SIEMENS

Data sheet 3NP1163-1BC20

SENTRON, Fuse switch disconnector 3NP1, 3-pole, NH3, 630 A, for Busbar system 8US 60 mm, Box 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 A ² ·s
Power factor	

at AC-23 B with capacitive load circuit breaker / Design Mechanical service life (switching cycles) / typical Mechanical service life (switching cycles) / typical Insulation voltage / rated value Power factor / at AC-21 B Surge voltage resistance / rated value Protection class IP with closed switch / with cover or cable lug cover with closed switch / without cover or cable lug cover on the front open IP20 Plectricity Continuous current at 40 °C / rated value at 45 °C / rated value at 45 °C / rated value st 55 °C / at ed value at 55 °C / rated value st 50 °C / rated value / maximum 440 °C / rated value / maximum st 60 °C / rated value / maximum 440 °C / rated value / maximum st 55 °C / rate	● at AC-22 B	0.65
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 0.95 Surge voltage resistance / rated value 8 kV Protection class IP • with closed switch / with cover or cable lug cover • with closed switch / without cover or cable lug cover • on the front IP40 • open IP20 Electricity Continuous current • rated value 630 A 610 A 61	● at AC-23 B	0.35
Mechanical service life (switching cycles) / typical 1 000	with capacitive load	-0.25
Voltage	circuit-breaker / Design	3NP11
Insulation voltage / rated value	Mechanical service life (switching cycles) / typical	1 000
Insulation voltage / rated value 690 V Power factor / at AC-21 B 0.95 Surge voltage resistance / reted value 8 kV Protection class Protection class IP • with closed switch / with cover or cable lug cover • with closed switch / without cover or cable lug cover • with closed switch / without cover or cable lug cover • on the front IP40 • open IP20 Electricity Continuous current • rated value • at 40 °C / rated value • at 45 °C / rated value • at 55 °C / rated value • at 50 °C / rated value • at 55 °C / rated value • at 50 °C / rated value • at 55 °C / rated value • at 55 °C / rated value • at 55 °C / rated value • at 50 °C / rated value • at 50 °C / rated value • 4400 V • 5000 cut-off value I**2t.max. / 400 V • 5400 000 A • 5000 Main circuit Operating voltage • at AC / rated value / maximum • at DC / rated value / maximum • at 500 V / maximum	Fuse system	LV HRC fuse
Power factor / at AC-21 B Surge voltage resistance / rated value 8 kV	Voltage	
Surge voltage resistance / rated value 8 kV Protection class Protection class IP • with closed switch / with cover or cable lug cover • with closed switch / without cover or cable lug cover • with closed switch / without cover or cable lug cover • on the front IP40 • open IP20 Electricity Continuous current • rated value 630 A • at 40 °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 Let-through current / lc / maximum permissible Let-through current / lc / maximum permissible • 400 V • 500V cut-off value I**2t_max. / 400 V • at AC / rated value / maximum • at AC / rated value / maximum • at DC / rated value / maximum • at DC / rated value / maximum • at 400 V / maximum • at 400 V / maximum • at 400 V / maximum • at 500 V / maximum	Insulation voltage / rated value	690 V
Protection class IP • with closed switch / with cover or cable lug cover • with closed switch / without cover or cable lug cover • with closed switch / without cover or cable lug cover • on the front IP40 • open IP20 Electricity Continuous current • rated value 630 A • at 40 °C / rated value 575 A • at 50 °C / rated value 555 A • at 50 °C / rated value 530 A Let-through current / with high-speed activation / maximum permissible Let-through current / lc / maximum permissible Let-through current / lc / maximum permissible Let-through current / lc / maximum permissible • 400 V • 500V cut-off value I**2t.max. / 400 V • at AC / rated value / maximum • at AC / rated value / maximum • at DC / rated value / maximum • at DC / rated value / maximum • at CO / rated value / maximum • at SOO V / maximum	Power factor / at AC-21 B	0.95
Protection class IP with closed switch / with cover or cable lug cover with closed switch / without cover or cable lug cover on the front pepen IP40 cover on the front IP40 pepen IP20 Electricity Continuous current rated value at 40 °C / rated value at 45 °C / rated value at 55 °C / rated value 555 A at 55 °C / rated value 530 A Let-through current / with high-speed activation / maximum permissible Let-through current / lc / maximum permissible 440 V 5500V cut-off value I**2t,max. / 400 V 5400 000 A at AC / rated value / maximum 690 V at DC / rated value / maximum 690 V at DC / rated value / maximum 690 V at DC / rated value / maximum 72 A at 550 V / maximum 72 A at 550 V / maximum 55 A Auxiliary circuit	Surge voltage resistance / rated value	8 kV
with closed switch / without cover or cable lug cover with closed switch / without cover or cable lug cover on the front pepen P30 P20 P20		
