## **SIEMENS**

Data sheet 3NP1131-1CA20

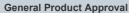


SENTRON, fuse switch disconnector 3NP1, 1-pole, NH00, 160 A, for assembly and installation on mounting plate, box terminal, cover level 45  $\,\mathrm{mm}$ 

product designation	Fuse switch disconnector
design of the safety monitoring	Without
design of the load switch strip form	No
type of the driving mechanism motor drive	No
eneral technical data	
number of poles	1
type of device	For assembly and installation on mounting plate
size of disconnecting link	00 and 000
size of fuse link	NH000, NH00
let-through current with closed switch maximum	20 kA
mechanical service life (operating cycles) typical	2 000
I2t value with closed switch maximum	120 kA2.s
power factor	
• at AC-22 B	0.65
• at AC-23 B	0.35
with capacitive load	-0.25
fuse system	LV HRC fuse
degree of pollution	3
'oltage	
insulation voltage	
• rated value	690 V
<ul> <li>with degree of pollution 3 at AC rated value</li> </ul>	690 V
<ul> <li>with degree of pollution 2 at AC rated value</li> </ul>	1 000 V
power factor at AC-21 B	0.95
surge voltage resistance rated value	8 kV
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-21 B at 240 V rated value	160 A
• at AC-22 B at 240 V rated value	160 A
• at AC-23 B at 240 V rated value	160 A
• at DC-21 B at 120 V rated value	160 A
• at DC-22 B at 120 V rated value	160 A
• at DC-23 B at 120 V rated value	100 A
let-through current with high-speed activation maximum permissible	15 kA

