SIEMENS

Data sheet

3NP1163-1BC10

SENTRON, Fuse switch disconnector 3NP1, 3-pole, NH3, 630 A, for Busbar system 8US 60 mm, flat terminal, Cover level 32/70 mm



Model	
Product brand name	SENTRON
Product designation	3NP1 fuse switch disconnector
Design of the product	cover level 32/70 mm
Busbar design	busbar thickness 5 or 10 mm
Design of the safety monitoring	Without
Design of the operating mechanism	Cover handle
Design of the load switch / Strip form	No
Type of the driving mechanism / motor drive	No
General technical data	
Number of poles	3
Type of device	For 60 mm 8US busbar system
Size of disconnecting link	3 and 2
Size of fuse link	NH2, NH3
Continuous current / at 35 °C / rated value	630 A
Let-through current / with closed switch / maximum permissible	60 kA
cut-off value I**2t,max. / 500 V	5 400 000 A²·s
Power factor	

• et AC23 B 0.35 • with capacitive load -0.25 circuit-breaker / Design 3NP11 Mechanical service life (switching cycles) / typical 1000 Fuse system LV HRC fuse Voltage Insulation voltage / rated value 690 V Power factor / at AC-21 B 0.96 Surge voltage resistance / rated value 8 kV Protection class IP • with closed switch / with cover or cable lug cover IP40 • with closed switch / without cover or cable lug cover IP40 • on the front IP40 • open IP20 Electricity Electricity Continuous current erated value 630 A • rated value 530 A • rated value 500 A • rated value 60 000 A • rated value 60 000 A		0.65
• with capacitive load -0.25 circult-breaker / Design 3NP11 Mechanical service fite (switching cycles) / typical 1.000 Fuse system LV HRC fuse Voltage 690 V Power factor / at AC-21 B 0.95 Surge voltage resistance / rated value 690 V Power factor / at AC-21 B 0.95 Surge voltage resistance / rated value 8 kV Protection class P ewith closed switch / with ouver or cable lug cover IP40 • with closed switch / without cover or cable lug cover IP30 • on the front IP40 • open IP20 Continuous current 630 A • at 40 °C / rated value 630 A • at 40 °C / rated value 530 A • at 50 °C / rated value 50 NA • at 50 °C / rated value 50 NA • at 50 °C / rated value 50 NA • at 50 °C / rated value 50 NA • at 50 °C / rated value 50 NA • at 50 °C / rated value 60 000 A • 500V 60 000 A	• at AC-22 B	0.65
circuit-breaker / Design 3NP11 Mechanical service life (switching cycles) / typical 1000 Fuse system LV HRC fuse Voltage 690 V Power factor / at AC-21 B 0.95 Surge voltage resistance / rated value 8 kV Protection class IP IP40 • with closed switch / with cover or cable lug cover IP40 • with closed switch / without cover or cable lug cover IP40 • on the front IP40 • open IP20 Electricity Continuous current • rated value 630 A • at 40 °C / rated value 630 A • at 40 °C / rated value 630 A • at 50 °C / rated value 655 A • at 50 °C / rated value 555 A • at 50 °C / rated value 500 A • at 50 °C / rated value 600 000 A • at 50 °C / rated value 600 00 A • at 50 °C / rated value 500 A • at 50 °C / rated value 600 000 A • at 50 °C / rated value 600 000 A • at 50 °C / rated value 600 000 A • at 50 °C / rated value 60 000 A • at 00 °C / rated value 60 000 A • at 00 °C / rated value 60 000 A • at 00 °C / rated value / maxi		
Mechanical service life (switching cycles) / typical 1 000 Fuse system LV HRC fuse Voltage 690 V Insulation voltage / rated value 690 V Power factor / a AC-21 B 0.95 Surge voltage resistance / rated value 8 kV Protection class IP IP40 • with closed switch / with cover or cable lug cover IP40 • with closed switch / without cover or cable lug cover IP40 • or the front IP40 • open IP20 Electricity Continuous current • rated value 630 A • at 40 °C / rated value 630 A • at 40 °C / rated value 555 A • at 55 °C / rated value 550 A • at 00 V 60 000 A • 600 V 60 000 A	-	
