## **SIEMENS**

## **Data sheet**



switch disconnector 3VA1 IEC frame 250 3-pole SD100, In=250A without overload protection w/o short-circuit protection nut keeper kit

Model (	
product brand name	SENTRON
product designation	Molded case circuit breaker
product version	General applications
design of the product	in MCCB design
number of poles	3
design of the auxiliary release	without
design of the auxiliary switch	Without
Seneral technical data	
insulation voltage / rated value	800 V
operating voltage / at DC / rated value	500 V
operating voltage / at AC / rated value	690 V
surge voltage resistance / rated value	8 kV
power loss [W] / maximum	57 W
mechanical service life (operating cycles) / typical	20 000
type of device	fixed mounting
suitability for use / switch disconnector	Yes
suitability for use / main switch	Yes
suitability for use / safety switch	Yes
suitability for use / EMERGENCY OFF switch	Yes
suitability for use / maintenance/repair switch	Yes
product function / communication function	No
Net Weight	1.513 kg
Current	
short-time withstand current (Icw) / at AC / limited to 0.5 s / rated value	3 kA
operational current / rated value	250 A
operational current	
• at 40 °C	250 A
• at 45 °C	250 A
● at 50 °C	250 A
● at 55 °C	243 A
• at 60 °C	237 A
• at 65 °C	230 A
● at 70 °C	223 A
let-through I2t value / at AC-23 B	
<ul> <li>at 400 V / maximum permissible</li> </ul>	1 810 000 A²·s
and the state of t	
at 500 V / maximum permissible	1 660 000 A <sup>2</sup> ·s

• at 400 V / maximum permissible	29 kA
at 500 V / maximum permissible     at 600 V / maximum permissible	18.7 kA
• at 690 V / maximum permissible	14.9 kA
Switching capacity according to IEC 60947	
short-circuit current making capacity (lcm) / with line-side fuse protection	
<ul> <li>at 690 V / by molded case circuit breaker / maximum</li> </ul>	17 kA
at 415 V / by molded case circuit breaker / maximum	154 kA
conditional short-circuit current (Iq) / rated value	3 000 A
conditional short-circuit current (Iq) / with line-side fuse protection	
<ul> <li>at 690 V / by molded case circuit breaker / rated value</li> </ul>	10 kA
• at 240 V / by LV HRC fuse link 3NA, 3ND (sizes 00/000,	100 kA
1, 2, type gL/gG) / rated value  at 415 V / by LV HRC fuse link 3NA, 3ND (sizes 00/000,	70 kA
1, 2, type gL/gG) / rated value  Mechanical Design	
overvoltage category	IV
fastening method	screw fixing
fastening method / 4-hole front mounting	Yes
fastening method / front mounting with central attachment	No
fastening method / rail mounting	No
product component	
undervoltage release	No
• voltage trigger	No
undervoltage release with leading contact	No
• trip indicator	No
product feature / interlock	No
height	158 mm
width	105 mm
depth	70 mm
display version / for switch position indicator	Handle switch position On, Trip, Off
display version / for switch position indicator	Trainer owner position on, rip, on
design of the actuating element	toggle handle
design of the actuating element	toggle handle
design of the actuating element type of the driving mechanism / motor drive	toggle handle
design of the actuating element type of the driving mechanism / motor drive Connections	toggle handle No
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	toggle handle No  Front terminal busbar connection silver
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	toggle handle No  Front terminal busbar connection
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit	toggle handle No  Front terminal busbar connection silver Silver
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts	toggle handle No  Front terminal busbar connection silver Silver
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts	toggle handle No  Front terminal busbar connection silver  Silver
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts	toggle handle No  Front terminal busbar connection silver Silver
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts Accessories	toggle handle No  Front terminal busbar connection silver  Silver  0 0 0
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories product extension / auxiliary switch	toggle handle No  Front terminal busbar connection silver  Silver  0 0 0 No
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories  product extension / auxiliary switch product extension / optional / motor drive	toggle handle No  Front terminal busbar connection silver  Silver  0 0 0
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories product extension / auxiliary switch product extension / optional / motor drive  Environmental conditions	toggle handle No  Front terminal busbar connection silver  Silver  0 0 0 Ves
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories  product extension / auxiliary switch product extension / optional / motor drive  Environmental conditions protection class IP / on the front	toggle handle No  Front terminal busbar connection silver  Silver  0 0 0 No
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories product extension / auxiliary switch product extension / optional / motor drive  Environmental conditions protection class IP / on the front ambient temperature	toggle handle No  Front terminal busbar connection silver  Silver  0 0 0 No Yes
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories  product extension / auxiliary switch product extension / optional / motor drive  Environmental conditions protection class IP / on the front ambient temperature  • during operation / minimum	toggle handle No  Front terminal busbar connection silver  Silver  0 0 0 Ves  IP40  -25 °C
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories  product extension / auxiliary switch product extension / optional / motor drive  Environmental conditions  protection class IP / on the front ambient temperature  • during operation / minimum • during operation / maximum	toggle handle No  Front terminal busbar connection silver  Silver    O  O  O  Ves  IP40  -25 °C 70 °C
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories  product extension / auxiliary switch product extension / optional / motor drive  Environmental conditions  protection class IP / on the front ambient temperature  • during operation / minimum  • during storage / minimum	toggle handle No  Front terminal busbar connection silver  Silver
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories  product extension / auxiliary switch product extension / optional / motor drive  Environmental conditions  protection class IP / on the front ambient temperature  during operation / maximum  during storage / minimum  during storage / maximum	toggle handle No  Front terminal busbar connection silver  Silver    O  O  O  Ves  IP40  -25 °C 70 °C
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories product extension / auxiliary switch product extension / optional / motor drive  Environmental conditions  protection class IP / on the front ambient temperature  • during operation / maximum • during storage / minimum • during storage / maximum  Environmental footprint	toggle handle  No  Front terminal busbar connection silver  Silver
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories  product extension / auxiliary switch product extension / optional / motor drive  Environmental conditions  protection class IP / on the front ambient temperature  during operation / maximum during storage / minimum during storage / maximum  Environmental footprint global warming potential [CO2 eq] / total	toggle handle  No  Front terminal busbar connection silver  Silver
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories  product extension / auxiliary switch product extension / optional / motor drive  Environmental conditions  protection class IP / on the front ambient temperature  during operation / maximum during operation / maximum during storage / minimum during storage / maximum  Environmental footprint global warming potential [CO2 eq] / total global warming potential [CO2 eq] / during manufacturing	toggle handle  No  Front terminal busbar connection silver  Silver
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories  product extension / auxiliary switch product extension / optional / motor drive  Environmental conditions  protection class IP / on the front ambient temperature  during operation / maximum during storage / minimum during storage / minimum during storage / maximum  Environmental footprint global warming potential [CO2 eq] / total global warming potential [CO2 eq] / during manufacturing global warming potential [CO2 eq] / during operation	toggle handle No  Front terminal busbar connection silver  Silver    O  O  O  Ves  IP40  -25 °C  70 °C  -40 °C  80 °C  285.47 kg  6.87 kg  279 kg
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories  product extension / auxiliary switch product extension / optional / motor drive  Environmental conditions  protection class IP / on the front ambient temperature  during operation / maximum during operation / maximum during storage / minimum during storage / maximum  Environmental footprint global warming potential [CO2 eq] / during manufacturing global warming potential [CO2 eq] / during operation global warming potential [CO2 eq] / after end of life	toggle handle  No  Front terminal busbar connection silver  Silver   0 0 0 0 No Yes  IP40  -25 °C 70 °C -40 °C 80 °C  285.47 kg 6.87 kg 279 kg -0.78 kg
design of the actuating element type of the driving mechanism / motor drive  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit number of CO contacts / for auxiliary contacts number of NC contacts / for auxiliary contacts number of NO contacts / for auxiliary contacts  Accessories  product extension / auxiliary switch product extension / optional / motor drive  Environmental conditions  protection class IP / on the front ambient temperature  during operation / maximum during storage / minimum during storage / minimum during storage / maximum  Environmental footprint global warming potential [CO2 eq] / total global warming potential [CO2 eq] / during manufacturing global warming potential [CO2 eq] / during operation	toggle handle No  Front terminal busbar connection silver  Silver    O  O  O  Ves  IP40  -25 °C  70 °C  -40 °C  80 °C  285.47 kg  6.87 kg  279 kg









