

SWITCH-DISCONNECTOR 500A, FRAME SIZE 3, 3-POLE FRONT OPERATING LEFT BASIC UNIT WITHOUT HANDLE FLAT TERMINAL



Model	
product brand name	SENTRON
product designation	3KD switch disconnecter
design of the product	Switch
display version / for switch position indicator door-coupling rotary operating mechanism	ON-OFF
design of the actuating element	Without handle
type of the driving mechanism	Front operating mechanism
type of the driving mechanism / motor drive	No
General technical data	
number of poles	3
type of device	fixed mounting
size of switch disconnecter	3
mechanical service life (switching cycles) / typical	15 000
electrical endurance (switching cycles)	
• at AC-23 A / at 690 V	1 000
• at DC-23 A / at 440 V	1 000
I <sup>2</sup> t value	
• with closed switch / at 1000 V / for combination switch +gG/aM SITOR fuse / maximum	239 650 A <sup>2</sup> ·s
• of the fuse / at 500 V / maximum permissible	2 700 000 A <sup>2</sup> ·s
• of the gG fuse / at 690 V / maximum permissible	2 500 000 A <sup>2</sup> ·s
• of the gG/aM SITOR fuse / at 1000 V / maximum permissible	260 000 A <sup>2</sup> ·s
• of the molded case circuit breaker / at 415 V / maximum permissible	4 750 000 A <sup>2</sup> ·s
position / of the switch operating mechanism	at the left end
overvoltage in percent / relative to the operating voltage / at AC / at 400, 500, 690 V / at 50/60 Hz	10 %
overvoltage category	IV
degree of pollution	3
Voltage	
operating voltage / with current paths in series	
• with degree of pollution 2 / at DC / rated value	440 V / 3
• with degree of pollution 3 / at DC / rated value	440 V / 3
insulation voltage	
• rated value	1 000 V
surge voltage resistance / rated value	12 kV
Protection class	
protection class IP	IP00

protection class IP	
<ul style="list-style-type: none"> <li>with closed switch / with cover or cable lug cover</li> <li>on the front</li> </ul>	IP20 IP00
<b>Dissipation</b>	
power loss [W]	
<ul style="list-style-type: none"> <li>with conventional rated thermal current / per pole</li> <li>with conventional rated thermal current / per device</li> <li>for rated value of the current / at AC / in hot operating state / per pole</li> </ul>	17.2 W 51.6 W 17.2 W
<b>Current</b>	
operational current	
<ul style="list-style-type: none"> <li>at 35 °C / rated value</li> <li>at 40 °C / rated value</li> <li>at 45 °C / rated value</li> <li>at 50 °C / rated value</li> <li>at 55 °C / rated value</li> <li>at 60 °C / rated value</li> <li>at 65 °C / rated value</li> <li>at 70 °C / rated value</li> <li>at AC / rated value</li> <li>at AC-23 A / at 690 V / rated value</li> <li>at AC-23 A / at 500 V / rated value</li> <li>at AC-23 A / at 400 V / rated value</li> <li>at AC-22 A / at 1000 V / maximum</li> <li>at AC-22 A / at 690 V / rated value</li> <li>at AC-22 A / at 500 V / rated value</li> <li>at AC-22 A / at 400 V / rated value</li> <li>at AC-20 A / at 1000 V / maximum</li> <li>at AC-21 A / at 500 V / rated value</li> <li>at AC-21 A / at 690 V / rated value</li> <li>at DC-20 A / at 1000 V / maximum</li> <li>at DC-23 A / at 440 V / rated value / note</li> <li>at DC-23 A / at 220 V / rated value / note</li> <li>at DC-22 A / at 440 V / rated value / note</li> <li>at DC-22 A / at 220 V / rated value / note</li> <li>at DC-21 A / at 440 V / rated value / note</li> <li>at DC-21 A / at 220 V / rated value</li> <li>at DC-21 B / at 750 V / rated value / maximum</li> </ul>	500 A 500 A 500 A 500 A 500 A 500 A 500 A 475 A 500 A 400 A 400 A 400 A 400 A 400 A 400 A 400 A 500 A 400 A 400 A 400 A 400 A 500 A / 1 400 A / 3 400 A / 2 400 A / 3 400 A / 2 400 A / 3 400 A / 2 400 A / 3 400 A / 2 400 A / 3
continuous current / of upstream fuse / at 500 V and 690 V / rated value	500 A
continuous current / of upstream fuse / at 1000 V / rated value	500 A
continuous current / of upstream molded case circuit breaker / at 415 V / rated value	630 A
operational current / at DC / rated value	500 A
let-through current / of the fuse / at 500 V / maximum permissible	54 800 A
let-through current / of the gG fuse / at 690 V / maximum permissible	45 200 A
let-through current / of the gG/aM SITOR fuse / at 1000 V / maximum permissible	21 500 A
let-through current / of the molded case circuit breaker / at 415 V / maximum permissible	43 500 A
<b>Main circuit</b>	
operating power	
<ul style="list-style-type: none"> <li>at AC-23 A / at 500 V / rated value</li> </ul>	250 kW
operational current / rated value	400 A
<b>Auxiliary circuit</b>	
number of connected NC contacts / for auxiliary contacts	0
number of connected NO contacts / for auxiliary contacts	0
number of connected CO contacts / for auxiliary contacts	0

