



FUSE-SWITCH-DISCONNECTOR 3-POLE, NH00,  
160A 40MM BUSBAR SYSTEM COVER LEVEL 32/70  
MM BOX TERMINAL FUSE MONITORING  
ELECTRONIC, EFM 20

Model		
product brand name		SENTRON
Product designation		Fuse switch disconnecter
<b>Design of the product</b>		3-pole
<b>Busbar design</b>		busbar thickness 5 or 10 mm
<b>Design of the safety monitoring</b>		electronic EFM 20
<b>Design of the operating mechanism</b>		handle unit
<b>Design of the load switch / Strip form</b>		No
<b>Type of the driving mechanism / motor drive</b>		No
General technical data		
<b>Number of poles</b>		3
<b>Type of device</b>		snap on mount on busbar system Siemens 8US 40 mm
<b>Size of disconnecting link</b>		00 and 000
<b>Size of fuse link</b>		NH000, NH00
<b>Continuous current / at 35 °C / Rated value</b>	A	160
<b>Let-through current / with closed switch / maximum permissible</b>	kA	23
<b>cut-off value I**2t,max. / 500 V</b>	A <sup>2</sup> .s	158 000
<b>I2t value / with closed switch / maximum permissible</b>	kA2.s	158
<b>Power factor</b>		
• 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
<b>Voltage</b>		
Insulation voltage / Rated value	V	690
<b>Power factor / at AC-21 B</b>		0.95
Surge voltage resistance / Rated value	kV	8
<b>Protection class</b>		
<b>Protection class IP</b>		
<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
<b>Dissipation</b>		
<b>Active power loss</b>		
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	W	12
<b>Electricity</b>		
<b>Continuous current</b>		
<ul style="list-style-type: none"> <li>• Rated value</li> </ul>	A	160
<ul style="list-style-type: none"> <li>• at 40 °C / Rated value</li> </ul>	A	155
<ul style="list-style-type: none"> <li>• at 45 °C / Rated value</li> </ul>	A	145
<ul style="list-style-type: none"> <li>• at 50 °C / Rated value</li> </ul>	A	140
<ul style="list-style-type: none"> <li>• at 55 °C / Rated value</li> </ul>	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>		
<ul style="list-style-type: none"> <li>• 400 V</li> </ul>	A	23 000
<ul style="list-style-type: none"> <li>• 500V</li> </ul>	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
<b>Main circuit</b>		
<b>Operating voltage</b>		
<ul style="list-style-type: none"> <li>• with AC / Rated value / minimum</li> </ul>	V	230
<ul style="list-style-type: none"> <li>• with AC / Rated value / maximum</li> </ul>	V	690
<b>Operating current</b>		
<ul style="list-style-type: none"> <li>• at AC-21 B / at 400 V / Rated value</li> </ul>	A	160
<ul style="list-style-type: none"> <li>• at AC-21 B / at 500 V / Rated value</li> </ul>	A	160
<ul style="list-style-type: none"> <li>• at AC-21 B / at 690 V / Rated value</li> </ul>	A	160
<ul style="list-style-type: none"> <li>• at AC-22 B / at 400 V / Rated value</li> </ul>	A	160
<ul style="list-style-type: none"> <li>• at AC-22 B / at 500 V / Rated value</li> </ul>	A	160
<ul style="list-style-type: none"> <li>• at AC-22 B / at 690 V / Rated value</li> </ul>	A	125

- at AC-23 B / at 400 V / Rated value
- at AC-23 B / at 500 V / Rated value
- at AC-23 B / at 690 V / Rated value
- with capacitive load / at 400 V / maximum
- with capacitive load / at 500 V / maximum

A	160
A	63
A	35
A	72
A	55

#### Auxiliary circuit

Number of CO contacts / for auxiliary contacts		0
<b>Number of NC contacts / for auxiliary contacts</b>		0
<b>Number of NO contacts / for auxiliary contacts</b>		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
<b>Product component</b>		
• Trip indicator		Yes
• Phase failure monitoring		Yes
• undervoltage release		No
• undervoltage release with leading contact		No
Product property / sealable		Yes
<b>Product expansion</b>		
• Auxiliary switch		Yes
• optional		
— locking capability		Yes
— motor drive		No
— Voltage trigger		No

#### Product function

<b>Product function</b>		
• fuse monitoring		Yes
• Overvoltage protection monitoring		Yes

#### Short circuit

<b>Conditional short-circuit current (I<sub>q</sub>)</b>		
• Rated value	kA	80
• with AC / at 500 V / with high-speed activation / Rated value	kA	80

