

SETRON, Fuse switch disconnecter 3NP1, 3-pole, NH1, 250 A, for Busbar system 8US 60 mm, Box terminal, Fuse monitoring: electromechanical, Cover level 32/70 mm



Model	
Product brand name	SETRON
Product designation	3NP1 fuse switch disconnecter
Design of the product	cover level 32/70 mm
Busbar design	busbar thickness 5 or 10 mm
Design of the safety monitoring	electro mechanical
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	1 and 0
Size of fuse link	NH0, NH1
Continuous current / at 35 °C / rated value	250 A
Let-through current / with closed switch / maximum permissible	32 kA
cut-off value $I^{*2}t_{max.}$ / 500 V	780 000 A ² ·s
Power factor	

• at AC-22 B	0.65
• at AC-23 B	0.45
• with capacitive load	-0.25
circuit-breaker / Design	3NP11
Mechanical service life (switching cycles) / typical	1 600
Fuse system	LV HRC fuse
Degree of pollution	3

Voltage

Insulation voltage	
• rated value	690 V
• with degree of pollution 3 / rated value	690 V
• with degree of pollution 2 / rated value	1 000 V
Power factor / at AC-21 B	0.95
Surge voltage resistance / rated value	8 kV
Current / at AC / rated value	250 A
Operating voltage	
• at AC / rated value / minimum	24 V
• at AC / rated value / maximum	690 V
• at DC / rated value	240 V
• at DC / rated value / minimum	24 V
• at DC / rated value / maximum	250 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

Dissipation

Power loss [W]	
• with conventional rated thermal current / without fuse / per pole	8 W
• with conventional rated thermal current / without fuse / per device	24 W
• for rated value of the current / at AC / in hot operating state / per pole	31 W
• of the fuse / per fuse / maximum	23 W

Current

Operating current	
• at AC-23 B / at 690 V / rated value	100 A

• at AC-23 B / at 500 V / rated value	200 A
• at AC-23 B / at 400 V / rated value	250 A
• at AC-23 B / at 240 V / rated value	250 A
• at AC-22 B / at 690 V / rated value	250 A
• at AC-22 B / at 500 V / rated value	250 A
• at AC-22 B / at 400 V / rated value	250 A
• at AC-22 B / at 240 V / rated value	250 A
• at AC-21 B / at 690 V / rated value	250 A
• at AC-21 B / at 500 V / rated value	250 A
• at AC-21 B / at 400 V / rated value	250 A
• at AC-21 B / at 240 V / rated value	250 A
• at DC-23 B / at 440 V / rated value / maximum	100 A
• at DC-23 B / at 240 V / rated value / maximum	200 A
• at DC-23 B / at 120 V / rated value / maximum	200 A
• at DC-22 B / at 440 V / rated value / maximum	200 A
• at DC-22 B / at 240 V / rated value / maximum	250 A
• at DC-22 B / at 120 V / rated value / maximum	250 A
• at DC-21 B / at 440 V / rated value / maximum	250 A
• at DC-21 B / at 240 V / rated value / maximum	250 A
• at DC-21 B / at 120 V / rated value / maximum	250 A
Continuous current	
• rated value	250 A
• at 40 °C / rated value	245 A
• at 45 °C / rated value	240 A
• at 50 °C / rated value	233 A
• at 55 °C / rated value	233 A
Let-through current / with high-speed activation / maximum permissible	25 kA
Let-through current / I _c / maximum permissible	
• 400 V	32 000 A
• 500V	32 000 A
cut-off value I ² t _{max} / 400 V	551 000 A ² ·s

Main circuit

Operating current / with capacitive load

- at 400 V / maximum 72 A
- at 500 V / maximum 55 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	
• Main switch	No
• switch disconnecter	Yes
• EMERGENCY OFF switch	No
• safety switch	Yes
• maintenance/repair switch	Yes

Product details

Product feature / interlock	Yes
Product component	
• Trip indicator	Yes
• 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
— Voltage trigger	No
— Overvoltage protection monitoring	Yes

Product function

Product function	
• fuse monitoring	Yes
• Overvoltage protection monitoring	No





Short circuit

Conditional short-circuit current (I _q)	
• rated value	80 kA
• at AC / at 240 V / with high-speed activation / rated value	80 kA
• at AC / at 500 V / with high-speed activation / rated value	80 kA
• at AC / at 690 V / with high-speed activation / rated value	50 kA
• with closed switch / at AC / at 240 V / rated value	120 kA
• with closed switch / at AC / at 500 V / rated value	120 kA
• with closed switch / at AC / at 690 V / rated value	100 kA

Connections	
Arrangement of electrical connectors / for main current circuit	other
Connectable conductor cross-section / for main contacts	
• single or multi-stranded	70 ... 185 mm ²
• finely stranded / with core end processing	70 ... 120 mm ²
• stranded	70 ... 185 mm ²
Tightening torque / with screw-type terminals	10 ... 10 N·m
Type of connection	Box terminal
Type of electrical connection / for main current circuit	box terminal

Mechanical Design	
Height	306 mm
Width	183.7 mm
Width	
• of the busbar	12 ... 30 mm
Depth	218.8 mm
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
Mounting position	horizontal/vertical
Busbar center-to-center spacing	60 mm
Net weight	3.29 kg
• during operation	-25 ... +55 °C
• during storage	-50 ... +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
 CCC	 UR	 VDE	Miscellaneous	 EG-Konf.
				Type Test Certificates/Test Report

Shipping Approval



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=3NP1143-1BC21>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3NP1143-1BC21>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP1143-1BC21

CAX-Online-Generator

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

Tender specifications

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

