



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

Model	
product brand name	SETRON
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	1.193 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 (I _c) / 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 (I_q) / 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	101.5 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	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
reference code / according to IEC 81346-2	Q

Approvals / Certificates

General Product Approval



[Miscellaneous](#)



[Confirmation](#)



General Product Approval	EMV	Test Certificates		Maritime application	
		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=3VA1116-1AA46-0AA0>
 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>
 Characteristic curves
https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP='HAUPT'></mmp_prod_no>

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