

The devices are prepared for the inscription labels of the ALPHA FIX terminal blocks 8WH8120-7AA15 and 8WH8120-7XA05.

There are three different series:

- Characteristic: Slow 3NW1...-0HG
  For the protection of control transformers, reactors, inductances. Significantly slower than the minimum requirements specified by UL for Class CC Fuses of 12 s at 2 × I_n.
- Characteristic: Quick 3NW2 ...-0HG
  For a wide range of applications, for the protection of lighting installations, heating, control systems.
- Characteristic: Slow, current-limiting, 3NW3...-0HG
  Slow for overloads and quick for short circuits. High current limitation for the protection of motor circuits.

Note:

For class CC compact fuse holders for motor starter combinations, see page 5/25.

Benefits

- For switchboard assemblies and machine manufacturers who export their systems to the USA or Canada
- Easier export due to UL and CSA approvals for typical applications
- Modern design with touch protection to BGV A3 ensures safe installation

Technical specifications

		Class CC fuse holders 3NW75.3-0HG
Standards **Approvals**		UL 4248-1; CSA C22.2 UL 4248-1; UL File Number E171267; CSA C22.2
Rated voltage U_n	V AC	600
Rated current I_n	A	30
Rated conditional short-circuit current	kA	200
Breaking capacity • Utilization category		AC-20B (switching without load)
Max. power dissipation of fuse links • With cable, 6 mm² • With cable, 10 mm²	 W W	 3 4.3
Rated impulse withstand voltage	kV	6
Overvoltage category		II
Pollution degree		2
No-voltage changing of fuse links		Yes
Sealable when installed		Yes
Mounting position		Any
Current direction		Any
Degree of protection acc. to IEC 60529		IP20[1)]
Terminals with touch protection according to BGV A3 at incoming and outgoing feeder		Yes
Ambient temperature	°C	45
Conductor cross-sections • Solid and stranded • AWG conductor cross-section, solid and stranded	 mm² AWG	 1.5 ... 16 15 ... 5
Tightening torque	Nm	2.5 (22 lbs/in.)

1) Degree of protection IP20 is tested according to regulations using a straight test finger (from the front), with the device mounted and equipped with a cover, housing or some other enclosure.

		Class CC fuse links 3NW1...-0HG	3NW2...-0HG	3NW3...-0HG
Standards **Approvals**		UL 248-4; CSA C22.2 UL 248-4; UL File Number E258218; CSA C22.2		
Characteristic		Slow	Quick	Slow, current limiting
Rated voltage	V AC	600	600	600
	V DC	--	--	150 (3 .... 15 A) 300 (< 3 A, > 15 A)
Rated breaking capacity	kA AC	200		

Selection and ordering data

	Number of poles	U_n	I_n	Mounting width	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		V	A	MW							kg
	Class CC fuse holders										
	1P	600	30	1		3NW7513-0HG		1	12 units	1DN	0.054
	2P	600	30	2		3NW7523-0HG		1	6 units	1DN	0.103
	3P	600	30	3		3NW7533-0HG		1	4 units	1DN	0.155

	I_n [1]	DT	Characteristic: Slow Article No. www.siemens.com/product?Article No.	Price per PU	PG	DT	Characteristic: Quick Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
	A											kg
	Class CC fuse links											
	0.6 (6/10)		3NW1006-0HG		1DN		--					
	0.8 (8/10)		3NW1008-0HG		1DN		--					
	1		3NW1010-0HG		1DN		3NW2010-0HG		1	10 units	1DN	0.009
	1.5 (1 ½)		3NW1015-0HG		1DN		--					
	2		3NW1020-0HG		1DN		3NW2020-0HG		1	10 units	1DN	0.008
	2.5		3NW1025-0HG		1DN		--					
	3		3NW1030-0HG		1DN		3NW2030-0HG		1	10 units	1DN	0.008
	4		3NW1040-0HG		1DN		3NW2040-0HG		1	10 units	1DN	0.008
	5		3NW1050-0HG		1DN		3NW2050-0HG		1	10 units	1DN	0.009
	6		3NW1060-0HG		1DN		3NW2060-0HG		1	10 units	1DN	0.008
	7.5		3NW1075-0HG		1DN		--					
	8		3NW1080-0HG		1DN		3NW2080-0HG		1	10 units	1DN	0.008
	10		3NW1100-0HG		1DN		3NW2100-0HG		1	10 units	1DN	0.008
	12		--				3NW2120-0HG		1	10 units	1DN	0.008
	15		3NW1150-0HG		1DN		3NW2150-0HG		1	10 units	1DN	0.008
	20		3NW1200-0HG		1DN		3NW2200-0HG		1	10 units	1DN	0.008
	25		3NW1250-0HG		1DN		3NW2250-0HG		1	10 units	1DN	0.008
	30		3NW1300-0HG		1DN		3NW2300-0HG		1	10 units	1DN	0.008

[1] Values in brackets, American English wording.

	I_n	DT	Characteristic: slow, current-limiting Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
	A							kg
	Class CC fuse links							
	1		3NW3010-0HG		1	10 units	1DN	0.008
	2		3NW3020-0HG		1	10 units	1DN	0.001
	3		3NW3030-0HG		1	10 units	1DN	0.008
	4		3NW3040-0HG		1	10 units	1DN	0.008
	5		3NW3050-0HG		1	10 units	1DN	0.008
	6		3NW3060-0HG		1	10 units	1DN	0.008
	8		3NW3080-0HG		1	10 units	1DN	0.008
	10		3NW3100-0HG		1	10 units	1DN	0.008
	12		3NW3120-0HG		1	10 units	1DN	0.008
	15		3NW3150-0HG		1	10 units	1DN	0.008
	20		3NW3200-0HG		1	10 units	1DN	0.008
	25		3NW3250-0HG		1	10 units	1DN	0.008
	30		3NW3300-0HG		1	10 units	1DN	0.008

* You can order this quantity or a multiple thereof.

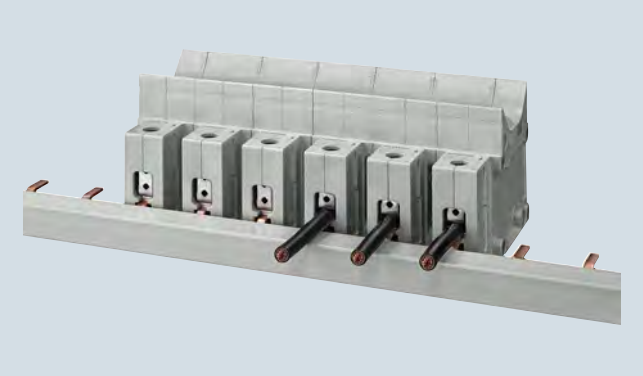
5

Overview

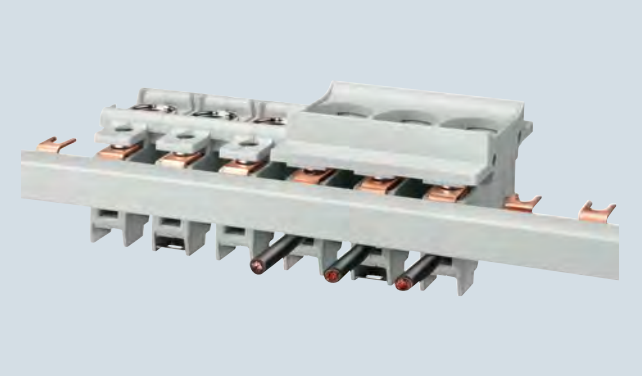
Busbars with pin-type connections can be used for NEOZED safety switching devices and fuse bases. Busbars in 10 mm^2 and 16 mm^2 versions are available.

Busbars with fork plugs are used for the most frequently used NEOZED fuse bases made of ceramic.

Benefits

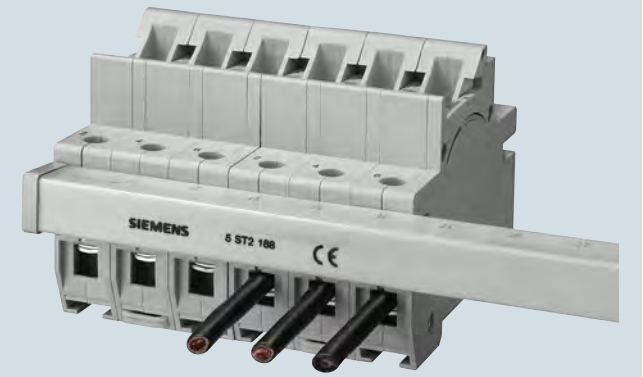


- Clear and visible conductor connection that can be easily checked when using the NEOZED D02 comfort base and which facilitates cable entry

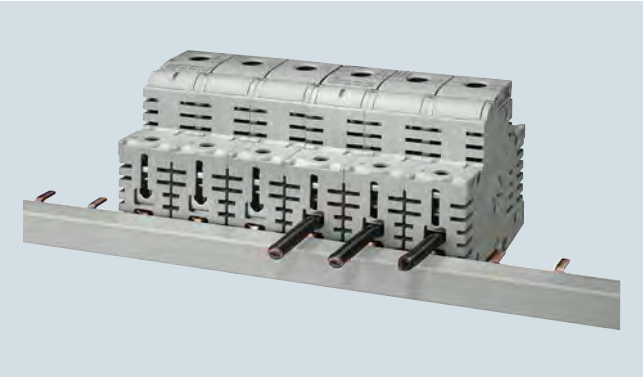


- Bus-mounting of NEOZED fuse bases made of molded plastic on 3-phase busbar with fork plug, which can be cut to length

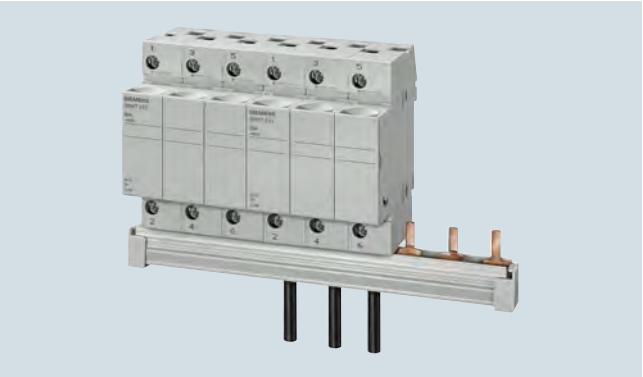
- Bus-mounting of NEOZED fuse bases made of ceramic on 3-phase busbar with fork plug, which can be cut to length



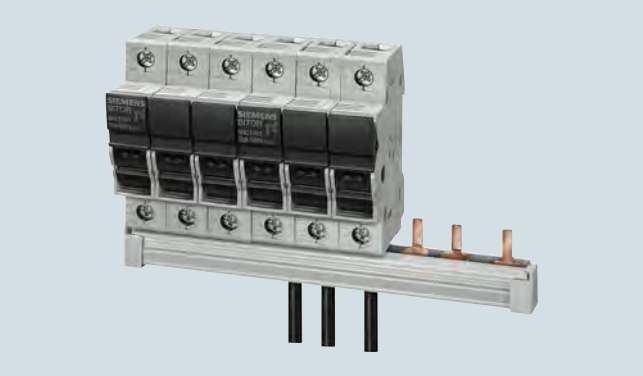
- Bus-mounting of MINIZED D01 fuse switch disconnectors on 3-phase busbar with fork plug, can be cut to length



- Clear and visible conductor connection that can be easily checked when using MINIZED D02 switch disconnectors. This facilitates cable entry and saves time



- Bus-mounting of cylindrical fuse holders 8 × 32 mm and 10 × 38 mm with three-phase pin busbar which can be cut to length



- Bus-mounting of SITOR cylindrical fuse holders 10 mm x 38 mm with the same terminal connection as Class CC fuse holders with 3-phase pin busbar which can be cut to length

- Bus mounting with infeed through a connection terminal directly on the fuse holder up to a conductor cross-section of 25 mm²

Technical specifications

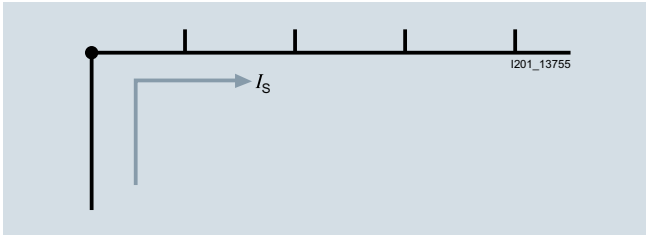
			5ST, 5SH
Standards			EN 60439-1 (VDE 0660-500): 2005-01
Busbar material			SF-Cu F 24
Partition material			Plastic, Cycoloy 3600, Heat-resistant over 90 °C, flame-retardant, self-extinguishing, dioxin and halogen-free
Rated operational voltage U_c		V AC	400
Rated current I_n			
• Cross-section 10 mm²		A	63
• Cross-section 16 mm²		A	80
Rated impulse withstand voltage U_{imp}		kV	4
Test pulse voltage (1.2/50)		kV	6.2
Rated conditional short-circuit current I_{cc}		kA	25
Resistance to climate			
• Constant atmosphere	Acc. to DIN 50015		23/83; 40/92; 55/20
• Humid heat	Acc. to IEC 60068-2-30		28 cycles
Insulation coordination			
• Overvoltage category			III
• Pollution degree			2
Maximum busbar current I_S/phase			
• Infeed at the start of the busbar			
- Cross-section 10 mm²		A	63
- Cross-section 16 mm²		A	80
• Infeed at the center of the busbar			
- Cross-section 10 mm²		A	100
- Cross-section 16 mm²		A	130

Busbar systems

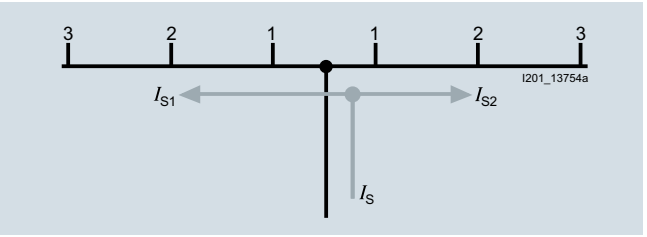
5ST37. . - . HG busbars acc. to UL 508

		5ST37..-0HG	5ST37..-2HG	5ST3770-0HG	5ST3770-1HG
Standards		UL 508, CSA C22.2 No. 14-M 95			
Approvals		UL 508 File No. E328403 CSA			
Operational voltage					
• Acc. to IEC	V AC	690			
• Acc. to UL 489	V AC	600			
Rated conditional short-circuit current	kA	10 (RMS symmetrical 600 V for three cycles)			
• Dielectric strength	kV/mm	25			
• Surge strength	kV	> 9.5			
Rated current	A	--	--	115	
Maximum busbar current I_S/phase					
• Infeed at the start of the busbar	A	80	100	--	--
• Infeed at the center of the busbar	A	160	200	--	--
Insulation coordination					
• Overvoltage category		III			
• Pollution degree		2			
Busbar cross-section	mm^2 Cu	18	25	--	--
Infeed		Any			
Conductor cross-sections	AWG mm^2	-- --	-- --	10 ... 1/0 6 ... 35	14 ... 1 1.5 ... 50
Terminals					
• Terminal tightening torque	Nm lbs/in.	-- --	-- --	5 50	3.5 35

Infeed at the start of the busbar



Infeed along the busbar or midpoint infeed

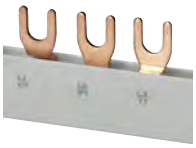
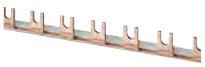
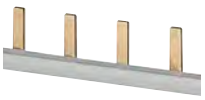


The sum of the output current per branch must not be greater than the busbar current $I_{S1.2}$ / phase.

Selection and ordering data

	Phases	Conductor cross-section	Load capacity up to	Pin spacing	Length	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		mm^2	A	MW	mm							kg
Busbars												
	For MINIZED D02 switch disconnectors **For NEOZED D01/D02 comfort bases** made of molded plastic 5SG1301, 5SG1701, 5SG5301, 5SG5701 **For NEOZED D01/D02 fuse bases** made of ceramic terminal version S (saddle terminal) **For cylindrical fuse holder 14 × 51 mm** **For cylindrical fuse holder SITOR 14 × 51 mm** Can be cut to length, without end caps											
	Single-phase	16	130	1.5	1016	►	5ST3703		1	1 unit	1AD	0.185
	Three-phase	16	120	1.5	1016		5ST3714		1	1 unit	1AD	0.540

* You can order this quantity or a multiple thereof.

	Phases	Conductor cross-section	Load capacity up to	Pin spacing	Length	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		mm^2	A	MW	mm							kg
	For MINIZED D01 fuse switch disconnectors											
	Can be cut to length, without end caps											
	Single-phase	16	120	1	1000		5ST2190		1	1 unit	1AD	0.222
	Two-phase						5ST2191		1	1 unit	1AD	0.448
	Three-phase						5ST2192		1	1 unit	1AD	0.582
	Can be cut to length, with 2 end caps											
	Single-phase	16	120	1	220		5ST2186		1	1 unit	1AD	0.048
	Two-phase						5ST2187		1	1 unit	1AD	0.092
	Three-phase						5ST2188		1	1 unit	1AD	0.112
	For NEOZED D01/D02 fuse bases											
	• 5SG1.30, 5SG1.31, 5SG5.30 made of molded plastic • Made of ceramic, terminal version B and K (clamp-type terminal, screw head contact)											
	Non-insulated											
	Single-phase	36	168	1.5			5SH5322		1	1 unit	1BM	0.260
	Can be cut to length, without end caps											
	Single-phase	24	160	1.5	1000		5SH5517		1	1 unit	1BM	0.342
	Three-phase	16	120	1.5	1000	▶	5SH5320		1	1 unit	1BM	0.562
												
	For cylindrical fuse holder 8 × 32 mm and 10 × 38 mm **For cylindrical fuse holder SITOR 10 × 38 mm** **For class CC fuse holder** [1]											
	Can be cut to length, without end caps											
	Single-phase	16	120	1	1016	▶	5ST3701		1	1 unit	1AD	0.190
	Two-phase		120	1		▶	5ST3705		1	1 unit	1AD	0.452
	Three-phase	16	120	1	1016	▶	5ST3710		1	1 unit	1AD	0.610
												
	Can be cut to length, with end caps											
	Single-phase	16		1	214	▶	5ST3700		1	1 unit	1AD	0.042
	Two-phase			1		▶	5ST3704		1	1 unit	1AD	0.097
	Three-phase			1		▶	5ST3708		1	1 unit	1AD	0.116
	End caps for busbars											
	For single-phase 5ST2190 busbars						5ST2196		1	10 units	1AD	0.001
	For 2-phase 5ST2191 busbars and for 3-phase 5ST2192 busbars						5ST2197		1	10 units	1AD	0.001
	For single-phase 5ST37, 5SH55 busbars					▶	5ST3748		1	10 units	1AD	0.001
	For two-phase and three-phase 5ST37 and 5SH5320 busbars					▶	5ST3750		1	10 units	1AD	0.002

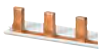
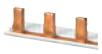
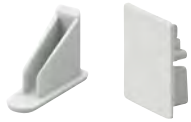
[1] For UL-approved busbars, see page 5/33.

