## **SIEMENS**

Data sheet 3NP1131-1CA20



SENTRON, fuse switch disconnector 3NP1, 1-pole, NH00, 160 A, for assembly and installation on mounting plate, box terminal, cover level 45 mm

product brand name product designation design of the product design of the safety monitoring Without Cover handle design of the actuating element Cover handle design of the driving mechanism / motor drive No type of the driving mechanism / motor drive No General technical data number of poles tize of disconnecting link size of fuse link let-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor at AC-22 B at AC-22 B at AC-23 B with capacitive load eger of pollution 3  Voltage insulation voltage rated value with degree of pollution 3 / at AC / rated value with degree of pollution 2 / at AC / rated value with degree of pollution 2 / at AC / rated value operating voltage at AC / rated value / maximum	Model				
design of the product design of the safety monitoring Without  Cover handle  design of the safety monitoring design of the load switch / strip form No  Type of the driving mechanism / motor drive  No  Ceneral technical data  Inumber of polles Itype of device Size of disconnecting link Size of fuse link  Itet-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor  at AC-22 B at AC-22 B at AC-23 B with capacitive load degree of pollution  Voltage  Insulation voltage a rated value with degree of pollution 2 / at AC / rated value with degree of pollution 2 / at AC / rated value with degree of pollution 2 / at AC / rated value with degree of pollution 2 / at AC / rated value with degree of pollution 2 / at AC / rated value at AC / rated value with degree of pollution 2 / at AC / rated value with degree of pollution 2 / at AC / rated value / maximum at DC / rated value	product brand name	SENTRON			
design of the safety monitoring design of the actuating element Cover handle Cover handle Cover handle Cover handle  No No No  General technical data  number of poles type of device Size of disconnecting link Size of fuse link Nh000, Nh00  let-through current? with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor • at AC-22 B • at AC-23 B • with capacitive load degree of pollution degree of pollution  Jordage  Insulation voltage • rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • at AC / rated value / maximum • at DC / rated value / maximum	product designation	3NP1 fuse switch disconnector			
design of the load switch / strip form No No No No Separal technical data number of poles 1 type of the driving mechanism / motor drive  Oand 000 Size of fuse link No No No No No Separal technical data number of poles 1 type of device Size of disconnecting link No	design of the product	cover level 45 mm			
design of the load switch / strip form type of the driving mechanism / motor drive  Roneral technical data  1 type of device	design of the safety monitoring				
type of the driving mechanism / motor drive  General technical data  number of poles  type of device  size of disconnecting link  size of fuse link  NH000, NH00  let-through current / with closed switch / maximum permissible  mechanical service life (switching cycles) / typical  power factor  at AC-22 B  at AC-23 B  with capacitive load  degree of pollution  Voltage  insulation voltage  arted value with degree of pollution 2 / at AC / rated value with degree of pollution 2 / at AC / ated value with degree resistance / rated value power factor / at AC-21 B  surge voltage resistance / rated value at AC / rated value / maximum  at CC / rated value / maximum	design of the actuating element				
General technical data number of poles type of device size of disconnecting link 00 and 000  Size of fuse link NH000, NH00  let-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical  power factor  • at AC-22 B • at AC-23 B • with capacitive load  degree of pollution  Voltage insulation voltage • rated value • with degree of pollution 3 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree resistance / rated value • with degree resistance / rated value • at AC-21 B  surge voltage resistance / rated value • at AC / rated value • at CC / rated value / maximum • at DC / rated value / maximum	design of the load switch / strip form	No			
number of poles type of device For assembly and installation on mounting plate size of disconnecting link 00 and 000 size of fuse link let-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor • at AC-22 B • at AC-23 B • with capacitive load fuse system LV HRC fuse degree of pollution 3 Voltage • rated value • with degree of pollution 3 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree resistance / rated value • at AC / 21 B surge voltage resistance / rated value • at AC / rated value / maximum • at AC / rated value / maximum • at DC / rated value / maximum • at DC / rated value / maximum • at DC / rated value / maximum  120 V  Protection class  protection class IP • with closed switch / with cover or cable lug cover	type of the driving mechanism / motor drive	No			
type of device  size of disconnecting link  size of fuse link  let-through current / with closed switch / maximum permissible  mechanical service life (switching cycles) / typical  power factor  • at AC-22 B • at AC-23 B • with capacitive load  • with capacitive load  fuse system  LV HRC fuse  degree of pollution  • at AC / rated value • with degree of pollution 3 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value  • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value  • with degree of pollution 2 / at AC / rated value  • at AC / rated value / maximum  • at DC / rated value / maximum  • with closed switch / with cover or cable lug cover	General technical data				
size of disconnecting link size of fuse link NH000, NH00  let-through current / with closed switch / maximum permissible mechanical service life (switching cycles) / typical power factor • at AC-22 B • at AC-23 B • with capacitive load fuse system degree of pollution 3  Voltage insulation voltage • rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value 1 000 V  power factor / at AC-21 B surge voltage resistance / rated value • at AC / rated value / maximum • at DC / rated value / maximum	number of poles	1			
size of fuse link  let-through current / with closed switch / maximum permissible  mechanical service life (switching cycles) / typical  power factor  • at AC-22 B • at AC-23 B • with capacitive load  fuse system  degree of pollution  voltage  • rated value • with degree of pollution 3 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value  • with degree sistance / rated value  • at AC-21 B  surge voltage resistance / rated value  • at AC / rated value  • at AC / rated value  • at AC / rated value / maximum  • at DC / rated value / maximum	type of device	For assembly and installation on mounting plate			
let-through current / with closed switch / maximum permissible  mechanical service life (switching cycles) / typical  power factor  • at AC-22 B • at AC-23 B • with capacitive load • o.25  fuse system  degree of pollution  3  Voltage  insulation voltage • rated value • with degree of pollution 3 / at AC / rated value • with degree of pollution 2 / at AC / rated value • with degree of pollution 2 / at AC / rated value  power factor / at AC-21 B  surge voltage resistance / rated value • at AC / rated value / maximum • at DC / rated value / maximum	size of disconnecting link	00 and 000			
permissible mechanical service life (switching cycles) / typical  power factor	size of fuse link	NH000, NH00			
