

Switch disconnecter 500 A, Size 4, 4-pole Front operating mechanism 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 operating mechanism	Without handle
type of the driving mechanism	Front operating mechanism
type of the driving mechanism / motor drive	No

General technical data	
number of poles	4
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

<ul style="list-style-type: none"> • I2t value / with closed switch / at 1000 V / for combination switch +gG/aM SITOR fuse / maximum 	647 250 A ² ·s
<ul style="list-style-type: none"> • I2t value / of the fuse / at 500 V / maximum permissible 	5 400 005 A ² ·s
<ul style="list-style-type: none"> • I2t value / of the gG fuse / at 690 V / maximum permissible 	3 760 005 A ² ·s
<ul style="list-style-type: none"> • I2t value / of the gG/aM SITOR fuse / at 1000 V / maximum permissible 	520 000 A ² ·s
<ul style="list-style-type: none"> • I2t value / of the molded case circuit breaker / at 415 V / maximum permissible 	16 000 000 A ² ·s
position / of the switch operating mechanism	after the second 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	
<ul style="list-style-type: none"> • with degree of pollution 2 / at DC / rated value 	440 V / 3
<ul style="list-style-type: none"> • with degree of pollution 3 / at DC / rated value 	440 V / 3
insulation voltage	
<ul style="list-style-type: none"> • rated value 	1 000 V
surge voltage resistance / rated value	12 kV

Supply voltage

operating current / at AC / rated value	500 A
operating voltage	
<ul style="list-style-type: none"> • at AC / at 50/60 Hz / 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 	12 W
<ul style="list-style-type: none"> • with conventional rated thermal current / per device 	48 W
<ul style="list-style-type: none"> • for rated value of the current / at AC / in hot operating state / per pole 	12 W

Current

• operating current / at AC-23 A / at 690 V / rated value	500 A
• operating current / at AC-23 A / at 500 V / rated value	500 A
• operating current / at AC-23 A / at 400 V / rated value	500 A
• operating current / at AC-22 A / at 690 V / rated value	500 A
• operating current / at AC-22 A / at 500 V / rated value	500 A
• operating current / at AC-22 A / at 400 V / rated value	500 A
• operating current / at AC-20 A / at 1000 V / maximum	500 A
• operating current / at AC-21 A / at 400 V / rated value	500 A
• operating current / at AC-21 A / at 500 V / rated value	500 A
• operating current / at AC-21 A / at 690 V / rated value	500 A
• operating current / at AC-23 A / at 500 V / at 50/60 Hz / rated value / maximum	500 A
• operating current / at AC-22 A / at 500 V / at 50/60 Hz / rated value / maximum	500 A
• operating current / at AC-22 A / at 400 V / at 50/60 Hz / rated value / maximum	500 A
• operating current / at AC-22 A / at 690 V / at 50/60 Hz / rated value / maximum	500 A
• operating current / at AC-23 A / at 400 V / at 50/60 Hz / rated value / maximum	500 A
• operating current / at AC-23 A / at 690 V / at 50/60 Hz / rated value / maximum	500 A
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
operating 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
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Main circuit

operating power	
<ul style="list-style-type: none"> at AC-23 A / at 400 V / at 50/60 Hz / rated value 	250 kW
<ul style="list-style-type: none"> at AC-23 A / at 500 V / rated value 	355 kW
<ul style="list-style-type: none"> at AC-23 A / at 690 V / at 50/60 Hz / rated value 	500 kW
operating 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	
<ul style="list-style-type: none"> main switch 	Yes
<ul style="list-style-type: none"> switch disconnecter 	Yes
<ul style="list-style-type: none"> EMERGENCY OFF switch 	Yes
<ul style="list-style-type: none"> safety switch 	Yes
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> motor drive 	No
<ul style="list-style-type: none"> voltage trigger 	No

Short circuit

short-time withstand current (I _{cw}) / at AC 1000 V/DC 440 V / limited to 1 s / rated value	30 kA
short-circuit current making capacity (I _{cm})	

<ul style="list-style-type: none"> • for switch disconnecter / at 1000 V AC / without fuse link / rated value / minimum 	80 kA
<ul style="list-style-type: none"> • for switch disconnecter / at DC 440 V / without fuse link / rated value / minimum 	42.6 kA
<ul style="list-style-type: none"> • for switch disconnecter / without fuse link / rated value / minimum 	80 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 ... 240 mm ²)
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for copper busbar 	'1 x (40 x 10 mm ²), 2 x (40 x 5 mm ²)
type of connectable conductor cross-sections / for copper conductor	
<ul style="list-style-type: none"> • stranded / with lug / acc. to DIN 46235 	1x (25 ... 240 mm ²), 2x (25 ... 240 mm ²)
type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit 	flat connector

Mechanical Design

height	235 mm
width	320 mm
depth	110 mm
mounting type	screw fixing
mounting type	
<ul style="list-style-type: none"> • front mounting with 4-hole attachment 	No
<ul style="list-style-type: none"> • front mounting with central attachment 	No
<ul style="list-style-type: none"> • rail mounting 	No
mounting position	any
net weight	9 162 g

Environmental conditions

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

Certificates

reference code

- acc. to DIN EN 61346-2
- acc. to DIN EN 81346-2

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General Product Approval

**Declaration of
Conformity**

**Shipping Ap-
proval**

other



CCC



VDE

[Miscellaneous](#)



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=3KD4440-0QE20-0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3KD4440-0QE20-0>

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

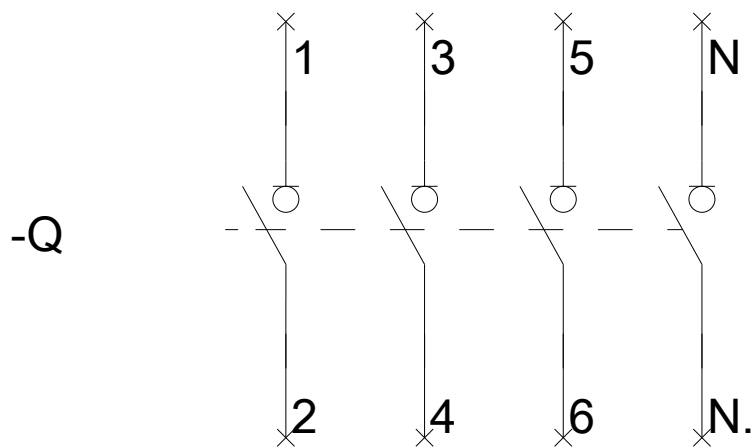
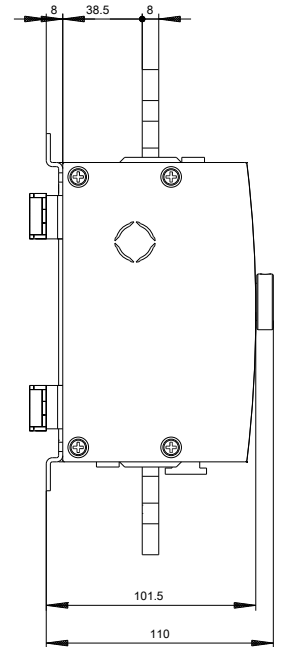
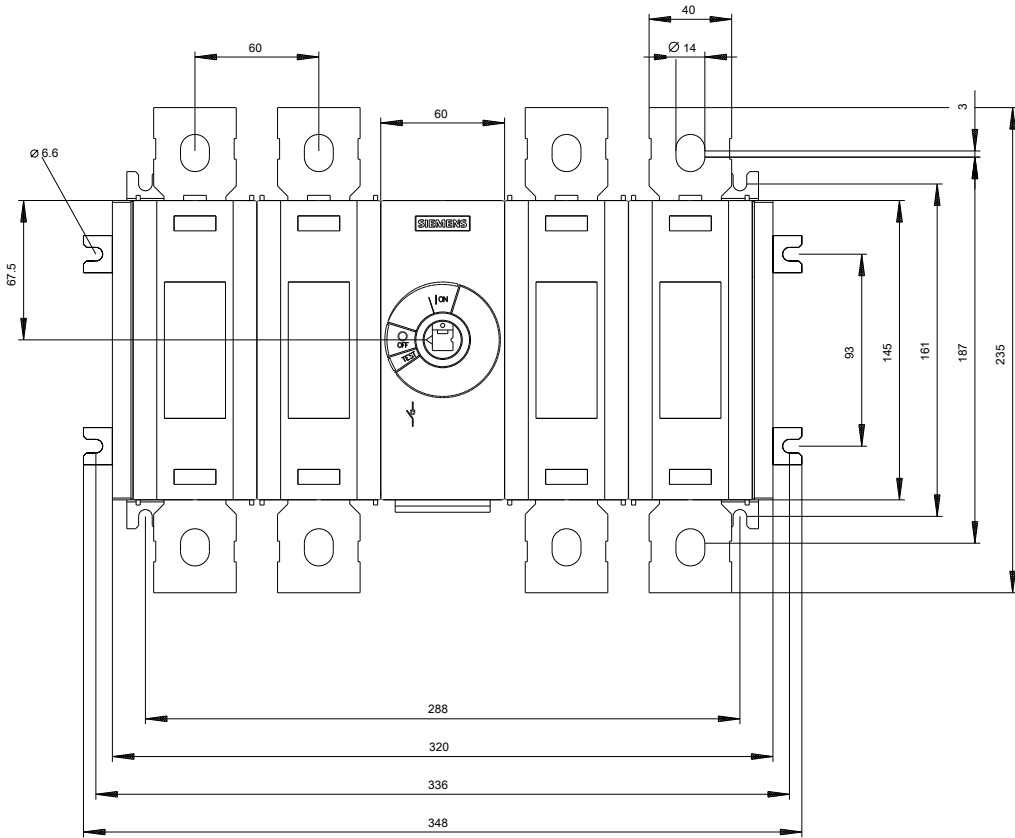
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3KD4440-0QE20-0

CAX-Online-Generator

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

Tender specifications

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



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