



SENTRON, fuse switch disconnecter 3NP1, 3-pole, NH00, 160 A, for Rittal 40mm busbar system, Rahmenklemme, Fuse monitoring: electronic EFM20, cover level 32/70 mm

Model		
product brandname		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 load switch / Strip form		No
Type of the driving mechanism / motor drive		No

General technical data		
Number of poles		3
Size of disconnecting link		00 and 000
Size of fuse link		NH000, NH00
Continuous current / at 35 °C / rated value	A	160
Let-through current / with closed switch / maximum permissible	kA	23
cut-off value $I^{2t}_{max.}$ / 500 V	A <sup>2</sup> ·s	158 000
Power factor		
• at AC-22 B		0.65
• at AC-23 B		0.45

• with capacitive load		-0.25
<b>circuit-breaker / Design</b>		3NP11
<b>Mechanical service life (switching cycles) / typical</b>		2 000
<b>Fuse system</b>		LV HRC fuse

### Voltage

Insulation voltage / rated value	V	690
<b>Power factor / at AC-21 B</b>		0.95
Surge voltage resistance / rated value	kV	8

### Protection class

<b>Protection class IP</b>		
• 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

<b>Power loss [W]</b>		
• for rated value of the current / at AC / in hot operating state / per pole	W	4
• maximum	W	12

### Electricity

<b>Continuous current</b>		
• rated value	A	160
• at 40 °C / rated value	A	155
• at 45 °C / rated value	A	145
• at 50 °C / rated value	A	140
• at 55 °C / rated value	A	133
<b>Let-through current / with high-speed activation / maximum permissible</b>	kA	15
<b>Let-through current / I<sub>c</sub> / maximum permissible</b>		
• 400 V	A	23 000
• 500V	A	23 000
<b>cut-off value I<sup>2</sup>t<sub>max</sub> / 400 V</b>	A <sup>2</sup> ·s	158 000

### Main circuit

<b>Operating voltage</b>		
• at AC / rated value / minimum	V	230
• at AC / rated value / maximum	V	690
<b>Operating current / with capacitive load</b>		
• at 400 V / maximum	A	72
• at 500 V / maximum	A	55

## 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
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### Product component

• Trip indicator	Yes
• Phase failure monitoring	Yes
• undervoltage release	No
• undervoltage release with leading contact	No

Product feature / sealable	Yes
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### Product extension

• Auxiliary switch	Yes
• 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<sub>q</sub>)

• rated value	kA	80
• at AC / at 500 V / with high-speed activation / rated value	kA	80
• at AC / at 690 V / with high-speed activation / rated value	kA	80
• with closed switch / at AC / at 500 V / rated value	kA	120
• with closed switch / at AC / at 690 V / rated value	kA	120

## Connections

Arrangement of electrical connectors / for main current circuit	other
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Connectable conductor cross-section / for main contacts	
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• single or multi-stranded / minimum	mm <sup>2</sup>	6
• single or multi-stranded / maximum	mm <sup>2</sup>	70
• finely stranded / with core end processing / minimum	mm <sup>2</sup>	6
• finely stranded / with core end processing / maximum	mm <sup>2</sup>	50
• stranded / minimum	mm <sup>2</sup>	6
• stranded / maximum	mm <sup>2</sup>	70
<b>Tightening torque / with screw-type terminals</b>		
• minimum	N·m	10
• maximum	N·m	10
Type of electrical connection / for main current circuit		box terminal

### Mechanical Design

<b>Height</b>	mm	215.1
<b>Width</b>	mm	105.8
<b>Depth</b>	mm	174.2
<b>Mounting type</b>		busbar
<b>Mounting type</b>		
• floor mounting		No
• front mounting		No
• front mounting with 4-hole attachment		No
• front mounting with central attachment		No
• rail mounting		Yes
<b>Busbar center-to-center spacing</b>	mm	40
<b>Net weight</b>	kg	1.12

### Environmental conditions

<b>Degree of pollution</b>		3
<b>Ambient temperature</b>		
• during operation / minimum	°C	-25
• during operation / maximum	°C	55
• during storage / minimum	°C	-50
• during storage / maximum	°C	80

### Certificates

<b>Equipment marking</b>		
• acc. to DIN EN 61346-2		Q
• acc. to DIN EN 81346-2		Q

General Product Approval	Declaration of Conformity	Test Certificates	Shipping Approval
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## Further information

### Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

### Industry Mall (Online ordering system)

<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3NP1133-1JB23>

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

<http://support.automation.siemens.com/WW/view/en/3NP1133-1JB23/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3NP1133-1JB23](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP1133-1JB23)

### CAX-Online-Generator

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

### Tender specifications

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