Fuse system LV HRC fuse Voltage 690 V Power factor / at AC-21 B 0.95 Surge voltage resistance / rated value 8 kV Protection class IP IP40 • with closed switch / with cover or cable lug cover IP40 • with closed switch / with cover or cable lug cover IP40 • on the front IP40 • open IP20 Electricity Electricity Continuous current 630 A • rated value 630 A • at 40 °C / rated value 610 A • at 45 °C / rated value 555 A • at 50 °C / rated value 530 A • at 50 °C / rated value 530 A • at 50 °C / rated value 530 A • at 50 °C / rated value 530 A • at 50 °C / rated value 530 A • at 50 °C / rated value 530 A • at 50 °C / rated value 50 NA • at 50 °C / rated value 50 NA • at 50 °C / rated value 50 NA • at 50 °C / rated value 60 000 A • 500V 60 000 A • 500V 50 000 0A <td></td> <td></td>		
Voltage Insulation voltage / rated value 690 V Power factor / at AC-21 B 0.95 Surge voltage resistance / rated value 8 kV Protection class IP IP40 • with closed switch / with cover or cable lug cover IP30 • with closed switch / without cover or cable lug cover IP30 • on the front IP40 • open IP20 Electricity Continuous current • rated value 630 A • at 40 °C / rated value 630 A • at 40 °C / rated value 555 A • at 50 °C / rated value 555 A • at 55 °C / rated value 530 A • Let-through current / lc / maximum permissible 60 000 A • 400 V 60 000 A • 500 V 60 000 A • 500 V 60 000 A • at AC / rated value 690 V • at AC / rated value / maximum 690 V • at AC / rated value / maximum 690 V • at AC / rated value / maximum 690 V • at AC / rated value / maximum 690 V • at AC / rated value / m		
Insulation voltage / rated value 690 V Power factor / at AC-21 B 0.95 Surge voltage resistance / rated value 8 kV Protection class IP IP40 • with closed switch / with cover or cable lug cover IP30 • with closed switch / without cover or cable lug cover IP30 • on the front IP40 • open IP20 Electricity Continuous current • rated value 630 A • at 40 °C / rated value 630 A • at 50 °C / rated value 555 A • at 50 °C / rated value 555 A • at 50 °C / rated value 500 A • at 50 °C / rated value 500 A • at 50 °C / rated value 500 A • at 50 °C / rated value 500 A • at 50 °C / rated value 500 A • at 50 °C / rated value 500 A • at 50 °C / rated value 500 A • at 50 °C / rated value 60 000 A • 500V 60 000 A • at 00 °C / rated value 690 V • at 00 °C / rated value 690 V • at 00 °C / rated value 690 V • at 00 °C / rated value 690 V • at 0C / rated value / maximum 690 V • at 00 °C / rated value / maximum 690 V	Fuse system	LV HRC fuse
Power factor / at AC-21 B 0.95 Surge voltage resistance / rated value 8 kV Protection class Protection class IP • with closed switch / with cover or cable lug cover IP40 • with closed switch / without cover or cable lug cover IP30 • or the front IP40 • or the front IP40 • cover IP20 Continuous current 630 A • rated value 630 A • rated value 630 A • at 40 °C / rated value 555 A • at 50 °C / rated value 555 A • at 50 °C / rated value 50 A • at 50 °C / rated value 50 A • at 50 °C / rated value 50 A • at 50 °C / rated value 50 A • at 50 °C / rated value 50 A • at 50 °C / rated value 50 A • at 50 °C / rated value 50 A • at 50 °C / rated value 50 A • at 50 °C / rated value 50 A • at 50 °C / rated value 60 000 A • oto V 60 000 A • at 00 V <td>Voltage</td> <td></td>	Voltage	
Surge voltage resistance / rated value 8 kV Protection class Protection class IP IP40 • with closed switch / with cover or cable lug cover IP30 • with closed switch / without cover or cable lug cover IP30 • on the front IP40 • open IP20 Electricity Continuous current 630 A • rated value 630 A • at 40 °C / rated value 575 A • at 45 °C / rated value 530 A • at 55 °C / rated value 530 A • at 55 °C / rated value 50 KA • at 00 V 60 000 A • ool 0 60 000 A • could of value I**2t, max. / 400 V 5400 000 A**s Main circuit 690 V Operating voltage 440 V • at 0C / rated value / maximum 690 V • at 0C / rated value / maximum 690 V • at 0C / rated value / maximum 690 V • at 0C / rated value / maximum 690 V • at 0C / rated value / maximum 690 V • at 0C / rated value / maximum 690 V • at 0C / rated value / maximum 690 V • at 0C / rated value / maximum 690 V • at 0C / rated value / maximum 690 V • at 0C / rated v	Insulation voltage / rated value	690 V
