

Switch disconnecter 500 A, Size 4, 3-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 / motor drive	No

General technical data	
Number of poles	3
Type of device	fixed mounting
Size of switch disconnecter	4
Electrical endurance (switching cycles)	
<ul style="list-style-type: none"> at AC-23 A / at 690 V / at 50/60 Hz 	1 000
<ul style="list-style-type: none"> at DC-23 A / at 440 V 	1 000
<ul style="list-style-type: none"> I²t value / with closed switch / for combination switch + fuse / at 500 V / maximum 	3 687 500 A ² -s
<ul style="list-style-type: none"> I²t value / with closed switch / for combination switch + fuse / at 400 V / maximum 	3 687 500 A ² -s

<ul style="list-style-type: none"> • I2t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum 	4 450 000 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
circuit-breaker / Design	3KD4
Mechanical service life (switching cycles) / typical	8 000
Position / of the switch operating mechanism	after the first pole
Overvoltage category	IV

Voltage

Operating voltage / with current paths in series	
<ul style="list-style-type: none"> • with degree of pollution 2 / at DC / rated value / Note 	440 V / 3
<ul style="list-style-type: none"> • with degree of pollution 3 / at DC / rated value / Note 	440 / 3
Insulation voltage	
<ul style="list-style-type: none"> • rated value 	1 000 V
Surge voltage resistance / rated value	12 kV
Overvoltage in percent / relative to the operating voltage / at AC / at 50/60 Hz	10 %

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 	36 W
<ul style="list-style-type: none"> • for rated value of the current / at AC / in hot operating state / per pole 	12 W

Electricity

Operating current	
<ul style="list-style-type: none"> • at AC-21 A / at 400 V / maximum 	500 A
<ul style="list-style-type: none"> • at AC-21 A / at 500 V / maximum 	500 A
<ul style="list-style-type: none"> • at AC-21 A / at 690 V / maximum 	500 A
<ul style="list-style-type: none"> • at AC-23 A / at 500 V / at 50/60 Hz / rated value / maximum 	500 A

• at AC-22 A / at 500 V / at 50/60 Hz / rated value / maximum	500 A
• at AC-22 A / at 400 V / at 50/60 Hz / rated value / maximum	500 A
• at AC-22 A / at 690 V / at 50/60 Hz / rated value / maximum	500 A
• at AC-23 A / at 400 V / at 50/60 Hz / rated value / maximum	500 A
• at AC-23 A / at 690 V / at 50/60 Hz / rated value / maximum	500 A
• at DC-23 A / at 440 V / rated value / maximum	500 / 3
• at DC-23 A / at 220 V / rated value / maximum	500 / 2
• at DC-22 A / at 440 V / rated value / maximum	500 / 3
• at DC-22 A / at 220 V / rated value / maximum	500 / 2
• at DC-21 A / at 440 V / rated value / maximum	500 / 3
• at DC-21 A / at 220 V / maximum	500 / 2
Current / at AC / rated value	500 A
Continuous current	
• 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
Continuous current / at DC / rated value	500 A
Let-through current / of the fuse / at 500 V / maximum permissible	65 521 A
Let-through current / of the gG fuse / at 690 V / maximum permissible	54 005 A
Let-through current / with closed switch	
• at 690 V / for combination switch + gG fuse / maximum permissible	54 500 A
• for combination switch + fuse / at 400 V / maximum permissible	61 600 A
• for combination switch + fuse / at 500 V / maximum permissible	61 600 A
Short-time current resistance (I _{cw})	
• at 690 V AC/440 V DC / limited to 1 s / rated value	30 kA

Main circuit
Operating power

<ul style="list-style-type: none"> • at AC-23 A / at 400 V / at 50/60 Hz / rated value 	280 kW
<ul style="list-style-type: none"> • at AC-23 A / at 500 V / at 50/60 Hz / 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 voltage	
<ul style="list-style-type: none"> • at AC / at 50/60 Hz / rated value 	690 V

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	
<ul style="list-style-type: none"> • Auxiliary switch 	Yes
<ul style="list-style-type: none"> • optional 	
<ul style="list-style-type: none"> — motor drive 	No
<ul style="list-style-type: none"> — Voltage trigger 	No

Short circuit

Short-circuit current making capacity (I _{cm})	
<ul style="list-style-type: none"> • for switch disconnecter / at 690 V AC/440 V DC / without fuse link / rated value / minimum 	63 kA
<ul style="list-style-type: none"> • for switch disconnecter / without fuse link / rated value / minimum 	63 kA

Conditional short-circuit current / with line-side fuse protection	
<ul style="list-style-type: none"> at 500 V / by gG fuse / rated value 	100 kA

Connections

<ul style="list-style-type: none"> Type of connectable conductor cross-sections / for aluminum conductor / stranded / with lug 	1x (25 ... 240 mm ²), 2x (25 ... 240 mm ²)
<ul style="list-style-type: none"> Type of connectable conductor cross-sections / for copper conductor / 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	260 mm
Depth	110 mm
Mounting position	any
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
Net weight	7 300 g

Environmental conditions

Degree of pollution	3
Ambient temperature	
<ul style="list-style-type: none"> during operation / minimum 	-25 °C
<ul style="list-style-type: none"> during operation / maximum 	70 °C
<ul style="list-style-type: none"> during storage / minimum 	-50 °C
<ul style="list-style-type: none"> during storage / maximum 	80 °C

Certificates

Reference code	
<ul style="list-style-type: none"> acc. to DIN EN 61346-2 	Q
<ul style="list-style-type: none"> acc. to DIN EN 81346-2 	Q

