

SETRON, Fuse switch disconnecter 3NP1, 3-pole, NH000, 160 A, for assembly and installation on Mounting plate, box terminal, Fuse monitoring: electronic EFM20, Cover level 45 mm



Model	
product brand name	SETRON
Product designation	3NP1 fuse switch disconnecter
Design of the product	cover level 45 mm
Design of the safety monitoring	electronic EFM 20
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 assembly and installation on mounting plate
Size of disconnecting link	000
Size of fuse link	NH000
Operating current / at 35 °C / rated value	160 A
let-through current / with closed switch / maximum permissible	15 kA
cut-off value $I^{**2t,max.}$ / 500 V	223 000 A ² ·s
Power factor	
• at AC-22 B	0.65

<ul style="list-style-type: none"> • at AC-23 B 	0.45
<ul style="list-style-type: none"> • with capacitive load 	-0.25
circuit-breaker / Design	3NP11
Mechanical service life (switching cycles) / typical	2 000
Fuse system	LV HRC fuse
Degree of pollution	2

Voltage

Insulation voltage	
<ul style="list-style-type: none"> • rated value 	690 V
<ul style="list-style-type: none"> • with degree of pollution 3 / at AC / rated value 	690 V
<ul style="list-style-type: none"> • with degree of pollution 2 / at AC / rated value 	1 000 V
Power factor / at AC-21 B	0.95
Surge voltage resistance / rated value	8 kV
Operating current / at AC / rated value	160 A
Operating voltage	
<ul style="list-style-type: none"> • at AC / rated value / minimum 	230 V
<ul style="list-style-type: none"> • at AC / rated value / maximum 	690 V

Protection class

<ul style="list-style-type: none"> • Protection class IP / with closed switch / with cover or cable lug cover 	IP40
<ul style="list-style-type: none"> • Protection class IP / with closed switch / without cover or cable lug cover 	IP30
<ul style="list-style-type: none"> • protection class IP / on the front 	IP40
<ul style="list-style-type: none"> • Protection class IP / open 	IP20

Dissipation

Power loss [W]	
<ul style="list-style-type: none"> • with conventional rated thermal current / without fuse / per pole 	5 W
<ul style="list-style-type: none"> • with conventional rated thermal current / without fuse / per device 	15 W
<ul style="list-style-type: none"> • for rated value of the current / at AC / in hot operating state / per pole 	14 W
<ul style="list-style-type: none"> • of the fuse / per fuse / maximum 	9 W

Current

Operating current	
<ul style="list-style-type: none"> • at AC-23 B / at 690 V / rated value 	25 A
<ul style="list-style-type: none"> • at AC-23 B / at 500 V / rated value 	40 A
<ul style="list-style-type: none"> • at AC-23 B / at 400 V / rated value 	160 A
<ul style="list-style-type: none"> • at AC-23 B / at 240 V / rated value 	160 A
<ul style="list-style-type: none"> • at AC-22 B / at 690 V / rated value 	50 A
<ul style="list-style-type: none"> • at AC-22 B / at 500 V / rated value 	125 A

• at AC-22 B / at 400 V / rated value	160 A
• at AC-22 B / at 240 V / rated value	160 A
• at AC-21 B / at 690 V / rated value	160 A
• at AC-21 B / at 500 V / rated value	160 A
• at AC-21 B / at 400 V / rated value	160 A
• at AC-21 B / at 240 V / rated value	160 A
Continuous current	
• rated value	100 A
• at 40 °C / rated value	150 A
• at 45 °C / rated value	140 A
• at 50 °C / rated value	130 A
• at 55 °C / rated value	120 A
let-through current / with high-speed activation / maximum permissible	10 kA
Let-through current / I_c / maximum permissible	
• 400 V	15 000 A
• 500V	15 000 A
cut-off value I ² t _{max.} / 400 V	166 000 A ² ·s

Main circuit

Operating current	
• rated value	100 A
• with capacitive load / at 400 V / rated value	72 A
• with capacitive load / at 500 V / rated value	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
• Suitability for use / switch disconnecter	Yes
• Suitability for use / EMERGENCY OFF switch	No
• Suitability for use / safety switch	Yes
• Suitability for use / maintenance/repair switch	Yes

Product details

product feature / interlock	Yes
• Product component / Trip indicator	Yes
• Product function / Phase failure monitoring	Yes
• Product component / undervoltage release	No
• Product component / undervoltage release with leading contact	No

Product feature / sealable	Yes
Product extension / Auxiliary switch	Yes
Product extension / optional	
• locking capability	Yes
• motor drive	No
• Voltage trigger	No

Product function

Product function	
• fuse monitoring	Yes
• Overvoltage protection monitoring	Yes

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 / minimum	1.5 mm ²
• single or multi-stranded / maximum	50 mm ²
• finely stranded / with core end processing / minimum	1.5 mm ²
• finely stranded / with core end processing / maximum	35 mm ²
• stranded / minimum	1.5 mm ²
• stranded / maximum	50 mm ²
Tightening torque / with screw-type terminals	
• minimum	3.5 N·m
• maximum	4 N·m
Type of connectable conductor cross-sections / of the laminated conductors / maximum	8 x 8 mm

Type of connection	Box terminal
Type of electrical connection / for main current circuit	box terminal

Mechanical Design

Height	141.7 mm
Width	88.8 mm
Depth	117.9 mm
Mounting type	mounting plate
<ul style="list-style-type: none"> • Mounting type / floor mounting 	Yes
<ul style="list-style-type: none"> • mounting type / front mounting 	No
<ul style="list-style-type: none"> • Mounting type / front mounting with 4-hole attachment 	No
<ul style="list-style-type: none"> • Mounting type / front mounting with central attachment 	No
<ul style="list-style-type: none"> • mounting type / rail mounting 	No
mounting position	horizontal/vertical
net weight	0.59 kg

Environmental conditions

Ambient temperature / during operation	
<ul style="list-style-type: none"> • minimum 	-25 °C
<ul style="list-style-type: none"> • maximum 	55 °C
Ambient temperature / during storage	
<ul style="list-style-type: none"> • minimum 	-50 °C
<ul style="list-style-type: none"> • maximum 	80 °C

Certificates

<ul style="list-style-type: none"> • reference code / acc. to DIN EN 61346-2 	Q
<ul style="list-style-type: none"> • Reference code / 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=3NP1123-1CA23>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3NP1123-1CA23>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP1123-1CA23

CAX-Online-Generator

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

Tender specifications

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