Protection class Protection class IP • with closed switch / with cover or cable lug cover IP40 • with closed switch / without cover or cable lug cover IP30 • on the front IP40 • open IP20 Electricity Continuous current • rated value 630 A • at 40 °C / rated value 610 A • at 45 °C / rated value 575 A • at 55 °C / rated value 530 A • at 55 °C / rated value 530 A • at 55 °C / rated value 530 A • at 55 °C / rated value 50 kA • at 50 °C / rated value 50 kA • at 55 °C / rated value 50 kA • at 50 °C / rated value 50 kA • at 50 °C / rated value 50 kA • at 50 °C / rated value 50 kA • at 50 °C / rated value 40 °U • at 50 °C / rated value 40 °U • at 50 °C / rated value 50 kA • at 50 °C / rated value 60 000 A • 500V 60 000 A • 500V 5 400 000 A² s Main circuit 400 V • at AC	Power factor / at AC-21 B	0.95
Protection class IP IP40 • with closed switch / with cover or cable lug cover IP40 • with closed switch / without cover or cable lug cover IP30 • on the front IP40 • open IP20 Electricity IP20 Continuous current 630 A • at 40 °C / rated value 630 A • at 50 °C / rated value 535 A • at 55 °C / rated value 530 A Let-through current / with high-speed activation / maximum permissible 60 000 A Let-through current / with high-speed activation / maximum permissible 60 000 A • 400 V 60 000 A • 500V 60 000 A • cut-off value I**2t,max. / 400 V 5 400 000 A* s Main circuit 690 V • at AC / rated value / maximum 690 V • at DC / rated value / maximum 640 V • at DC / rated value / maximum 640 V • at 400 V / maximum 72 A • at 400 V / maximum 55 A	Surge voltage resistance / rated value	8 kV
• with closed switch / with cover or cable lug cover IP30 • with closed switch / without cover or cable lug cover IP30 • on the front IP40 • open IP20 Continuous current IP20 • rated value 630 A • at 40 °C / rated value 610 A • at 40 °C / rated value 555 A • at 55 °C / rated value 555 A • at 55 °C / rated value 530 A Let-through current / with high-speed activation / maximum permissible 50 k A - 400 V 60 000 A • 500V 60 000 A • could of rated value 5400 000 A²-s Main circuit S400 000 A²-s Operating voltage 690 V • at AC / rated value / maximum 690 V • at AC / rated value / maximum 690 V • at DC / rated value / maximum 440 V • at AC / rated value / maximum 555 A • at AC / rated value / maximum 556 A • at AC / rated value / maximum 690 V • at AC / rated value / maximum 5400 V • at AC / rated value / maximum 556 A	Protection class	
cover IP30 event IP40 event IP20 Electricity IP20 Continuous current 630 A e at 40 °C / rated value 610 A e at 40 °C / rated value 575 A e at 50 °C / rated value 530 A e at 50 °C / rated value 530 A e at 50 °C / rated value 500 A e at 50 °C / rated value 500 A e at 50 °C / rated value 500 A e at 50 °C / rated value 500 A e at 50 °C / rated value 500 A e at 50 °C / rated value 500 A e at 50 °C / rated value 500 A e at 50 °C / rated value 500 A e at 50 °C / rated value 60 000 A e cut-off value I**2t,max. / 400 V 60 000 A 60 000 A 60 000 A cut-off value I**2t,max. / 400 V 5400 000 A*-s At AC / rated value / maximum 690 V e at DC / rated value / maximum 690 V e at DC / rated value / maximum 690 V e at 400 V / maximum 440 V e at 400 V / maximum 540 <t< td=""><td>Protection class IP</td><td></td></t<>	Protection class IP	
