



switch disconnector 3VA1 IEC frame 160 4-pole SD100, In=160A without overload protection w/o short-circuit protection clamp connection

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	1.199 kg
Current	
short-time withstand current (I _{cw}) / 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 _{2t} value / at AC-23 B	• at 400 V / maximum permissible 475 000 A²·s • at 500 V / maximum permissible 475 000 A²·s • at 690 V / maximum permissible 475 000 A²·s

let-through current (Ic) / at AC-23 B	
• at 400 V / maximum permissible	20 kA
• at 500 V / maximum permissible	3 kA
• at 690 V / maximum permissible	3 kA
Switching capacity according to IEC 60947	
conditional short-circuit current (Iq) / with line-side fuse protection	
• at 415 V / by LV HRC fuse link 3NA, 3ND (sizes 00/000, 1, 2, type gL/gG) / rated value	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	
• undervoltage release	No
• voltage trigger	No
• undervoltage release with leading contact	No
• trip indicator	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
Connections	
arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	Terminal 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	
• during operation / minimum	-25 °C
• during operation / maximum	70 °C
• during storage / minimum	-40 °C
• during storage / maximum	80 °C
Environmental footprint	
Environmental Product Declaration (EPD)	Yes
global warming potential [CO2 eq] / total	190 kg
global warming potential [CO2 eq] / during manufacturing	4.67 kg
global warming potential [CO2 eq] / during operation	186 kg
global warming potential [CO2 eq] / after end of life	-0.826 kg
reference code / according to IEC 81346-2	Q
Approvals / Certificates	
General Product Approval	



[Miscellaneous](#)



EMV	Test Certificates	Maritime application
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[Special Test Certificate](#)

[Miscellaneous](#)



Maritime application	other
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[CCS \(China Classification Society\)](#)

[Confirmation](#)



[Miscellaneous](#)

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=3VA1116-1AA46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1116-1AA46-0AA0>

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

https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1116-1AA46-0AA0

CAX-Online-Generator

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

Tender specifications

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

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