



switch disconnector 3VA1 IEC frame 160 4-pole SD100, In=125A 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	4
design of the auxiliary release	without
design of the auxiliary switch	Without
General technical data	
insulation voltage / rated value	800 V
operating voltage / at DC / rated value	600 V
operating voltage / at AC / rated value	690 V
surge voltage resistance / rated value	8 kV
power loss [W] / maximum	38 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	1.149 kg
Current	
short-time withstand current (I <sub>cw</sub> ) / at AC / limited to 0.5 s / rated value	2 kA
operational current / rated value	125 A
operational current	
• at 40 °C	125 A
• at 45 °C	125 A
• at 50 °C	125 A
• at 55 °C	125 A
• at 60 °C	125 A
• at 65 °C	125 A
• at 70 °C	125 A
let-through I <sub>2t</sub> value / at AC-23 B	
• at 400 V / maximum permissible	475 000 A <sup>2</sup> ·s
• at 500 V / maximum permissible	475 000 A <sup>2</sup> ·s
• at 690 V / maximum permissible	475 000 A <sup>2</sup> ·s
let-through current (I <sub>c</sub> ) / at AC-23 B	

<ul style="list-style-type: none"> <li>• at 400 V / maximum permissible</li> <li>• at 500 V / maximum permissible</li> <li>• at 690 V / maximum permissible</li> </ul>	20 kA 3 kA 3 kA
<b>Switching capacity according to IEC 60947</b>	
<b>conditional short-circuit current (I<sub>q</sub>) / with line-side fuse protection</b>	
<ul style="list-style-type: none"> <li>• at 415 V / by LV HRC fuse link 3NA, 3ND (sizes 00/000, 1, 2, type gL/gG) / rated value</li> </ul>	70 kA
<b>Mechanical Design</b>	
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	
<ul style="list-style-type: none"> <li>• undervoltage release</li> <li>• voltage trigger</li> <li>• undervoltage release with leading contact</li> <li>• trip indicator</li> </ul>	No No No No
product feature / interlock	No
height	130 mm
width	101.6 mm
depth	70 mm
display version / for switch position indicator	Handle switch position On, Trip, Off
design of the actuating element	toggle handle
type of the driving mechanism / motor drive	No
<b>Connections</b>	
arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	busbar connection
design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	silver
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	Silver
<b>Auxiliary circuit</b>	
number of CO contacts / for auxiliary contacts	0
number of NC contacts / for auxiliary contacts	0
number of NO contacts / for auxiliary contacts	0
<b>Accessories</b>	
product extension / auxiliary switch	No
product extension / optional / motor drive	Yes
<b>Environmental conditions</b>	
protection class IP / on the front	IP40
ambient temperature	
<ul style="list-style-type: none"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> <li>• during storage / maximum</li> </ul>	-25 °C 70 °C -40 °C 80 °C
<b>Environmental footprint</b>	
Environmental Product Declaration (EPD)	Yes
global warming potential [CO <sub>2</sub> eq] / total	190 kg
global warming potential [CO <sub>2</sub> eq] / during manufacturing	4.67 kg
global warming potential [CO <sub>2</sub> eq] / during operation	186 kg
global warming potential [CO <sub>2</sub> eq] / after end of life	-0.826 kg
<b>reference code / according to IEC 81346-2</b>	Q
<b>Approvals / Certificates</b>	
<b>General Product Approval</b>	



Miscellaneous



EMV Test Certificates Maritime application



[Special Test Certificate](#)

[Miscellaneous](#)



Maritime application other



[CCS \(China Classification Society\)](#)



[Confirmation](#)

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Environment



[Environmental Confirmations](#)

[Environmental Confirmations](#)

Further information

Information on the packaging

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

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3VA1112-1AA42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1112-1AA42-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1112-1AA42-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1112-1AA42-0AA0)

CAx-Online-Generator

<http://www.siemens.com/cax>

Tender specifications

<http://www.siemens.com/specifications>





