SIEMENS

Data sheet 3NP1143-1BC12



FUSE-SWITCH-DISCONNECTOR 3-POLE, NH1, 250A 60MM BUSBAR SYSTEM COVER LEVEL 32/70 MM FLAT CONNECTOR FUSE MONITORING ELECTRONIC, EFM 10

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 safety monitoring	electronic EFM 10
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	Α	250
Let-through current / with closed switch / maximum	kA	32
permissible		
cut-off value I**2t,max. / 500 V	A²·s	780 000
I2t value / with closed switch / maximum permissible	kA2.s	780
Power factor		
● at AC-22 B		0.65
● at AC-23 B		0.45
with capacitive load		-0.25
circuit-breaker / Design		3NP11

Protection class IP with closed switch / with cover or cable lug cover with closed switch / without cover or cable lug cover on the front open Plate IP40 IP30 IP40 IP40 IP40 IP40 IP20 Dissipation Active power loss maximum W 23 Electricity Continuous current Rated value A 250 A 245 A 245 A 245 A 245 A 240 A 240 A 240 A 240 A 240 A 245 A 233 A 240 A 250 A 233 Let-through current / with high-speed activation / maximum permissible Let-through current / Ic / maximum permissible 400 V A 32 000 Cut-off value I**2t,max. / 400 V A*-s 780 000	Mechanical service life (switching cycles) / typical		1 600
Insulation voltage / Rated value	Fuse system	_	LV HRC fuse
Insulation voltage / Rated value	V-lan-	_	
Power factor / at AC-21 B Surge voltage resistance / Rated value RV 8		V	690
Surge voltage resistance / Rated value RV 8	-		
Protection class IP • with closed switch / with cover or cable lug cover • with closed switch / without cover or cable lug cover • with closed switch / without cover or cable lug cover • on the front • open IP20 Dissipation Active power loss • maximum **Continuous current • Rated value • at 40 °C / Rated value • at 45 °C / Rated value • at 45 °C / Rated value • at 45 °C / Rated value • at 55 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value / Rated value • at 60 °C / Rated value / Rated value • at 60 °C / Rated value / Rated value • at 60 °C / Rated value / Rated value • at 60 °C / Rated value / Rated value • at 60 °C / Rated value / Rated value • at 60 °C / Rated value / Rated value • at 60 °C / Rated value / Rated value • at 60 °C / Rated value / A 250 • at 60 °C / Rated value / A 250 • at 60 °C / Rated value / A 250 • at 60 °C / Rated value / A 250 • at 60 °C / Rated value / A 250 • at 60 °C / Rated value / A 250		k\/	
Protection class IP	Odige Voltage resistance / Nated Value	IX V	ŭ
with closed switch / with cover or cable lug cover with closed switch / without cover or cable lug cover • on the front • open	Protection class		
Cover • with closed switch / without cover or cable lug cover • on the front • open Dissipation Active power loss • maximum W 23 Electricity Condinuous current • Rated value • at 40 °C / Rated value • at 55 °C / Rated value • at 50 °C / Rated value A 233 Let-through current / with high-speed activation / maximum permissible Let-through current / lo / maximum permissible • 400 ∨ • 500 ∨ cut-off value I**2t,max. / 400 ∨ A**s 780 000 Main circuit Operating current • at AC-21 B / at 500 ∨ / Rated value • at AC-21 B / at 690 ∨ / Rated value • at AC-22 B / at 400 ∨ / Rated value • at AC-22 B / at 400 ∨ / Rated value • at AC-22 B / at 400 ∨ / Rated value • at AC-22 B / at 400 ∨ / Rated value • at AC-22 B / at 400 ∨ / Rated value • at AC-22 B / at 400 ∨ / Rated value • at AC-22 B / at 400 ∨ / Rated value • at AC-22 B / at 400 ∨ / Rated value • at AC-22 B / at 400 ∨ / Rated value • at AC-22 B / at 400 ∨ / Rated value • at AC-22 B / at 400 ∨ / Rated value • at AC-22 B / at 500 ∨ / Rated value			
on the front	•		IP40
	• with closed switch / without cover or cable lug		IP30
• open IP20 Dissipation Active power loss • maximum W 23 Electricity Continuous current • Rated value A 250 • at 40 °C / Rated value A 245 • at 50 °C / Rated value A 233 • at 55 °C / Rated value A 233 Let-through current / with high-speed activation / maximum permissible Let-through current / lc / maximum permissible • 400 V A 32 000 cut-off value I**2t,max. / 400 V A*-s 780 000 Main circuit Operating outlage • with AC / Rated value / minimum V 230 • with AC / Rated value / maximum V 690 Operating current • at AC-21 B / at 400 V / Rated value A 250 • at AC-22 B / at 400 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 500 V / Rated value A 250 • at AC-22 B / at 500 V / Rated value A 250 • at AC-22 B / at 500 V / Rated value A 250 • at AC-22 B / at 500 V / Rated value A 250 • at AC-22 B / at 500 V / Rated value A 250 • at AC-22 B / at 500 V / Rated value A 250 • at AC-22 B / at 500 V / Rated value A 250 • at AC-22 B / at 500 V / Rated value A 250 • at AC-22 B / at 500 V / Rated value A 250 • at AC-22 B / at 500 V / Rated value A 250 • at AC-22 B / at 500 V / Rated value A 250	cover		
Dissipation Active power loss	• on the front		IP40
Active power loss	• open		IP20
Active power loss	Dissipation		
Continuous current			
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 • 400 V A 32 000 • 500V A 32 000 cut-off value **2t,max. / 400 V A²-s 780 000 Wain circuit Operating voltage • with AC / Rated value / minimum V 230 • with AC / Rated value / maximum V 690 Operating current • at AC-21 B / at 400 V / Rated value A 250 • at AC-21 B / at 500 V / Rated value A 250 • at AC-22 B / at 400 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 500 V / Rated value A 250	● maximum	W	23
Rated value at 40 °C / Rated value at 45 °C / Rated value at 45 °C / Rated value at 50 °C / Rated value at 50 °C / Rated value at 55 °C / Rated value A 233 Let-through current / with high-speed activation / maximum permissible Let-through current / Ic / maximum permissible • 400 ∨ • 500∨ A 32 000 cut-off value I**2t,max. / 400 ∨ A²·s 780 000 Main circuit Operating voltage • with AC / Rated value / minimum • with AC / Rated value / maximum Operating current • at AC-21 B / at 400 V / Rated value • at AC-21 B / at 690 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 500 V / Rated value • at	Electricity		