power factor  at AC-22 B at AC-23 B bith capacitive load cgree of pollution  Voltage  insulation voltage a rated value bith degree of pollution 3 / at AC / rated value bith degree of pollution 2 / at AC / rated value bith degree of pollution 2 / at AC / rated value bith degree of pollution 2 / at AC / rated value bith degree of pollution 2 / at AC / rated value bith degree of pollution 2 / at AC / rated value bith degree of pollution 2 / at AC / rated value bith degree of pollution 2 / at AC / rated value bith degree of pollution 2 / at AC / rated value bith degree of pollution 2 / at AC / rated value bith degree of pollution 2 / at AC / rated value bith degree of pollution 3 / at AC / rated value bith degree of pollution 2 / at AC / rated value bith degree of pollution 3 / at AC / rated value bith degree of pollution 3 / at AC / rated value bith degree of pollution 2 / at AC / rated value bith degree of pollution 3 / at AC / rated value bith degree of p		20 kA			
<ul> <li>at AC-22 B</li> <li>at AC-23 B</li> <li>with capacitive load</li> <li>-0.25</li> <li>fuse system</li> <li>degree of pollution</li> <li>3</li> <li>Voltage</li> <li>insulation voltage</li> <li>at act or value</li> <li>with degree of pollution 3 / at AC / rated value</li> <li>with degree of pollution 2 / at AC / rated value</li> <li>with degree of pollution 2 / at AC / rated value</li> <li>1 000 V</li> <li>power factor / at AC-21 B</li> <li>surge voltage resistance / rated value</li> <li>operating voltage</li> <li>at AC / rated value / maximum</li> <li>at DC / rated value / maximum</li> <li< td=""><td>mechanical service life (switching cycles) / typical</td><td>2 000</td></li<></ul>	mechanical service life (switching cycles) / typical	2 000			
<ul> <li>at AC-23 B</li> <li>with capacitive load</li> <li>fuse system</li> <li>degree of pollution</li> <li>3</li> <li>Voltage</li> <li>insulation voltage</li> <li>at AC / rated value</li> <li>with degree of pollution 3 / at AC / rated value</li> <li>with degree of pollution 2 / at AC / rated value</li> <li>with degree of pollution 2 / at AC / rated value</li> <li>power factor / at AC-21 B</li> <li>surge voltage resistance / rated value</li> <li>operating voltage</li> <li>at AC / rated value / maximum</li> <li>at DC /</li></ul>	power factor				
with capacitive load	• at AC-22 B	0.65			
fuse system  degree of pollution  3  Voltage  insulation voltage  • rated value  • with degree of pollution 3 / at AC / rated value  • with degree of pollution 2 / at AC / rated value  • with degree of pollution 2 / at AC / rated value  1 000 V  power factor / at AC-21 B  surge voltage resistance / rated value  • at AC / rated value / maximum  • at AC / rated value / maximum  • at DC / rated value / maximum  • at DC / rated value / maximum  120 V  Protection class  protection class IP  • with closed switch / with cover or cable lug cover  IP40	• at AC-23 B	0.35			
degree of pollution  Voltage  insulation voltage  • rated value  • with degree of pollution 3 / at AC / rated value  • with degree of pollution 2 / at AC / rated value  • with degree of pollution 2 / at AC / rated value  power factor / at AC-21 B  surge voltage resistance / rated value  • at AC / rated value / maximum  • at DC / rated value / maximum  • at DC / rated value / maximum  • at DC / rated value / maximum  120 V  Protection class  protection class IP  • with closed switch / with cover or cable lug cover  IP40	with capacitive load	-0.25			
insulation voltage  • rated value  • with degree of pollution 3 / at AC / rated value  • with degree of pollution 2 / at AC / rated value  • with degree of pollution 2 / at AC / rated value  • with degree of pollution 2 / at AC / rated value  1 000 V  power factor / at AC-21 B  0.95  surge voltage resistance / rated value  8 kV  operating voltage  • at AC / rated value / maximum  240 V  • at DC / rated value / maximum  120 V  Protection class  protection class IP  • with closed switch / with cover or cable lug cover  IP40	fuse system	LV HRC fuse			
insulation voltage  • rated value  • with degree of pollution 3 / at AC / rated value  • with degree of pollution 2 / at AC / rated value  • with degree of pollution 2 / at AC / rated value  • with degree of pollution 2 / at AC / rated value  1 000 V  power factor / at AC-21 B  surge voltage resistance / rated value  • at AC / rated value / maximum  240 V  • at DC / rated value / maximum  120 V  Protection class  protection class IP  • with closed switch / with cover or cable lug cover  IP40	degree of pollution	3			
<ul> <li>rated value</li> <li>with degree of pollution 3 / at AC / rated value</li> <li>with degree of pollution 2 / at AC / rated value</li> <li>with degree of pollution 2 / at AC / rated value</li> <li>1 000 V</li> <li>power factor / at AC-21 B</li> <li>surge voltage resistance / rated value</li> <li>8 kV</li> <li>operating voltage</li> <li>at AC / rated value / maximum</li> <li>at DC / rated value</li> <li>at DC / rated value / maximum</li> <li>120 V</li> <li>at DC / rated value / maximum</li> <li>120 V</li> <li>with closed switch / with cover or cable lug cover</li> <li>IP40</li> </ul>	Voltage				
with degree of pollution 3 / at AC / rated value     with degree of pollution 2 / at AC / rated value     1 000 V  power factor / at AC-21 B     0.95  surge voltage resistance / rated value     operating voltage     at AC / rated value / maximum     at DC / rated value     at DC / rated value / maximum     120 V     at DC / rated value / maximum     120 V  Protection class  protection class IP     with closed switch / with cover or cable lug cover  IP40	insulation voltage				
<ul> <li>with degree of pollution 2 / at AC / rated value</li> <li>power factor / at AC-21 B</li> <li>surge voltage resistance / rated value</li> <li>8 kV</li> <li>operating voltage <ul> <li>at AC / rated value / maximum</li> <li>at DC / rated value</li> <li>at DC / rated value / maximum</li> <li>at DC / rated value / maximum</li> </ul> </li> <li>Protection class IP <ul> <li>with closed switch / with cover or cable lug cover</li> <li>IP40</li> </ul> </li> </ul>	rated value	690 V			
power factor / at AC-21 B surge voltage resistance / rated value  operating voltage  o at AC / rated value / maximum  at DC / rated value  at DC / rated value / maximum  120 V  rotection class  protection class IP  with closed switch / with cover or cable lug cover  IP40	<ul> <li>with degree of pollution 3 / at AC / rated value</li> </ul>	690 V			
surge voltage resistance / rated value  operating voltage  • at AC / rated value / maximum  • at DC / rated value  • at DC / rated value / maximum  120 V  Protection class  protection class IP  • with closed switch / with cover or cable lug cover  IP40	with degree of pollution 2 / at AC / rated value	1 000 V			
operating voltage  • at AC / rated value / maximum 240 V  • at DC / rated value 120 V  • at DC / rated value / maximum 120 V  Protection class  protection class IP  • with closed switch / with cover or cable lug cover IP40	power factor / at AC-21 B	0.95			
at AC / rated value / maximum  at DC / rated value  at DC / rated value / maximum  120 V  rated value / maximum  120 V  Protection class  protection class IP  with closed switch / with cover or cable lug cover  IP40	surge voltage resistance / rated value	8 kV			
at DC / rated value     at DC / rated value / maximum     120 V  Protection class  protection class IP     with closed switch / with cover or cable lug cover  IP40	operating voltage				
at DC / rated value / maximum  Protection class  protection class IP      with closed switch / with cover or cable lug cover  IP40	<ul><li>at AC / rated value / maximum</li></ul>	240 V			
Protection class  protection class IP  • with closed switch / with cover or cable lug cover IP40	at DC / rated value	120 V			
protection class IP  • with closed switch / with cover or cable lug cover IP40	<ul><li>at DC / rated value / maximum</li></ul>	120 V			
with closed switch / with cover or cable lug cover  IP40	Protection class				
	protection class IP				
with closed switch / without cover or cable lug cover  IP30	<ul> <li>with closed switch / with cover or cable lug cover</li> </ul>	IP40			
	<ul> <li>with closed switch / without cover or cable lug cover</li> </ul>	IP30			
• on the front IP40	• on the front	IP40			