Busbar systems

	Phases	Conductor cross-section	Load capacity up to	Length	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		mm^2	A	mm							kg
	**Touch protection for free connection of pin busbars**										
	Yellow (RAL1004) 5 x 1 pin				►	**5ST3655**		1	10 units	1AD	0.008
	Terminals										
	For NEOZED fuse bases D01/D02 made of ceramic For DIAZED fuse bases DII/DIII made of ceramic										
	Terminal version S For con-ductors	2 ... 25				**5SH5327**		1	10/300 units	1BM	0.013
	Terminal versions B and K For con-ductors	6 ... 25				**5SH5328**		1	10/300 units	1BM	0.013
	For the infeed of fork-type or pin busbars For con-ductors	6 ... 35				**5ST2157**		1	5 units	1AD	0.030
	Busbars **For single-pole DIAZED fuse bases made of ceramic with terminal versions BB and BS**										
	Size DII, for 19 bases Single-phase	24	80	1000		**5SH3500**		1	1/25 units	1BM	0.120
	Size DIII, for 25 bases Single-phase	39	120	1000		**5SH3501**		1	1/25 units	1BM	0.200
	Bus-mounting terminals For DIAZED EZR bus-mounting bases										
	Non-insulated										
	For con-ductors	1.5 ... 16				**8JH4122**		1	10 units	1BR	0.010
	For con-ductors	10 ... 35				**8JH4124**		1	10 units	1BR	0.024

* You can order this quantity or a multiple thereof.

5ST37. . - . HG busbars acc. to UL 508

		Pin spacing	Length	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		MW	mm							kg
	**5ST37..-.HG busbars acc. to UL 508, 18 mm², can be cut, without end caps**									
	Single-phase									
	• For fuse holders 10 x 38 mm class CC (3NC1091, 3NW7513-0HG) or MCBs 1P (5SY)	1	1000		5ST3701-0HG		1	1 unit	1AE	0.320
	• For fuse holders 14 x 51 mm (3NC1491, 3NW7111) or MCBs 1P (5SY, 5SP) with AS or FC	1.5	1000		5ST3703-0HG		1	1 unit	1AE	0.277
	Two-phase									
	• For fuse holders 10 x 38mm/ class CC (3NC1092, 3NW7523-0HG) or MCBs 2P (5SY)	1	1000		5ST3705-0HG		1	1 unit	1AE	0.640
	Three-phase									
	• For fuse holders 10 x 38 mm/class CC (3NC1093, 3NW7533-0HG) or MCBs 3P (5SY)	1	1000		5ST3710-0HG		1	1 unit	1AE	0.820
	• For fuse holders 14 x 51 mm (3NC1493, 3NW7131) or MCBs 1P (5SY, 5SP) with AS or FC	1.5	1000		5ST3714-0HG		1	1 unit	1AE	0.780
	**5ST37..-.HG busbars acc. to UL 508, 25 mm², can be cut, without end caps**									
	Single-phase									
	• For fuse holders 14 x 51 mm (3NC1491, 3NW7111) or MCBs 1P (5SP)	1.5	1000		5ST3701-2HG		1	1 unit	1AE	0.340
	Two-phase									
	• For fuse holders 14 x 51 mm (3NC1492, 3NW7121) or MCBs 2P (5SP)	1.5	1000		5ST3705-2HG		1	1 unit	1AE	0.770
	Three-phase									
	• For fuse holders 14 x 51 mm (3NC1493, 3NW7131) or MCBs 3P (5SP)	1.5	1000		5ST3710-2HG		1	1 unit	1AE	1.090
	**End caps for 5ST37..-.HG**									
	• For single-phase busbars				5ST3748-0HG		1	10 units	1AE	0.001
	• For two- and three-phase busbars				5ST3750-0HG		1	10 units	1AE	0.002
	**Terminals according to UL 508**									
	Infeed to device									
	• 35 mm²				5ST3770-0HG		1	10 units	1AE	0.033
	Infeed to busbar									
	• 50 mm²				5ST3770-1HG		1	10 units	1AE	0.033
	**Touch protection cover for busbars according to UL 508**									
	• 5 x 1 pin				5ST3655-0HG		1	10 units	1AE	0.011

5

* You can order this quantity or a multiple thereof.

LV HRC fuse links

Overview

LV HRC fuse systems (NH type) are used for installation systems in non-residential, commercial and industrial buildings as well as in switchboard assemblies of power utilities. They therefore protect essential building parts and systems.

LV HRC fuse systems (NH type) are fuse systems designed for operation by experts. There are no constructional requirements for non-interchangeability of rated current and touch protection.

The components and auxiliary equipment are designed in such a way as to ensure the safe replacement of LV HRC fuse systems or isolation of systems.

LV HRC fuse links are available in the sizes 000, 00, 0, 1, 2, 3, 4 and 4a.

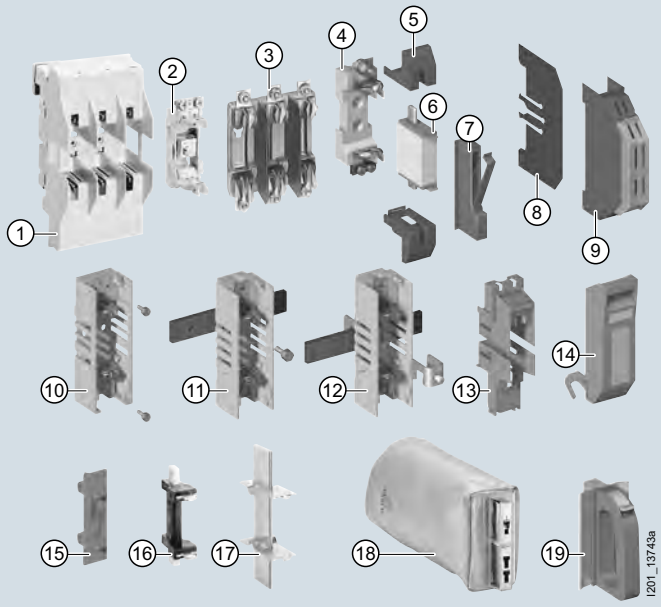
LV HRC fuse links are available in the following operational classes:

- gG for cable and line protection
- aM for short-circuit protection of switching devices in motor circuits
- gR or aR for protection of power semiconductors
- gS: The new gS operational class combines cable and line protection with semiconductor protection

LV HRC fuse links of size 000 can also be used in LV HRC fuse bases, LV HRC fuse switch disconnectors, LV HRC fuse strips as well as LV HRC in-line fuse switch disconnectors of size 00.

The fuse links 300 A, 355 A and 425 A comply with the standard but do not have the VDE mark.

LV HRC components:



1 LV HRC fuse base from the SR60 busbar system
2 LV HRC fuse base for busbar mounting
3 LV HRC fuse base, 3-pole
4 LV HRC fuse base, 1-pole
5 LV HRC contact covers
6 LV HRC fuse link
7 LV HRC signal detector
8 LV HRC partition
9 LV HRC protective cover
LV HRC fuse bases with swivel mechanisms,
10 - for screw fixing on mounting plate
11 - for screw fixing on busbar system
12 - for claw fixing on busbar
13 LV HRC protective cover for LV HRC fuse bases with swivel mechanism
14 LV HRC swivel mechanism
15 LV HRC fuse base cover
16 LV HRC isolating blade with insulated grip lugs
17 LV HRC isolating blade with non-insulated grip lugs
18 LV HRC fuse puller with sleeve
19 LV HRC fuse puller

Benefits

- LV HRC fuse links with combination alarm signal the tripping of a fuse by a clear color change from red to white. This enables fast identification and replacement of the tripped fuse links. This increases system availability
- The insulated grip lugs made of metal are integrated in the top and bottom covers of the fuse link in molded plastic and provide greater safety during replacement. The mark shown below indicates that the grip lugs are insulated

- In the standard series with front indicator, the front-mounted red indicator signals the tripping of a fuse
- LV HRC fuse links are always equipped with silver-plated contact pins. This means that they are non-corroding and have less contact resistance. This ensures the long-term operational safety of the plant

Technical specifications

		LV HRC fuse links					
		Operational class gG					Operational class aM
		3NA6...-4 3NA6...-4KK 3NA383.-8	3NA6... 3NA6...-7 3NA7... 3NA7...-7	3NA3... 3NA3...-7	3NA6...-6 3NA7...-6	3NA3...-6	3ND1 3ND2
Standards **Approvals**		IEC 60269-1, -2; EN 60269-1; DIN VDE 0636 DIN VDE 0636-2; CSA 22.2 No.106, File Number 016325_0_00 (CSA approval of fuses 500 V for 600 V)					
Rated voltage U_n							
• Sizes 000 and 00	V AC V DC	400 --	500 250	500 250	690[1] 250	690[1] 250	500 --
• Sizesn 1 and 2	V AC V DC	400 --	500 440	500 440	690[1] 440	690[1] 440	690 --
• Size 3	V AC V DC	-- --	-- --	500 440	-- --	690[1] 440	690 --
• Sizes 4 and 4a (IEC design)	V AC V DC	-- --	-- --	500 440	-- --	-- --	-- --
Rated current I_n	A	10 ... 400	2 ... 400	2 ... 1250	2 ... 315	2 ... 500	6 ... 630
Rated breaking capacity	kA AC	120					
	kA DC	--	25				--
Contact pins		Non-corroding, silver-plated					
Resistance to climate	°C	-20 ... +50 at 95 % relative humidity					

[1] Manufacturer's confirmation for 690 V +10 % rated voltage available on request.

Selection and ordering data

	Size	Mounting width	I_n	U_n	DT	Insulated grip lugs Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		mm	A	V AC/V DC							kg
	LV HRC fuse links with combination alarm, operational class gG										
	000	21	10	400/--		3NA6803-4		1	3 units	1BM	0.130
			16			3NA6805-4		1	3 units	1BM	0.131
			20			3NA6807-4		1	3 units	1BM	0.131
			25			3NA6810-4		1	3 units	1BM	0.132
			32			3NA6812-4		1	3 units	1BM	0.131
			35			3NA6814-4		1	3 units	1BM	0.131
			40			3NA6817-4		1	3 units	1BM	0.132
			50			3NA6820-4		1	3 units	1BM	0.130
			63			3NA6822-4		1	3 units	1BM	0.131
			80			3NA6824-4		1	3 units	1BM	0.131
			100			3NA6830-4		1	3 units	1BM	0.132
	00	30	80	400/--		3NA6824-4KK		1	3 units	1BM	0.194
			100			3NA6830-4KK		1	3 units	1BM	0.204
			125			3NA6832-4		1	3 units	1BM	0.202
			160			3NA6836-4		1	3 units	1BM	0.203
	1	30	35	400/--		3NA6114-4		1	3 units	1BM	0.288
			40			3NA6117-4		1	3 units	1BM	0.274
			50			3NA6120-4		1	3 units	1BM	0.277
			63			3NA6122-4		1	3 units	1BM	0.286
			80			3NA6124-4		1	3 units	1BM	0.275
			100			3NA6130-4		1	3 units	1BM	0.276
			125			3NA6132-4		1	3 units	1BM	0.286
			160			3NA6136-4		1	3 units	1BM	0.287
		47.2	200			3NA6140-4		1	3 units	1BM	0.443
			224			3NA6142-4		1	3 units	1BM	0.449
			250			3NA6144-4		1	3 units	1BM	0.450
	2	47.2	50	400/--		3NA6220-4		1	3 units	1BM	0.467
			63			3NA6222-4		1	3 units	1BM	0.455
			80			3NA6224-4		1	3 units	1BM	0.449
			100			3NA6230-4		1	3 units	1BM	0.458
			125			3NA6232-4		1	3 units	1BM	0.467
			160			3NA6236-4		1	3 units	1BM	0.465
			200			3NA6240-4		1	3 units	1BM	0.458
			224			3NA6242-4		1	3 units	1BM	0.459
			250			3NA6244-4		1	3 units	1BM	0.464
		57.8	300			3NA6250-4		1	3 units	1BM	0.659
			315			3NA6252-4		1	3 units	1BM	0.663
			355			3NA6254-4		1	3 units	1BM	0.658
			400			3NA6260-4		1	3 units	1BM	0.655

* You can order this quantity or a multiple thereof.

	Size	Mounting width	I_n	U_n	DT	Non-insulated grip lugs Article No. www.siemens.com/product?Article No.	Price per PU	PG	DT	Insulated grip lugs Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		mm	A	V AC/ V DC											kg
	LV HRC fuse links with combination alarm, operational class gG														
	000	21	2	500/		3NA7802		1BM		3NA6802		1	3 units	1BM	0.131
			4	250		3NA7804		1BM		3NA6804		1	3 units	1BM	0.131
			6			3NA7801		1BM		3NA6801		1	3 units	1BM	0.131
			10			3NA7803		1BM		3NA6803		1	3 units	1BM	0.130
			16		▶	3NA7805		1BM	▶	3NA6805		1	3 units	1BM	0.128
			20		▶	3NA7807		1BM	▶	3NA6807		1	3 units	1BM	0.129
			25		▶	3NA7810		1BM	▶	3NA6810		1	3 units	1BM	0.132
			32			3NA7812		1BM		3NA6812		1	3 units	1BM	0.130
			35		▶	3NA7814		1BM	▶	3NA6814		1	3 units	1BM	0.131
			40			3NA7817		1BM		3NA6817		1	3 units	1BM	0.132
			50		▶	3NA7820		1BM	▶	3NA6820		1	3 units	1BM	0.131
			63		▶	3NA7822		1BM	▶	3NA6822		1	3 units	1BM	0.129
			80		▶	3NA7824		1BM	▶	3NA6824		1	3 units	1BM	0.131
			100		▶	3NA7830		1BM	▶	3NA6830		1	3 units	1BM	0.133
	00	30	80	500/		3NA7824-7		1BM		3NA6824-7		1	3 units	1BM	0.202
			100	250		3NA7830-7		1BM		3NA6830-7		1	3 units	1BM	0.206
			125		▶	3NA7832		1BM	▶	3NA6832		1	3 units	1BM	0.202
			160		▶	3NA7836		1BM		3NA6836		1	3 units	1BM	0.202
	1	30	16	500/		3NA7105		1BM		3NA6105		1	3 units	1BM	0.278
			20	440		3NA7107		1BM		3NA6107		1	3 units	1BM	0.288
			25			3NA7110		1BM		3NA6110		1	3 units	1BM	0.282
			35			3NA7114		1BM		3NA6114		1	3 units	1BM	0.289
			40			3NA7117		1BM		3NA6117		1	3 units	1BM	0.269
			50			3NA7120		1BM		3NA6120		1	3 units	1BM	0.294
			63			3NA7122		1BM		3NA6122		1	3 units	1BM	0.287
			80			3NA7124		1BM	▶	3NA6124		1	3 units	1BM	0.288
			100			3NA7130		1BM	▶	3NA6130		1	3 units	1BM	0.290
			125		▶	3NA7132		1BM	▶	3NA6132		1	3 units	1BM	0.289
			160		▶	3NA7136		1BM	▶	3NA6136		1	3 units	1BM	0.287
		47.2	200		▶	3NA7140		1BM	▶	3NA6140		1	3 units	1BM	0.447
			224			3NA7142		1BM		3NA6142		1	3 units	1BM	0.443
			250		▶	3NA7144		1BM	▶	3NA6144		1	3 units	1BM	0.450
	2	47.2	35	500/		3NA7214		1BM		3NA6214		1	3 units	1BM	0.463
			50	440		3NA7220		1BM		3NA6220		1	3 units	1BM	0.463
			63			3NA7222		1BM		3NA6222		1	3 units	1BM	0.465
			80			3NA7224		1BM		3NA6224		1	3 units	1BM	0.459
			100			3NA7230		1BM		3NA6230		1	3 units	1BM	0.462
			125			3NA7232		1BM		3NA6232		1	3 units	1BM	0.463
			160		▶	3NA7236		1BM	▶	3NA6236		1	3 units	1BM	0.464
			200		▶	3NA7240		1BM	▶	3NA6240		1	3 units	1BM	0.463
			224			3NA7242		1BM		3NA6242		1	3 units	1BM	0.464
			250		▶	3NA7244		1BM	▶	3NA6244		1	3 units	1BM	0.463
		57.8	300			--				3NA6250		1	3 units	1BM	0.658
			315		▶	3NA7252		1BM	▶	3NA6252		1	3 units	1BM	0.658
			355			--				3NA6254		1	3 units	1BM	0.664
			400		▶	3NA7260		1BM	▶	3NA6260		1	3 units	1BM	0.661

