



switch disconnecter 3VA1 IEC frame 160 4-pole SD100, In=160A 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 disconnecter	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	1.111 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	160 A
operational current	
• at 40 °C	160 A
• at 45 °C	160 A
• at 50 °C	160 A
• at 55 °C	158 A
• at 60 °C	155 A
• at 65 °C	153 A
• at 70 °C	150 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 (Ic) / 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

### Switching capacity according to IEC 60947

<b>conditional short-circuit current (Iq) / 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

### 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	
<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	101.5 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

### Connections

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

### 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

### Accessories

product extension / auxiliary switch	No
product extension / optional / motor drive	Yes

### Environmental conditions

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

reference code / according to IEC 81346-2	Q
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### Approvals / Certificates

#### General Product Approval



[Miscellaneous](#)



[Confirmation](#)



General Product Approval	EMV	Test Certificates	Maritime application
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[Miscellaneous](#)

[Special Test Certificate](#)



Maritime application

other



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

[Miscellaneous](#)

[Confirmation](#)

other

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,...)

<https://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1116-1AA42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1116-1AA42-0AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1116-1AA42-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1116-1AA42-0AA0)

CAX-Online-Generator

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

Tender specifications

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

Characteristic curves

[https://curves.simaris.siemens.com/curves/?mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/?mmp_prod_noCOMP=)