number of CO contacts / for auxiliary contacts	0
number of NC contacts / for auxiliary contacts	6
number of NO contacts / for auxiliary contacts	6
<b>Suitability</b>	
suitability for use	
• main switch	Yes
• switch disconnecter	Yes
• EMERGENCY OFF switch	Yes
• safety switch	Yes
• maintenance/repair switch	Yes
<b>Product details</b>	
product feature / interlock	No
product component	
• trip indicator	No
• voltage trigger	No
• undervoltage release	No
• undervoltage release with leading contact	No
product extension / auxiliary switch	Yes
product extension / optional	
• motor drive	No
• voltage trigger	No
<b>Short circuit</b>	
short-time withstand current (I <sub>cw</sub> ) / at 1000 V AC/440 V DC / limited to 1 s / rated value	13 kA
short-circuit current making capacity (I <sub>cm</sub> ) / for switch disconnecter	
• at 1000 V AC / without fuse link / rated value / minimum	36 kA
• at DC 440 V / without fuse link / rated value / minimum	36 kA
• without fuse link / rated value / minimum	36 kA
conditional short-circuit current / with line-side fuse protection	
• at 415 V / by molded case circuit breaker / rated value	65 kA
• at 500 V / by gG fuse / rated value	100 kA
• at 690 V / by gG fuse / rated value	100 kA
<b>Connections</b>	
type of connectable conductor cross-sections / for aluminum conductor	
• stranded / with lug	1x (25 ... 240 mm <sup>2</sup> ), 2x (25 ... 120 mm <sup>2</sup> )
type of connectable conductor cross-sections	
• for copper busbar	1 x (30 x 10 mm <sup>2</sup> )
type of connectable conductor cross-sections / for copper conductor	
• stranded / with lug / according to DIN 46235	1x (16 ... 185 mm <sup>2</sup> ), 2x (16 ... 150 mm <sup>2</sup> )
type of electrical connection / for main current circuit	flat connector
<b>Mechanical Design</b>	
height	164 mm
width	190 mm
depth	93.5 mm
fastening method	screw fixing
fastening method	
• 4-hole front mounting	No
• front mounting with central attachment	No
• rail mounting	No
mounting position	any
net weight	2 896 g
<b>Environmental conditions</b>	
ambient temperature / during operation	
• minimum	-25 °C

• maximum	70 °C
ambient temperature / during storage	
• minimum	-50 °C
• maximum	80 °C

<b>General Product Approval</b>	<b>Declaration of Conformity</b>
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[Confirmation](#)



[Miscellaneous](#)



[UK Declaration of Conformity](#)

<b>Declaration of Conformity</b>	<b>Marine / Shipping</b>	<b>other</b>
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EG-Konf.



LRS

[Miscellaneous](#)

**Further information**

**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=3KD4430-0PE10-0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3KD4430-0PE10-0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3KD4430-0PE10-0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3KD4430-0PE10-0)

**CAX-Online-Generator**

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

**Tender specifications**

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



