SIEMENS

Data sheet 3NP1143-1JC12



FUSE-SWITCH-DISCONNECTOR 3-POLE, NH1, 250A 60MM BUSBAR SYSTEM COVERS FOR RITTAL 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 eib Rittal 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 permissible	kA	32
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
Mechanical service life (switching cycles) / typical		1 600

Insulation voltage / Rated value	Fuse system		LV HRC fuse
Power factor / at AC-21 B Surge voltage resistance / Rated value Protection class 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 Dissipation Active power loss • maximum W 23 Electricity Confinuous current • Rated value • at 40 °C / Rated value • at 45 °C / Rated value • at 55 °C /	Voltage		
Surge voltage resistance / Rated value Protection class 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 Dissipation Active power loss • maximum W 23 Electricity Continuous current • Rated value • at 40 °C / Rated value • at 55 °C / Rated value • at 50 °C /		V	690
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 Dissipation Active power loss • maximum W 23 Electricity Continuous current • Rated value • at 40 °C / Rated value • at 45 °C / Rated value • at 55 °C / Rated value • at 50 °C / Rated val	Power factor / at AC-21 B		0.95
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 Dissipation Active power loss • maximum W 23 Electricity Continuous current • Rated value • at 40 °C / Rated value • at 45 °C / Rated value • at 55 °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 • 500 V • 500 V A 32 000 cut-off value **2t,max. / 400 V	Surge voltage resistance / Rated value	kV	8
with closed switch / with cover or cable lug cover with closed switch / without cover or cable lug cover on the front open Dissipation Active power loss maximum W 23 Electricity Continuous current Rated value A 250 A 245 A 245 A 240 A 250 C / Rated value A 240 A 240 A 240 A 250 A 240 A 250 A 260 A 27 A 27 A 28 A 28 A 28 A 28 A 28 A 28			
e with closed switch / without cover or cable lug cover • on the front • open Dissipation Active power loss • maximum W 23 Electricity Continuous current • Rated value • at 40 °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 • at 55 °C / Rated value A 233 Let-through current / itc / maximum permissible Let-through current / ic / maximum permissible • 400 V • 5500V A 32 000 cut-off value **2t,max. / 400 V Main circuit Operating voltage	Protection class IP		
cover • on the front • open Dissipation Active power loss • maximum W 23 Electricity Continuous current • Rated value • at 40 °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 • at 55 °C / Rated value A 233 • 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 Main circuit Operating voltage	-		IP40
● on the front ● open Dissipation Active power loss ● maximum W 23 Electricity Continuous current ● Rated value ● at 40 °C / Rated value ● at 45 °C / Rated value A 245 ● at 45 °C / Rated value A 233 ● at 55 °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 Main circuit Operating voltage	 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 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 Let-through current / Ic / maximum permissible ● 400 V A 32 000 ● 500V Cut-off value I**2t,max. / 400 V A²-s 780 000 Main circuit Operating voltage	cover		
Dissipation Active power loss • maximum W 23 Electricity Continuous current • Rated value • at 40 °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 • at 55 °C / Rated value A 233 Let-through current / with high-speed activation / maximum permissible Let-through current / Ic / 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 Main circuit Operating voltage	• on the front		IP40
Active power loss • maximum Maximum W 23	• open		IP20
■ maximum W 23 Electricity	·		
Electricity Continuous current • Rated value • at 40 °C / Rated value • at 45 °C / Rated value • at 55 °C / Rated value • at 55 °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 Main circuit Operating voltage	Active power loss		
Continuous current Rated value A 250 at 40 °C / Rated value 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 Let-through current / Ic / maximum permissible 400 V 500V A 32 000 cut-off value I**2t,max. / 400 V Main circuit Operating voltage	● maximum	W	23
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 Let-through current / Ic / maximum permissible 400 V 500V A 32 000 cut-off value I**2t,max. / 400 V Main circuit Operating voltage			
at 40 °C / Rated value at 45 °C / Rated value at 50 °C / Rated value at 55 °C / Rated value A 233 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 Main circuit Operating voltage	Continuous current		
at 45 °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 V 500V A 32 000 cut-off value I**2t,max. / 400 V A²-s 780 000 Main circuit Operating voltage	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 Cut-off value I**2t,max. / 400 V A 32 000 Main circuit Operating voltage	• at 40 °C / Rated value	Α	245
at 55 °C / Rated value A 233 Let-through current / with high-speed activation / kA 25 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	● 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 Main circuit Operating voltage	● at 50 °C / Rated value	Α	233
maximum permissible Let-through current / Ic / maximum permissible • 400 V • 500V A 32 000 cut-off value I**2t,max. / 400 V Main circuit Operating voltage	• at 55 °C / Rated value	Α	233
		kA	25
● 500V cut-off value I**2t,max. / 400 V A²-s 780 000 Main circuit Operating voltage	Let-through current / Ic / maximum permissible		
cut-off value I**2t,max. / 400 V A²-s 780 000 Main circuit Operating voltage	• 400 V	Α	32 000
Main circuit Operating voltage	• 500V	Α	32 000
Operating voltage	cut-off value I**2t,max. / 400 V	A ² ·s	780 000
	Main circuit		
• with AC / Rated value / minimum V 230	Operating voltage		
	with AC / Rated value / minimum	V	230
• with AC / Rated value / maximum V 690	with AC / Rated value / maximum	V	690
Operating current	Operating current		
• at AC-21 B / at 400 V / Rated value A 250	• at AC-21 B / at 400 V / Rated value	Α	250
• at AC-21 B / at 500 V / Rated value A 250	• at AC-21 B / at 500 V / Rated value	Α	250
• at AC-21 B / at 690 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 A 250	• at AC-22 B / at 400 V / Rated value	Α	250
• at AC-22 B / at 500 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 A 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		183.7 169.3
Height Width Depth mounting position	mm	183.7 169.3 horizontally or vertically
Height Width Depth mounting position Mounting type	mm	183.7 169.3
Height Width Depth mounting position Mounting type Mounting type	mm	183.7 169.3 horizontally or vertically busbar mounting
Height Width Depth mounting position Mounting type Mounting type • floor mounting	mm	183.7 169.3 horizontally or vertically busbar mounting No
Height Width Depth mounting position Mounting type Mounting type	mm	183.7 169.3 horizontally or vertically busbar mounting
Height Width Depth mounting position Mounting type Mounting type • floor mounting	mm	183.7 169.3 horizontally or vertically busbar mounting No
Height Width Depth mounting position Mounting type Mounting type • floor mounting • front mounting	mm	183.7 169.3 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	mm	183.7 169.3 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	183.7 169.3 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	mm	183.7 169.3 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	183.7 169.3 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	mm mm	183.7 169.3 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	183.7 169.3 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	183.7 169.3 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	183.7 169.3 horizontally or vertically busbar mounting No No No No Yes 60