cover IP40 • open IP20 Electricity 630 A • rated value 630 A • at 40 °C / rated value 610 A • at 45 °C / rated value 575 A • at 55 °C / rated value 530 A • at 55 °C / rated value 500 A • at 55 °C / rated value 600 A • at 55 °C / rated value 500 A • at 55 °C / rated value 500 A • at 50 °C / rated value 600 A • at 50 °C / rated value 500 A • at 50 °C / rated value 500 A • at 50 °C / rated value 600 000 A • at 50 °C / rated value 60 000 A • at 00 V 60 000 A • 500V 60 000 A cut-off value I**2t,max. / 400 V 5400 000 A*:s Main circuit 90 V • at AC / rated value / maximum 690 V • at DC / rated value / maximum 440 V • at DC / rated value / maximum 72 A • at 400 V / maximum 55 A • at 500 V / maximum 55 A	•	IP40
• openIP20Electricity630 A• rated value630 A• rated value610 A• at 40 °C / rated value575 A• at 50 °C / rated value555 A• at 55 °C / rated value530 ALet-through current / with high-speed activation / maximum permissible50 kALet-through current / lc / maximum permissible60 000 ALet-through current / lc / maximum permissible60 000 A• oto V60 000 A• oto V5 400 000 A*s• oto V60 000 A• oto V690 V• at AC / rated value / maximum690 V• at DC / rated value / maximum440 V• at DC / rated value / maximum55 A• at AC / rated value / maximum590 V• at DC / rated value / maximum590 V• at AC / rated value / maximum690 V• at DC / rated value / maximum55 AAuxiliary circuit72 AAuxiliary circuit55 A	•	IP30
Electricity Continuous current • rated value • at 40 °C / rated value • at 40 °C / rated value • at 45 °C / rated value • at 50 °C / rated value • at 00 ∨ • 60 000 A • at AC / rated value / maximum • 690 ∨ • at AC / rated value / maximum • 690 ∨ • at 0C / rated value / maximum • at 400 ∨ / maximum • at 400 ∨ / maximum • at 600 ∨ / maximum<	• on the front	IP40
Electricity Continuous current • rated value 630 A • at 40 °C / rated value 610 A • at 45 °C / rated value 575 A • at 50 °C / rated value 555 A • at 55 °C / rated value 530 A Let-through current / with high-speed activation / maximum permissible 50 kA Let-through current / Ic / maximum permissible 60 000 A • 400 V 60 000 A • 600 000 A 60 000 A • cut-off value 1**2t,max. / 400 V 5 400 000 A*·s Main circuit 0 Operating voltage 440 V • at C / rated value / maximum 690 V • at DC / rated value / maximum 440 V • at OC / rated value / maximum 690 V • at 00 V / maximum 55 A Aux 440 V 440 V • at 00 V / maximum 72 A • at 500 V / maximum 55 A	• open	IP20
Continuous current 630 A • rated value 630 A • at 40 °C / rated value 610 A • at 45 °C / rated value 575 A • at 50 °C / rated value 530 A Let-through current / with high-speed activation / maximum permissible 50 kA Let-through current / lc / maximum permissible 60 000 A • 400 V 60 000 A • 500V 60 000 A • cut-off value I**2t,max. / 400 V 5 400 000 A* s Main circuit Operating voltage • at AC / rated value / maximum 690 V • at DC / rated value / maximum 690 V • at DC / rated value / maximum 440 V • at AC / rated value / maximum 690 V • at DC / rated value / maximum 690 V • at OV / maximum 440 V • at OV / maximum 440 V • at 400 V / maximum 72 A • at 500 V / maximum 55 A		
• rated value630 A• at 40 °C / rated value610 A• at 45 °C / rated value575 A• at 50 °C / rated value555 A• at 50 °C / rated value530 ALet-through current / with high-speed activation / maximum permissible50 kALet-through current / lc / maximum permissible60 000 A• 400 V60 000 A• 500V60 000 Acut-off value I**2t,max. / 400 V5 400 000 A²-sMain circuit90 VOperating voltage • at DC / rated value / maximum690 V• at DC / rated value / maximum440 V• at DC / rated value / maximum440 V• at 00 V / maximum72 A• at 500 V / maximum55 A• at 500 V / maximum72 A• at 500 V / maximum55 A• at 500 V / maximum55 A		