General Product Approval	Declaration of Conformity	Shipping Approval
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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=3KD4430-0QE20-0>

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

<http://support.industry.siemens.com/cs/ww/en/ps/3KD4430-0QE20-0>

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

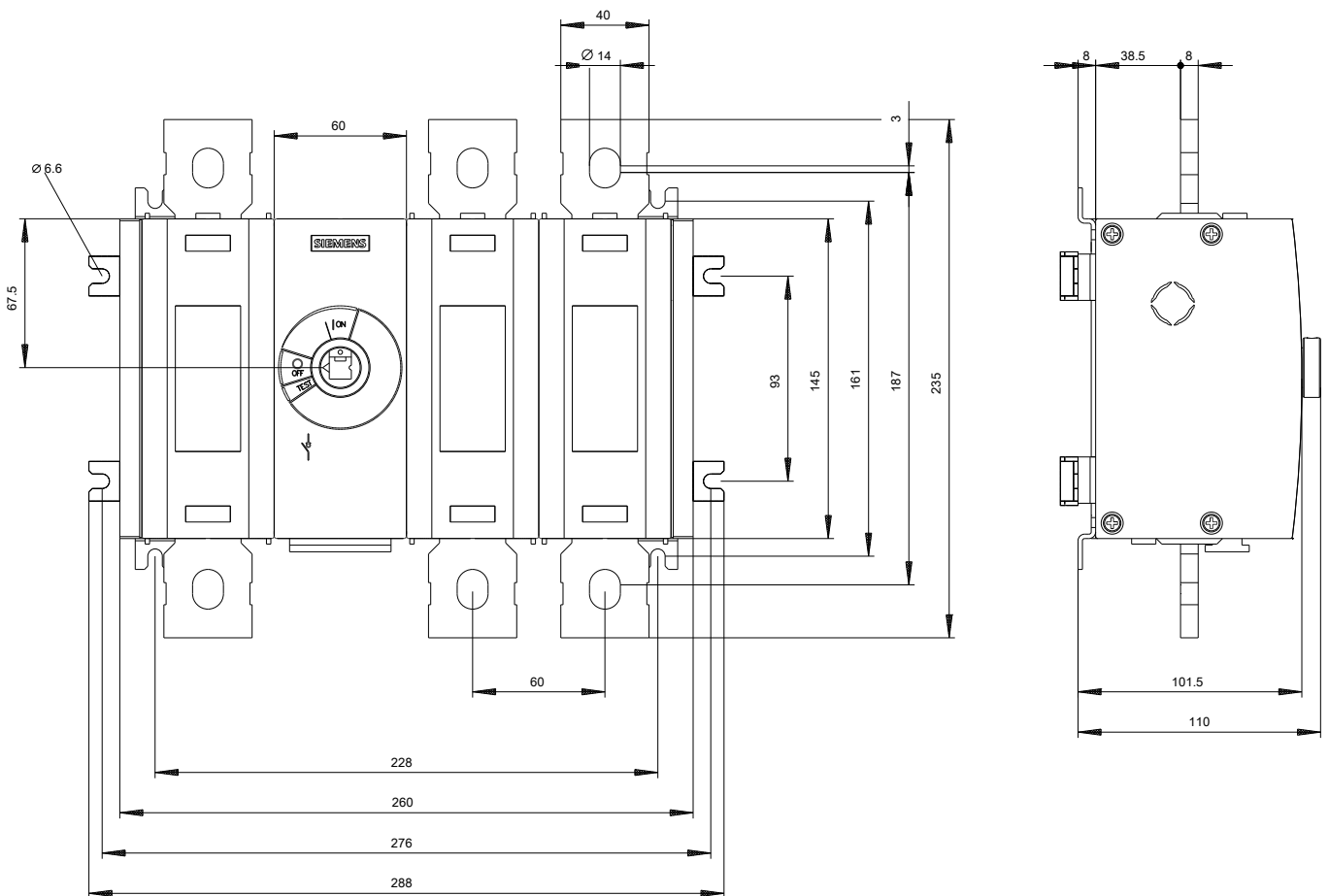
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3KD4430-0QE20-0

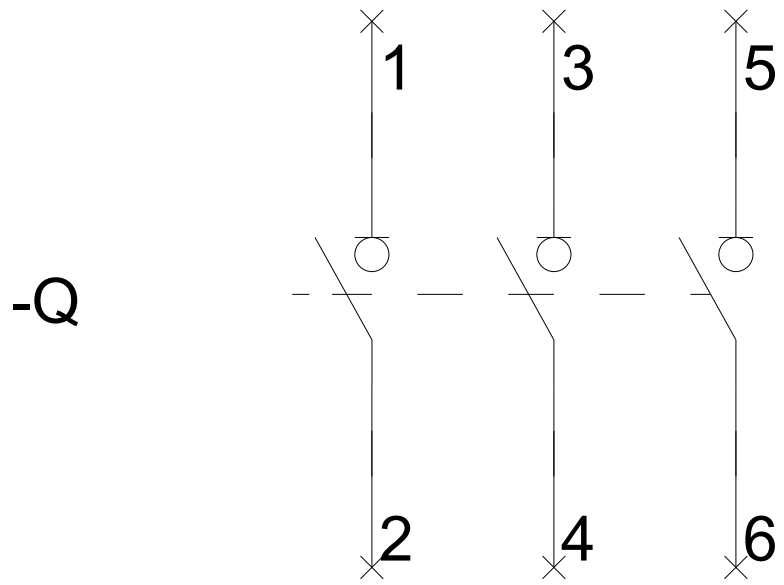
CAX-Online-Generator

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

Tender specifications

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





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