## **SIEMENS**

Data sheet 3NP1133-1JB23

SENTRON, Fuse switch disconnector 3NP1, 3-pole, NH00, 160 A, for Rittal busbar system 40 mm, Box terminal, Fuse monitoring: electronic EFM20, Cover level 32/70 mm



Model	
Product brand name	SENTRON
Product designation	3NP1 fuse switch disconnector
Design of the product	cover level 32/70 mm
Busbar design	busbar thickness 5 or 10 mm
Design of the safety monitoring	electronic EFM 20
Design of the operating mechanism	Cover handle
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	For Rittal 40 mm busbar system
Size of disconnecting link	00 and 000
Size of fuse link	NH000, NH00
Continuous current / at 35 °C / rated value	160 A
Let-through current / with closed switch / maximum permissible	23 kA
cut-off value I**2t,max. / 500 V	158 000 A²-s
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	2 000
Fuse system	LV HRC fuse
Voltage	
Insulation voltage / rated value	690 V
Power factor / at AC-21 B	0.95
Surge voltage resistance / rated value	8 kV
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
• on the front	IP40
• open	IP20
Electricity	
Continuous current	
• 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
Let-through current / with high-speed activation /	15 kA
maximum permissible	
Let-through current / Ic / maximum permissible	
• 400 V	23 000 A
• 500V	23 000 A
cut-off value I**2t,max. / 400 V	158 000 A²-s
Main circuit	
Operating voltage	
<ul><li>at AC / rated value / minimum</li></ul>	230 V
<ul><li>at AC / rated value / maximum</li></ul>	690 V
Operating current / with capacitive load	
• at 400 V / maximum	72 A
● at 500 V / maximum	55 A
Auxiliary circuit	
Number of CO contacts / for auxiliary contacts	0
Number of NC contacts / for auxiliary contacts	0