Equipment marking

• acc. to DIN EN 61346-2

• acc. to DIN EN 81346-2

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General Product Approval

Declaration of Conformity













Test

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/3NP11431JC12

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

automation.siemens.com/WW/view/en/3NP11431JC12/all

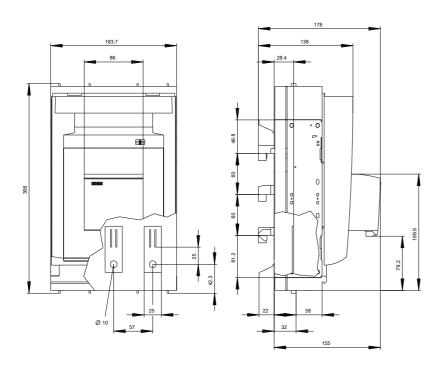
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP11431JC12

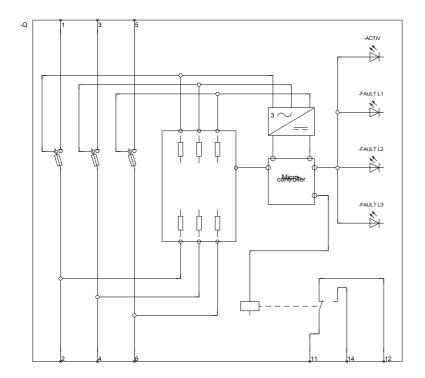
CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv





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