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

LV HRC fuse links

	Size	Mounting width	I_n	U_n	DT	Non-insulated grip lugs Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		mm	A	V AC/V DC							kg
	LV HRC fuse links with front indicator, operational class gG										
	000	21	2	500/250	▶	3NA3802		1	3 units	1BM	0.127
			4		▶	3NA3804		1	3 units	1BM	0.130
			6		▶	3NA3801		1	3 units	1BM	0.131
			10		▶	3NA3803		1	3 units	1BM	0.130
			16		▶	3NA3805		1	3 units	1BM	0.131
			20		▶	3NA3807		1	3 units	1BM	0.130
			25		▶	3NA3810		1	3 units	1BM	0.130
			32		▶	3NA3812		1	3 units	1BM	0.130
			35		▶	3NA3814		1	3/90 units	1BM	0.131
			40		▶	3NA3817		1	3 units	1BM	0.130
			50		▶	3NA3820		1	3/90 units	1BM	0.131
			63		▶	3NA3822		1	3/90 units	1BM	0.131
			80		▶	3NA3824		1	3/90 units	1BM	0.130
			100		▶	3NA3830		1	3/90 units	1BM	0.131
			125	400/250	▶	3NA3832-8		1	3/60 units	1BM	0.126
			160		▶	3NA3836-8		1	3/60 units	1BM	0.125
	00	30	35	500/250		3NA3814-7		1	3 units	1BM	0.203
			50			3NA3820-7		1	3 units	1BM	0.204
			63			3NA3822-7		1	3 units	1BM	0.195
			80			3NA3824-7		1	3 units	1BM	0.205
			100			3NA3830-7		1	3 units	1BM	0.201
			125		▶	3NA3832		1	3 units	1BM	0.206
			160		▶	3NA3836		1	3 units	1BM	0.207
	0	30	6	500/440		3NA3001		1	3 units	1BM	0.268
			10			3NA3003		1	3 units	1BM	0.274
			16			3NA3005		1	3 units	1BM	0.262
			20			3NA3007		1	3 units	1BM	0.270
			25			3NA3010		1	3 units	1BM	0.255
			32			3NA3012		1	3 units	1BM	0.272
			35			3NA3014		1	3 units	1BM	0.270
			40			3NA3017		1	3 units	1BM	0.275
			50			3NA3020		1	3 units	1BM	0.273
			63			3NA3022		1	3 units	1BM	0.270
			80			3NA3024		1	3 units	1BM	0.265
			100			3NA3030		1	3 units	1BM	0.242
			125			3NA3032		1	3 units	1BM	0.270
			160			3NA3036		1	3 units	1BM	0.272
	1	30	16	500/440		3NA3105		1	3 units	1BM	0.264
			20			3NA3107		1	3 units	1BM	0.283
			25			3NA3110		1	3 units	1BM	0.281
			35			3NA3114		1	3 units	1BM	0.287
			40			3NA3117		1	3 units	1BM	0.270
			50			3NA3120		1	3 units	1BM	0.285
			63		▶	3NA3122		1	3 units	1BM	0.290
			80		▶	3NA3124		1	3 units	1BM	0.278
			100		▶	3NA3130		1	3 units	1BM	0.278
			125		▶	3NA3132		1	3 units	1BM	0.287
			160		▶	3NA3136		1	3 units	1BM	0.283
		47.2	200		▶	3NA3140		1	3 units	1BM	0.446
			224			3NA3142		1	3 units	1BM	0.448
			250		▶	3NA3144		1	3 units	1BM	0.449

* You can order this quantity or a multiple thereof.

	Size	Mounting width	I_n	U_n	DT	Non-insulated grip lugs Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		mm	A	V AC/V DC							kg
	LV HRC fuse links with front indicator, operational class gG										
	2	47.2	35	500/440		3NA3214		1	3 units	1BM	0.462
			50			3NA3220		1	3 units	1BM	0.462
			63			3NA3222		1	3 units	1BM	0.449
			80			3NA3224		1	3 units	1BM	0.462
			100			3NA3230		1	3 units	1BM	0.464
			125			3NA3232		1	3 units	1BM	0.462
			160		►	3NA3236		1	3 units	1BM	0.465
			200		►	3NA3240		1	3 units	1BM	0.465
			224		►	3NA3242		1	3 units	1BM	0.460
			250		►	3NA3244		1	3 units	1BM	0.467
		57.8	300			3NA3250		1	3 units	1BM	0.655
			315		►	3NA3252		1	3 units	1BM	0.664
			355		►	3NA3254		1	3 units	1BM	0.665
			400		►	3NA3260		1	3 units	1BM	0.667
	3	57.8	200	500/440		3NA3340		1	3 units	1BM	0.654
			224			3NA3342		1	3 units	1BM	0.651
			250			3NA3344		1	3 units	1BM	0.656
			300			3NA3350		1	3 units	1BM	0.657
			315		►	3NA3352		1	3 units	1BM	0.657
			355			3NA3354		1	3 units	1BM	0.658
			400		►	3NA3360		1	3 units	1BM	0.660
		71.2	425			3NA3362		1	3 units	1BM	0.941
			500		►	3NA3365		1	3 units	1BM	0.942
			630		►	3NA3372		1	3 units	1BM	0.939
	Can only be used for 3NH3530 LV HRC fuse base										
	4 (IEC design)	101.8	630	500/440		3NA3472		1	1 unit	1BM	2.546
			800			3NA3475		1	1 unit	1BM	2.609
			1000			3NA3480		1	1 unit	1BM	2.647
			1250			3NA3482		1	1 unit	1BM	2.577
	Only for LV HRC base 3NH7520 or usable for fuse switch disconnectors with in-line design 3NJ5643-0BB00										
	4a	101.8	500	500/440		3NA3665		1	1 unit	1BM	2.604
			630			3NA3672		1	1 unit	1BM	2.674
			800			3NA3675		1	1 unit	1BM	2.661
			1000			3NA3680		1	1 unit	1BM	2.646
			1250			3NA3682		1	1 unit	1BM	2.659

5

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

LV HRC fuse links

	Size	Mounting width	I_n	U_n	DT	Non-insulated grip lugs Article No. www.siemens.com/product?Article No.	Price per PU	PG	DT	Insulated grip lugs Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		mm	A	V AC/ V DC											kg
	LV HRC fuse links with combination alarm, operational class gG														
	000	21	2	690[1]/		3NA7802-6		1BM		3NA6802-6		1	3 units	1BM	0.123
			4	250		3NA7804-6		1BM		3NA6804-6		1	3 units	1BM	0.132
			6			3NA7801-6		1BM		3NA6801-6		1	3 units	1BM	0.121
			10			3NA7803-6		1BM		3NA6803-6		1	3 units	1BM	0.133
			16			3NA7805-6		1BM		3NA6805-6		1	3 units	1BM	0.131
			20			3NA7807-6		1BM		3NA6807-6		1	3 units	1BM	0.127
			25			3NA7810-6		1BM		3NA6810-6		1	3 units	1BM	0.130
			32			3NA7812-6		1BM		3NA6812-6		1	3 units	1BM	0.127
			35			3NA7814-6		1BM		3NA6814-6		1	3 units	1BM	0.132
			40		▶	3NA7817-6KJ		1BM	▶	3NA6817-6KJ		1	3 units	1BM	0.131
			50		▶	3NA7820-6KJ		1BM	▶	3NA6820-6KJ		1	3 units	1BM	0.131
	00	30	40	690[1]/		3NA7817-6		1BM		3NA6817-6		1	3 units	1BM	0.188
			50	250		3NA7820-6		1BM		3NA6820-6		1	3 units	1BM	0.199
			63			3NA7822-6		1BM		3NA6822-6		1	3 units	1BM	0.202
			80			3NA7824-6		1BM		3NA6824-6		1	3 units	1BM	0.200
			100			3NA7830-6		1BM		3NA6830-6		1	3 units	1BM	0.194
	1	30	50	690[1]/		3NA7120-6		1BM		3NA6120-6		1	3 units	1BM	0.285
			63	440		3NA7122-6		1BM		3NA6122-6		1	3 units	1BM	0.284
			80			3NA7124-6		1BM		3NA6124-6		1	3 units	1BM	0.288
			100			3NA7130-6		1BM		3NA6130-6		1	3 units	1BM	0.286
			125			3NA7132-6		1BM		3NA6132-6		1	3 units	1BM	0.285
			160			3NA7136-6		1BM		3NA6136-6		1	3 units	1BM	0.288
		47.2	200			3NA7140-6		1BM		3NA6140-6		1	3 units	1BM	0.448
	2	47.2	80	690[1]/		3NA7224-6		1BM		3NA6224-6		1	3 units	1BM	0.440
			100	440		3NA7230-6		1BM		3NA6230-6		1	3 units	1BM	0.209
			125			3NA7232-6		1BM		3NA6232-6		1	3 units	1BM	0.438
			160			3NA7236-6		1BM		3NA6236-6		1	3 units	1BM	0.457
			200			3NA7240-6		1BM		3NA6240-6		1	3 units	1BM	0.461
		57.8	224			3NA7242-6		1BM		3NA6242-6		1	3 units	1BM	0.655
			250			3NA7244-6		1BM		3NA6244-6		1	3 units	1BM	0.647
			300			3NA7250-6		1BM		3NA6250-6		1	3 units	1BM	0.655
			315			3NA7252-6		1BM		3NA6252-6		1	3 units	1BM	0.658

[1] Manufacturer's confirmation for 690 V +10 % rated voltage available on request.

* You can order this quantity or a multiple thereof.

	Size	Mounting width	I_n	U_n	DT	Non-insulated grip lugs Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		mm	A	V AC/V DC							kg
	LV HRC fuse links with front indicator, operational class gG										
	000	21	2	690[1]/250	▶	3NA3802-6		1	3 units	1BM	0.128
			4		▶	3NA3804-6		1	3 units	1BM	0.129
			6		▶	3NA3801-6		1	3 units	1BM	0.131
			10		▶	3NA3803-6		1	3 units	1BM	0.132
			16		▶	3NA3805-6		1	3 units	1BM	0.130
			20		▶	3NA3807-6		1	3 units	1BM	0.131
			25		▶	3NA3810-6		1	3 units	1BM	0.132
			32			3NA3812-6		1	3 units	1BM	0.111
			35		▶	3NA3814-6		1	3 units	1BM	0.131
			40		▶	3NA3817-6KJ		1	3 units	1BM	0.131
			50		▶	3NA3820-6KJ		1	3 units	1BM	0.131
	00	30	40	690[1]/250		3NA3817-6		1	3 units	1BM	0.177
			50		▶	3NA3820-6		1	3 units	1BM	0.207
			63		▶	3NA3822-6		1	3 units	1BM	0.205
			80		▶	3NA3824-6		1	3 units	1BM	0.204
			100		▶	3NA3830-6		1	3 units	1BM	0.203
	1	30	50	690[1]/440		3NA3120-6		1	3 units	1BM	0.279
			63			3NA3122-6		1	3 units	1BM	0.289
			80			3NA3124-6		1	3 units	1BM	0.275
			100		▶	3NA3130-6		1	3 units	1BM	0.291
			125		▶	3NA3132-6		1	3 units	1BM	0.272
			160		▶	3NA3136-6		1	3 units	1BM	0.290
		47.2	200		▶	3NA3140-6		1	3 units	1BM	0.445
	2	47.2	80	690[1]/440		3NA3224-6		1	3 units	1BM	0.456
			100			3NA3230-6		1	3 units	1BM	0.468
			125			3NA3232-6		1	3 units	1BM	0.456
			160		▶	3NA3236-6		1	3 units	1BM	0.463
			200		▶	3NA3240-6		1	3 units	1BM	0.470
		57.8	224			3NA3242-6		1	3 units	1BM	0.615
			250		▶	3NA3244-6		1	3 units	1BM	0.655
			300			3NA3250-6		1	3 units	1BM	0.657
			315		▶	3NA3252-6		1	3 units	1BM	0.657
	3	57.8	250	690[1]/440		3NA3344-6		1	3 units	1BM	0.643
			315			3NA3352-6		1	3 units	1BM	0.651
		71.2	355			3NA3354-6		1	3 units	1BM	1.037
			400		▶	3NA3360-6		1	3 units	1BM	1.038
			425			3NA3362-6		1	3 units	1BM	1.048
			500		▶	3NA3365-6		1	3 units	1BM	0.982

[1] Manufacturer's confirmation for 690 V +10 % rated voltage available on request.

5

LV HRC fuse links

	Size	Mounting width	I_n	U_n	DT	Non-insulated grip lugs Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		mm	A	V AC/V DC							kg
	LV HRC fuse links with front indicator, operational class aM										
	000	21	6	500/--		3ND1801		1	3 units	1BM	0.130
			10			3ND1803		1	3 units	1BM	0.119
			16			3ND1805		1	3 units	1BM	0.127
			20			3ND1807		1	3 units	1BM	0.131
			25			3ND1810		1	3 units	1BM	0.125
			32			3ND1812		1	3 units	1BM	0.131
			35			3ND1814		1	3 units	1BM	0.131
			40			3ND1817		1	3 units	1BM	0.131
			50			3ND1820		1	3 units	1BM	0.128
			63			3ND1822		1	3 units	1BM	0.111
			80			3ND1824		1	3 units	1BM	0.131
			100		►	3ND1830-8		1	3 units	1BM	0.132
	00	30	100	500/--		3ND1830		1	3 units	1BM	0.183
			125			3ND1832		1	3 units	1BM	0.204
			160			3ND1836		1	3 units	1BM	0.200
	1	30	63	690/--		3ND2122		1	3 units	1BM	0.281
			80			3ND2124		1	3 units	1BM	0.291
			100			3ND2130		1	3 units	1BM	0.286
		47.2	125			3ND2132		1	3 units	1BM	0.449
			160			3ND2136		1	3 units	1BM	0.447
			200			3ND2140		1	3 units	1BM	0.447
			250			3ND2144		1	3 units	1BM	0.409
	2	47.2	125	690/--		3ND2232		1	3 units	1BM	0.465
			160			3ND2236		1	3 units	1BM	0.464
			200			3ND2240		1	3 units	1BM	0.467
			250			3ND2244		1	3 units	1BM	0.416
		57.8	315			3ND2252		1	3 units	1BM	0.661
			355			3ND2254		1	3 units	1BM	0.663
			400			3ND2260		1	3 units	1BM	0.655
	3	57.8	315	690/--		3ND2352		1	3 units	1BM	0.597
			355			3ND2354		1	3 units	1BM	0.662
			400			3ND2360		1	3 units	1BM	0.659
		71.2	500			3ND1365		1	3 units	1BM	1.038
			630			3ND1372		1	3 units	1BM	1.036

* You can order this quantity or a multiple thereof.

Overview

LV HRC signal detectors are used for remotely indicating that the LV HRC fuse links have been tripped. Three different solutions are available:

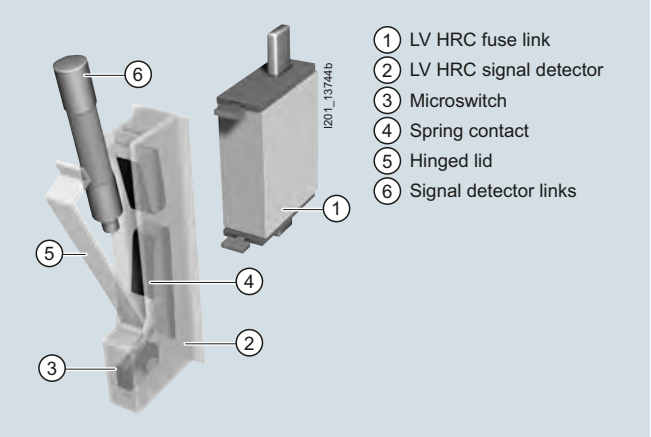
- 3NX1021 signal detectors with signal detector link
  The LV HRC signal detectors with signal detector link support monitoring of LV HRC fuse links with non-insulated grip lugs of sizes 000 to 4 at 10 A or more. The signal detector link is connected in parallel to the LV HRC fuse link. In the event of a fault, the LV HRC fuse links are released simultaneously with the LV HRC fuse detector link. A trip pin switches a floating microswitch.
- 3NX1024 signal detector top
  The signal detector top can be used with LV HRC fuse links, sizes 000, 00, 1 and 2, which are equipped with non-insulated grip lugs and have a front indicator or combination alarm. It is simply plugged into the grip lugs.
- 5TT3170 fuse monitor
  If a fuse is tripped, the front indicator springs open and switches a floating microswitch. This solution should not be used for safety-relevant systems. For this purpose, we recommend our electronic fuse monitors.

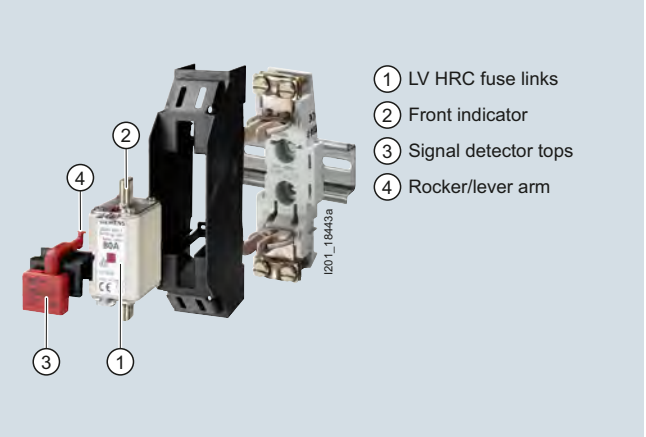
Benefits

Uniform solution for all sizes

LV HRC signal detectors reliably indicate when a fuse has tripped. Tripped fuses are quickly located. This saves time and increases system availability.

The LV HRC signal detector top is a cost-effective solution for the monitoring of Siemens LV HRC fuse links of sizes 000, 00, 1 and 2.





LV HRC signal detectors

Selection and ordering data

		Size	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
									kg
	**LV HRC signal detectors** Only for SIEMENS 3NA3, 3NA7, 3ND LV HRC fuse links with non-insulated grip lugs • Rated voltage up to 690 V AC/600 V DC • Contact: Microswitches 250 V AC, 6 A • Connection: Flat termination 2.3 mm	000 ... 4		3NX1021		1	1 unit	1BM	0.040
	**Signal detector links** • Rated voltage up to 690 V AC/600 V DC								
	Response value > 9 V; 2.5 A; for standard applications	000 ... 4		3NX1022		1	3 units	1BM	0.018
	Response value > 2 V; 7 A; only for meshed networks			3NX1023		1	3 units	1BM	0.018
	**Signal detector tops** Only for SIEMENS 3NA3, 3NA7, 3ND LV HRC fuse links with non-insulated grip lugs • Rated voltage up to 690 V AC/600 V DC • Contact: Microswitch 230 V AC, 5 A, 1 CO • Connection: Flat termination 2.3 mm	000, 00, 1, 2	►	3NX1024		1	1 unit	1BM	0.027

	U_e	I_n	U_c	Mounting width	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
	V AC	A	V	MW							kg
	**Fuse monitors** For all low-voltage fuse systems. Can be used in asymmetric systems afflicted with harmonics and regenerative feedback motors. Signal also for disconnected loads.										
	230	4	380 ... 415 3 AC	2	►	5TT3170		1	1 unit	1BK	0.149

For more information on fuse monitors, see chapter "Monitoring Devices" —> "Monitoring devices for electrical values", see page 12/9.