Suitability  Suitability for use  • Main switch • switch disconnector • safety switch • safety switch • safety switch • maintenance/repair switch  Product details  Product feature / interlock  Product gature / interlock  Product gature / interlock  • Phase failure monitoring • Trip indicator • Phase failure monitoring • undervoltage release • undervoltage release • undervoltage release with leading contact • No  Product setsmison • Auxiliary switch • optional — locking capability — motor drive — voltage trigger  No  Product function  • fuse monitoring • fuse monitoring • (see monitoring) • (see	Number of NO contacts / for auxiliary contacts	0	
Suitability for use  (Main switch disconnector (Switch disconnector (Sw	Suitability		
Main switch  Switch disconnector  Switch disconnector  EMERGENCY OFF switch  Safety safet			
EMERGENCY OFF switch safety s		No	
safety switch     maintenance/repair switch     Yes  Product details  Product feature / interlock     Yes  Product feature / interlock     Yes  Product component     Trip indicator     Phase failure monitoring     Yes     • undervoltage release     No     • undervoltage release with leading contact  Product feature / sealable  Product extension     • Auxiliary switch     • optional     — locking capability     — motor drive     — Voltage trigger  Product function  Product function  Product function  Product function  Product function  Product function  • fuse monitoring     • Overvoltage protection monitoring     • Overvoltage protection monitoring     • at AC / at 500 V / with high-speed activation / rated value     • at AC / at 500 V / with high-speed activation / rated value     • with closed switch / at AC / at 500 V / rated value     • with closed switch / at AC / at 690 V / rated value     • with closed switch / at AC / at 690 V / rated value     • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value	switch disconnector	Yes	
• maintenance/repair switch  Product details  Product feature / interlock  Product component  • Trip indicator • Phase failure monitoring • undervoltage release • undervoltage release with leading contact Product feature / sealable Product extension • Auxiliary switch • optional — locking capability — motor drive — Voltage trigger  Product function  Product function  Product function  Product function  • Suse monitoring • Overvoltage protection monitoring  Yes  Short circuit  Conditional short-circuit current (Iq) • rated value • at AC / at 500 V / with high-speed activation / rated value • with closed switch / at AC / at 690 V / rated value	EMERGENCY OFF switch	No	
Product details  Product feature / interlock Product component  • Trip indicator • Phase failure monitoring • Uses • undervoltage release • undervoltage release with leading contact  Product feature / sealable Product extension • Auxiliary switch • optional — locking capability — motor drive — Voltage trigger No  Product function  Product function • fuse monitoring • fuse monitoring • Overvoltage protection monitoring Yes  Short circuit  Conditional short-circuit current (Iq) • rated value • at AC / at 500 V / with high-speed activation / rated value • at AC / at 500 V / with high-speed activation / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value	safety switch	Yes	
Product feature / interlock Product component  Trip indicator Phase failure monitoring undervoltage release undervoltage release undervoltage release undervoltage release very ses Product feature / sealable Product extension Auxiliary switch ves product extension Auxiliary switch ves product direction Product direction Ves Ves Ves Product function Product function Product function  Product function  Product function  Product function  Product function  Auxiliary switch Ves Ves No  Product function  Product function  Product function  Auxiliary switch Ves No  No  Product function  Product function  Product function  Auxiliary switch Ves No  No  Product function  Product function  Auxiliary switch Ves No  No  Product function  1	• maintenance/repair switch	Yes	
Product component  Trip indicator Phase failure monitoring undervoltage release undervoltage release undervoltage release with leading contact Product feature / sealable Product extension Auxiliary switch optional locking capability motor drive Voltage trigger No  Product function  Product function  Product function  Product function  Product function  Product function  Auxiliary switch So define a sea sea sea sea sea sea sea sea sea	Product details		
Trip indicator Phase failure monitoring Undervoltage release Undervoltage release Undervoltage release with leading contact Ves Undervoltage release with leading contact No Product feature / sealable Product extension Auxiliary switch Undervoltage protection Undervoltage release with leading contact Ves Product extension Auxiliary switch Undervoltage protection Undervoltage trigger Undervoltage trigger Undervoltage protection monitoring Ves Short circuit Conditional short-circuit current (Iq) Undervoltage activation / Farated value Undervoltage activation / Farated value Undervoltage witch / at AC / at 500 V / rated value Undervoltage witch / at AC / at 690 V / rated value Undervoltage witch / at AC / at 690 V / rated value Undervoltage witch / at AC / at 690 V / rated value Undervoltage witch / at AC / at 690 V / rated value Undervoltage value Undervolta	Product feature / interlock	Yes	
Phase failure monitoring undervoltage release undervoltage release with leading contact No  Product feature / sealable  Product extension Auxiliary switch optional Locking capability Solution Ves No Voltage trigger No  Product function  Product function  Product function  Product function  For direction Outproduct function  For direction Outproduct function  For direction Outproduct function Outproduct	Product component		
undervoltage release undervoltage release with leading contact No  Product feature / sealable Yes  Product extension  Auxiliary switch optional  Locking capability Sea Toologe frager No  Product function  Product function  Product function  Product function  Product function  Short circuit  Conditional short-circuit current (Iq) rated value at AC / at 500 V / with high-speed activation / rated value with closed switch / at AC / at 690 V / rated value with closed switch / at AC / at 690 V / rated value with closed switch / at AC / at 690 V / rated value with closed switch / at AC / at 690 V / rated value with closed switch / at AC / at 690 V / rated value with closed switch / at AC / at 690 V / rated value with closed switch / at AC / at 690 V / rated value  Oconnections  Arrangement of electrical connectors / for main other	Trip indicator	Yes	
undervoltage release with leading contact  Product feature / sealable  Product extension  Auxiliary switch  optional  locking capability  motor drive  Ves  No  Product function  Product function  Product function  fuse monitoring  overvoltage protection monitoring  Short circuit  Conditional short-circuit current (Iq)  rated value  at AC / at 500 V / with high-speed activation / rated value  with closed switch / at AC / at 500 V / rated value  with closed switch / at AC / at 690 V / rated value  with closed switch / at AC / at 690 V / rated value  with closed switch / at AC / at 690 V / rated value  with closed switch / at AC / at 690 V / rated value  with closed switch / at AC / at 690 V / rated value  with closed switch / at AC / at 690 V / rated value  with closed switch / at AC / at 690 V / rated value  overvoltage release with leading contact  Ves  No  Product function  Yes  Short  Connections  Arrangement of electrical connectors / for main  other	<ul> <li>Phase failure monitoring</li> </ul>	Yes	