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	
<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
• open	IP20
Dissipation	
power loss [W]	
<ul> <li>with conventional rated thermal current without fuse per pole</li> </ul>	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
of the fuse per fuse maximum	12 W
Main circuit	
operational current	
• rated value	160 A
<ul> <li>with capacitive load at 400 V rated value</li> </ul>	72 A
with capacitive load at 500 V rated value	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 
<ul> <li>switch disconnector</li> </ul>	Yes
EMERGENCY OFF switch	No
• safety switch	Yes
safety switch     maintenance/repair switch	
safety switch     maintenance/repair switch  Product details	Yes Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring	Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring product component	Yes Yes No
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring  product component     undervoltage release	Yes Yes No
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring product component     undervoltage release     undervoltage release with leading contact	Yes Yes No No No
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring product component     undervoltage release     undervoltage release with leading contact product feature sealable	Yes Yes No No No No Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring  product component     undervoltage release     undervoltage release with leading contact  product feature sealable  product extension auxiliary switch	Yes Yes No No No
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring  product component     undervoltage release     undervoltage release with leading contact  product feature sealable  product extension auxiliary switch  product extension optional	Yes Yes No No No Yes Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring product component     undervoltage release     undervoltage release with leading contact product feature sealable product extension auxiliary switch  product extension optional     locking capability	Yes Yes No No No Yes Yes Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring product component     undervoltage release     undervoltage release with leading contact product feature sealable product extension auxiliary switch product extension optional     locking capability     phase failure monitoring	Yes Yes  No No No No Yes Yes Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring product component     undervoltage release     undervoltage release with leading contact product feature sealable product extension auxiliary switch  product extension optional     locking capability     phase failure monitoring     fuse monitoring	Yes Yes  No No No Yes Yes Yes Yes Yes Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring  product component     undervoltage release     undervoltage release with leading contact  product feature sealable  product extension auxiliary switch  product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger	Yes Yes  No No No Yes Yes Yes Yes Yes Yes Yes Yes Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring  product component     undervoltage release     undervoltage release with leading contact  product feature sealable  product extension auxiliary switch  product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger     overvoltage protection monitoring	Yes Yes  No No No Yes Yes Yes Yes Yes Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring product component     undervoltage release     undervoltage release with leading contact  product feature sealable product extension auxiliary switch  product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger     overvoltage protection monitoring  Product function	Yes Yes  No No No No Yes Yes Yes Yes Yes Yes Yes Yes Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring product component     undervoltage release     undervoltage release with leading contact product feature sealable product extension auxiliary switch product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger     overvoltage protection monitoring  Product function product function overvoltage protection monitoring	Yes Yes  No No No Yes Yes Yes Yes Yes Yes Yes Yes Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring  product component     undervoltage release     undervoltage release with leading contact  product feature sealable  product extension auxiliary switch  product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger     overvoltage protection monitoring  Product function  product function overvoltage protection monitoring  Short circuit	Yes Yes  No No No No Yes Yes Yes Yes Yes Yes Yes Yes Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring  product component     undervoltage release     undervoltage release with leading contact  product feature sealable  product extension auxiliary switch  product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger     overvoltage protection monitoring  Product function  product function overvoltage protection monitoring  Short circuit  conditional short-circuit current (Iq)	Yes Yes  No No No No Yes Yes Yes Yes Yes Yes No Yes No No
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring  product component     undervoltage release     undervoltage release with leading contact  product feature sealable  product extension auxiliary switch  product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger     overvoltage protection monitoring  Product function  product function  product function overvoltage protection monitoring  Short circuit  conditional short-circuit current (Iq)     at AC at 240 V with high-speed activation rated value	Yes Yes  No No No No Yes Yes Yes Yes Yes Yes No Yes No Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring product component     undervoltage release     undervoltage release with leading contact  product feature sealable product extension auxiliary switch  product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger     overvoltage protection monitoring  Product function  product function overvoltage protection monitoring  Short circuit  conditional short-circuit current (Iq)     at AC at 240 V with high-speed activation rated value     with closed switch at AC at 240 V rated value	Yes Yes  No No No No Yes Yes Yes Yes Yes Yes No Yes No
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring product component     undervoltage release     undervoltage release with leading contact product feature sealable product extension auxiliary switch product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger     overvoltage protection monitoring  Product function product function overvoltage protection monitoring  Short circuit conditional short-circuit current (Iq)     at AC at 240 V with high-speed activation rated value     with closed switch at AC at 240 V rated value  Connections	Yes Yes  No No No No Yes Yes Yes Yes Yes Yes No Yes No Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring product component     undervoltage release     undervoltage release with leading contact product feature sealable product extension auxiliary switch  product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger     overvoltage protection monitoring  Product function  product function overvoltage protection monitoring  Short circuit  conditional short-circuit current (Iq)     at AC at 240 V with high-speed activation rated value     with closed switch at AC at 240 V rated value  Connections arrangement of electrical connectors for main current circuit	Yes Yes  No No No No Yes Yes Yes Yes Yes Yes No Yes No Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring  product component     undervoltage release     undervoltage release with leading contact  product feature sealable  product extension auxiliary switch  product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger     overvoltage protection monitoring  Product function  product function  product function overvoltage protection monitoring  Short circuit  conditional short-circuit current (Iq)     at AC at 240 V with high-speed activation rated value     with closed switch at AC at 240 V rated value  Connections  arrangement of electrical connectors for main current circuit connectable conductor cross-section for main contacts	Yes Yes  No No No No Yes Yes Yes Yes Yes Yes No Yes No Yes No Yes
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring  product component     undervoltage release     undervoltage release with leading contact  product feature sealable  product extension auxiliary switch  product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger     overvoltage protection monitoring  Product function  product function overvoltage protection monitoring  Short circuit  conditional short-circuit current (Iq)     at AC at 240 V with high-speed activation rated value     with closed switch at AC at 240 V rated value  Connections  arrangement of electrical connectors for main current circuit  connectable conductor cross-section for main contacts     solid or stranded minimum	Yes Yes  No  No  No  No  Yes  Yes  Yes  Yes  Yes  Yes  No  Yes  No  Tes  Tes  Tes  Tes  Tes  Tes  Tes  Te
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring  product component     undervoltage release     undervoltage release with leading contact  product feature sealable  product extension auxiliary switch  product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger     overvoltage protection monitoring  Product function  product function overvoltage protection monitoring  Short circuit  conditional short-circuit current (Iq)     at AC at 240 V with high-speed activation rated value     with closed switch at AC at 240 V rated value  Connections  arrangement of electrical connectors for main current circuit  connectable conductor cross-section for main contacts     solid or stranded minimum     solid or stranded maximum	Yes Yes  No  No  No  No  Yes  Yes  Yes  Yes  Yes  Yes  No  Yes  No  The state of th
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring  product component     undervoltage release     undervoltage release with leading contact  product feature sealable  product extension auxiliary switch  product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger     vorvoltage protection monitoring  Product function  product function overvoltage protection monitoring  Short circuit  conditional short-circuit current (Iq)     at AC at 240 V with high-speed activation rated value     with closed switch at AC at 240 V rated value  Connections  arrangement of electrical connectors for main current circuit  connectable conductor cross-section for main contacts     solid or stranded minimum     solid or stranded maximum     finely stranded with core end processing minimum	Yes Yes Yes No No No No Yes Yes Yes Yes Yes No Yes No Tes No Tes No
safety switch     maintenance/repair switch  Product details  product function phase failure monitoring  product component     undervoltage release     undervoltage release with leading contact  product feature sealable  product extension auxiliary switch  product extension optional     locking capability     phase failure monitoring     fuse monitoring     voltage trigger     overvoltage protection monitoring  Product function  product function overvoltage protection monitoring  Short circuit  conditional short-circuit current (Iq)     at AC at 240 V with high-speed activation rated value     with closed switch at AC at 240 V rated value  Connections  arrangement of electrical connectors for main current circuit  connectable conductor cross-section for main contacts     solid or stranded minimum     solid or stranded maximum	Yes Yes Yes No No No No Yes Yes Yes Yes Yes Yes No Yes No Other  6 mm² 70 mm²