• open	IP20
Dissipation	
power loss [W]	
with conventional rated thermal current / without fuse / per pole	5 W
<ul> <li>with conventional rated thermal current / without fuse / per device</li> </ul>	5 W
<ul> <li>for rated value of the current / at AC / in hot operating state / per pole</li> </ul>	17 W
<ul><li>of the fuse / per fuse / maximum</li></ul>	12 W
Current	
operational current	
at 35 °C / rated value	160 A
at 40 °C / rated value	155 A
at 45 °C / rated value	145 A
at 50 °C / rated value	140 A
at 55 °C / rated value	133 A
at AC / rated value	160 A
at AC-23 B / at 240 V / rated value	160 A
• at AC-22 B / at 240 V / rated value	160 A
• at AC-21 B / at 240 V / rated value	160 A
• at DC-23 B / at 120 V / rated value	100 A
• at DC-22 B / at 120 V / rated value	160 A
• at DC-22 B / at 120 V / rated value	160 A
let-through current / with high-speed activation / maximum	15 kA
permissible	IS NA
Main circuit	
operational current	
rated value	160 A
<ul> <li>with capacitive load / at 400 V / rated value</li> </ul>	72 A
<ul> <li>with capacitive load / at 500 V / rated value</li> </ul>	55 A
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 details product feature / interlock	Yes
·	
product component / trip indicator     product function / phase failure monitoring	No No
product function / phase failure monitoring	No No
product component / undervoltage release	No
product component / undervoltage release with leading contact	No
product feature / sealable	Yes
product extension / auxiliary switch	Yes
product extension / optional	
<ul> <li>locking capability</li> </ul>	Yes
<ul> <li>motor drive</li> </ul>	No
<ul> <li>phase failure monitoring</li> </ul>	Yes
<ul> <li>fuse monitoring</li> </ul>	Yes
<ul> <li>voltage trigger</li> </ul>	No
<ul> <li>overvoltage protection monitoring</li> </ul>	Yes
-	