Action functionAction function• at 40 °C / rated value610 A• at 45 °C / rated value575 A• at 50 °C / rated value555 A• at 50 °C / rated value530 ALet-through current / with high-speed activation / maximum permissible50 kALet-through current / lc / maximum permissible60 000 A• 400 V60 000 A• 500V60 000 A• 500V60 000 A• cut-off value 1**2t,max. / 400 V5 400 000 A²-isMain circuitOperating voltage • at AC / rated value / maximum• 690 V440 V• at DC / rated value / maximum690 V• at DC / rated value / maximum440 V• at 00 V / maximum72 A• at 600 V / maximum55 A		630 A
Action of the factor		
Let through current / with high-speed activation / maximum permissible50 kALet-through current / lc / maximum permissible60 000 A• 400 V60 000 A• 500V60 000 Acut-off value I**2t,max. / 400 V5 400 000 A²-sMain circuitOperating voltage• at AC / rated value / maximum• at DC / rated value / maximum690 V• at DC / rated value / maximum440 V• at DC / rated value / maximum440 V• at DC / rated value / maximum55 AAuxiliary circuit55 A		
maximum permissibleImage: Constraint of the symbolsLet-through current / lc / maximum permissible60 000 A• 400 V60 000 A• 500V60 000 A ² .scut-off value I**2t,max. / 400 V5 400 000 A ² .sMain circuitOperating voltage• at AC / rated value / maximum690 V• at DC / rated value / maximum690 V• at DC / rated value / maximum440 V• at DC / rated value / maximum440 V• at DC / rated value / maximum55 AAuxiliary circuit55 A		
• 400 V 60 000 A • 500V 60 000 A cut-off value I**2t,max. / 400 V 5 400 000 A²-s Main circuit Operating voltage • at AC / rated value / maximum 690 V • at AC / rated value / maximum 690 V • at DC / rated value / maximum 440 V • at DC / rated value / maximum 440 V • at 400 V / maximum 72 A • at 500 V / maximum 55 A		50 kA
• 500V60 000 Acut-off value I**2t,max. / 400 V5 400 000 A²·sMain circuitOperating voltage • at AC / rated value / maximum690 V• at DC / rated value440 V• at DC / rated value / maximum440 V• at DC / rated value / maximum72 A• at 400 V / maximum55 A	Let-through current / Ic / maximum permissible	
cut-off value I**2t,max. / 400 V 5 400 000 A²-s Main circuit 5 400 000 A²-s Operating voltage 690 V • at AC / rated value / maximum 690 V • at DC / rated value 440 V • at DC / rated value / maximum 440 V • at DC / rated value / maximum 72 A • at 500 V / maximum 55 A	• 400 V	60 000 A
Main circuit Operating voltage • at AC / rated value / maximum 690 V • at DC / rated value 440 V • at DC / rated value / maximum 440 V • at DC / rated value / maximum 72 A • at 500 V / maximum 55 A	• 500V	60 000 A
Operating voltage• at AC / rated value / maximum690 V• at DC / rated value440 V• at DC / rated value / maximum440 VOperating current / with capacitive load72 A• at 400 V / maximum55 AAuxiliary circuit	cut-off value I**2t,max. / 400 V	5 400 000 A ² ·s
Operating voltage• at AC / rated value / maximum690 V• at DC / rated value440 V• at DC / rated value / maximum440 VOperating current / with capacitive load72 A• at 400 V / maximum55 AAuxiliary circuit	Main circuit	
 at DC / rated value at DC / rated value / maximum 440 V 440 V Operating current / with capacitive load at 400 V / maximum 72 A at 500 V / maximum 55 A 		
• at DC / rated value440 V• at DC / rated value / maximum440 VOperating current / with capacitive load72 A• at 400 V / maximum55 AAuxiliary circuit	 at AC / rated value / maximum 	690 V
• at DC / rated value / maximum440 VOperating current / with capacitive load72 A• at 400 V / maximum55 AAuxiliary circuit	• at DC / rated value	440 V
Operating current / with capacitive load • at 400 V / maximum • at 500 V / maximum 55 A		440 V
at 400 V / maximum 72 A at 500 V / maximum 55 A Auxiliary circuit		
• at 500 V / maximum 55 A Auxiliary circuit		72 A
	Auxiliary circuit	
	Number of CO contacts / for auxiliary contacts	0

Number of NC contacts / for auxiliary contacts	0
Number of NO contacts / for auxiliary contacts	0
Suitability	_
Suitability for use	Ne
Main switch	No
 switch disconnector 	Yes
EMERGENCY OFF switch	No
 safety switch 	Yes
 maintenance/repair switch 	Yes
Product details	
Product feature / interlock	Yes
Product component	
Trip indicator	No
 Phase failure monitoring 	No
undervoltage release	No
 undervoltage release with leading contact 	No
Product feature / sealable	Yes
Product extension	
Auxiliary switch	Yes
• optional	
— locking capability	Yes
— motor drive	No
— Phase failure monitoring	Yes
— fuse monitoring	Yes
— Voltage trigger	No
— Overvoltage protection monitoring	Yes
Product function	
Product function	
 fuse monitoring 	No
 Overvoltage protection monitoring 	No
Short circuit	
Conditional short-circuit current (Iq)	
• rated value	50 kA
 at AC / at 500 V / with high-speed activation / rated value 	50 kA
 at AC / at 690 V / with high-speed activation / rated value 	50 kA
 with closed switch / at AC / at 500 V / rated value 	100 kA
 with closed switch / at AC / at 690 V / rated value 	100 kA

Connections	
Arrangement of electrical connectors / for main	other
current circuit	
Connectable conductor cross-section / for main	
contacts	
 single or multi-stranded / minimum 	120 mm ²
 single or multi-stranded / maximum 	300 mm ²
• stranded / minimum	120 mm ²
 stranded / maximum 	300 mm ²
Tightening torque / with screw-type terminals	
• minimum	10 N·m
• maximum	12 N·m
Type of electrical connection / for main current circuit	busbar connection
Mechanical Design	
Height	306 mm
Width	249.4 mm
Depth	160.5 mm
Mounting position	horizontal/vertical
Mounting type	busbar
Mounting type	
 floor mounting 	No
 front mounting 	No
 front mounting with 4-hole attachment 	No
 front mounting with central attachment 	No
● rail mounting	Yes
Busbar center-to-center spacing	60 mm
Net weight	6.84 kg
Environmental conditions	
Degree of pollution	3
Ambient temperature	
 during operation / minimum 	-25 °C
 during operation / maximum 	55 °C
 during storage / minimum 	-50 °C
 during storage / maximum 	80 °C
Certificates	
Reference code	
• acc. to DIN EN 61346-2	Q
• acc. to DIN EN 81346-2	Q

General Proc	luct Approval		Declaration of Conformity	Test Certific- ates
	GAU® UR	Miscellaneous	EG-Konf.	Special Test Certi- ficate

Test Certific- ates	Shipping Approval
Type Test Certific- ates/Test Report	LRS

Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3NP1163-1BC10

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3NP1163-1BC10

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP1163-1BC10

CAx-Online-Generator http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications





