



Switch disconnecter 500 A, Size 4, 3-pole Lateral operating mechanism 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	Side 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	4
mechanical service life (switching cycles) / typical	8 000
electrical endurance (switching 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	647 250 A ² ·s
• of the fuse / at 500 V / maximum permissible	5 400 005 A ² ·s
• of the gG fuse / at 690 V / maximum permissible	3 760 005 A ² ·s
• of the gG/aM SITOR fuse / at 1000 V / maximum permissible	520 000 A ² ·s
• of the molded case circuit breaker / at 415 V / maximum permissible	16 000 000 A ² ·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	
• with closed switch / with cover or cable lug cover	IP20

- on the front

IP00

Dissipation

power loss [W]

- with conventional rated thermal current / per pole 12 W
- with conventional rated thermal current / per device 36 W
- for rated value of the current / at AC / in hot operating state / per pole 12 W

Current

operational current

- at 35 °C / rated value 500 A
- at 40 °C / rated value 500 A
- at 45 °C / rated value 500 A
- at 50 °C / rated value 500 A
- at 55 °C / rated value 500 A
- at 60 °C / rated value 500 A
- at 65 °C / rated value 500 A
- at 70 °C / rated value 500 A
- at AC / rated value 500 A
- at AC-23 A / at 690 V / rated value 500 A
- at AC-23 A / at 500 V / rated value 500 A
- at AC-23 A / at 400 V / rated value 500 A
- at AC-22 A / at 1000 V / maximum 500 A
- at AC-22 A / at 690 V / rated value 500 A
- at AC-22 A / at 500 V / rated value 500 A
- at AC-22 A / at 400 V / rated value 500 A
- at AC-20 A / at 1000 V / maximum 500 A
- at AC-21 A / at 500 V / rated value 500 A
- at AC-21 A / at 690 V / rated value 500 A
- at DC-20 A / at 1000 V / maximum 500 A / 1
- at DC-23 A / at 440 V / rated value / note 500 A / 3
- at DC-23 A / at 220 V / rated value / note 500 A / 2
- at DC-22 A / at 440 V / rated value / note 500 A / 3
- at DC-22 A / at 220 V / rated value / note 500 A / 2
- at DC-21 A / at 440 V / rated value / note 500 A / 3
- at DC-21 A / at 220 V / rated value 500 A / 2

continuous current / of upstream fuse / at 500 V and 690 V / rated value 1 000 A

continuous current / of upstream fuse / at 1000 V / rated value 1 000 A

continuous current / of upstream molded case circuit breaker / at 415 V / rated value 1 000 A

operational current / at DC / rated value 500 A

let-through current / of the fuse / at 500 V / maximum permissible 118 000 A

let-through current / of the gG fuse / at 690 V / maximum permissible 90 600 A

let-through current / of the gG/aM SITOR fuse / at 1000 V / maximum permissible 43 000 A

let-through current / of the molded case circuit breaker / at 415 V / maximum permissible 72 500 A

Main circuit

operating power

- at AC-23 A / at 500 V / rated value 355 kW

operational current / rated value 500 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 8

number of NO contacts / for auxiliary contacts 8

Suitability

suitability for use

- main switch Yes

• switch disconnecter	Yes
• EMERGENCY OFF switch	Yes
• safety switch	Yes
• maintenance/repair switch	Yes

Product details

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

Short circuit

short-time withstand current (I _{cw}) / at 1000 V AC/440 V DC / limited to 1 s / rated value	30 kA
short-circuit current making capacity (I _{cm}) / for switch disconnecter	
• at 1000 V AC / without fuse link / rated value / minimum	80 kA
• at DC 440 V / without fuse link / rated value / minimum	42.6 kA
• without fuse link / rated value / minimum	80 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

Connections

type of connectable conductor cross-sections / for aluminum conductor	
• stranded / with lug	1x (25 ... 240 mm²), 2x (25 ... 240 mm²)
type of connectable conductor cross-sections	
• with combination of Al conductor+switch	500A / 2x 240 mm²
• for copper busbar	'1 x (40 x 10 mm²), 2 x (40 x 5 mm²)
type of connectable conductor cross-sections / for copper conductor	
• stranded / with lug / according to DIN 46234	1x (120 ... 240 mm²), 2x (95 ... 240 mm²)
• stranded / with lug / according to DIN 46235	1x (120 ... 240 mm²), 2x (95 ... 240 mm²)
type of electrical connection / for main current circuit	flat connector

Mechanical Design

height	235 mm
width	271 mm
depth	111.5 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	7 502 g

Environmental conditions

ambient temperature / during operation	
• minimum	-25 °C
• maximum	70 °C
ambient temperature / during storage	
• minimum	-50 °C
• maximum	80 °C

Certificates

reference code / according to IEC 81346-2	Q
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General Product Approval

Declaration of
Conformity



Declaration of Conformity	Marine / Shipping	other
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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=3KD4434-0QE10-0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3KD4434-0QE10-0>