at 40 °C / Rated value at 45 °C / Rated value at 45 °C / Rated value at 50 °C / Rated value at 50 °C / Rated value at 50 °C / Rated value A 233 Let-through current / with high-speed activation / maximum permissible Let-through current / Ic / maximum permissible 400 V A 32 000 cut-off value I**2t,max. / 400 V A 32 000 cut-off value I**2t,max. / 400 V A 32 000 Main circuit Operating voltage with AC / Rated value / minimum with AC / Rated value / maximum V 690 Operating current at AC-21 B / at 400 V / Rated value at AC-21 B / at 690 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 500 V / Rated value at AC-22	Continuous current		
at 45 °C / Rated value at 50 °C / Rated value at 50 °C / Rated value at 55 °C / Rated value at 55 °C / Rated value A 233 Let-through current / with high-speed activation / maximum permissible at 400 V a 32 000 cut-off value I**2t,max. / 400 V A 32 000 cut-off value I**2t,max. / 400 V A 32 000 Cut-off value I**2t,max. / 400 V A 32 000 Operating voltage with AC / Rated value / minimum v 230 with AC / Rated value / maximum Operating current at AC-21 B / at 400 V / Rated value at AC-21 B / at 500 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 500 V / Ra	Rated value	Α	250
at 50 °C / Rated value at 55 °C / Rated value A 233 Let-through current / with high-speed activation / maximum permissible Let-through current / Ic / maximum permissible 400 V 500V A 32 000 cut-off value I*2t,max. / 400 V Are 780 000 Valin circuit Operating voltage with AC / Rated value / minimum with AC / Rated value / maximum V 230 with AC / Rated value / maximum V 690 Operating current at AC-21 B / at 400 V / Rated value at AC-21 B / at 690 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 500 V / Rated value	• at 40 °C / Rated value	Α	245
at 55 °C / Rated value A 233 Let-through current / with high-speed activation / maximum permissible Let-through current / Ic / maximum permissible 400 V 500V A 32 000 cut-off value I**2t,max. / 400 V A²-s 780 000 Vain circuit Operating voltage with AC / Rated value / minimum with AC / Rated value / maximum V 230 Operating current at AC-21 B / at 400 V / Rated value at AC-21 B / at 690 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 500 V / Rated	• at 45 °C / Rated value	Α	240
Let-through current / with high-speed activation / maximum permissible Let-through current / Ic / maximum permissible • 400 V • 500V Cut-off value I**2t,max. / 400 V A 32 000 Cut-off value I**2t,max. / 400 V A²-s 780 000 Main circuit Operating voltage • with AC / Rated value / minimum v 230 • with AC / Rated value / maximum V 690 Operating current • at AC-21 B / at 400 V / Rated value • at AC-21 B / at 500 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 500 V / Rated value • at AC-22 B / at 500 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 400 V / Rated value • at AC-22 B / at 500 V / Rated value • at AC-22 B / at 500 V / Rated value • at AC-22 B / at 500 V / Rated value • at AC-22 B / at 500 V / Rated value • at AC-22 B / at 500 V / Rated value • at AC-22 B / at 500 V / Rated value • at AC-22 B / at 500 V / Rated value • at AC-22 B / at 500 V / Rated value • at AC-22 B / at 500 V / Rated value	• at 50 °C / Rated value	Α	233
maximum permissible Let-through current / Ic / maximum permissible ● 400 V A 32 000 • 500V A 32 000 cut-off value I**2t,max. / 400 V Main circuit Operating voltage ● with AC / Rated value / minimum V 230 ● with AC / Rated value / maximum V 690 Operating current ● at AC-21 B / at 400 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 500 V / Rated value A 250	● at 55 °C / Rated value	Α	233
Let-through current / Ic / maximum permissible	Let-through current / with high-speed activation /	kA	25
	maximum permissible		
● 500V cut-off value I**2t,max. / 400 V A²-s 780 000 Main circuit Operating voltage ● with AC / Rated value / minimum ● with AC / Rated value / maximum V 690 Operating current ● at AC-21 B / at 400 V / Rated value ● 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 400 V / Rated value A 250 ● at AC-22 B / at 400 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	Let-through current / Ic / maximum permissible		
cut-off value I**2t,max. / 400 V Main circuit Operating voltage V 230 • with AC / Rated value / minimum V 690 Operating current V 690 • 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 500 V / Rated value A 250	• 400 V	Α	32 000
Main circuit Operating voltage	• 500V	Α	32 000
Operating voltage V 230 • with AC / Rated value / minimum V 690 Operating current V 690 • 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	cut-off value I**2t,max. / 400 V	A²-s	780 000
 with AC / Rated value / minimum with AC / Rated value / maximum 690 Operating current at AC-21 B / at 400 V / Rated value at AC-21 B / at 500 V / Rated value at AC-21 B / at 690 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 500 V / Rated value at AC-22 B / at 500 V / Rated value at AC-22 B / at 500 V / Rated value at AC-22 B / at 500 V / Rated value 	Main circuit		
 with AC / Rated value / maximum Operating current at AC-21 B / at 400 V / Rated value at AC-21 B / at 500 V / Rated value at AC-21 B / at 690 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 500 V / Rated value at AC-22 B / at 500 V / Rated value at AC-22 B / at 500 V / Rated value at AC-22 B / at 500 V / Rated value 	Operating voltage		
Operating current • 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	• with AC / Rated value / minimum	V	230
 at AC-21 B / at 400 V / Rated value at AC-21 B / at 500 V / Rated value at AC-21 B / at 690 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 500 V / Rated value at AC-22 B / at 500 V / Rated value 	with AC / Rated value / maximum	V	690
 at AC-21 B / at 500 V / Rated value at AC-21 B / at 690 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 500 V / Rated value at AC-22 B / at 500 V / Rated value 	Operating current		
 at AC-21 B / at 690 V / Rated value at AC-22 B / at 400 V / Rated value at AC-22 B / at 500 V / Rated value A 250 A 250 	• at AC-21 B / at 400 V / Rated value	Α	250
 at AC-22 B / at 400 V / Rated value at AC-22 B / at 500 V / Rated value A 250 	• at AC-21 B / at 500 V / Rated value	Α	250
● at AC-22 B / at 500 V / Rated value A 250	• at AC-21 B / at 690 V / Rated value	Α	250
	• at AC-22 B / at 400 V / Rated value	Α	250
• at AC-22 B / at 690 V / Rated value A 250	• at AC-22 B / at 500 V / Rated value	Α	250
	• at AC-22 B / at 690 V / Rated value	Α	250