cover • with closed switch / without cover or cable lug cover • on the front • open P40 Open P20 P20 P20 P20	Protection class IP	
with closed switch / without cover or cable lug cover on the front open IP20 Electricity Continuous current rated value at 40 °C / rated value at 50 °C / rated value at 55 °C / rated value 555 A at 55 °C / rated value 5000 A Let-through current / lic / maximum permissible Let-through current / lic / maximum permissible Let-through current / lic / maximum permissible at AC / rated value / 400 V 5000 A cut-off value I**2t,max. / 400 V at AC / rated value / maximum	_	IP40
over		lD00
• on the front • open P20 Electricity Continuous current • rated value • at 40 °C / rated value • at 45 °C / rated value • at 50 °C / rated value • at 55 °C / rated value • at 55 °C / rated value • at 50 °C / rated value 555 A • at 50 °C / rated value Eet-through current / with high-speed activation / maximum permissible Let-through current / lc / maximum permissible • 400 V • 500V 60 000 A • 500V cut-off value I**2t,max. / 400 V 5 400 000 A²·s Main circuit Operating voltage • at AC / rated value / maximum • at DC / rated value / maximum • at DC / rated value / maximum Operating current / with capacitive load • at 400 V / maximum 72 A • at 500 V / maximum 55 A Auxiliary circuit	-	IP30
● open IP20 Electricity Continuous current ● rated value ● at 40 °C / rated value ● at 45 °C / rated value ■ at 55 °C / rated value ■ at 55 °C / rated value ■ 555 A ● at 55 °C / rated value ■ 530 A Let-through current / with high-speed activation / maximum permissible Let-through current / Ic / maximum permissible ■ 400 V ■ 500V ■ 60 000 A ■ 500V cut-off value I**2t,max. / 400 V ■ at AC / rated value / maximum Operating voltage ■ at AC / rated value / maximum ■ at DC / rated value / maximum ■ 440 V Operating current / with capacitive load ■ at 400 V / maximum ■ 72 A ■ at 500 V / maximum ■ 55 A Auxiliary circuit		IP40
Electricity Continuous current • rated value • at 40 °C / rated value • at 45 °C / rated value • at 55 °C / rated value • 555 A • at 55 °C / rated value Elet-through current / with high-speed activation / maximum permissible • 400 V • 500V cut-off value I*2t,max. / 400 V 5 400 000 A cut-off value I*2t,max. / 400 V • at AC / rated value / maximum • at AC / rated value / maximum • at DC / rated value / maximum Operating current / with capacitive load • at 400 V / maximum 72 A • at 500 V / maximum 55 A Auxiliary circuit		
Continuous current • rated value • at 40 °C / rated value • at 45 °C / rated value • at 45 °C / rated value • at 55 °C / rated value • at 55 °C / rated value • 555 A • at 55 °C / rated value • 530 A Let-through current / with high-speed activation / maximum permissible Let-through current / lc / maximum permissible • 400 V • 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 • at DC / rated value / maximum 440 V Operating current / with capacitive load • at 400 V / maximum • at 500 V / maximum 72 A • at 500 V / maximum 55 A	Ореп	11 20
rated value at 40 °C / rated value at 45 °C / rated value at 50 °C / rated value at 55 °C / rated value at 55 °C / rated value at 55 °C / rated value at 50 °C / rated value at 50 °C / rated value 555 A at 55 °C / rated value 530 A Let-through current / with high-speed activation / maximum permissible at 400 V 60 000 A 500V 60 000 A cut-off value I**2t,max. / 400 V Main circuit Operating voltage at AC / rated value / maximum at DC / rated value / maximum at DC / rated value / maximum 440 V at DC / rated value / maximum at 400 V / maximum at 500 V / maximum 55 A		
at 40 °C / rated value at 45 °C / rated value at 50 °C / rated value at 50 °C / rated value at 55 °C / rated value at 55 °C / rated value at 50 °C / rated value 555 A at 55 °C / rated value 500 A Let-through current / with high-speed activation / maximum permissible at 400 V 60 000 A cut-off value I**2t,max. / 400 V 500V cut-off value I**2t,max. / 400 V 5400 000 A²-s Main circuit Operating voltage at AC / rated value / maximum at DC / rated value / maximum 440 V at DC / rated value / maximum Operating current / with capacitive load at 400 V / maximum at 55 A Auxiliary circuit		
at 45 °C / rated value at 50 °C / rated value at 55 °C / rated value at 55 °C / rated value 530 A Let-through current / with high-speed activation / maximum permissible Let-through current / Ic / maximum permissible 400 V 60 000 A cut-off value **2t,max. / 400 V 5 400 000 A cut-off value **2t,max. / 400 V 5 400 000 A Main circuit Operating voltage at AC / rated value / maximum 690 V at DC / rated value / maximum 440 V Operating current / with capacitive load at 400 V / maximum 72 A at 500 V / maximum 55 A		
at 50 °C / rated value at 55 °C / rated value tel-through current / with high-speed activation / maximum permissible Let-through current / Ic / maximum permissible 400 V 5000 60 000 A cut-off value **2t,max. / 400 V 5 400 000 A cut-off value **2t,max. / 400 V Operating voltage at AC / rated value / maximum at DC / rated value / maximum Operating current / with capacitive load at 400 V / maximum Operating current / with capacitive load at 400 V / maximum 72 A at 500 V / maximum 55 A		
at 55 °C / rated value Let-through current / with high-speed activation / maximum permissible Let-through current / Ic / maximum permissible 400 V 500V cut-off value I**2t,max. / 400 V cut-off value I**2t,max. / 400 V 5 400 000 A cut-off value I**2t,max. / 400 V Main circuit Operating voltage at AC / rated value / maximum at DC / rated value / maximum 440 V Operating current / with capacitive load at 400 V / maximum 72 A at 500 V / maximum 555 A	• at 45 °C / rated value	
Let-through current / with high-speed activation / maximum permissible Let-through current / Ic / maximum permissible • 400 V • 500V cut-off value I**2t,max. / 400 V 5 400 000 A cut-off value I**2t,max. / 400 V Main circuit Operating voltage • at AC / rated value / maximum • at DC / rated value / maximum • at DC / rated value / maximum • at DC / rated value / maximum Operating current / with capacitive load • at 400 V / maximum • at 500 V / maximum 72 A • at 500 V / maximum 55 A		
maximum permissible Let-through current / Ic / maximum permissible • 400 V • 500V 60 000 A cut-off value **2t,max. / 400 V 5 400 000 A²-s Main circuit Operating voltage • at AC / rated value / maximum • at DC / rated value / maximum • at DC / rated value / maximum Operating current / with capacitive load • at 400 V / maximum • at 500 V / maximum 72 A • at 500 V / maximum Auxiliary circuit		
• 400 V • 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 • at DC / rated value • at DC / rated value / maximum Operating current / with capacitive load • at 400 V / maximum at 500 V / maximum Auxiliary circuit		50 kA
• 500V cut-off value I**2t,max. / 400 V 5 400 000 A²-s Main circuit Operating voltage • at AC / rated value / maximum • at DC / rated value • at DC / rated value / maximum 440 V Operating current / with capacitive load • at 400 V / maximum • at 500 V / maximum Auxiliary circuit	Let-through current / Ic / maximum permissible	
cut-off value I**2t,max. / 400 V Main circuit Operating voltage • at AC / rated value / maximum • at DC / rated value • at DC / rated value / maximum 440 V Operating current / with capacitive load • at 400 V / maximum 72 A • at 500 V / maximum Auxiliary circuit	• 400 V	60 000 A
Main circuit Operating voltage • at AC / rated value / maximum • at DC / rated value • at DC / rated value / maximum 440 V Operating current / with capacitive load • at 400 V / maximum 72 A • at 500 V / maximum 55 A	• 500V	60 000 A
Operating voltage • at AC / rated value / maximum 690 V • at DC / rated value 440 V • at DC / rated value / maximum 440 V Operating current / with capacitive load • at 400 V / maximum 72 A • at 500 V / maximum 55 A	cut-off value I**2t,max. / 400 V	5 400 000 A²·s
 at AC / rated value / maximum at DC / rated value at DC / rated value / maximum 440 V Operating current / with capacitive load at 400 V / maximum at 500 V / maximum 55 A Auxiliary circuit	Main circuit	
 at DC / rated value at DC / rated value / maximum 440 V Operating current / with capacitive load at 400 V / maximum at 500 V / maximum 55 A Auxiliary circuit	Operating voltage	
 at DC / rated value / maximum Operating current / with capacitive load at 400 V / maximum at 500 V / maximum 55 A Auxiliary circuit	• at AC / rated value / maximum	690 V
Operating current / with capacitive load • at 400 V / maximum • at 500 V / maximum 55 A Auxiliary circuit	• at DC / rated value	440 V
at 400 V / maximum at 500 V / maximum 55 A Auxiliary circuit	• at DC / rated value / maximum	440 V
at 500 V / maximum 55 A Auxiliary circuit	Operating current / with capacitive load	
Auxiliary circuit	• at 400 V / maximum	72 A
<u> </u>	• at 500 V / maximum	55 A
Number of CO contacts / for auxiliary contacts 0		
	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	
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	F02	
single or multi-stranded / minimum	50 mm²	
 single or multi-stranded / maximum 	300 mm²	
• stranded / minimum	50 mm²	
• stranded / maximum	300 mm ²	
Tightening torque / with screw-type terminals		
• minimum	10 N·m	
• maximum	25 N·m	
Type of connectable conductor cross-sections / of the	20 x 32 mm	
laminated conductors / maximum		
Type of electrical connection / for main current circuit	box terminal	
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	
	55 °C	
during operation / maximum	-50 °C	
during storage / minimum		
during storage / maximum	80 °C	
Certificates		
Reference code		
• acc. to DIN EN 61346-2	Q	
• acc. to DIN EN 81346-2	Q	

General Product Approval

Declaration of Conformity

Test Certificates







Miscellaneous



Type Test Certificates/Test Report

Test Certificates

Shipping Approval

Special Test Certificate



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=3NP1163-1BC20

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3NP1163-1BC20

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP1163-1BC20

CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications









