

SETRON, Fuse switch disconnecter 3NP1, 3-pole, NH000, 160 A, for 8US busbar system 60 mm, Box terminal, Fuse monitoring: electronic EFM20, 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	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 60 mm 8US busbar system
Size of disconnecting link	000
Size of fuse link	NH000
Continuous current / at 35 °C / rated value	160 A
Let-through current / with closed switch / maximum permissible	15 kA
cut-off value $I^{*2}t_{max.}$ / 500 V	223 000 A <sup>2</sup> ·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	2 000
Fuse system	LV HRC fuse
Degree of pollution	2

## 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	160 A
Operating voltage	
• at AC / rated value / minimum	230 V
• at AC / rated value / maximum	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

## Dissipation

Power loss [W]	
• with conventional rated thermal current / without fuse / per pole	5 W
• with conventional rated thermal current / without fuse / per device	15 W
• for rated value of the current / at AC / in hot operating state / per pole	14 W
• of the fuse / per fuse / maximum	9 W

## Current

Operating current	
• at AC-23 B / at 690 V / rated value	25 A
• at AC-23 B / at 500 V / rated value	40 A
• at AC-23 B / at 400 V / rated value	160 A
• at AC-23 B / at 240 V / rated value	160 A

• at AC-22 B / at 690 V / rated value	50 A
• 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 <sub>c</sub> / maximum permissible	
• 400 V	15 000 A
• 500V	15 000 A
cut-off value I <sup>2</sup> t <sub>max.</sub> / 400 V	166 000 A <sup>2</sup> ·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

<b>Suitability for use</b>	
• 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	Yes

<ul style="list-style-type: none"> <li>• undervoltage release</li> </ul>	No
<ul style="list-style-type: none"> <li>• undervoltage release with leading contact</li> </ul>	No
Product feature / sealable	Yes
Product extension	
<ul style="list-style-type: none"> <li>• Auxiliary switch</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• optional <ul style="list-style-type: none"> <li>— locking capability</li> </ul> </li> </ul>	Yes
<ul style="list-style-type: none"> <li>— motor drive</li> </ul>	No
<ul style="list-style-type: none"> <li>— Voltage trigger</li> </ul>	No

### Product function

Product function	
<ul style="list-style-type: none"> <li>• fuse monitoring</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Overvoltage protection monitoring</li> </ul>	Yes

### Short circuit

Conditional short-circuit current (I <sub>q</sub> )	
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	80 kA
<ul style="list-style-type: none"> <li>• at AC / at 240 V / with high-speed activation / rated value</li> </ul>	80 kA
<ul style="list-style-type: none"> <li>• at AC / at 500 V / with high-speed activation / rated value</li> </ul>	80 kA
<ul style="list-style-type: none"> <li>• at AC / at 690 V / with high-speed activation / rated value</li> </ul>	50 kA
<ul style="list-style-type: none"> <li>• with closed switch / at AC / at 240 V / rated value</li> </ul>	120 kA
<ul style="list-style-type: none"> <li>• with closed switch / at AC / at 500 V / rated value</li> </ul>	120 kA
<ul style="list-style-type: none"> <li>• with closed switch / at AC / at 690 V / rated value</li> </ul>	100 kA

### Connections

Arrangement of electrical connectors / for main current circuit	other
Connectable conductor cross-section / for main contacts	
<ul style="list-style-type: none"> <li>• single or multi-stranded</li> </ul>	1.5 ... 50 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• finely stranded / with core end processing</li> </ul>	1.5 ... 35 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• stranded</li> </ul>	1.5 ... 50 mm <sup>2</sup>
Tightening torque / with screw-type terminals	3.5 ... 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	211.4 mm
Width	88.8 mm
Width	
• of the busbar	12 ... 30 mm
Depth	143.9 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	0.94 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



[Miscellaneous](#)



[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=3NP1123-1BC23>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3NP1123-1BC23>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3NP1123-1BC23](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP1123-1BC23)