• at AC-23 B / at 400 V / Rated value	Α	250
• at AC-23 B / at 500 V / Rated value	Α	200
• at AC-23 B / at 690 V / Rated value	Α	100
 with capacitive load / at 400 V / maximum 	Α	72
• with capacitive load / at 500 V / maximum	Α	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		Yes
Phase failure monitoring		No
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
 Phase failure monitoring 		Yes
— Voltage trigger		No
 Overvoltage protection monitoring 		Yes
Product function		
Product function		
fuse monitoring		Yes
Overvoltage protection monitoring		No
Short circuit		
Conditional short-circuit current (Iq)		
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	50
 with closed switch / with AC / at 500 V / Rated value 	kA	120
 with closed switch / with 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	16
• single or multi-stranded / maximum	mm²	150
• stranded / minimum	mm²	16
stranded / maximum	mm²	150
Tightening torque / with screw-type terminals		
• minimum	N·m	10
• maximum	N·m	12
Type of electrical connection / for main current circuit		flat connector
Mechanical Design		
Mechanical Design Height	mm	306
	mm mm	306 183.7
Height Width Depth		183.7 172.3
Height Width Depth mounting position	mm	183.7 172.3 horizontally or vertically
Height Width Depth mounting position Mounting type	mm	183.7 172.3
Height Width Depth mounting position Mounting type Mounting type	mm	183.7 172.3 horizontally or vertically busbar mounting
Height Width Depth mounting position Mounting type Mounting type • floor mounting	mm	183.7 172.3 horizontally or vertically busbar mounting No
Height Width Depth mounting position Mounting type Mounting type	mm	183.7 172.3 horizontally or vertically busbar mounting No No
Height Width Depth mounting position Mounting type Mounting type • floor mounting	mm	183.7 172.3 horizontally or vertically busbar mounting No
Height Width Depth mounting position Mounting type Mounting type • floor mounting • front mounting	mm	183.7 172.3 horizontally or vertically busbar mounting No No
Height Width Depth mounting position Mounting type Mounting type • floor mounting • front mounting • front mounting with 4-hole attachment • front mounting with central attachment • rail mounting	mm	183.7 172.3 horizontally or vertically busbar mounting No No No
Height Width Depth mounting position Mounting type Mounting type • floor mounting • front mounting • front mounting with 4-hole attachment • front mounting with central attachment	mm	183.7 172.3 horizontally or vertically busbar mounting No No No No
Height Width Depth mounting position Mounting type Mounting type • floor mounting • front mounting • front mounting with 4-hole attachment • front mounting with central attachment • rail mounting Busbar center-to-center spacing Environmental conditions	mm	183.7 172.3 horizontally or vertically busbar mounting No No No No No Yes
Height Width Depth mounting position Mounting type Mounting type • floor mounting • front mounting • front mounting with 4-hole attachment • front mounting with central attachment • rail mounting Busbar center-to-center spacing	mm	183.7 172.3 horizontally or vertically busbar mounting No No No No No O No O No O No
Height Width Depth mounting position Mounting type Mounting type • floor mounting • front mounting • front mounting with 4-hole attachment • front mounting with central attachment • rail mounting Busbar center-to-center spacing Environmental conditions	mm mm	183.7 172.3 horizontally or vertically busbar mounting No No No No No Yes
Height Width Depth mounting position Mounting type Mounting type • floor mounting • front mounting • front mounting with 4-hole attachment • front mounting with central attachment • rail mounting Busbar center-to-center spacing Environmental conditions Ambient temperature	mm mm	183.7 172.3 horizontally or vertically busbar mounting No No No No No O No O No O No
Height Width Depth mounting position Mounting type Mounting type • floor mounting • front mounting • front mounting with 4-hole attachment • front mounting with central attachment • rail mounting Busbar center-to-center spacing Environmental conditions Ambient temperature • during operation / minimum	mm mm	183.7 172.3 horizontally or vertically busbar mounting No No No No Yes 60
Height Width Depth mounting position Mounting type Mounting type • floor mounting • front mounting • front mounting with 4-hole attachment • front mounting with central attachment • rail mounting Busbar center-to-center spacing Environmental conditions Ambient temperature • during operation / minimum • during operation / maximum	mm mm	183.7 172.3 horizontally or vertically busbar mounting No No No No Yes 60 -25 55

Equipment marking

• acc. to DIN EN 61346-2

• acc. to DIN EN 81346-2

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General Product Approval

Declaration of Conformity













T	est
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Shipping Approval

Certificates

Type Test Certificates/Test Report









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/3NP11431BC12

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

automation.siemens.com/WW/view/en/3NP11431BC12/all

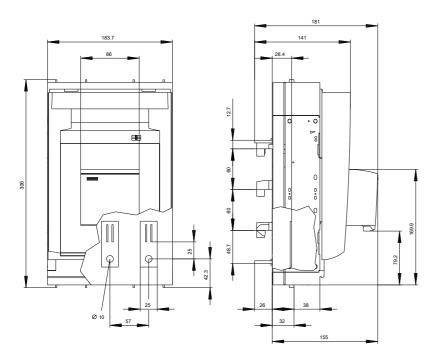
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP11431BC12

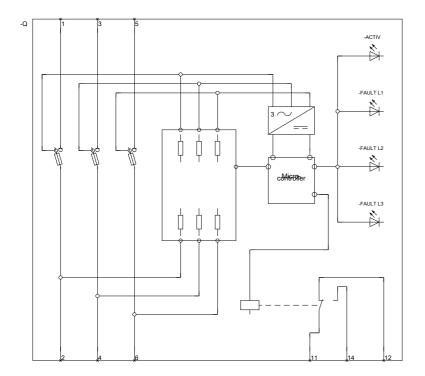
CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv





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