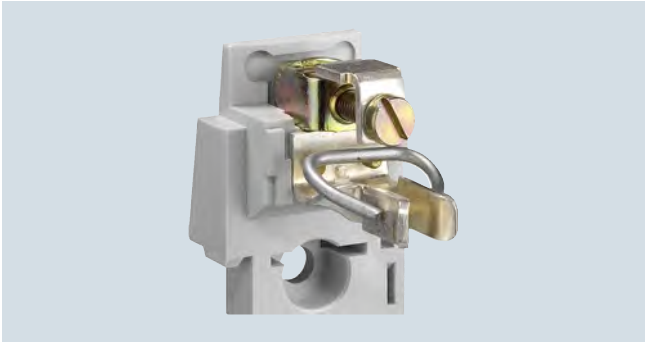
* You can order this quantity or a multiple thereof.

Overview

Terminals for all applications

Flat terminals with screws are suitable for connecting busbars or cable lugs. They have a torsion-proof screw connection with shim, spring washer and nut. When tightening the nut, always ensure compliance with the specified torque due to the considerable leverage effect.

The double busbar terminal differs from the flat terminal in that it supports connection of two busbars, one on the top and one at the bottom of the flat terminal.



The modern box terminal ensures efficient and reliable connection to the conductors. They support connection of conductors with or without end sleeves.

With the flat terminal with nut, terminal lug of the nut is torsion-proof. When tightening the nut, the torque must be observed because of the considerable leverage effect.

Up to three conductors can be clamped to the terminal strip.

The plug-in terminal is equipped for connecting two conductors.

One conductor can be clamped to the saddle-type terminal.

5

Benefits

- The silver-plated Lyra contact provides a large contact area for the pin of the LV HRC fuse link. This improves heat transmission and lowers the temperature. It also minimizes ageing of the fuse link in the maximum load range, in particular when using SITOR semiconductor fuses
- The large contact area also facilitates replacement of LV HRC fuse links
- The spring washer tensioning the contact is mechanically galvanized. This will prevent hydrogen embrittlement. The contact is resistant to aging and there will be no dreaded annealing of contacts, which considerably improves operating safety

Technical specifications

		LV HRC fuse bases, LV HRC bus-mounting bases					
Size		**000/00**	**0**	**1**	**2**	**3**	**4**
Standards		IEC 60269-1, -2; EN 60269-1; DIN VDE 0636-2, UL 4248-1 (only downstream from the branch protection)					
Approvals		KEMA, UL File No: E171267-IZLT2					
Rated current I_n	A	160	160	250	400	630	1250
Rated voltage U_n	V AC	690[1)]	690[1)]				690
	V DC	250	440				440
Rated short-circuit strength	kA AC	120					
	kA DC	25					
Max. power dissipation of fuse links	W	12	25	32	45	60	90
Flat terminal							
Screw		M8		M10		M12	
Nut		M8	--				
Max. tightening torque	Nm	14		38			65
Plug-in terminal							
Conductor cross-section	mm^2	2.5 ... 50		--			
Saddle-type terminal							
Conductor cross-section	mm^2	6 ... 70	--				
Box terminal							
Conductor cross-section	mm^2	2.5 ... 50					
Terminal strips							
Conductor cross-section, 3-wire	mm^2	1.5 ... 16	--				
Max. torque for attachment of LV HRC fuse base	Nm	2		2.5			--

[1)] Extended rated voltage up to 1000 V (except LV HRC bus-mounting bases).

		LV HRC fuse bases with swivel mechanism			
Size		**000/00**	**1**	**3**	**4a**
Rated voltage U_n	V AC	690			
	V DC	440			
Max. power dissipation of fuse links	W	12	32	48	110
Flat terminal					
Screw		M8	M10	M12	M16
Nut		M8	--		
Max. tightening torque	Nm	14	38		65

Selection and ordering data

	Size	I_n	Version	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A								kg
	LV HRC fuse bases									
	Made of molded plastic, for standard rail mounting or screw fixing									
	**000/00**		1P							
		160	With flat terminals, screw	►	**3NH3051**		1	1/10 units	1BM	0.140
		125	With box terminals, up to 50 mm^2	►	**3NH3053**		1	1/10 units	1BM	0.120
	Made of ceramic for screw fixing									
	000/00	160	1P							
			With flat terminals, screw	►	**3NH3030**		1	3 units	1BM	0.218
			With plug-in terminals		**3NH3031**		1	3 units	1BM	0.271
			With saddle-type terminals	►	**3NH3032**		1	3 units	1BM	0.219
			3P (incl. two partitions)							
			With flat terminals	►	**3NH4030**		1	1 unit	1BM	0.709
			With saddle-type terminals		**3NH4032**		1	1 unit	1BM	0.721
	Made of ceramic for screw fixing									
	0	160	1P							
			With flat terminals		**3NH3120**		1	3 units	1BM	0.423
	Made of ceramic for screw fixing									
	1	250	1P							
			With flat terminals	►	**3NH3230**		1	3 units	1BM	0.761
			With double busbar terminals		**3NH3220**		1	3 units	1BM	0.771
	Ceramic supports on base plate for screw fixing									
	1	250	3P (incl. two partitions)							
			With flat terminals		**3NH4230**		1	1 unit	1BM	2.069
	Made of ceramic for screw fixing									
	2	400	1P							
			With flat terminals	►	**3NH3330**		1	1 unit	1BM	0.803
			With double busbar terminals		**3NH3320**		1	1 unit	1BM	0.818
	Made of ceramic for screw fixing									
	3	630	1P							
			With flat terminals	►	**3NH3430**		1	1 unit	1BM	1.072
			With double busbar terminals		**3NH3420**		1	1 unit	1BM	1.091

5

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

LV HRC fuse bases and accessories

	Size	I_n	Version	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A								kg
	LV HRC fuse bases									
	Ceramic supports on base plate for screw fixing (IEC design)									
	4	1250	1P With flat terminals		**3NH3530**		1	1 unit	1BM	3.259
	LV HRC fuse bases with swivel mechanism With flat terminals[1)]									
	**000/00**	160	1P With screw fixing for mounting plate		**3NH7030**		1	1 unit	1BM	0.412
	1	250	1P With screw fixing for mounting plate		**3NH7230**		1	1 unit	1BM	1.091
	Can also be used for fuse links of size 2									
	3	630	1P With screw fixing for mounting plate		**3NH7330**		1	1 unit	1BM	2.075

1) Size 000/00 with additionally enclosed saddle-type terminals

* You can order this quantity or a multiple thereof.

	Size	I_n A	Version		Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx. kg
	LV HRC fuse bases with swivel mechanism									
	**4a**	1250	1P With screw fixing for mounting plate		**3NH7520**		1	1 unit	1BM	5.171
	LV HRC protective covers for LV HRC fuse bases									
	As touch protection for contact pieces									
	000/00			►	**3NX3105**		1	2/20 units	1BM	0.016
	0				**3NX3114**		1	2/40 units	1BM	0.001
	1			►	**3NX3106**		1	2/20 units	1BM	0.022
	2			►	**3NX3107**		1	2/12 units	1BM	0.024
	3			►	**3NX3108**		1	2/10 units	1BM	0.029
	LV HRC partitions for LV HRC fuse bases									
	As intermediate phase and end barrier									
			Type							
	000/00		3NH30/3NH40	►	**3NX2023**		1	2 units	1BM	0.024
	0		3NH31		**3NX2030**		1	2 units	1BM	0.039
	1		3NH32	►	**3NX2024**		1	2 units	1BM	0.051
	2		3NH33	►	**3NX2025**		1	2 units	1BM	0.066
	3		3NH34	►	**3NX2026**		1	2 units	1BM	0.074
	LV HRC protective covers									
	**000/00**		1P and 3P		**3NX3115**		1	10 units	1BM	0.052
	**000/00**		When using fuse links with non-insulated grip lugs		**3NX3116**		1	10 units	1BM	0.022

5

* You can order this quantity or a multiple thereof.

LV HRC fuse bases and accessories

	Size	Version	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx. kg
	**Fuse base covers**								
	For LV HRC fuse bases, red, with inscription "Isolating point"								
	000/00			3NX1003		1	3 units	1BM	0.037
	1, 2, 3			3NX1004		1	3 units	1BM	0.089
	**Fuse pullers**								
	000 ... 3	For LV HRC fuse links							
		Without sleeve	►	3NX1013		1	1 unit	1BM	0.309
		With sleeve	►	3NX1014		1	1 unit	1BM	0.558
	**Isolating blades For LV HRC fuse bases and fuse switch disconnectors**								
	With insulated grip lugs								
	000/00	Silver-plated	►	3NG1002		1	3/30 units	1BM	0.076
	0			3NG1102		1	1/10 units	1BM	0.111
	1		►	3NG1202		1	1/10 units	1BM	0.169
	2		►	3NG1302		1	1/5 units	1BM	0.229
	3		►	3NG1402		1	1/5 units	1BM	0.267
	With non-insulated grip lugs								
	4	Tinned		3NG1503		1	3 units	1BM	0.689
	4a	Nickel-plated		3NG1505		1	1/5 units	1BM	0.721

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

SITOR semiconductor fuses for 3NH bases: Assignment table

3NH bases are generally suitable for all LV HRC type fuses. LV HRC type fuses for SITOR semiconductor protection can also be used, although it must be noted that, compared to cable and line protection fuses, these get much hotter during operation. The following table contains the permissible load currents of the SITOR semiconductor fuses for installation in 3NH.

For installation in a base, it may therefore be necessary to operate the fuse under I_n (derating).

The values were determined using the conductor cross-sections specified in the table. If using smaller cross-sections, a considerably higher derating is required due to the lower heat dissipation.

SITOR semiconductor fuse data						**Permissible load currents of fuse when installed in: 3NH**		
Type[1]	Rated current I_n	Rated voltage U_n	Operational class	Size	Required conductor cross-section	Type	Size	Permissible load current[2]
--	A	V AC	--	--	mm² Cu	--	--	A
3NC2423-0C/3C	150	500	gR	3	70	3NH3430/20	3	150
3NC2425-0C/3C	200	500	gR	3	95	3NH3430/20	3	190
3NC2427-0C/3C	250	500	gR	3	120	3NH3430/20	3	240
3NC2428-0C/3C	300	500	gR	3	185	3NH3430/20	3	285
3NC2431-0C/3C	350	500	gR	3	240	3NH3430/20	3	330
3NC2432-0C/3C	400	500	aR	3	240	3NH3430/20	3	400
3NC3336-1U	630	1000	aR	3	2 x (40 x 5)	3NH3430/20	3	560
3NC3337-1U	710	1000	aR	3	2 x (50 x 5)	3NH3430/20	3	600
3NC3338-1U	800	1000	aR	3	2 x (40 x 8)	3NH3430/20	3	660
3NC3340-1U	900	1000	aR	3	2 x (40 x 8)	3NH3430/20	3	750
3NC3341-1U	1000	1000	aR	3	2 x (50 x 8)	3NH3430/20	3	850
3NC3342-1U	1100	800	aR	3	2 x (50 x 8)	3NH3430/20	3	900
3NC3343-1U	1250	800	aR	3	2 x (50 x 8)	3NH3430/20	3	950
3NC3430-1U	315	1250	aR	3	2 x 95	3NH3430/20	3	310
3NC3432-1U	400	1250	aR	3	2 x 120	3NH3430/20	3	390
3NC3434-1U	500	1250	aR	3	2 x 150	3NH3430/20	3	460
3NC3436-1U	630	1250	aR	3	2 x (40 x 5)	3NH3430/20	3	560
3NC3438-1U	800	1100	aR	3	2 x (40 x 8)	3NH3430/20	3	690
3NC8423-0C/3C	150	690	gR	3	70	3NH3430/20	3	135
3NC8425-0C/3C	200	690	gR	3	95	3NH3430/20	3	180
3NC8427-0C/3C	250	690	gR	3	120	3NH3430/20	3	250
3NC8431-0C/3C	350	690	gR	3	240	3NH3430/20	3	315
3NC8434-0C/3C	500	690	gR	3	2 x 150	3NH3430/20	3	450
3NC8444-3C	1000	600	aR	3	2 x (60 x 6)	3NH3430/20	3	800
3NE1020-2	80	690	gR	00	25	3NH3030/4030	00	80
3NE1021-0	100	690	gS	00	35	3NH3030/4030	00	100
3NE1021-2	100	690	gR	00	35	3NH3030/4030	00	100
3NE1022-0	125	690	gS	00	50	3NH3030/4030	00	125
3NE1022-2	125	690	gR	00	50	3NH3030/4030	00	125
3NE1224-0	160	690	gS	1	70	3NH3230/4230	1	160
3NE1224-2/-3	160	690	gR	1	70	3NH3230/4230	1	160
3NE1225-0	200	690	gS	1	95	3NH3230/4230	1	200
3NE1225-2/-3	200	690	gR	1	95	3NH3230/4230	1	200/190
3NE1227-0	250	690	gS	1	120	3NH3230/4230	1	250
3NE1227-2/-3	250	690	gR	1	120	3NH3230/4230	1	250/235
3NE1230-0	315	690	gS	1	2 x 70	3NH3330/20	2	315
3NE1230-2/-3	315	690	gR	1	2 x 70	3NH3330/20	2	315
3NE1331-0	350	690	gS	2	2 x 95	3NH3330/20	2	350
3NE1331-2/-3	350	690	gR	2	2 x 95	3NH3330/20	2	350
3NE1332-0	400	690	gS	2	2 x 95	3NH3330/20	2	400
3NE1332-2/-3	400	690	gR	2	2 x 95	3NH3330/20	2	400
3NE1333-0	450	690	gS	2	2 x 120	3NH3430/20	3	450
3NE1333-2/-3	450	690	gR	2	2 x 120	3NH3430/20	3	450
3NE1334-0	500	690	gS	2	2 x 120	3NH3430/20	3	500
3NE1334-2/-3	500	690	gR	2	2 x 120	3NH3430/20	3	500
3NE1435-0	560	690	gS	3	2 x 150	3NH3430/20	3	560
3NE1435-2/-3	560	690	gR	3	2 x 150	3NH3430/20	3	560
3NE1436-0	630	690	gS	3	2 x 185	3NH3430/20	3	630
3NE1436-2/-3	630	690	gR	3	2 x 185	3NH3430/20	3	630
3NE1437-0	710	690	gS	3	2 x (40 x 5)	3NH3430/20	3	710
3NE1437-1	710	600	gR	3	2 x (40 x 5)	3NH3430/20	3	690
3NE1437-2/-3	710	690	gR	3	2 x (40 x 5)	3NH3430/20	3	710
3NE1438-0	800	690	gS	3	2 x (50 x 5)	3NH3430/20	3	800
3NE1438-1	800	600	gR	3	2 x (50 x 5)	3NH3430/20	3	750
3NE1438-2/-3	800	690	gR	3	2 x (50 x 5)	3NH3430/20	3	800
3NE1447-2/-3	670	690	gR	3	2 x (40 x 5)	3NH3430/20	3	670
3NE1448-2/-3	850	690	gR	3	2 x (40 x 8)	3NH3430/20	3	850
3NE1802-0	40	690	gS	000	10	3NH3030/4030	00	40
3NE1803-0	35	690	gS	000	6	3NH3030/4030	00	35
3NE1813-0	16	690	gS	000	1.5	3NH3030/4030	00	16
3NE1814-0	20	690	gS	000	2.5	3NH3030/4030	00	20

[1] For permissible load currents for 3NE8…-0MK, see Configuration Manual "Fuse Systems" or on request.

[2] In the case of cyclic loads, the currents may have to be further reduced (precise values on request).

LV HRC fuse bases and accessories

SITOR semiconductor fuse data						Permissible load currents of fuse when installed in: 3NH		
Type[1]	Rated current I_n	Rated voltage U_n	Operational class	Size	Required conductor cross-section	Type	Size	Permissible load current[2]
--	A	V AC	--	--	mm² Cu	--	--	A
3NE1815-0	25	690	gS	000	4	3NH3030/4030	00	25
3NE1817-0	50	690	gS	000	10	3NH3030/4030	00	50
3NE1818-0	63	690	gS	000	16	3NH3030/4030	00	63
3NE1820-0	80	690	gS	000	25	3NH3030/4030	00	80
3NE3221	100	1000	aR	1	35	3NH3230/4230	1	100
3NE3222	125	1000	aR	1	50	3NH3230/4230	1	125
3NE3224	160	1000	aR	1	70	3NH3230/4230	1	160
3NE3225	200	1000	aR	1	95	3NH3230/4230	1	200
3NE3227	250	1000	aR	1	120	3NH3230/4230	1	250
3NE3230-0B	315	1000	aR	1	185	3NH3330/20	2	305
3NE3231	350	1000	aR	1	240	3NH3330/20	2	335
3NE3232-0B	400	1000	aR	1	240	3NH3330/20	2	380
3NE3233	450	1000	aR	1	2 x 150	3NH3330/20	2	425
3NE3332-0B	400	1000	aR	2	240	3NH3430/20	3	400
3NE3333	450	1000	aR	2	2 x 150	3NH3430/20	3	450
3NE3334-0B	500	1000	aR	2	2 x 150	3NH3430/20	3	500
3NE3335	560	1000	aR	2	2 x 185	3NH3430/20	3	560
3NE3336	630	1000	aR	2	2 x 185	3NH3430/20	3	630
3NE3337-8	710	900	aR	2	2 x (40 x 5)	3NH3430/20	3	680
3NE3338-8	800	800	aR	2	2 x 240	3NH3430/20	3	700
3NE3340-8	900	690	aR	2	2 x (40 x 8)	3NH3430/20	3	750
3NE4101	32	1000	gR	0	6	3NH3120/4230	0/1	32
3NE4102	40	1000	gR	0	10	3NH3120/4230	0/1	40
3NE4117	50	1000	gR	0	10	3NH3120/4230	0/1	50
3NE4118	63	1000	aR	0	16	3NH3120/4230	0/1	63
3NE4120	80	1000	aR	0	25	3NH3120/4230	0/1	80
3NE4121	100	1000	aR	0	35	3NH3120/4230	0/1	100
3NE4122	125	1000	aR	0	50	3NH3120/4230	0/1	125
3NE4124	160	1000	aR	0	70	3NH3120/4230	0/1	160
3NE4327-0B	250	800	aR	2	150	3NH3330/20	2	240
3NE4330-0B	315	800	aR	2	240	3NH3330/20	2	300
3NE4333-0B	450	800	aR	2	2 x (30 x 5)	3NH3430/20	3	425
3NE4334-0B	500	800	aR	2	2 x (30 x 5)	3NH3430/20	3	475
3NE4337	710	800	aR	2	2 x (50 x 5)	3NH3430/20	3	630
3NE8015-1	25	690	gR	00	4	3NH3030/4030	00	25
3NE8003-1	35	690	gR	00	6	3NH3030/4030	00	35
3NE8017-1	50	690	gR	00	10	3NH3030/4030	00	50
3NE8018-1	63	690	gR	00	16	3NH3030/4030	00	63
3NE8020-1	80	690	aR	00	25	3NH3030/4030	00	80
3NE8021-1	100	690	aR	00	35	3NH3030/4030	00	100
3NE8022-1	125	690	aR	00	50	3NH3030/4030	00	125
3NE8024-1	160	690	aR	00	70	3NH3030/4030	00	160

[1] For permissible load currents for 3NE8…-0MK, see Configuration Manual "Fuse Systems" or on request.