Miscellaneous



EMV

**Test Certificates** 

Maritime application



Type Test Certificates/Test Report

Miscellaneous

Special Test Certificate





Maritime application

other









Confirmation

**Miscellaneous** 

**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=3VA1225-1AA32-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA1225-1AA32-0AA0

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

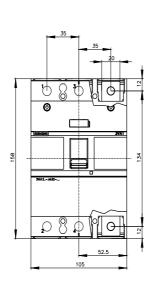
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA1225-1AA32-0AA0

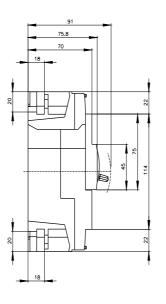
CAx-Online-Generator

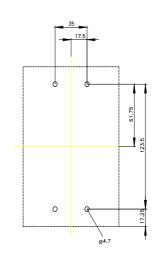
http://www.siemens.com/cax

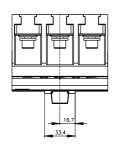
Tender specifications

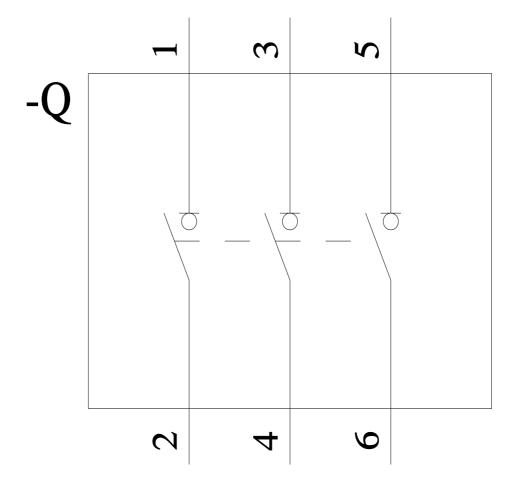
http://www.siemens.com/specifications











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