Product feature / sealable Product extension  • Auxiliary switch • optional — locking capability — motor drive — Voltage trigger No  Product function  Product function  • fuse monitoring • Overvoltage protection monitoring  Short circuit  Conditional short-circuit current (Iq) • rated value • at AC / at 500 V / with high-speed activation / rated value • at AC / at 690 V / with high-speed activation / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value	<ul> <li>undervoltage release</li> </ul>	No	
Product extension  Auxiliary switch  optional  - locking capability  - motor drive  - Voltage trigger  No  Product function  Product function  Product function  • fuse monitoring  • Overvoltage protection monitoring  Yes  Short circuit  Conditional short-circuit current (Iq)  • rated value  • at AC / at 500 V / with high-speed activation / rated value  • at AC / at 690 V / with high-speed activation / rated value  • with closed switch / at AC / at 500 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value	<ul> <li>undervoltage release with leading contact</li> </ul>	No	
Auxiliary switch optional  locking capability motor drive No Voltage trigger No  Product function  Product function  fuse monitoring Overvoltage protection monitoring  Short circuit  Conditional short-circuit current (lq) rated value at AC / at 500 V / with high-speed activation / rated value  at AC / at 690 V / with high-speed activation / rated value with closed switch / at AC / at 500 V / rated value with closed switch / at AC / at 690 V / rated value with closed switch / at AC / at 690 V / rated value with closed switch / at AC / at 690 V / rated value  owith closed switch / at AC / at 690 V / rated value	Product feature / sealable	Yes	
optional     — locking capability     — motor drive     — Woltage trigger  Product function  Product function  • fuse monitoring     • Overvoltage protection monitoring  Short circuit  Conditional short-circuit current (Iq)  • rated value     • at AC / at 500 V / with high-speed activation / rated value  • at AC / at 690 V / with high-speed activation / rated value  • with closed switch / at AC / at 500 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value	Product extension		
locking capability	<ul> <li>Auxiliary switch</li> </ul>	Yes	
— motor drive — Voltage trigger  Product function  Product function  • fuse monitoring • fuse monitoring • Overvoltage protection monitoring  Yes  Short circuit  Conditional short-circuit current (Iq) • rated value • at AC / at 500 V / with high-speed activation / rated value • at AC / at 690 V / with high-speed activation / rated value • with closed switch / at AC / at 500 V / rated value • with closed switch / at AC / at 690 V / rated value	<ul><li>optional</li></ul>		
Product function  Product function  • fuse monitoring • Overvoltage protection monitoring  Yes  Short circuit  Conditional short-circuit current (Iq) • rated value • at AC / at 500 V / with high-speed activation / rated value • at AC / at 690 V / with high-speed activation / rated value • with closed switch / at AC / at 500 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value	<ul><li>— locking capability</li></ul>	Yes	
Product function  • fuse monitoring • fuse monitoring • Overvoltage protection monitoring  Short circuit  Conditional short-circuit current (Iq) • rated value • at AC / at 500 V / with high-speed activation / rated value • at AC / at 690 V / with high-speed activation / rated value • with closed switch / at AC / at 500 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value • with closed switch / at AC / at 690 V / rated value	— motor drive	No	
Product function  • fuse monitoring  • Overvoltage protection monitoring  Short circuit  Conditional short-circuit current (Iq)  • rated value  • at AC / at 500 V / with high-speed activation / rated value  • at AC / at 690 V / with high-speed activation / rated value  • with closed switch / at AC / at 500 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  Connections  Arrangement of electrical connectors / for main other	— Voltage trigger	No	
fuse monitoring     Overvoltage protection monitoring  Short circuit  Conditional short-circuit current (Iq)     rated value     at AC / at 500 V / with high-speed activation / rated value     at AC / at 690 V / with high-speed activation / rated value     with closed switch / at AC / at 500 V / rated value     with closed switch / at AC / at 690 V / rated value     with closed switch / at AC / at 690 V / rated value     with closed switch / at AC / at 690 V / rated value     with closed switch / at AC / at 690 V / rated value  Connections  Arrangement of electrical connectors / for main other			
Overvoltage protection monitoring  Short circuit  Conditional short-circuit current (Iq)      rated value     at AC / at 500 V / with high-speed activation / rated value     at AC / at 690 V / with high-speed activation / rated value     with closed switch / at AC / at 500 V / rated value     with closed switch / at AC / at 690 V / rated value     with closed switch / at AC / at 690 V / rated value     with closed switch / at AC / at 690 V / rated value  Connections  Arrangement of electrical connectors / for main other	Product function		
Conditional short-circuit current (Iq)  • rated value  • at AC / at 500 V / with high-speed activation / rated value  • at AC / at 690 V / with high-speed activation / rated value  • with closed switch / at AC / at 500 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  Connections  Arrangement of electrical connectors / for main	<ul><li>fuse monitoring</li></ul>	Yes	
Conditional short-circuit current (Iq)  • rated value  • at AC / at 500 V / with high-speed activation / 80 kA  rated value  • at AC / at 690 V / with high-speed activation / 80 kA  rated value  • with closed switch / at AC / at 500 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  Connections  Arrangement of electrical connectors / for main other	<ul> <li>Overvoltage protection monitoring</li> </ul>	Yes	
rated value     at AC / at 500 V / with high-speed activation / rated value     at AC / at 690 V / with high-speed activation / rated value     with closed switch / at AC / at 500 V / rated value     with closed switch / at AC / at 690 V / rated value      with closed switch / at AC / at 690 V / rated value  Connections  Arrangement of electrical connectors / for main other			
at AC / at 500 V / with high-speed activation / rated value  at AC / at 690 V / with high-speed activation / rated value  with closed switch / at AC / at 500 V / rated value  with closed switch / at AC / at 690 V / rated value  with closed switch / at AC / at 690 V / rated value  Connections  Arrangement of electrical connectors / for main other			
rated value  • at AC / at 690 V / with high-speed activation / rated value  • with closed switch / at AC / at 500 V / rated value  • with closed switch / at AC / at 690 V / rated value  • with closed switch / at AC / at 690 V / rated value  Connections  Arrangement of electrical connectors / for main other			
rated value  • with closed switch / at AC / at 500 V / rated value  • with closed switch / at AC / at 690 V / rated value  Connections  Arrangement of electrical connectors / for main other		80 kA	
value  • with closed switch / at AC / at 690 V / rated value  Connections  Arrangement of electrical connectors / for main other		80 kA	
Connections  Arrangement of electrical connectors / for main other		120 kA	
Arrangement of electrical connectors / for main other		120 kA	
Arrangement of electrical connectors / for main other	Connections		
	Arrangement of electrical connectors / for main	other	