[2] In the case of cyclic loads, the currents may have to be further reduced (precise values on request).

Overview

SITOR semiconductor fuses protect power semiconductors from the effects of short circuits because the super quick-response disconnect characteristic is far quicker than with conventional LV HRC fuses. They protect high-quality devices and system components, such as converters with fuses in the input and the DC link, UPS systems and soft starters for motors.

Panel mounting requirements have given rise to various connection versions and designs.

The fuses with blade contacts comply with IEC 60269-2 and are suitable for installation in 3NH LV HRC fuse bases, in LV HRC fuse switch disconnectors and switch disconnectors with fuses. They also include fuses with slotted blade contacts for screw fixing with 110 mm mounting dimension, whose sizes are according to IEC 60269-4.

Fuses with slotted blade contacts for screw fixing with 80 mm or 110 mm mounting dimension are often screwed directly onto busbars for optimum heat dissipation. Even better heat transmission is provided by the compact fuses with M10 or M12 female thread, which are also mounted directly onto busbars.

Bolt-on links with 80 mm mounting dimension are another panel-mounting version for direct busbar mounting.

The fuses for SITOR thyristor sets, railway rectifiers or electrolysis systems were developed specially for these applications.

3NH LV HRC fuse bases suitable for use with SITOR semiconductor fuses and safety switching devices can also be found in this chapter, see page 5/45 ff.

Fuse characteristics, configuration notes and the assignments of SITOR semiconductor fuses to the fuse bases and 3NP and 3KL safety switching devices can be found in the Configuration Manual, "Fuse Systems" at:
www.siemens.com/lowvoltage/manuals.

The new size 3 type ranges have a round ceramic body instead of a square one. These series are characterized by small I^2t values with low power dissipation and high capability under alternating load. The dimensions and functional values correspond to the current standards IEC 60269-4/EN 60269-4.

Note:

The ordering data of the fuses are listed in ascending order of the rated voltage in the selection tables.

Benefits

- SITOR semiconductor fuses have a high varying load factor, which ensures a high level of operational safety and plant availability – even when subject to constant load change
- The use of SITOR semiconductor fuses in 3NH LV HRC fuse bases or Siemens switch disconnectors has been tested with regard to heat dissipation and maximum current loading. This makes planning and dimensioning easier and prevents consequential damage
- Our high standard of quality ensures good compliance with the characteristic curve and accuracy. This ensures long-term protection of devices

Operational classes

Fuses are categorized according to function and operational classes. SITOR semiconductor fuses, in LV HRC design, are available in the following operational classes:

- aR: For the short-circuit protection of power semiconductors (partial range protection)
- gR: For the protection of power semiconductors (full range protection)
- gS: The gS operational class combines cable and line protection with semiconductor protection (full range protection)

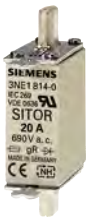
Parallel-connected fuses

Parallel-connected fuses offer maximum current and energy limiting that is clearly better than in the case of comparable single fuses. They also fulfill the special requirements for UL-certified fuses according to which fuses must be connected in parallel at the factory. Here is the original wording of the NEC document: *240.8 Fuses and circuit breakers shall be permitted to be connected in parallel where they are factory assembled in parallel and listed as a unit. Individual fuses, circuit breakers, or combinations thereof shall not otherwise be connected in parallel.*

Selection and ordering data

Size	I_n	U_n	Operational class	Breaking I^2t value	Power loss	Varying load factor *WL*	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
	A	V AC/ V DC		A^2s	W								kg
LV HRC design													
With slotted blade contacts with 2 oblong slots for M10 screw fixing, mounting dimension: 110 mm, or for installation in 3NA3 LV HRC fuse bases or switch disconnectors													
3	150	500	gR	33000	35	0.85		3NC2423-0C		1	3 units	1DM	0.979
	200			64000	40	0.85		3NC2425-0C		1	3 units	1DM	0.980
	250			99000	50	0.85		3NC2427-0C		1	3 units	1DM	0.981
	300			132000	65	0.85		3NC2428-0C		1	3 units	1DM	1.210
	350			249000	60	0.85		3NC2431-0C		1	3 units	1DM	0.981
	400		aR	390000	50	0.85		3NC2432-0C		1	3 units	1DM	0.986
With slotted blade contacts for M10 screw fixing, mounting dimension: 110 mm, or for installation in 3NA3 LV HRC fuse bases or switch disconnectors													
3	150	500	gR	33000	35	0.85		3NC2423-3C		1	3 units	1DM	0.969
	200			64000	40	0.85		3NC2425-3C		1	3 units	1DM	0.992
	250			99000	50	0.85		3NC2427-3C		1	3 units	1DM	0.999
	300			132000	65	0.85		3NC2428-3C		1	3 units	1DM	0.971
	350			249000	60	0.85		3NC2431-3C		1	3 units	1DM	0.981
	400		aR	390000	50	0.85		3NC2432-3C		1	3 units	1DM	0.968
1	160	690	gR	18600	32	1.0		3NE1224-3		1	3 units	1DM	0.605
	200			51800	35	1.0		3NE1225-3		1	3 units	1DM	0.587
	250			80900	37	1.0		3NE1227-3		1	3 units	1DM	0.610
	315			168000	40	1.0		3NE1230-3		1	3 units	1DM	0.601
2	350	690	gR	177000	43	1.0		3NE1331-3		1	3 units	1DM	0.751
	400			224000	50	1.0		3NE1332-3		1	3 units	1DM	0.680
	450			276500	58	1.0		3NE1333-3		1	3 units	1DM	0.755
	500			398000	64	1.0		3NE1334-3		1	3 units	1DM	0.745
3	150	690	gR	17600	40	0.85		3NC8423-3C		1	3 units	1DM	1.001
	200			38400	55	0.85		3NC8425-3C		1	3 units	1DM	1.000
	250			70400	72	0.85		3NC8427-3C		1	3 units	1DM	0.999
	350			176000	95	0.85		3NC8431-3C		1	3 units	1DM	1.003
	500			448000	130	0.85		3NC8434-3C		1	3 units	1DM	0.994
	1000	600	aR	2480000	140	0.95		3NC8444-3C		1	3 units	1DM	1.011
With slotted blade contacts for M12 screw fixing, mounting dimension: 110 mm, or for installation in 3NA3 LV HRC fuse bases or switch disconnectors													
3	560	690	gR	890000	60	1.0		3NE1435-3		1	3 units	1DM	1.094
	630			1390000	60	1.0		3NE1436-3		1	3 units	1DM	1.077
	670			1640000	64	1.0		3NE1447-3		1	3 units	1DM	1.088
	710			1818000	72	1.0		3NE1437-3		1	3 units	1DM	1.093
	800			2475000	84	1.0		3NE1438-3		1	3 units	1DM	0.001
	850			3640000	76	1.0		3NE1448-3		1	3 units	1DM	1.100
With M8 bolt-on links, mounting dimension: 80 mm, for screwing onto busbars or onto 3NH5423 fuse base NEW													
1	100	690/ 440	aR	3200	25	On req.		3NE8221-3MK		1	3 units	1DM	0.410
	125			6000	28	On req.		3NE8222-3MK		1	3 units	1DM	0.410
	160			10500	35	On req.		3NE8224-3MK		1	3 units	1DM	0.412
	200			17500	42	On req.		3NE8225-3MK		1	3 units	1DM	0.412
	250			28500	53.5	On req.		3NE8227-3MK		1	3 units	1DM	0.412
	315			53500	61	On req.		3NE8230-3MK		1	3 units	1DM	0.413
	350			66000	69	On req.		3NE8231-3MK		1	3 units	1DM	0.411
	400			110000	70.5	On req.		3NE8232-3MK		1	3 units	1DM	0.412
	450			180000	71	On req.		3NE8233-3MK		1	3 units	1DM	0.411
	500			215000	84	On req.		3NE8234-3MK		1	3 units	1DM	0.413
	550			290000	87	On req.		3NE8235-3MK		1	3 units	1DM	0.412
	630			440000	96	On req.		3NE8236-3MK		1	3 units	1DM	0.412

* You can order this quantity or a multiple thereof.

	Size	I_n	U_n	Operational class	Breaking I^2t value	Power loss	Varying load factor *WL*	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A	V AC		A^2s	W								kg
	LV HRC design													
	With slotted blade contacts for M12 screw fixing, mounting dimension: 80 mm													
	3	630	690	aR	244000	120	0.85		3NC3236-1U		1	3 units	1DM	0.810
		710			346000	130	0.85		3NC3237-1U		1	3 units	1DM	0.813
		800			498000	135	0.9		3NC3238-1U		1	3 units	1DM	0.811
		900			677000	145	0.9		3NC3240-1U		1	3 units	1DM	0.808
		1 000			975000	155	0.95		3NC3241-1U		1	3 units	1DM	0.811
		1 100			1382000	165	0.95		3NC3242-1U		1	3 units	1DM	0.808
		1 250			1990000	175	0.95		3NC3243-1U		1	3 units	1DM	0.813
		1 400	500		2100000	200	0.95		3NC3244-1U		1	3 units	1DM	0.815
		1 600			2860000	240	0.9		3NC3245-1U		1	3 units	1DM	0.811
	With slotted blade contacts with 2 oblong slots for M10 screw fixing, mounting dimension: 110 mm, or for installation in 3NA3 LV HRC fuse bases or switch disconnectors													
	3	150	690	gR	17600	40	0.85		3NC8423-0C		1	3 units	1DM	0.998
		200			38400	55	0.85		3NC8425-0C		1	3 units	1DM	1.007
		250			70400	72	0.85		3NC8427-0C		1	3 units	1DM	1.006
		350			176000	95	0.85		3NC8431-0C		1	3 units	1DM	1.001
		500			448000	130	0.85		3NC8434-0C		1	3 units	1DM	1.007
	With blade contacts for mounting in 3NA3 LV HRC fuse bases or switch disconnectors													
	3	710	600	gR	2460000	65	1.0		3NE1437-1		1	3 units	1DM	1.088
		800			3350000	72	1.0		3NE1438-1		1	3 units	1DM	1.088
	000	16	690	gS	200	4.0	1.0	▶	3NE1813-0		1	3 units	1DM	0.134
		20			430	5.0	1.0	▶	3NE1814-0		1	3 units	1DM	0.132
		25			780	5.0	1.0	▶	3NE1815-0		1	3 units	1DM	0.135
		35			1700	3.5	1.0	▶	3NE1803-0		1	3 units	1DM	0.134
		40			3000	3.0	1.0	▶	3NE1802-0		1	3 units	1DM	0.136
		50			4400	6.0	1.0	▶	3NE1817-0		1	3 units	1DM	0.134
		63			9000	7.0	1.0	▶	3NE1818-0		1	3 units	1DM	0.133
		80			18000	8.0	1.0	▶	3NE1820-0		1	3 units	1DM	0.135
	00	100	690	gS	33000	10	1.0	▶	3NE1021-0		1	3 units	1DM	0.201
		125			63000	11	1.0	▶	3NE1022-0		1	3 units	1DM	0.197
	1	160	690	gS	60000	24	1.0	▶	3NE1224-0		1	3 units	1DM	0.578
		200			100000	27	1.0	▶	3NE1225-0		1	3 units	1DM	0.582
		250			200000	30	1.0	▶	3NE1227-0		1	3 units	1DM	0.573
		315			310000	38	1.0		3NE1230-0		1	3 units	1DM	0.582
	2	350	690	gS	430000	42	1.0	▶	3NE1331-0		1	3 units	1DM	0.761
		400			590000	45	1.0	▶	3NE1332-0		1	3 units	1DM	0.753
		450			750000	53	1.0		3NE1333-0		1	3 units	1DM	0.756
		500			950000	56	1.0		3NE1334-0		1	3 units	1DM	0.759
	3	560	690	gS	1700000	50	1.0		3NE1435-0		1	3 units	1DM	1.084
		630			2350000	55	1.0		3NE1436-0		1	3 units	1DM	1.081
		710			3400000	58	1.0		3NE1437-0		1	3 units	1DM	1.086
		800			5000000	58	1.0		3NE1438-0		1	3 units	1DM	1.124

5

* You can order this quantity or a multiple thereof.

LV HRC design

Size	I_n	U_n	Operational class	Breaking I^2t value	Power loss	Varying load factor *WL*	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
	A	V AC/V DC		A^2s	W								kg
LV HRC design													
With blade contacts for mounting in 3NH3 LV HRC fuse bases or switch disconnectors NEW													
000	6	690/ 440	gR	37	2.7	On req.		3NE8810-0MK		1	3 units	1DM	0.140
	10			50	4.5	On req.		3NE8812-0MK		1	3 units	1DM	0.140
	16			73	6.7	On req.		3NE8813-0MK		1	3 units	1DM	0.140
	20			90	8	On req.		3NE8814-0MK		1	3 units	1DM	0.140
	25			150	8.1	On req.		3NE8815-0MK		1	3 units	1DM	0.140
	32			350	10.5	On req.		3NE8801-0MK		1	3 units	1DM	0.140
	40			480	12	On req.		3NE8802-0MK		1	3 units	1DM	0.140
	50			1050	14.5	On req.		3NE8817-0MK		1	3 units	1DM	0.140
	63			1960	23	On req.		3NE8818-0MK		1	3 units	1DM	0.140
	80		aR	2200	23.3	On req.		3NE8820-0MK		1	3 units	1DM	0.140
	100			3650	27	On req.		3NE8821-0MK		1	3 units	1DM	0.140
	125			7800	30	On req.		3NE8822-0MK		1	3 units	1DM	0.140
	160	500/ 440		14000	34	On req.		3NE8824-0MK		1	3 units	1DM	0.140
With blade contacts for mounting in 3NA3 LV HRC fuse bases or switch disconnectors													
00	25	690	gR	180	7	0.95	▶	3NE8015-1		1	3 units	1DM	0.201
	35			400	9	0.95	▶	3NE8003-1		1	3 units	1DM	0.203
	50			700	14	0.90	▶	3NE8017-1		1	3 units	1DM	0.200
	63			1400	16	0.95	▶	3NE8018-1		1	3 units	1DM	0.203
	80			5800	10.5	1.0		3NE1020-2		1	3 units	1DM	0.204
	100			11000	12	1.0		3NE1021-2		1	3 units	1DM	0.199
	125			23000	13.5	1.0		3NE1022-2		1	3 units	1DM	0.204
	80		aR	2400	19	0.95	▶	3NE8020-1		1	3 units	1DM	0.203
	100			4200	22	0.95	▶	3NE8021-1		1	3 units	1DM	0.203
	125			6500	28	0.95	▶	3NE8022-1		1	3 units	1DM	0.201
	160			13000	38	0.95	▶	3NE8024-1		1	3 units	1DM	0.200
1	100	690/ 440	aR NEW	6050	25.5	On req.		3NE8221-0MK		1	3 units	1DM	0.476
	125			8900	28.5	On req.		3NE8222-0MK		1	3 units	1DM	0.475
	160			16200	37	On req.		3NE8224-0MK		1	3 units	1DM	0.480
	200			26000	49	On req.		3NE8225-0MK		1	3 units	1DM	0.478
	250			59000	52	On req.		3NE8227-0MK		1	3 units	1DM	0.477
	315			120000	68	On req.		3NE8230-0MK		1	3 units	1DM	0.478
	160	690	gR	18600	32	1.0		3NE1224-2		1	3 units	1DM	0.601
	200			51800	35	1.0		3NE1225-2		1	3 units	1DM	0.608
	250			80900	37	1.0		3NE1227-2		1	3 units	1DM	0.606
	315			168000	40	1.0		3NE1230-2		1	3 units	1DM	0.604
2	350	690/ 440	aR NEW	83500	68.6	On req.		3NE8331-0MK		1	3 units	1DM	0.540
	400			136000	72.8	On req.		3NE8332-0MK		1	3 units	1DM	0.540
	450			207000	80.1	On req.		3NE8333-0MK		1	3 units	1DM	0.540
	500			318000	77.5	On req.		3NE8334-0MK		1	3 units	1DM	0.540
	550			399000	86.4	On req.		3NE8335-0MK		1	3 units	1DM	0.540
	630			740000	90.7	On req.		3NE8336-0MK		1	3 units	1DM	0.540
	350	690	gR	177000	43	1.0		3NE1331-2		1	3 units	1DM	0.778
	400			224000	50	1.0		3NE1332-2		1	3 units	1DM	0.764
	450			276500	58	1.0		3NE1333-2		1	3 units	1DM	0.795
	500			398000	64	1.0		3NE1334-2		1	3 units	1DM	0.796
3	560	690	gR	890000	60	1.0		3NE1435-2		1	3 units	1DM	1.144
	630			1390000	60	1.0		3NE1436-2		1	3 units	1DM	1.134
	670			1640000	64	1.0		3NE1447-2		1	3 units	1DM	1.130
	710			1818000	72	1.0		3NE1437-2		1	3 units	1DM	1.130
	800			2475000	84	1.0		3NE1438-2		1	3 units	1DM	1.125
	850			3640000	76	1.0		3NE1448-2		1	3 units	1DM	1.136
0	32	1000	gR	280	12	0.9	▶	3NE4101		1	3 units	1DM	0.277
	40			500	13	0.9	▶	3NE4102		1	3 units	1DM	0.269
	50			800	16	0.9	▶	3NE4117		1	3 units	1DM	0.271
	63		aR	1500	20	0.9	▶	3NE4118		1	3 units	1DM	0.269
	80			3000	22	0.9	▶	3NE4120		1	3 units	1DM	0.270
	100			6000	24	0.9	▶	3NE4121		1	3 units	1DM	0.277
	125			14000	30	0.9	▶	3NE4122		1	3 units	1DM	0.276
	160			29000	35	0.9	▶	3NE4124		1	3 units	1DM	0.275

* You can order this quantity or a multiple thereof.

