

SWITCH-DISCONNECTOR 500A, FRAME SIZE 3, 3-POLE FRONT OPERATING CENTER 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 (operating cycles) typical	15 000
electrical endurance (operating cycles)	
• at AC-23 A at 690 V	1 000
• at DC-23 A at 440 V	1 000
I ² t value	
• with closed switch at 1000 V for combination switch +gG/aM SITOR fuse maximum	239 650 A ² ·s
• of the fuse at 500 V maximum permissible	2 700 000 A ² ·s
• of the gG fuse at 690 V maximum permissible	2 500 000 A ² ·s
• of the gG/aM SITOR fuse at 1000 V maximum permissible	260 000 A ² ·s
• of the molded case circuit breaker at 415 V maximum permissible	4 750 000 A ² ·s
position of the switch operating mechanism	after the first pole
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
operational current at AC-22 A at 1000 V maximum	400 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
Supply voltage	
operating voltage at AC rated value	1 000 V
Protection class	
protection class IP	IP00
protection class IP	
<ul style="list-style-type: none"> with closed switch with cover or cable lug cover 	IP20
<ul style="list-style-type: none"> on the front 	IP00
Dissipation	
power loss [W]	
<ul style="list-style-type: none"> with conventional rated thermal current per pole 	17.2 W
<ul style="list-style-type: none"> with conventional rated thermal current per device 	51.6 W
<ul style="list-style-type: none"> for rated value of the current at AC in hot operating state per pole 	17.2 W
Main circuit	
operating power	
<ul style="list-style-type: none"> at AC-23 A at 500 V rated value 	250 kW
operational current rated value	400 A
Auxiliary circuit	
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
Suitability	
suitability for use main switch	Yes
suitability for use switch disconnecter	Yes
suitability for use EMERGENCY OFF switch	Yes
suitability for use safety switch	Yes
suitability for use according to IEC 62626-1 safety switch	No
suitability for use maintenance/repair switch	Yes
Product details	
product feature interlock	No
product component	
<ul style="list-style-type: none"> trip indicator 	No
<ul style="list-style-type: none"> voltage trigger 	No
<ul style="list-style-type: none"> undervoltage release 	No
<ul style="list-style-type: none"> undervoltage release with leading contact 	No
product extension auxiliary switch	Yes
product extension optional motor drive	No
product extension optional voltage trigger	No
Short circuit	
short-time withstand current (I_{cw}) at 1000 V AC/440 V DC limited to 1 s rated value	13 kA
short-circuit current making capacity (I_{cm}) for switch disconnecter	
<ul style="list-style-type: none"> at 1000 V AC without fuse link rated value minimum 	36 kA
<ul style="list-style-type: none"> at DC 440 V without fuse link rated value minimum 	36 kA
<ul style="list-style-type: none"> without fuse link rated value minimum 	36 kA
conditional short-circuit current with line-side fuse protection	
<ul style="list-style-type: none"> at 415 V by molded case circuit breaker rated value 	65 kA
<ul style="list-style-type: none"> at 500 V by gG fuse rated value 	100 kA
<ul style="list-style-type: none"> at 690 V by gG fuse rated value 	100 kA
Connections	
type of connectable conductor cross-sections for aluminum conductor	
<ul style="list-style-type: none"> stranded with lug 	1x (25 ... 240 mm ²), 2x (25 ... 120 mm ²)

type of connectable conductor cross-sections	
<ul style="list-style-type: none"> with combination of Al conductor+switch for copper busbar 	315 A / 240 mm ² '1 x (30 x 10 mm ²)
type of connectable conductor cross-sections for copper conductor	
<ul style="list-style-type: none"> stranded with lug according to DIN 46234 stranded with lug according to DIN 46235 	1x (6 ... 240 mm ²), 2x (6 ... 150 mm ²) 1x (16 ... 185 mm ²), 2x (16 ... 150 mm ²)
type of electrical connection for main current circuit	flat connector

Mechanical Design

height	164 mm
width	190 mm
depth	94 mm
fastening method	screw fixing
fastening method	
<ul style="list-style-type: none"> 4-hole front mounting front mounting with central attachment rail mounting 	No No No
mounting position	any
Net Weight	2.834 kg

Environmental conditions

ambient temperature during operation	
<ul style="list-style-type: none"> minimum maximum 	-25 °C 70 °C
ambient temperature during storage	
<ul style="list-style-type: none"> minimum maximum 	-50 °C 80 °C

Certificates

reference code according to IEC 81346-2	Q
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Approvals Certificates

Environment	General Product Approval
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[Environmental Con-
firmations](#)

[Environmental Con-
firmations](#)



[Miscellaneous](#)



Maritime application



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=3KD4430-0PE20-0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3KD4430-0PE20-0>

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

https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3KD4430-0PE20-0

CAX-Online-Generator

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

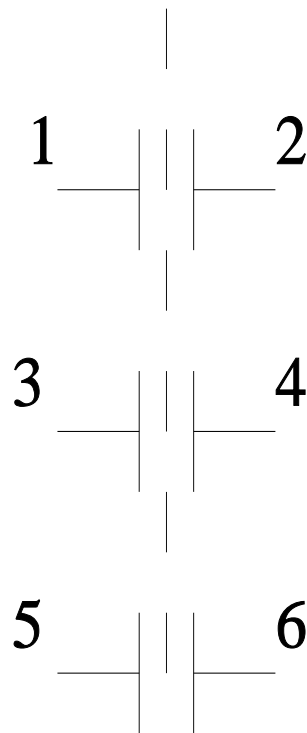
Tender specifications

<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=)

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