Connectable conductor cross-section / for main contacts	
single or multi-stranded / minimum	6 mm²
single or multi-stranded / maximum	70 mm²
finely stranded / with core end processing /	6 mm²
minimum	
• finely stranded / with core end processing /	50 mm²
maximum	
<ul><li>stranded / minimum</li></ul>	6 mm²
• stranded / maximum	70 mm <sup>2</sup>
Tightening torque / with screw-type terminals	
• minimum	10 N·m
• maximum	10 N·m
Type of electrical connection / for main current circuit	box terminal
Mechanical Design	
Height	215.1 mm
Width	105.8 mm
Depth	174.2 mm
Mounting position	horizontal/vertical
Mounting type	busbar
Mounting type	
<ul><li>floor mounting</li></ul>	No
• front mounting	No
<ul> <li>front mounting with 4-hole attachment</li> </ul>	No
<ul> <li>front mounting with central attachment</li> </ul>	No
• rail mounting	Yes
Busbar center-to-center spacing	40 mm
Net weight	1.12 kg
Environmental conditions	
Degree of pollution	2
Ambient temperature	
<ul><li>during operation / minimum</li></ul>	-25 °C
<ul><li>during operation / maximum</li></ul>	55 °C
during storage / minimum	-50 °C
<ul><li>during storage / maximum</li></ul>	80 °C
Certificates	
Reference code	
• acc. to DIN EN 61346-2	Q
• acc. to DIN EN 81346-2	Q

## **General Product Approval Declaration of Test Certific-**Shipping Ap-Conformity proval ates





Miscellaneous



Type Test Certificates/Test Report



LRS

## **Further information**

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=3NP1133-1JB23

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

https://support.industry.siemens.com/cs/ww/en/ps/3NP1133-1JB23

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3NP1133-1JB23">http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3NP1133-1JB23</a>

**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://www.siemens.com/specifications