	Size	I_n	U_n	Operational classes	Breaking I^2t value	Power loss	Varying load factor *WL*	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A	V AC/ V DC		A^2s	W								kg
		LV HRC design												
		With M8 bolt-on links, mounting dimension: 80 mm, for screwing onto busbars												
	000	20	690/ 700[1]	gR	83	7	0.9		3NE8714-1		1	10 units	1DM	0.139
		25			140	9	0.9		3NE8715-1		1	10 units	1DM	0.136
		32			285	10	0.9		3NE8701-1		1	10 units	1DM	0.141
		40			490	12	0.9		3NE8702-1		1	10 units	1DM	0.145
		50			815	15	0.9		3NE8717-1		1	10 units	1DM	0.136
		63		aR	1550	16	0.95		3NE8718-1		1	10 units	1DM	0.138
		80			2700	18	0.9	►	3NE8720-1		1	10 units	1DM	0.143
		100			4950	19	0.95	►	3NE8721-1		1	10 units	1DM	0.144
		125			9100	23	0.95	►	3NE8722-1		1	10 units	1DM	0.142
		160			17000	31	0.9	►	3NE8724-1		1	10 units	1DM	0.137
		200			30000	36	0.9	►	3NE8725-1		1	10 units	1DM	0.139
		250			55000	42	0.9	►	3NE8727-1		1	10 units	1DM	0.134
		315			85500	54	0.85	►	3NE8731-1		1	10 units	1DM	0.141
		With M10 bolt-on links, mounting dimension: 80 mm, for screwing onto busbars or onto 3NH5323 fuse base NEW												
	00	80	690/ 440	gR	3200	23.0	On req.		3NE8020-3MK		1	3 units	1DM	0.230
		100			5200	29.0	On req.		3NE8021-3MK		1	3 units	1DM	0.230
		350		aR	135000	58.8	On req.		3NE8031-3MK		1	3 units	1DM	0.220
		400			170000	74.5	On req.		3NE8032-3MK		1	3 units	1DM	0.220

[1] DC voltage acc. to UL.

	Size	I_n	U_n	Operational classes	Breaking I^2t value	Power loss	Varying load factor *WL*	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A	V AC/ V DC		A^2s	W								kg
		LV HRC design												
		Parallel-connected fuses with slotted blade contacts for M12 screw fixing, mounting dimension: 110 mm (lateral 90 mm)												
	2 x 3	1000	690	gR	1400 000	138	1.0		3NB3350-1KK26		1	1 unit	1DM	2.475
		1100			3000 000	110			3NB3351-1KK26		1	1 unit	1DM	2.475
	2 x 3	1250			4100 000	104	1.0		3NB3352-1KK26		1	1 unit	1DM	2.480
		1350			4800 000	126			3NB3354-1KK26		1	1 unit	1DM	2.290
		1400			5200 000	127			3NB3355-1KK26		1	1 unit	1DM	2.480
	2 x 3	1600			6900 000	152	1.0		3NB3357-1KK26		1	1 unit	1DM	2.468
		1700			10000 000	143			3NB3358-1KK26		1	1 unit	1DM	2.486
	3 x 3	1700			6400000	179	1.0		3NB3358-1KK27		1	1 unit	1DM	3.460
		1900			8200 000	196			3NB3362-1KK27		1	1 unit	1DM	3.460
		With slotted blade contacts for M10 screw fixing, mounting dimension: 110 mm, or for installation in 3NA3 LV HRC fuse bases or switch disconnectors												
	2	250	800	aR	29700	105	0.85	►	3NE4327-0B		1	3 units	1DM	0.779
		315			60700	120	0.85	►	3NE4330-0B		1	3 units	1DM	0.760
		450			191000	140	0.85	►	3NE4333-0B		1	3 units	1DM	0.756
		500			276000	155	0.85	►	3NE4334-0B		1	3 units	1DM	0.774
		710			923000	155	0.95	►	3NE4337		1	3 units	1DM	0.768

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

LV HRC design

Size	I_n	U_n	Operational classes	Breaking I^2t value	Power loss	Varying load factor *WL*	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
	A	V AC/ V DC		A^2s	W								kg
With slotted blade contacts for screw fixing M10, 110 mm mounting dimension, or for installation in 3NH3 LV HRC fuse bases or fuse switch disconnectors or on 3NH5463 fuse base													
1	32[1]	1000/ 600	gR NEW	4500	9	On req.		3NE3201-0MK		1	3 units	1DM	0.595
	40[1]			6000	13	On req.		3NE3202-0MK		1	3 units	1DM	0.589
	50[1]			8000	18	On req.		3NE3217-0MK		1	3 units	1DM	0.581
	63[1]			9000	25	On req.		3NE3218-0MK		1	3 units	1DM	0.577
	100	1000	aR	4800	28	0.95		3NE3221		1	3 units	1DM	0.571
	125			7200	36	0.95		3NE3222		1	3 units	1DM	0.589
	160			13000	42	1.0	▶	3NE3224		1	3 units	1DM	0.576
	200			30000	42	1.0	▶	3NE3225		1	3 units	1DM	0.591
	250			48000	50	1.0	▶	3NE3227		1	3 units	1DM	0.596
	315			80000	60	0.95	▶	3NE3230-0B		1	3 units	1DM	0.589
	350			100000	75	0.95		3NE3231		1	3 units	1DM	0.596
	400			135000	85	0.9		3NE3232-0B		1	3 units	1DM	0.581
	450			175000	95	0.9	▶	3NE3233		1	3 units	1DM	0.590
	500[1]	1000/ 600	NEW	500000	105	On req.		3NE3234-0MK08		1	3 units	1DM	0.550
	550[1]		NEW	700000	110	On req.		3NE3235-0MK08		1	3 units	1DM	0.550
	630[1]		NEW	850000	127	On req.		3NE3236-0MK08		1	3 units	1DM	0.550
[1] No grip lugs and therefore not suitable for mounting in 3NH3 LV HRC fuse bases or switch disconnectors													
2	400	1000	aR	135000	80	1.0		3NE3332-0B		1	3 units	1DM	0.738
	450			175000	90	1.0		3NE3333		1	3 units	1DM	0.741
	500			260000	90	1.0	▶	3NE3334-0B		1	3 units	1DM	0.757
	560			360000	95	1.0	▶	3NE3335		1	3 units	1DM	0.745
	630			600000	100	1.0	▶	3NE3336		1	3 units	1DM	0.816
	710	900	aR	800000	105	1.0	▶	3NE3337-8		1	3 units	1DM	0.771
	800	800		850000	130	0.95	▶	3NE3338-8		1	3 units	1DM	0.773
	900	690		920000	165	0.95	▶	3NE3340-8		1	3 units	1DM	0.784
With slotted blade contacts for M10 screw fixing, mounting dimension: 130 mm													
3	100	1000	aR	13500	25	1.0		3NE3421-0C		1	3 units	1DM	1.223
	224			54000	85	1.0		3NE3626-0C		1	3 units	1DM	1.223
	315			218000	80	1.0		3NE3430-0C		1	3 units	1DM	1.182
	400			364000	110	1.0		3NE3432-0C		1	3 units	1DM	1.192
	450			488000	110	1.0		3NE3635-0C		1	3 units	1DM	1.198
	500			870000	95	1.0		3NE3434-0C		1	3 units	1DM	1.226
	630			1280000	132	1.0		3NE3636-0C		1	3 units	1DM	1.216
	710			1950000	145	1.0		3NE3637-0C		1	3 units	1DM	1.237
With slotted blade contacts for M12 screw fixing, mounting dimension: 140 mm													
3	710	1000	aR	1950000	145	1.0		3NE3637-1C		1	3 units	1DM	0.001
With slotted blade contacts for M12 screw fixing, mounting dimension: 110 mm, or for installation in 3NA3 LV HRC fuse bases or switch disconnectors													
3	630	1000	aR	418000	145	0.85		3NC3336-1U		1	3 units	1DM	1.022
	710			569000	150	0.85		3NC3337-1U		1	3 units	1DM	1.020
	800			819000	155	0.85		3NC3338-1U		1	3 units	1DM	0.961
	900			1160000	165	0.9		3NC3340-1U		1	3 units	1DM	1.039
	1000			1670000	170	0.9		3NC3341-1U		1	3 units	1DM	0.959
	1100	800		1910000	185	0.9		3NC3342-1U		1	3 units	1DM	1.077
	1250			2600000	210	0.9		3NC3343-1U		1	3 units	1DM	0.958
3	315	1250	aR	72500	80	0.95		3NC3430-1U		1	3 units	1DM	0.951
	400			163000	95	0.95		3NC3432-1U		1	3 units	1DM	1.022
	500			290000	115	0.90		3NC3434-1U		1	3 units	1DM	0.956
	630			650000	120	0.95		3NC3436-1U		1	3 units	1DM	1.027
	800	1100		985000	145	0.90		3NC3438-1U		1	3 units	1DM	1.020



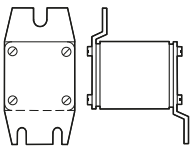

* You can order this quantity or a multiple thereof.

	Size	I_n	U_n	Operational class	Breaking I^2t value	Power loss	Varying load factor *WL*	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A	V AC/V DC		A^2s	W								kg
	LV HRC design													
	With slotted blade contacts for M10 screw fixing, mounting dimension: 210 mm													
	3	160	1500	aR	54000	56	1.0		**3NE5424-0C**		1	2 units	1DM	1.995
		224			138000	80	1.0		**3NE5426-0C**		1	2 units	1DM	1.986
		315			311000	115	1.0		**3NE5430-0C**		1	2 units	1DM	1.260
		350			428000	135	1.0		**3NE5431-0C**		1	2 units	1DM	1.987
		450			870000	145	0.95		**3NE5433-0C**		1	2 units	1DM	2.001
	With slotted blade contacts for M12 screw fixing, mounting dimension: 210 mm													
		450	1500	aR	870000	145	0.95		**3NE5433-1C**		1	2 units	1DM	1.991
	With slotted blade contacts for M10 screw fixing, mounting dimension: 170 mm													
	3	250	1500	aR	84000	130	1.0		**3NE5627-0C**		1	3 units	1DM	1.576
		450			590000	160	1.0		**3NE5633-0C**		1	3 units	1DM	1.595
		600			1950000	145	1.0		**3NE5643-0C**		1	3 units	1DM	1.606
	With slotted blade contacts for screw fixing M10, 170 mm mounting dimension, for bolting onto busbars or onto 3NH5473 fuse base NEW													
	2	40	1500/ 1000	gR	900	26	On req.		**3NE5302-0MK06**		1	1 unit	1DM	1.250
		50			1800	27	On req.		**3NE5317-0MK06**		1	1 unit	1DM	1.250
		63			3100	34	On req.		**3NE5318-0MK06**		1	1 unit	1DM	1.250
		80		aR	3900	42	On req.		**3NE5320-0MK06**		1	1 unit	1DM	1.250
		100			8700	45	On req.		**3NE5321-0MK06**		1	1 unit	1DM	1.250
		125			11800	59	On req.		**3NE5322-0MK06**		1	1 unit	1DM	1.250
		160			37000	54	On req.		**3NE5324-0MK06**		1	1 unit	1DM	1.250
		200			70000	56	On req.		**3NE5325-0MK06**		1	1 unit	1DM	1.250
		250			165000	59	On req.		**3NE5327-0MK06**		1	1 unit	1DM	1.250
		315			250000	76	On req.		**3NE5330-0MK06**		1	1 unit	1DM	1.250
		400	1500/ 1000		470000	89	On req.		**3NE5332-0MK06**		1	1 unit	1DM	1.250
		500			800000	109	On req.		**3NE5334-0MK06**		1	1 unit	1DM	1.250
		630			1100000	163	On req.		**3NE5336-0MK06**		1	1 unit	1DM	1.250
	2*	630	1500/ 1000	aR	1100000	163	On req.		**3NE5336-0MK66**		1	1 unit	1DM	1.250
	* Special version with extended contacts, 190 mm mounting dimension, with fastening holes													
	With slotted blade contacts for M10 screw fixing, mounting dimension: 210 mm													
	3	200	2000	aR	138000	75	1.0		**3NE7425-0U**		1	2 units	1DM	1.990
		250			218000	110	1.0		**3NE7427-0U**		1	2 units	1DM	2.005
		350			555000	120	1.0		**3NE7431-0U**		1	2 units	1DM	2.019
		400			870000	150	1.0		**3NE7432-0U**		1	2 units	1DM	0.002
		450			960000	160	1.0		**3NE7633-0U**		1	2 units	1DM	2.001
		630			1950000	220	1.0		**3NE7636-0U**		1	2 units	1DM	2.030
	With slotted blade contacts for M12 screw fixing, mounting dimension: 210 mm													
	3	450	2000	aR	960000	160	1.0		**3NE7633-1U**		1	2 units	1DM	1.990
		525			1120000	210	1.0		**3NE7648-1U**		1	2 units	1DM	2.151
		630			1950000	220	1.0		**3NE7636-1U**		1	2 units	1DM	2.028
		710			3110000	275	1.0		**3NE7637-1U**		1	2 units	1DM	2.033
	With slotted blade contacts for M12 screw fixing, mounting dimension: 260 mm													
	3	125	2500	aR	34500	78	1.0		**3NE9622-1C**		1	1 unit	1DM	2.506
		400			620000	205	1.0		**3NE9632-1C**		1	1 unit	1DM	2.439
		500			1270000	235	1.0		**3NE9634-1C**		1	1 unit	1DM	2.350
		630			2800000	275	1.0		**3NE9636-1C**		1	1 unit	1DM	2.566
	2	315	--/ 3000	aR NEW	300000	245	On req.		**3NE9330-0MK07**		1	1 unit	1DM	1.250

LV HRC design

	Size	I_n	U_n	Operational class	Breaking I^2t value	Power loss	Varying load factor *WL*	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A	V AC		A^2s	W								kg
	LV HRC design													
	With M12 female thread at both ends for direct busbar mounting, flange dimensions 52 mm													
	3	630	690	aR	244000	125	0.9		3NC3236-6U		1	3 units	1DM	0.791
		710			346000	130	0.9		3NC3237-6U		1	3 units	1DM	0.787
		800			498000	135	0.95		3NC3238-6U		1	3 units	1DM	0.789
		900			677000	140	0.95		3NC3240-6U		1	3 units	1DM	0.795
		1 000			975000	145	1.0		3NC3241-6U		1	3 units	1DM	0.791
		1 100			1382000	150	1.0		3NC3242-6U		1	3 units	1DM	0.799
		1 250			1990000	155	1.0		3NC3243-6U		1	3 units	1DM	0.799
		1 400	500		2100000	175	1.0		3NC3244-6U		1	3 units	1DM	0.802
		1 600			2860000	195	0.95		3NC3245-6U		1	3 units	1DM	0.805
	With M10 female thread at both ends for direct busbar mounting, flange dimensions 109 mm													
	3	450	1 000	aR	488000	110	1.0		3NE3635-6		1	3 units	1DM	1.234
	With M12 female thread at both ends for direct busbar mounting, flange dimensions 73 mm													
	3	630	1 000	aR	418000	130	0.90		3NC3336-6U		1	3 units	1DM	0.892
		710			569000	140	0.90		3NC3337-6U		1	3 units	1DM	0.897
		800			819000	150	0.90		3NC3338-6U		1	3 units	1DM	0.995
		900			1160000	160	0.95		3NC3340-6U		1	3 units	1DM	0.900
		1 000			1670000	165	0.95		3NC3341-6U		1	3 units	1DM	1.006
		1 100	800		1910000	175	0.95		3NC3342-6U		1	3 units	1DM	0.897
		1 250			2600000	185	0.95		3NC3343-6U		1	3 units	1DM	0.903
	3	315	1 250	aR	72500	80	0.95		3NC3430-6U		1	3 units	1DM	0.896
		400			163000	95	0.95		3NC3432-6U		1	3 units	1DM	0.899
		500			290000	115	0.90		3NC3434-6U		1	3 units	1DM	0.886
		630			650000	120	0.95		3NC3436-6U		1	3 units	1DM	1.003
		800	1100		985000	145	0.95		3NC3438-6U		1	3 units	1DM	0.995

* You can order this quantity or a multiple thereof.