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

## Connections

Arrangement of electrical connectors / for main current circuit		other
Connectable conductor cross-section / for main contacts		
• 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 connectable conductor cross-section / of the laminated conductors / maximum		9 x 8 mm
Type of electrical connection / for main current circuit		box terminals

## Mechanical Design

<b>Height</b>	mm	210.4
<b>Width</b>	mm	105.8
<b>Depth</b>	mm	177.2
<b>mounting position</b>		horizontally or vertically
<b>Mounting type</b>		busbar mounting
<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

## Environmental conditions

<b>Ambient temperature</b>		
• during operation / minimum	°C	-25
• during operation / maximum	°C	55

- during storage / minimum
- during storage / maximum

°C	-50
°C	80

### Certificates

#### Equipment marking

- acc. to DIN EN 61346-2
- acc. to DIN EN 81346-2

Q  
Q

#### General Product Approval

**CB**

CB



CCC



GOST



UR



UL



Declaration of Conformity	Test Certificates	Shipping Approval
---------------------------	-------------------	-------------------



EG-Konf.

[Type Test Certificates/Test Report](#)



DNV



GL



LRS

### 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/3NP11331BB23>

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

<http://support.automation.siemens.com/WW/view/en/3NP11331BB23/all>

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

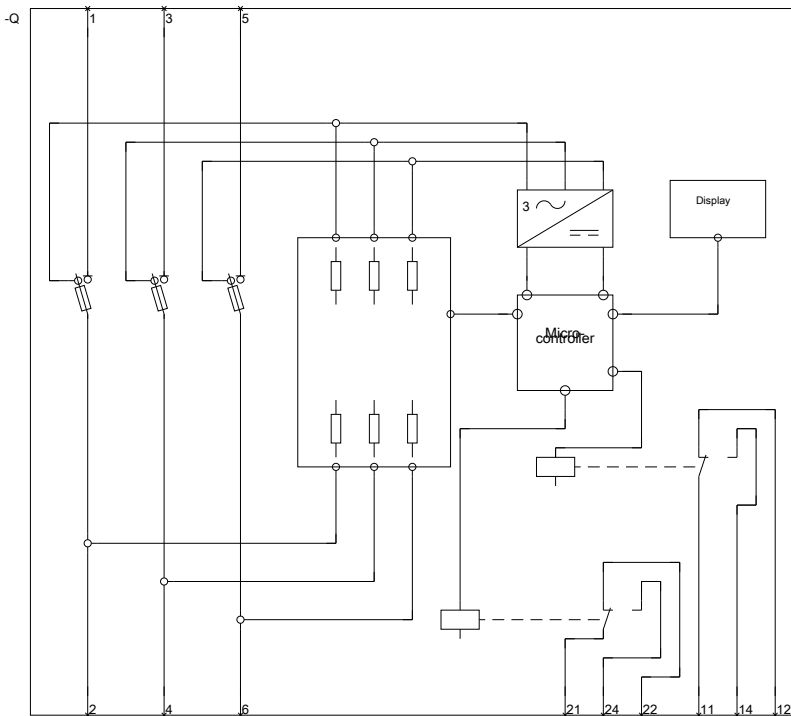
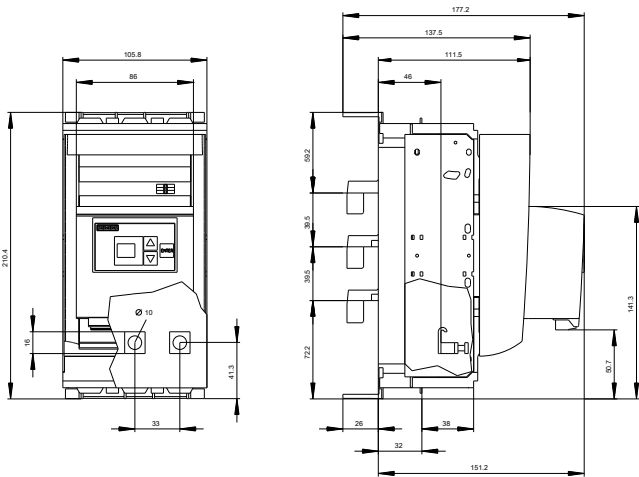
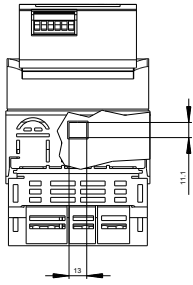
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3NP11331BB23](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3NP11331BB23)

#### CAX-Online-Generator

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

#### Tender specifications

<http://ausschreibungstexte.siemens.com/tiplv>



**last modified:**

11.03.2015