

SENTRON, Fuse switch disconnecter 3NP1, 3-pole, NH00, 160 A, for Busbar system 8US 60 mm, flat terminal, Fuse monitoring: electronic EFM20, Cover level 32/70 mm



Model	
Product brand name	SENTRON
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	00 and 000
Size of fuse link	NH000, NH00
Continuous current / at 35 °C / rated value	160 A
Let-through current / with closed switch / maximum permissible	23 kA
cut-off value $I^{**2}t_{max.}$ / 500 V	158 000 A <sup>2</sup> ·s
Power factor	

<ul style="list-style-type: none"> <li>• at AC-22 B</li> </ul>	0.65
<ul style="list-style-type: none"> <li>• at AC-23 B</li> </ul>	0.45
<ul style="list-style-type: none"> <li>• with capacitive load</li> </ul>	-0.25
circuit-breaker / Design	3NP11
Mechanical service life (switching cycles) / typical	2 000
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	
Protection class IP	
<ul style="list-style-type: none"> <li>• with closed switch / with cover or cable lug cover</li> </ul>	IP40
<ul style="list-style-type: none"> <li>• with closed switch / without cover or cable lug cover</li> </ul>	IP30
<ul style="list-style-type: none"> <li>• on the front</li> </ul>	IP40
<ul style="list-style-type: none"> <li>• open</li> </ul>	IP20

Electricity	
Continuous current	
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	160 A
<ul style="list-style-type: none"> <li>• at 40 °C / rated value</li> </ul>	155 A
<ul style="list-style-type: none"> <li>• at 45 °C / rated value</li> </ul>	145 A
<ul style="list-style-type: none"> <li>• at 50 °C / rated value</li> </ul>	140 A
<ul style="list-style-type: none"> <li>• at 55 °C / rated value</li> </ul>	133 A
Let-through current / with high-speed activation / maximum permissible	15 kA
Let-through current / I <sub>c</sub> / maximum permissible	
<ul style="list-style-type: none"> <li>• 400 V</li> </ul>	23 000 A
<ul style="list-style-type: none"> <li>• 500V</li> </ul>	23 000 A
cut-off value I <sup>2</sup> t <sub>max</sub> / 400 V	158 000 A <sup>2</sup> ·s

Main circuit	
Operating voltage	
<ul style="list-style-type: none"> <li>• at AC / rated value / minimum</li> </ul>	230 V
<ul style="list-style-type: none"> <li>• at AC / rated value / maximum</li> </ul>	690 V
Operating current / with capacitive load	
<ul style="list-style-type: none"> <li>• at 400 V / maximum</li> </ul>	72 A
<ul style="list-style-type: none"> <li>• at 500 V / maximum</li> </ul>	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
<b>Suitability</b>	
<b>Suitability for use</b>	
• Main switch	No
• switch disconnecter	Yes
• EMERGENCY OFF switch	No
• safety switch	Yes
• maintenance/repair switch	Yes
<b>Product details</b>	
Product feature / interlock	Yes
Product component	
• Trip indicator	Yes
• Phase failure monitoring	Yes
• 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
— Voltage trigger	No
<b>Product function</b>	
Product function	
• fuse monitoring	Yes
• Overvoltage protection monitoring	Yes
<b>Short circuit</b>	
Conditional short-circuit current (I <sub>q</sub> )	
• 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	80 kA
• with closed switch / at AC / at 500 V / rated value	120 kA
• with closed switch / at AC / at 690 V / rated value	120 kA
<b>Connections</b>	
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 / minimum</li> </ul>	2.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• single or multi-stranded / maximum</li> </ul>	95 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• stranded / minimum</li> </ul>	2.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• stranded / maximum</li> </ul>	95 mm <sup>2</sup>
Tightening torque / with screw-type terminals	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	10 N·m
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	12 N·m
Type of electrical connection / for main current circuit	busbar connection

### Mechanical Design

Height	210.4 mm
Width	105.8 mm
Depth	177.2 mm
Mounting position	horizontal/vertical
Mounting type	busbar
Mounting type	
<ul style="list-style-type: none"> <li>• floor mounting</li> </ul>	No
<ul style="list-style-type: none"> <li>• front mounting</li> </ul>	No
<ul style="list-style-type: none"> <li>• front mounting with 4-hole attachment</li> </ul>	No
<ul style="list-style-type: none"> <li>• front mounting with central attachment</li> </ul>	No
<ul style="list-style-type: none"> <li>• rail mounting</li> </ul>	Yes
Busbar center-to-center spacing	60 mm
Net weight	1.12 kg

### Environmental conditions

Degree of pollution	2
Ambient temperature	
<ul style="list-style-type: none"> <li>• during operation / minimum</li> </ul>	-25 °C
<ul style="list-style-type: none"> <li>• during operation / maximum</li> </ul>	55 °C
<ul style="list-style-type: none"> <li>• during storage / minimum</li> </ul>	-50 °C
<ul style="list-style-type: none"> <li>• during storage / maximum</li> </ul>	80 °C

### Certificates

Reference code	
<ul style="list-style-type: none"> <li>• acc. to DIN EN 61346-2</li> </ul>	Q
<ul style="list-style-type: none"> <li>• acc. to DIN EN 81346-2</li> </ul>	Q

General Product Approval			Declaration of Conformity	Test Certificates
 CCC	 UR	 VDE	<a href="#">Miscellaneous</a>	 EG-Konf.
				<a href="#">Type Test Certificates/Test Report</a>

### 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=3NP1133-1BC13>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3NP1133-1BC13>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3NP1133-1BC13](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP1133-1BC13)

**CAX-Online-Generator**

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

**Tender specifications**

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