	Size	I_n	U_n	Operational classes	Breaking I^2t value	Power loss	Varying load factor *WL*	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A	V AC		A^2s	W								kg
	Fuses for special applications													
	For screwing onto water-cooled busbars, for rectifiers in electrolysis systems													
	--[1]	350	800	aR	260000	80	0.9		3NC5531		1	3 units	1DM	0.632
		600	1000		888000	150	0.9		3NC5840		1	3 units	1DM	1.372
		630	800		888000	145	0.9		3NC5841		1	3 units	1DM	1.170
		800	1000		1728000	170	0.9		3NC5838		1	3 units	1DM	1.175
		710	900		620000	150	0.9		3NE6437-7		1	3 units	1DM	1.155
		1250	600		2480000	210	0.9		3NE9450-7		1	3 units	1DM	1.148
	With M10 female thread at both ends for direct busbar mounting, flange dimensions 89 (99)[2] mm, for air-cooled rectifiers in electrolysis systems													
	--[1]	710	900	aR	620000	150	0.9		3NE6437		1	3 units	1DM	0.982
		850	600	gR	2480000	85	1.0		3NE9440-6		1	3 units	1DM	0.995
		900	900	aR	1920000	170	0.9		3NE6444		1	3 units	1DM	1.153
		1250	600	aR	2480000	210	0.9		3NE9450		1	3 units	1DM	1.055
	Fuses with installation holder for SITOR 6QG10 thyristor sets													
	--[1]	200	1000	aR	44000	50	0.85		3NE3525-5		1	2 units	1DM	0.700
		450			395000	90	0.85		3NE3535-5		1	2 units	1DM	0.735
	Fuses with installation holder for SITOR 6QG11 thyristor sets													
	--[1]	50	1000	gR	1100	20	0.85		3NE4117-5		1	2 units	1DM	0.302
		100		aR	7400	35	0.85		3NE4121-5		1	2 units	1DM	0.305
		170		aR	60500	43	0.85		3NE4146-5		1	2 units	1DM	0.292
	Fuses for special applications													
	With female thread at both ends for SITOR 6QG12 thyristor sets, flange dimensions 77 mm													
	--[1]	250	800	aR	29700	105	0.85	►	3NE4327-6B		1	3 units	1DM	0.691
		315			60700	120	0.85	►	3NE4330-6B		1	3 units	1DM	0.690
		450			191000	140	0.85	►	3NE4333-6B		1	3 units	1DM	0.684
		500			276000	155	0.85	►	3NE4334-6B		1	3 units	1DM	0.678
		710			923000	155	0.95	►	3NE4337-6		1	3 units	1DM	0.687
	Special design for mounting directly in the railway supply rectifier													
	--[1]	250	680	aR	635000	25	0.9		3NC7327-2		1	3 units	1DM	0.729
		350			1430000	32	0.9		3NC7331-2		1	3 units	1DM	0.696

[1] Special design.

[2] Flange dimensions 99 mm only for 3NE6444.

5

LV HRC design

	Size	I_n	U_n	Operational classes	Breaking I^2t value	P_v Power loss	Varying load factor *WL*	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A	V DC		A^2s	W								kg
	Fuses for special applications													
	DC fuses with slotted blade contacts for M12 screw fixing													
	2L	400	900	gR	240000[1]	75	--		3NB1234-3KK20		1	2 units	1DM	0.991
	1L	200	1250	aR	39000[2]	50	--		3NB1126-4KK11		1	2 units	1DM	0.900
		250			80500[2]	51	--		3NB1128-4KK11		1	2 units	1DM	0.899
	2L	315			129000[2]	63	--		3NB1231-4KK11		1	2 units	1DM	0.990
		400			290000[2]	68	--		3NB1234-4KK11		1	2 units	1DM	0.001
	3L	500			600000[2]	89	--		3NB1337-4KK11		1	2 units	1DM	1.868
		800			1910000[2]	135	--		3NB1345-4KK11		1	2 units	1DM	1.887
	Parallel-connected DC fuses with slotted blade contacts for M12 screw fixing													
	2 x 3L	800	1250	aR	1150000[2]	160	--		3NB2345-4KK16		1	1 unit	1DM	3.540
		1000			2250000[2]	195	--		3NB2350-4KK16		1	1 unit	1DM	3.839
		1400			5100000[2]	250	--		3NB2355-4KK16		1	1 unit	1DM	3.540
		1600			7450000[2]	275	--		3NB2357-4KK16		1	1 unit	1DM	3.540
	3 x 3L	2100			1195000[2]	365	--		3NB2364-4KK17		1	1 unit	1DM	5.440
		2400			18100000[2]	445	--		3NB2366-4KK17		1	1 unit	1DM	5.440

[1] I^2t at U_{VSI} 1400 V, I^2t at U_n 900 V is 180000 A^2s

[2] I^2t at U_{VSI} 1500 V; I^2t at U_n 1250 V is reduced by the factor k = 0.79.

Note:

VSI is the abbreviation for Voltage Sourced Inverter. The VSI voltage U_{VSI} is a DC test voltage defined in IEC 60269-4 specially for use in applications with energy stores. The extremely steep current rise in the event of a fault is characteristic of such applications.

For SITOR 3NB1 and 3NB2 semiconductor fuses, the VSI voltage and the applicable I^2t value are specified in the "Technical specifications" table; for all other SITOR semiconductor fuses, these values are available on request.

	Version	For fuse series	I_n	U_n	Connection bolt	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
	mm		A	V DC								kg
	**Fuse bases for SITOR fuses** NEW • With bolt-on links or slotted blade contacts • 1-pole											
	75	3NC18	50	690	M5		3NH5723		1	1 unit	1BM	0.187
	80	3NE87, 3NC26	315	690	M8		3NH5023		1	1 unit	1BM	0.304
		3NE80..-3MK	400	690	M10		3NH5323		1	1 unit	1BM	0.350
		3NC32..-1U, 3NE82..-3MK	1600	690	M10		3NH5423		1	1 unit	1BM	0.546
	110	3NC24, 3NC33..-1U, 3NC34..-1U, 3NC84, 3NE1…-3, 3NE32, 3NE33, 3NE34	1250	1250	M10		3NH5463		1	1 unit	1BM	0.587
	170	3NE53, 3NE56	630	1800	M10		3NH5473		1	1 unit	1BM	0.700

* You can order this quantity or a multiple thereof.

Overview

SITOR cylindrical fuses protect power semiconductors from the effects of short-circuits because the super quick-response disconnect characteristic is far quicker than that of conventional fuses. They protect high-quality devices and system components such as semiconductor contactors, electronic relays (solid state), converters with fuses in the input and in the DC link, UPS systems and soft starters for motors up to 100 A.

The cylindrical design is approved for industrial applications. The cylindrical fuse links comply with IEC 60269.

Cylindrical fuse holders also comply with IEC 60269 and UL 512. The cylindrical fuse holders for 10 x 38 mm and 14 x 51 mm have been tested and approved as fuse switch disconnectors and the cylindrical fuse holders for 22 x 58 mm as fuse disconnectors according to the switching device standard IEC 60947-3. The utilization category and the tested current and voltage values are specified in the Table "Technical Specifications".

The cylindrical fuse holders have been specially developed for the application of SITOR fuse links with regard to heat tolerance and heat dissipation and are therefore not recommended for standard applications.

Cylindrical fuse bases do not offer the same comprehensive touch protection as the fuse holders, but have better heat dissipation. The single-pole cylindrical fuse bases for 14 × 51 mm and 22 × 58 mm allow modular expansion to multi-pole bases.

Benefits

- Cylindrical fuses have an extremely compact design and a correspondingly small footprint
- The cylindrical fuses have IEC and UL approval and are suitable for universal use worldwide
- The use of SITOR cylindrical fuses in the cylindrical fuse holders and bases has been tested with regard to heat dissipation and maximum current loading. This makes planning and dimensioning easier and prevents consequential damage
- The use of fuse holders as switch disconnectors expands the area of application of these devices and increases operating safety

Technical specifications

		Cylindrical fuse holders		
		3NC10	**3NC14**	**3NC22**
Size	mm × mm	10 × 38	14 × 51	22 × 58
Standards		UL 4248-1; CSA C22.2; IEC 60269-2, IEC 60947-3		
Approvals		UL 4248-1; UL File Number E171267; CSA C22.2 No. 39-M		
Rated voltage U_n	V AC	690; 600 acc. to UL/CSA		
Rated current I_n	A AC	32 30 acc. to UL/CSA	50 50 acc. to UL 40 acc. to CSA	100 80 acc. to UL/CSA
Rated conditional short-circuit current	kA	50	50 (100 at 400 V)	50 (100 at 500 V)
Breaking capacity • Utilization category		AC-22B (400 V)	AC-22B (400 V)	AC-20B (690 V)
Max. power dissipation of fuse links (conductor cross-section used)	W	3 (6 mm^2) 4.3 (10 mm^2)	5 (10 mm^2) 6.5 (25 mm^2)	9.5 (35 mm^2) 11 (50 mm^2)
Rated impulse withstand voltage	kV	6		
Overvoltage category		II		
Pollution degree		2		
No-voltage changing of fuse links		Yes		
Sealable when installed		Yes		
Mounting position		Any		
Current direction		Any		
Degree of protection acc. to IEC 60529		IP20, with connected conductors[1)]		
Terminals with touch protection according to BGV A3 at incoming and outgoing feeder		Yes		
Ambient temperature	°C	45		
Conductor cross-sections • Finely stranded, with end sleeve • AWG (American Wire Gauge)	 mm^2 AWG	 1.5 ... 16 15 ... 5	 1.5 ... 35 14 ... 2	 4 ... 50 10 ... 1/0
Tightening torque	Nm lbs/in.	2.5 22	2.5 ... 3 22 ... 26	3.5 ... 4 31 ... 35

[1)] Degree of protection IP20 is tested according to regulations using a straight test finger (from the front), with the device mounted and equipped with a cover, housing or some other enclosure.

Selection and ordering data

	Size	I_n	U_n	Breaking I^2t value	P_v Power loss	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
	mm × mm	A	V AC/ V DC	A^2s	W							kg
	**Cylindrical fuse links, operational class gR** NEW											
	10 × 38	6	690/440	6.5	2.5		3NC1006-0MK		1	20 units	1DM	0.009
		10		18	3.3		3NC1010-0MK		1	20 units	1DM	0.009
		12		35	4		3NC1012-0MK		1	20 units	1DM	0.009
		16		45	6		3NC1016-0MK		1	20 units	1DM	0.009
		20	690/250	110	7.8		3NC1020-0MK		1	20 units	1DM	0.009
		25		140	8.7		3NC1025-0MK		1	20 units	1DM	0.009
		32		450	12		3NC1032-0MK		1	20 units	1DM	0.009
	14 × 51	6	690/700	3.5	3.1		3NC1406-0MK		1	10 units	1DM	0.024
		10		15	4.6		3NC1410-0MK		1	10 units	1DM	0.024
		16	690/600	32	6.7		3NC1416-0MK		1	10 units	1DM	0.024
		20		68	7.4		3NC1420-0MK		1	10 units	1DM	0.024
		25		108	8.4		3NC1425-0MK		1	10 units	1DM	0.024
		32		175	12.3		3NC1432-0MK		1	10 units	1DM	0.024
		40	690/440	470	11.7		3NC1440-0MK		1	10 units	1DM	0.024
		50	690/250	830	16.3		3NC1450-0MK		1	10 units	1DM	0.024
	22 × 58	25	690/700	180	8.1		3NC2225-0MK		1	10 units	1DM	0.060
		32	690/600	420	9		3NC2232-0MK		1	10 units	1DM	0.060
		40	690/440	700	12.5		3NC2240-0MK		1	10 units	1DM	0.060
		50	690/250	1250	15.2		3NC2250-0MK		1	10 units	1DM	0.061
		63		2400	17.5		3NC2263-0MK		1	10 units	1DM	0.060
		80		4400	23		3NC2280-0MK		1	10 units	1DM	0.060
		100		11500	28.7		3NC2200-0MK		1	10 units	1DM	0.060
	**Cylindrical fuse links, operational class aR**											
	10 × 38[2]	3	600/700[1]	8	1.2		3NC1003		1	10 units	1DM	0.009
		6		20	1.5	▶	3NC1006		1	10 units	1DM	0.009
		8		30	2		3NC1008		1	10 units	1DM	0.009
		10		60	2.5	▶	3NC1010		1	10 units	1DM	0.009
		12		110	3		3NC1012		1	10 units	1DM	0.009
		16		150	3.5	▶	3NC1016		1	10 units	1DM	0.009
		20		200	4.8	▶	3NC1020		1	10 units	1DM	0.009
		25		250	6	▶	3NC1025		1	10 units	1DM	0.009
		32	600/--	500	7.5	▶	3NC1032		1	10 units	1DM	0.009
	14 × 51	1	660/--	1.2	5		3NC1401		1	10 units	1DM	0.021
		2		10	3	▶	3NC1402		1	10 units	1DM	0.021
		3		15	2.5		3NC1403		1	10 units	1DM	0.021
		4		25	3	▶	3NC1404		1	10 units	1DM	0.017
		5	690/800[1]	11	1.5		3NC1405		1	10 units	1DM	0.022
		6		11	1.5	▶	3NC1406		1	10 units	1DM	0.020
		10		22	4	▶	3NC1410		1	10 units	1DM	0.020
		15		70	5.5	▶	3NC1415		1	10 units	1DM	0.020
		20		100	6	▶	3NC1420		1	10 units	1DM	0.020
		25		320	7	▶	3NC1425		1	10 units	1DM	0.021
		30		400	9		3NC1430		1	10 units	1DM	0.020
		32		600	7.6	▶	3NC1432		1	10 units	1DM	0.021
		40		750	8	▶	3NC1440		1	10 units	1DM	0.020
		50		1800	9	▶	3NC1450		1	10 units	1DM	0.020
NEW		63	690/250	2100	16.7		3NC1463-0MK		1	10 units	1DM	0.024
	22 × 58	20	690/700[1]	220	4.6		3NC2220		1	5 units	1DM	0.056
		25		300	5.6		3NC2225		1	5 units	1DM	0.057
		32		450	7		3NC2232		1	5 units	1DM	0.056
		40		700	8.5		3NC2240		1	5 units	1DM	0.056
		50		1350	9.5	▶	3NC2250		1	5 units	1DM	0.052
		63		2600	11	▶	3NC2263		1	5 units	1DM	0.054
		80		5500	13.5	▶	3NC2280		1	5 units	1DM	0.057
		100		8000	16	▶	3NC2200		1	5 units	1DM	0.057
NEW		125	690/250	29000	35.3		3NC2211-0MK		1	10 units	1DM	0.060

[1] DC voltage acc. to UL.
[2] CCC approval in preparation

* You can order this quantity or a multiple thereof.

	Size	I_n	U_n	Breaking I^2t value	P_v Power loss	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
	mm × mm	A	V AC/ V DC	A^2s	W							kg
	Cylindrical fuse links with striking pin, operational class aR											
	14 × 51	10	690/600[1]	32	4		3NC1410-5		1	10 units	1DM	0.023
		15		63	5.5		3NC1415-5		1	10 units	1DM	0.023
		20		234	6		3NC1420-5		1	10 units	1DM	0.024
		25		378	7		3NC1425-5		1	10 units	1DM	0.023
		30		466	9		3NC1430-5		1	10 units	1DM	0.022
		32		600	7.6		3NC1432-5		1	10 units	1DM	0.023
		40		750	8		3NC1440-5		1	10 units	1DM	0.023
		50		1800	9		3NC1450-5		1	10 units	1DM	0.026
	22 × 58	20	690/500[1]	240	5		3NC2220-5		1	5 units	1DM	0.039
		25		350	6		3NC2225-5		1	5 units	1DM	0.041
		32		500	8		3NC2232-5		1	5 units	1DM	0.066
		40		800	9		3NC2240-5		1	5 units	1DM	0.039
		50		1500	9.5		3NC2250-5		1	5 units	1DM	0.064
		63		3000	11		3NC2263-5		1	5 units	1DM	0.061
		80		6000	13.5		3NC2280-5		1	5 units	1DM	0.061
	22 × 58	100	600/500[1]	8500	16		3NC2200-5		1	5 units	1DM	0.066
	**Cylindrical fuse links** NEW											
	Operational class gS											
	22 × 127	1	1500/ 1000	2	2		3NC2301-0MK		1	5 units	1DM	0.103
		2		4.4	2.5		3NC2302-0MK		1	5 units	1DM	0.102
		4		55	5.3		3NC2304-0MK		1	5 units	1DM	0.104
		6		150	6.4		3NC2306-0MK		1	5 units	1DM	0.102
		10		540	3.1		3NC2310-0MK		1	5 units	1DM	0.104
		16		1120	4.7		3NC2316-0MK		1	5 units	1DM	0.104
		20		2850	5.4		3NC2320-0MK		1	5 units	1DM	0.104
		25		3300	6.9		3NC2325-0MK		1	5 units	1DM	0.105
		32		9050	6.7		3NC2332-0MK		1	5 units	1DM	0.105
	Operational class gR											
	22 × 127	40	1500/ 1000	18500	9.4		3NC2340-0MK		1	5 units	1DM	0.104
	Operational class aR											
	22 × 127	50	1500/ 1000	26000	11.6		3NC2350-0MK		1	5 units	1DM	0.106
	**Cylindrical fuse links, with M8 bolt-on links** NEW											
	With bolt-on links: mounting dimension 75 mm, for screwing onto busbars or onto 5SH5723 fuse base											
	Operational class gR											
	18 x 88	10	690/ 440	17	4.3		3NC1810-0MK		1	3 units	1DM	0.042
		16		52	4.4		3NC1816-0MK		1	3 units	1DM	0.099
		20		90	6.5		3NC1820-0MK		1	3 units	1DM	0.043
		25		160	8.5		3NC1825-0MK		1	3 units	1DM	0.043
		32		400	8.9		3NC1832-0MK		1	3 units	1DM	0.057
		40		600	11		3NC1840-0MK		1	3 units	1DM	0.060
		50		1250	13.8		3NC1850-0MK		1	3 units	1DM	0.043
	With bolt-on links: mounting dimension 80 mm, for screwing onto busbars or onto 5SH5023 fuse base											
	Operational class gR											
	26 x 103	25	690/ 440	120	9.5		3NC2625-0MK		1	3 units	1DM	0.099
		32		220	12.3		3NC2632-0MK		1	3 units	1DM	0.099
		40		400	14.8		3NC2640-0MK		1	3 units	1DM	0.130
		50		980	17.5		3NC2650-0MK		1	3 units	1DM	0.099
		63		2050	18.8		3NC2663-0MK		1	3 units	1DM	0.099
	Operational class aR											
		80		3500	22.5		3NC2680-0MK		1	3 units	1DM	0.130
		100		5400	31.5		3NC2600-0MK		1	3 units	1DM	0.099
		125		11800	39		3NC2611-0MK		1	3 units	1DM	0.100

[1] DC voltage acc. to UL.