General Product Approval Conformity		Test Certificates		Marine / Shipping
Declaration	of	Took Coulification		Marina / Oktowi
• maximum	80 °			
• minimum	-50	°C		
ambient temperature / during storage				
• maximum	55°			
minimum	-25	°C		
ambient temperature / during operation				
Environmental conditions	0.02			
net weight	0.32			
mounting position	_	zontal/vertical		
rail mounting	No			
front mounting with central attachment	No			
4-hole front mounting	No			
floor mounting	No			
fastening method fastening method		inting plate		
depth factoring method	_			
width	_	s mm s mm		
height	202			
Mechanical Design	000			
	DOX	terminai	_	_
type of connection technology type of electrical connection / for main current circuit	_	terminal terminal		
laminated conductors / maximum	- Dov	terminal		
type of connectable conductor cross-sections / of the	9 x	12 mm		
• maximum	10 N	l·m		
• minimum	10 N	<b>l</b> ·m		
tightening torque / with screw-type terminals				
stranded / maximum	70 n	nm²		
stranded / minimum	6 m	m²		
<ul> <li>finely stranded / with core end processing / maximum</li> </ul>	50 n	nm²		
<ul> <li>finely stranded / with core end processing / minimum</li> </ul>	6 m	m²		
solid or stranded / maximum	70 n			
<ul><li>solid or stranded / minimum</li></ul>	6 m			
connectable conductor cross-section / for main contacts				
arrangement of electrical connectors / for main current circuit	othe	r		
Connections				
• with closed switch / at AC / at 240 V / rated value	120	kA		
<ul> <li>at AC / at 240 V / with high-speed activation / rated value</li> </ul>	80 k	A		
rated value	80 k	A		
conditional short-circuit current (Iq)				
Short circuit				
overvoltage protection monitoring	No			
• fuse monitoring	No			
product function				



CE

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ates/Test Report



other

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3NP1131-1CA20

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

https://support.industry.siemens.com/cs/ww/en/ps/3NP1131-1CA20

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3NP1131-1CA20">http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3NP1131-1CA20</a>

**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://www.siemens.com/specifications