stranded maximum	70 mm²
tightening torque with screw-type terminals	
• minimum	10 N·m
• maximum	10 N·m
type of connectable conductor cross-sections of the laminated conductors maximum	9 x 12 mm
type of connection technology	Box terminal
Mechanical Design	
height	202 mm
width	41.8 mm
depth	86.5 mm
fastening method	mounting plate
fastening method	
• floor mounting	No
• rail mounting	No
mounting position	horizontal/vertical
net weight	0.32 kg
Environmental conditions	
ambient temperature during operation	
• minimum	-25 °C
• maximum	55 °C
ambient temperature during storage	
• minimum	-50 °C
• maximum	80 °C
Certificates	
reference code according to IEC 81346-2	Q
Approvals Certificates	
Conoral Braduct Approval	









Confirmation

**Miscellaneous** 



Test Certificates Marine / Shipping other Environment

Special Test Certificate

Type Test Certificates/Test Report



**Miscellaneous** 

Confirmation



## **Environment**

Environmental Confirmations Environmental Confirmations

## Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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

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

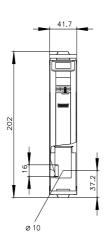
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3NP1131-1CA20

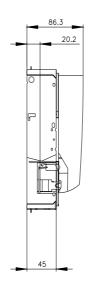
**CAx-Online-Generator** 

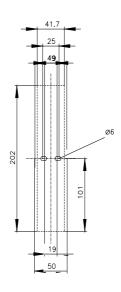
http://www.siemens.com/cax

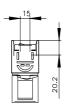
Tender specifications

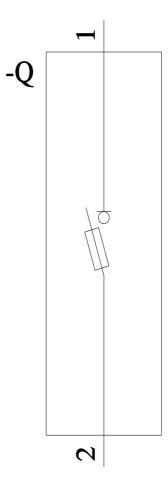
http://www.siemens.com/specifications

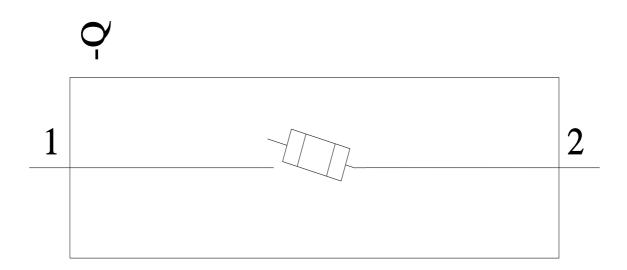












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