SIEMENS

Data sheet 3NP1143-1BC20



FUSE-SWITCH-DISCONNECTOR 3-POLE, NH1, 250A
60MM BUSBAR SYSTEM COVER LEVEL 32/70 MM
BOX TERMINAL

Model		
product brand name		SENTRON
Product designation		Fuse switch disconnector
Design of the product		3-pole
Busbar design		busbar thickness 5 or 10 mm
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		1 and 0
Size of fuse link		NH0, NH1
Continuous current / at 35 °C / rated value	A	250
Let-through current / with closed switch / maximum permissible	kA	32
cut-off value I**2t,max. / 500 V	$A^2 \cdot s$	780 000
I2t value / with closed switch / maximum permissible	kA2.s	780

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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		1 600
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		
• 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]		
• maximum	W	23

Electricity

Continuous current		
• rated value	A	250
• at 40 °C / rated value	A	245
• at 45 °C / rated value	A	240
• at 50 °C / rated value	A	233
• at 55 °C / rated value	A	233
Let-through current / with high-speed activation / maximum permissible	kA	25
Let-through current / Ic / maximum permissible		
• 400 V	A	32 000
• 500V	A	32 000
cut-off value I2t,max. / 400 V**	$A^2 \cdot s$	780 000

Main circuit

Operating voltage		
• at AC / rated value / maximum	V	690
• at DC / rated value	V	440
• at DC / rated value / maximum	V	440
Operating current		

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• at AC-21 B / at 400 V / rated value	A	250
• at AC-21 B / at 500 V / rated value	A	250
• at AC-21 B / at 690 V / rated value	A	250
• at AC-22 B / at 400 V / rated value	A	250
• at AC-22 B / at 500 V / rated value	A	250
• at AC-22 B / at 690 V / rated value	A	250
• at AC-23 B / at 400 V / rated value	A	250
• at AC-23 B / at 500 V / rated value	A	200
• at AC-23 B / at 690 V / rated value	A	100
• at DC-21 B / at 240 V / Rated value / maximum	A	250
• at DC-21 B / at 440 V / Rated value / maximum	A	250
• at DC-22 B / at 240 V / Rated value / maximum	A	250
• at DC-22 B / at 440 V / Rated value / maximum	A	200
• at DC-23 B / at 240 V / Rated value / maximum	A	200
• at DC-23 B / at 440 V / Rated value / maximum	A	100
• with capacitive load / at 400 V / maximum	A	72
• with capacitive load / at 500 V / maximum	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 disconnector		Yes
• EMERGENCY OFF switch		No
• safety switch		Yes
• maintenance/repair switch		Yes

Product details

Product feature / interlock		Yes
Product component		
• Trip indicator		No
• Phase failure monitoring		No
• undervoltage release		No
• undervoltage release with leading contact		No
Product feature / sealable		Yes
Product expansion		
• Auxiliary switch		Yes
• optional		
— locking capability		Yes

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— motor drive		No
— Phase failure monitoring		Yes
— fuse monitoring		Yes
— Voltage trigger		No
— Overvoltage protection monitoring		Yes

Product function

Product function		
• fuse monitoring		No
• Overvoltage protection monitoring		No

Short circuit

Conditional short-circuit current (Iq)		
• 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	50
• with closed switch / at AC / at 500 V / rated value	kA	120
• with closed switch / at AC / at 690 V / rated value	kA	100

Connections

Arrangement of electrical connectors / for main current circuit		other
Connectable conductor cross-section / for main contacts		
• single or multi-stranded / minimum	mm²	70
• single or multi-stranded / maximum	mm²	185
• stranded / minimum	mm²	70
• stranded / maximum	mm²	185
Tightening torque / with screw-type terminals		
• minimum	N·m	10
• maximum	N·m	10
Type of connectable conductor cross-section / of the laminated conductors / maximum		10 x 20 mm
Type of electrical connection / for main current circuit		box terminals

Mechanical Design

Height	mm	306
Width	mm	183.7
Depth	mm	141
Mounting position		horizontally or vertically
Mounting type		busbar mounting
Mounting type		

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• 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
Net weight	kg	2.85

Environmental conditions

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

Certificates

Equipment marking		
• acc. to DIN EN 61346-2		Q
• acc. to DIN EN 81346-2		Q

General Product Approval			Declaration of Conformity	Test Certificates	
CCC	UL	EAC	EG-Konf.	spezielle Prüfbescheinigungen	Typprüfbescheinigung/Werkszeugnis

Shipping Approval

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/3NP11431BC20

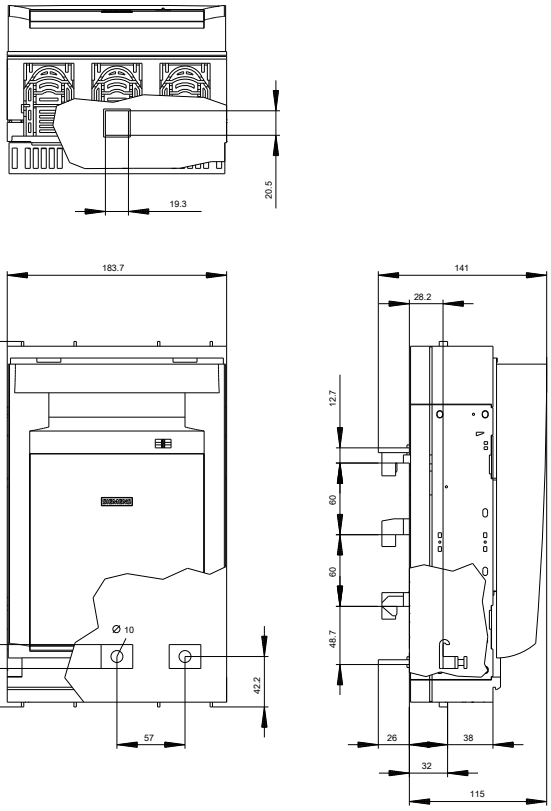
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3NP11431BC20/all

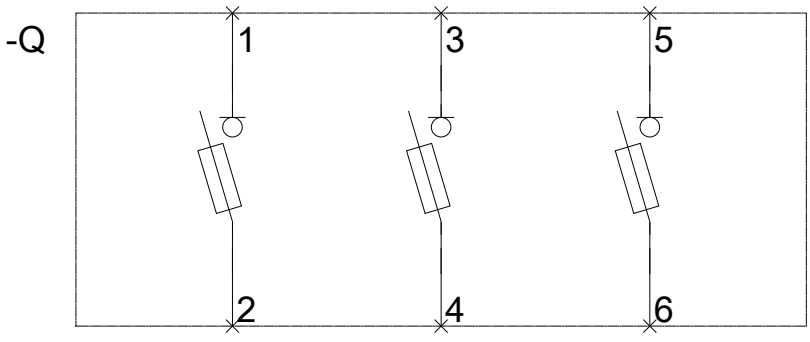
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP11431BC20

CAx-Online-Generator
http://www.siemens.com/cax

Tender specifications
http://ausschreibungstexte.siemens.com/tiplv

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