



FUSE-SWITCH-DISCONNECTOR 3-POLE, NH000,
160A 60MM BUSBAR SYSTEM COVER LEVEL 32/70
MM BOX TERMINAL FUSE MONITORING
ELECTRONIC, EFM 20

Model		
product brand name		SENTRON
Product designation		Fuse switch disconnecter
Design of the product		3-pole
Busbar design		busbar thickness 5 or 10 mm
Design of the safety monitoring		electronic EFM 20
Design of the operating mechanism		handle unit
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		snap on mount on busbar system Siemens 8US 60 mm
Size of disconnecting link		000
Size of fuse link		NH000
Continuous current / at 35 °C / Rated value	A	160
Let-through current / with closed switch / maximum permissible	kA	15
cut-off value I**2t,max. / 500 V	A ² .s	56 000
I2t value / with closed switch / maximum permissible	kA2.s	56
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
Voltage		
Insulation voltage / Rated value	V	690
Power factor / at AC-21 B		0.95
Surge voltage resistance / Rated value	kV	8
Protection class		
Protection class IP		
<ul style="list-style-type: none"> • with closed switch / with cover or cable lug cover 		IP40
<ul style="list-style-type: none"> • with closed switch / without cover or cable lug cover 		IP30
<ul style="list-style-type: none"> • on the front 		IP40
<ul style="list-style-type: none"> • open 		IP20
Dissipation		
Active power loss		
<ul style="list-style-type: none"> • maximum 	W	9
Electricity		
Continuous current		
<ul style="list-style-type: none"> • Rated value 	A	100
<ul style="list-style-type: none"> • at 40 °C / Rated value 	A	150
<ul style="list-style-type: none"> • at 45 °C / Rated value 	A	140
<ul style="list-style-type: none"> • at 50 °C / Rated value 	A	130
<ul style="list-style-type: none"> • at 55 °C / Rated value 	A	120
Let-through current / with high-speed activation / maximum permissible	kA	10
Let-through current / I_c / maximum permissible		
<ul style="list-style-type: none"> • 400 V 	A	15 000
<ul style="list-style-type: none"> • 500V 	A	15 000
cut-off value I²t_{max} / 400 V	A ² ·s	56 000
Main circuit		
Operating voltage		
<ul style="list-style-type: none"> • with AC / Rated value / minimum 	V	230
<ul style="list-style-type: none"> • with AC / Rated value / maximum 	V	690
Operating current		
<ul style="list-style-type: none"> • at AC-21 B / at 400 V / Rated value 	A	160
<ul style="list-style-type: none"> • at AC-21 B / at 500 V / Rated value 	A	160
<ul style="list-style-type: none"> • at AC-21 B / at 690 V / Rated value 	A	160
<ul style="list-style-type: none"> • at AC-22 B / at 400 V / Rated value 	A	160
<ul style="list-style-type: none"> • at AC-22 B / at 500 V / Rated value 	A	125
<ul style="list-style-type: none"> • at AC-22 B / at 690 V / Rated value 	A	50

- 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	40
A	25
A	72
A	55

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
• 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
• undervoltage release		No
• undervoltage release with leading contact		No
Product property / sealable		Yes
Product expansion		
• 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_q)		
• 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 ²	1.5
• single or multi-stranded / maximum	mm ²	50
• finely stranded / with core end processing / minimum	mm ²	1.5
• finely stranded / with core end processing / maximum	mm ²	35
• stranded / minimum	mm ²	1.5
• stranded / maximum	mm ²	50
Tightening torque / with screw-type terminals		
• minimum	N·m	3.5
• maximum	N·m	4
Type of connectable conductor cross-section / of the laminated conductors / maximum		8 x 8 mm
Type of electrical connection / for main current circuit		box terminals

Mechanical Design

Height	mm	211.4
Width	mm	88.8
Depth	mm	169
mounting position		horizontally or vertically
Mounting type		busbar mounting
Mounting type		
• floor mounting		No
• front mounting		No
• front mounting with 4-hole attachment		No
• front mounting with central attachment		No
• rail mounting		Yes
Busbar center-to-center spacing	mm	60

Environmental conditions

Ambient temperature		
• 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	Q
• acc. to DIN EN 81346-2	Q

General Product Approval



CB



CCC



GOST



UL



UR



Declaration of Conformity	Test Certificates	Shipping Approval		
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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/3NP11231BC23>

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

<http://support.automation.siemens.com/WW/view/en/3NP11231BC23/all>

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

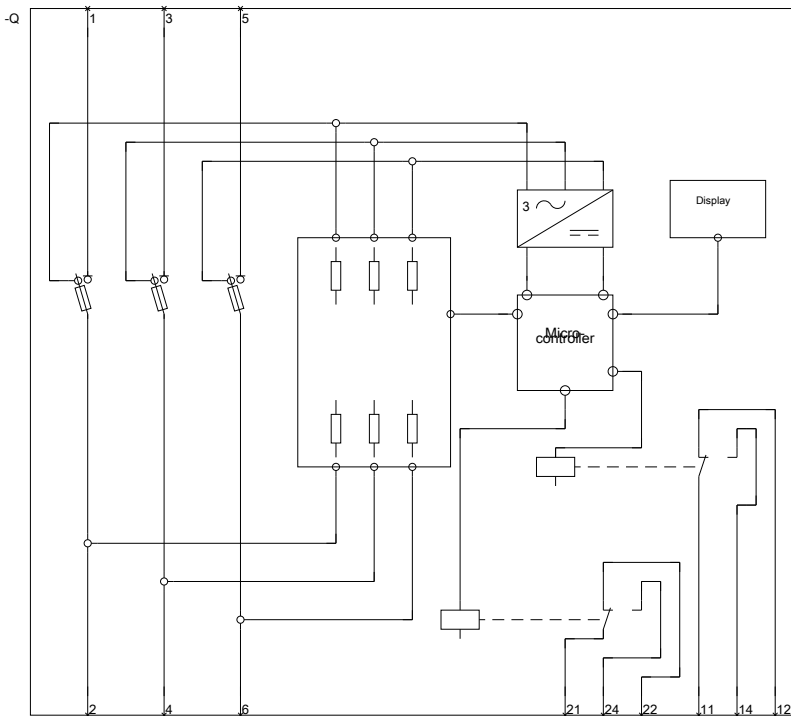
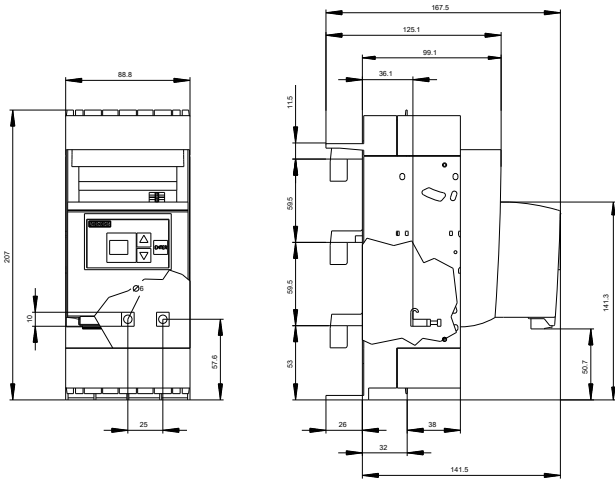
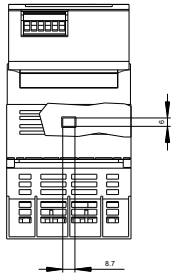
http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3NP11231BC23

CAX-Online-Generator

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

Tender specifications

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



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11.03.2015