5

Cylindrical fuse design

Fuse bases for SITOR fuses NEW
With bolt-on links or slotted blade contacts, 1-pole

Version*	For fuse series	I_n	U_n	Connection bolt	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
mm		A	V DC								kg
75	3NC18	50	690	M5		3NH5723		1	1 unit	1BM	0.187
80	3NE87, 3NC26	315	690	M8		3NH5023		1	1 unit	1BM	0.304

Cylindrical fuse holders
Can be used as fuse switch disconnectors[1)]

Size	Version	Rated voltage	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
mm × mm		V AC/V DC							kg
10 × 38	1P	690/--	▶	3NC1091		1	12 units	1DM	0.052
	2P		▶	3NC1092		1	6 units	1DM	0.104
	3P		▶	3NC1093		1	4 units	1DM	0.156
14 × 51	1P		▶	3NC1491		1	6 units	1DM	0.105
	2P		▶	3NC1492		1	3 units	1DM	0.228
	3P			3NC1493		1	2 units	1DM	0.319
22 × 58	1P		▶	3NC2291		1	1 unit	1DM	0.192
	2P		▶	3NC2292		1	3 units	1DM	0.330
	3P			3NC2293		1	2 units	1DM	0.494
22 × 127 NEW	1P	1500/1000		3NC2391-0MK		1	1 unit	1DM	0.488
	2P			3NC2392-0MK		1	1 unit	1DM	0.981
	3P			3NC2393-0MK		1	1 unit	1DM	1.488

Cylindrical fuse holders
Can be used as fuse switch disconnectors, with signaling switches for fuse links with striking pin[1)]

14 × 51	1P	690/--		3NC1491-5		1	6 units	1DM	0.121
22 × 58	1P			3NC2291-5		1	6 units	1DM	0.149

Cylindrical fuse bases

10 × 38	1P	600/--		3NC1038-1		1	10 units	1DM	0.041
	2P			3NC1038-2		1	8 units	1DM	0.071
	3P			3NC1038-3		1	6 units	1DM	0.103

Fuse tongs

10 × 38, 14 × 51, 22 × 58				3NC1000		1	1 unit	1DM	0.071

[1)] Please note the utilization category and current/voltage values; see "Technical specifications", page 5/67.

* You can order this quantity or a multiple thereof.

Overview

SILIZED is the brand name for NEOZED fuses (D0 fuses) and DIAZED fuses (D fuses) with super quick-response characteristic for semiconductor protection. The fuses are used in combination with fuse bases, fuse screw caps and accessory parts of the standard fuse system.

SILIZED semiconductor fuses protect power semiconductors from the effects of short circuits because the super quick disconnect characteristic is far quicker than that of conventional fuses. They protect high-quality devices and system components, such as semiconductor contactors, static relays, converters with fuses in the input and in the DC link, UPS systems and soft starters for motors up to 100 A.

When using fuse bases and fuse screw caps made of molded plastic, always heed the maximum permissible power loss values due to the high power loss (power dissipation) of the SILIZED fuses.
When using these components, the following maximum permissible power loss applies:
- NEOZED D02: 5.5 W
- DIAZED DII: 4.5 W
- DIAZED DIII: 7.0 W

This enables a partial thermal permanent load of only 50 %.

The DIAZED screw adapter DII for 25 A is used for the 30 A fuse link.

Benefits

- SILIZED semiconductor fuses have an extremely compact design. This means they have a very small footprint – particularly the NEOZED version
- The rugged and well-known DIAZED design complies with IEC 60269-3. It is globally renowned and can be used in many countries
- A wide range of fuse bases and accessories is available for the NEOZED and DIAZED versions of the SILIZED semiconductor fuses. This increases the application options in many devices

Technical specifications

		5SE13 NEOZED design fuse links	5SD4 DIAZED design fuse links
Standards		DIN VDE 0636-3; IEC 60269-3; EN 60269-4 (VDE 0636-4); IEC 60269-4	
Operational class		gR	
Characteristic		Quick-acting	
Rated voltage U_n	V AC V DC	400 250	500 500
Rated current I_n	A	10 ... 63	16 ... 100
Rated breaking capacity	kA AC kA DC	50 8	
Mounting position		Any, preferably vertical	
Non-interchangeability		Using adapter sleeves	Using screw adapter or adapter sleeves
Resistance to climate	°C	Up to 45 at 95 % rel. humidity	
Ambient temperature	°C	-5 ... +40, humidity 90 % at 20	

Selection and ordering data

	Size	I_e	U_e	Breaking I^2t value	Power loss	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A	V AC/ V DC	A^2s	W							kg
	SILIZED fuse links, operational class gR											
	D01	10	400/250	73	6.9		**5SE1310**		1	10 units	1DM	0.007
		16		120	6.2		**5SE1316**		1	10 units	1DM	0.007
	D02	20		190	8.1		**5SE1320**		1	10 units	1DM	0.013
		25		215	8.2		**5SE1325**		1	10 units	1DM	0.011
		35		470	16.7		**5SE1335**		1	10 units	1DM	0.014
		50		1960	12.0		**5SE1350**		1	10 units	1DM	0.014
		63		4230	15.5		**5SE1363**		1	10 units	1DM	0.013
	DII	16	500/500	60	12.1		**5SD420**		1	5 units	1DM	0.029
		20		139	12.3		**5SD430**		1	5 units	1DM	0.030
		25		205	12.5		**5SD440**		1	5 units	1DM	0.032
		30		310	13.5		**5SD480**		1	5 units	1DM	0.031
	DIII	35		539	14.8		**5SD450**		1	5 units	1DM	0.051
		50		1250	18.5		**5SD460**		1	5 units	1DM	0.051
		63		1890	28		**5SD470**		1	5 units	1DM	0.054
	DIV	80		4200	34.3		**5SD510**		1	3 units	1DM	0.113
		100		8450	41.5		**5SD520**		1	3 units	1DM	0.114

* You can order this quantity or a multiple thereof.

Overview

Special demands are made on fuses for application in photovoltaic systems. These fuses have a high DC rated voltage and a tripping characteristic specially designed to protect PV modules and their connecting cables (the newly defined operational class gPV). It is also crucial that the PV fuses do not age in spite of strongly alternating load currents, in order to ensure high plant availability throughout the service life of the PV system. The fuses must also be able to withstand high temperature fluctuations without damage. These requirements were only incorporated into an international standard in recent years and have now been published as IEC 60269-6.
All Siemens photovoltaic fuse systems comply with this new standard. Furthermore, they also already comply with the recently agreed corrections to the characteristic curves, which will be incorporated in the next standard update.

The IEC cylindrical fuses used as phase fuses also correspond to the characteristic curves specified in UL standard UL 2579. The non-fusing current I_{nf} and fusing current I_f test currents are crucial to the shape of the characteristic curves.

Standard	I_{nf}	I_f
Current IEC standard	1.13 x I_n	1.45 x I_n
UL standard	1.0 x I_n	1.35 x I_n
Future IEC standard	1.05 x I_n	1.35 x I_n
Siemens fuses	1.13 x I_n	1.35 x I_n

These test currents of gPV phase fuses to 32 A apply for a conventional test duration of one hour; at I_{nf}, the fuse must not trip within an hour, at I_f, it must trip within an hour.

The PV cylindrical fuses of size 10 mm x 38 mm offer an especially space-saving solution for the protection of the strings.

The fuse holders of size 10 x 38 mm can be supplied in single-pole and two-pole versions with and without signal detectors. In the case of devices with signal detector, a small electronic device with LED is located behind an inspection window in the plug-in module. If the inserted fuse link is tripped, this is indicated by the LED flashing. The devices have a sliding catch that enables removal of individual devices from the assembly. The infeed can be from the top or the bottom. Because the cylindrical fuse holders are fitted with the same anti-slip terminals at the top and the bottom, the devices can also be bus-mounted at the top or the bottom.

The PV fuses in LV HRC design are usually used as cumulative fuses upstream of the inverter. In addition, they can also be used for protecting groups (PV subarrays). For the PV cumulative fuses of size 1, standard LV HRC fuse bases are available. For PV cumulative fuses of size 1L, 1XL, 2L, 2XL and 3L, we have developed a special 3NH7...-4 fuse base with a swiveling mechanism which combines maximum touch protection with maximum user-friendliness. This makes it possible to change fuses safely and without the need for any tools, such as a fuse handle. This provides safe and fast access even in an emergency.

Our cylindrical fuse holders and fuse bases with swiveling mechanism comply with the IEC 60269-2 standard and are considered fuse disconnectors as defined in the IEC 60947 switchgear and controlgear standard. Under no circumstances are they suitable for switching loads.

To ensure that PV fuses are correctly selected and dimensioned, the specific operating conditions and the PV module data must be taken into account when calculating voltage and current ratings.

Benefits

- Protection of the modules and their connecting cables in the event of reverse currents
- Safe tripping in case of fault currents reduces the risk of fire due to DC electric arcs
- Safe separation when the fuse holder/fuse base is open

PV cylindrical fuse system, 3NW70..-4, 3NW60..-4

PV LV HRC fuse systems, 3NH73..-4, 3NE13..-4D

5

Technical specifications

		Cylindrical fuse links		Cylindrical fuse holders	
		3NW60..-4	3NW66..-4	3NW70..-4	3NW76..-4
Size	mm x mm	10 x 38	10 x 85		
Standards		IEC 60269-6		IEC 60269, IEC 60269-2, IEC 60947, UL 4248-1, -18	IEC 60269, IEC 60269-2, IEC 60947, UL 4248-1, -18
Approvals		UL 248-13, waiver certification for China (2 to 16 A)	(File No. E469670)	(File No. E355487), (variants without signal detector)	(E355487)
Operational class		gPV			
Rated voltage U_n	V DC	1000	1500 (20 A: 1200 V)	1000	1500
Rated current I_n	A DC	2 to 20	4 to 20	30	32
Rated short-circuit strength	kA	--		30	
Rated breaking capacity	kA DC	30	10	--	
Breaking capacity • Utilization category		--		AC-20B, DC-20B	
Max. power dissipation of the fuse link	W	--		4	6
Rated impulse withstand voltage	kV	--		6	--
Overvoltage category		--		II	--
Pollution degree		--		2	--
No-voltage changing of fuse links		--		Yes	
Sealable when installed		--		Yes	
Mounting position		Any, preferably vertical			
Current direction		--		Any (signal detector with antiparallel LED)	
Degree of protection acc. to IEC 60529		--		IP20, with connected conductors[1]	
Terminals with touch protection according to BGV A3 at incoming and outgoing feeder		--		Yes	
Ambient temperature	°C	-25 ... +55, humidity 90 % at +20			
Conductor cross-sections • Finely stranded, with end sleeve • AWG (American Wire Gauge)	 mm^2 AWG	 -- --		 0.75 ... 25 18 ... 4	
Tightening torque	Nm	--		2.5	

1) Degree of protection IP20 is tested according to regulations using a straight test finger (from the front), with the device mounted and equipped with a cover, housing or some other enclosure.

Selection and ordering data

	Size	I_n	U_n	P_v	P_v at 70 %[1]	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
	mm x mm	A DC	V DC	W	W							kg
	Cylindrical fuse links operational class gPV											
 3NW6004-4	10 x 38	2	1000	1.4	0.6	►	3NW6002-4		1	20 units	1DN	0.008
		4		1.6	0.7		3NW6004-4		1	20 units	1DN	0.009
		6		1.7	0.7		3NW6001-4		1	20 units	1DN	0.009
		8		1.9	0.8		3NW6008-4		1	20 units	1DN	0.009
		10		2.3	1.0		3NW6003-4		1	20 units	1DN	0.010
		12		2.7	1.1		3NW6006-4		1	20 units	1DN	0.009
		16		3.2	1.3		3NW6005-4		1	20 units	1DN	0.009
		20		3.4	1.4		3NW6007-4		1	20 units	1DN	0.008
 3NW6604-4	10 x 85	4	1500	2.7	1.1		3NW6604-4		1	10 units	1DN	0.016
		6		3.0	1.2		3NW6601-4		1	10 units	1DN	0.016
		8		3.6	1.5		3NW6608-4		1	10 units	1DN	0.016
		10		3.7	1.6		3NW6603-4		1	10 units	1DN	0.016
		12		3.3	1.4		3NW6606-4		1	10 units	1DN	0.016
		16		3.7	1.6		3NW6605-4		1	10 units	1DN	0.016
		20	1200	4.0	1.7		3NW6607-4		1	10 units	1DN	0.016

1) Tested in the fuse holder 3NW7013-4 or 3NW7613-4.

* You can order this quantity or a multiple thereof.

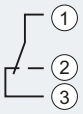
	Number of poles	I_n	For fuse links of size	Width	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A DC	mm x mm	MW							kg
 3NW7014-4	**Cylindrical fuse holders, 1000 V with signal detector**										
	1P	30	10 x 38	1		**3NW7014-4**		1	12 units	1DN	0.062
	2P	30	10 x 38	2		**3NW7024-4**		1	6 units	1DN	0.123
	Without signal detector										
	1P	30	10 x 38	1		**3NW7013-4**		1	12 units	1DN	0.064
	2P	30	10 x 38	2		**3NW7023-4**		1	6 units	1DN	0.122
 3NW7613-4	**Cylindrical fuse holders, 1500 V**										
	1P	32	10 x 85	1.3		**3NW7613-4**		1	5 units	1DN	0.102

5

* You can order this quantity or a multiple thereof.

5

Technical specifications

		Fuse links 3NE1...-4 / -4D / -4E / -5E						Fuse bases 3NH7...-4					
Size		1	1L	2L	3L	1XL	2XL	1	1L	2L	3L	1XL	2XL
Standards		IEC 60269-6						IEC 60269, IEC 60269-2, IEC 60947					
Operational class		gPV											
Rated voltage U_n	V DC	1000 at time constant (L/R) 3 ms 1500 at time constant (L/R) 3 ms						1000				1500	
Rated current I_n	A DC	63 ... 160	200/250	315/400	500/630	63 ... 200	250/315	160	250	400	630	250	400
Rated short-circuit strength	kA	--						30					
Rated breaking capacity	kA DC	30						--					
Breaking capacity • Utilization category		--						AC-20B, DC-20B (switching without load)					
Max. power dissipation of the fuse link	W	--						40	90	110	130	90	110
No-voltage changing of fuse links		--						Yes					
Sealable when installed		--						Yes					
Mounting position		Any, preferably vertical											
Current direction		--						Any					
Ambient temperature	°C	-25 ... +55, humidity 90 % at +20											
Tightening torque	Nm	--						20					
Microswitch for Tripped signaling **5 A/250 V AC, 0.2 A/250 V DC**		In the "fuse not blown" state, contacts 1 and 3 are closed. 											

Selection and ordering data


3NE1330-4D

Size	I_n	U_n	P_v at U_n	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
	A DC	V DC	W							kg
Fuse links operational class gPV										
1	63	1000	19		3NE1218-4		1	2 units	1DN	0.607
	80		20		3NE1220-4		1	2 units	1DN	0.607
	100		24		3NE1221-4		1	2 units	1DN	0.539
	125		26		3NE1222-4		1	2 units	1DN	0.580
	160		32		3NE1224-4		1	2 units	1DN	0.621
1L	200		51		3NE1225-4D		1	2 units	1DN	0.819
	250		54		3NE1227-4D		1	2 units	1DN	0.750
2L	315		73		3NE1330-4D		1	2 units	1DN	1.081
	400		82		3NE1332-4D		1	2 units	1DN	1.097
3L	500		100		3NE1434-4E		1	2 units	1DN	1.701
	630		110		3NE1436-4E		1	2 units	1DN	1.684
1XL	63	1500	20		3NE1218-5E		1	2 units	1DN	1.011
	80		25		3NE1220-5E		1	2 units	1DN	0.994
	100		30		3NE1221-5E		1	2 units	1DN	1.003
	125		29	▶	3NE1222-5E		1	2 units	1DN	1.001
	160		34	▶	3NE1224-5E		1	2 units	1DN	0.998
	200		41	▶	3NE1225-5E		1	2 units	1DN	1.002
2XL	250		53	▶	3NE1327-5E		1	2 units	1DN	1.262
	315		63	▶	3NE1330-5E		1	2 units	1DN	1.263

* You can order this quantity or a multiple thereof.

	For fuse links of size	I_n	U_n	DT	Article No. www.siemens.com/product?Article No.	Price per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG	Weight per PU approx.
		A DC								kg
	Fuse bases with flat terminal									
	Standard ceramic fuse base [1]									
 3NH3230	1	250	1000	►	**3NH3230**		1	3 units	1BM	0.761
	Fuse bases with swiveling mechanism									
 3NH7360-4	1L	250	1000		**3NH7260-4**		1	1 unit	1DN	1.306
	2L	400	1000		**3NH7360-4**		1	1 unit	1DN	1.724
	3L	630	1000/1500		**3NH7460-4**		1	1 unit	1DN	2.224
	1XL	250	1500		**3NH7261-4**		1	1 unit	1DN	1.337
	2XL	400	1500		**3NH7361-4**		1	1 unit	1DN	1.729
	**Fuse bases with swiveling mechanism and microswitches for tripped signaling of the fuse[2]**									
	1	250	1000		**3NH7262-4KK01**		1	1 unit	1DN	1.205
	2L	400	1000		**3NH7360-4KK01**		1	1 unit	1DN	1.725
Accessories										
 3NX3121	**Terminal covers for PV fuse bases with swiveling mechanism**									
	1, 1L, 1XL				**3NX3121**		1	1 unit	1DN	0.070
	2L, 2XL				**3NX3122**		1	1 unit	1DN	0.129
	3L				**3NX3123**		1	1 unit	1DN	0.167

[1] For further information, see Catalog LV 11.

[2] Fuse must be inserted upside down.

5

Notes