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

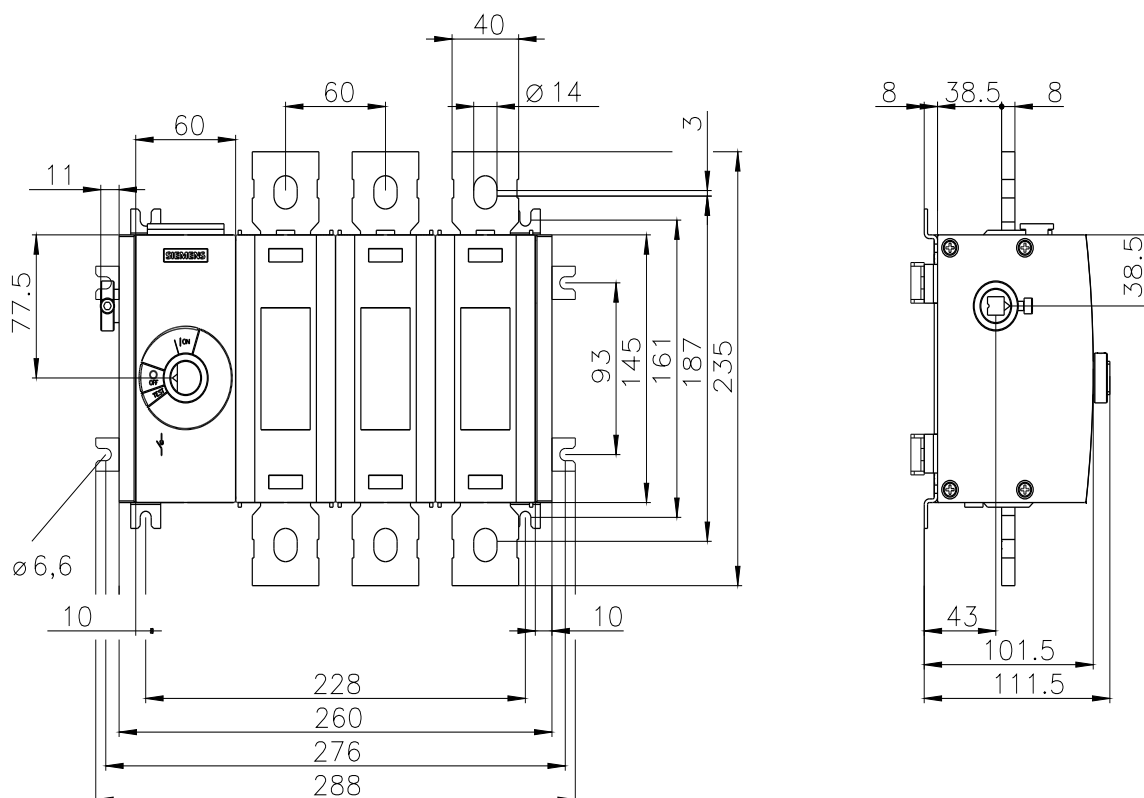
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3KD4434-0QE10-0

Cx-Online-Generator

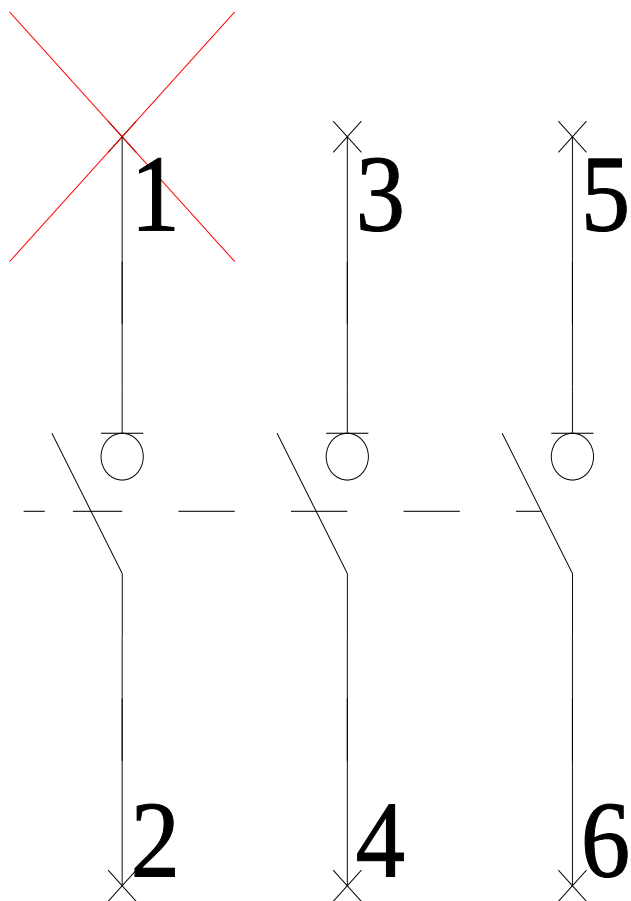
<http://www.siemens.com/cax>

Tender specifications

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



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