

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 / motor drive	No

General technical data	
Number of poles	4
Type of device	fixed mounting
Size of switch disconnecter	4
Electrical endurance (switching cycles)	
at AC-23 A / at 690 V / at 50/60 Hz	1 000
at DC-23 A / at 440 V	1 000
I²t value / with closed switch / for combination switch + fuse / at 500 V / maximum	3 687 500 A ² ·s
I²t value / with closed switch / for combination switch + fuse / at 400 V / maximum	3 687 500 A ² ·s

• I2t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum	4 450 000 A ² ·s
• I2t value / of the fuse / at 500 V / maximum permissible	5 400 005 A ² ·s
• 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 second pole
Overvoltage category	IV

Voltage

Operating voltage / with current paths in series	
• with degree of pollution 2 / at DC / rated value / Note	440 V / 3
• with degree of pollution 3 / at DC / rated value / Note	440 / 3
Insulation voltage	
• 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	
• 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	48 W
• for rated value of the current / at AC / in hot operating state / per pole	12 W

Electricity

Operating current	
• at AC-21 A / at 400 V / maximum	500 A
• at AC-21 A / at 500 V / maximum	500 A
• at AC-21 A / at 690 V / maximum	500 A
• 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
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	
• at AC-23 A / at 400 V / at 50/60 Hz / rated value	250 kW
• at AC-23 A / at 500 V / at 50/60 Hz / rated value	355 kW
• at AC-23 A / at 690 V / at 50/60 Hz / rated value	500 kW
Operating voltage	
• 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

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

Product details

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
• optional	
— motor drive	No
— Voltage trigger	No

Short circuit

Short-circuit current making capacity (I _{cm})	
• for switch disconnecter / at 690 V AC/440 V DC / without fuse link / rated value / minimum	63 kA
• for switch disconnecter / without fuse link / rated value / minimum	63 kA
Conditional short-circuit current / with line-side fuse protection	
• at 500 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)
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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 for main current circuit	flat connector

Mechanical Design	
Height	235 mm
Width	320 mm
Depth	110 mm
Mounting position	any
Mounting type	screw fixing
Mounting type - front mounting with 4-hole attachment - front mounting with central attachment - rail mounting	No No No
Net weight	8 900 g

Environmental conditions	
Degree of pollution	3
Ambient temperature - during operation / minimum - during operation / maximum - during storage / minimum - during storage / maximum	-25 °C 70 °C -50 °C 80 °C

Certificates	
Reference code - acc. to DIN EN 61346-2 - acc. to DIN EN 81346-2	Q 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)

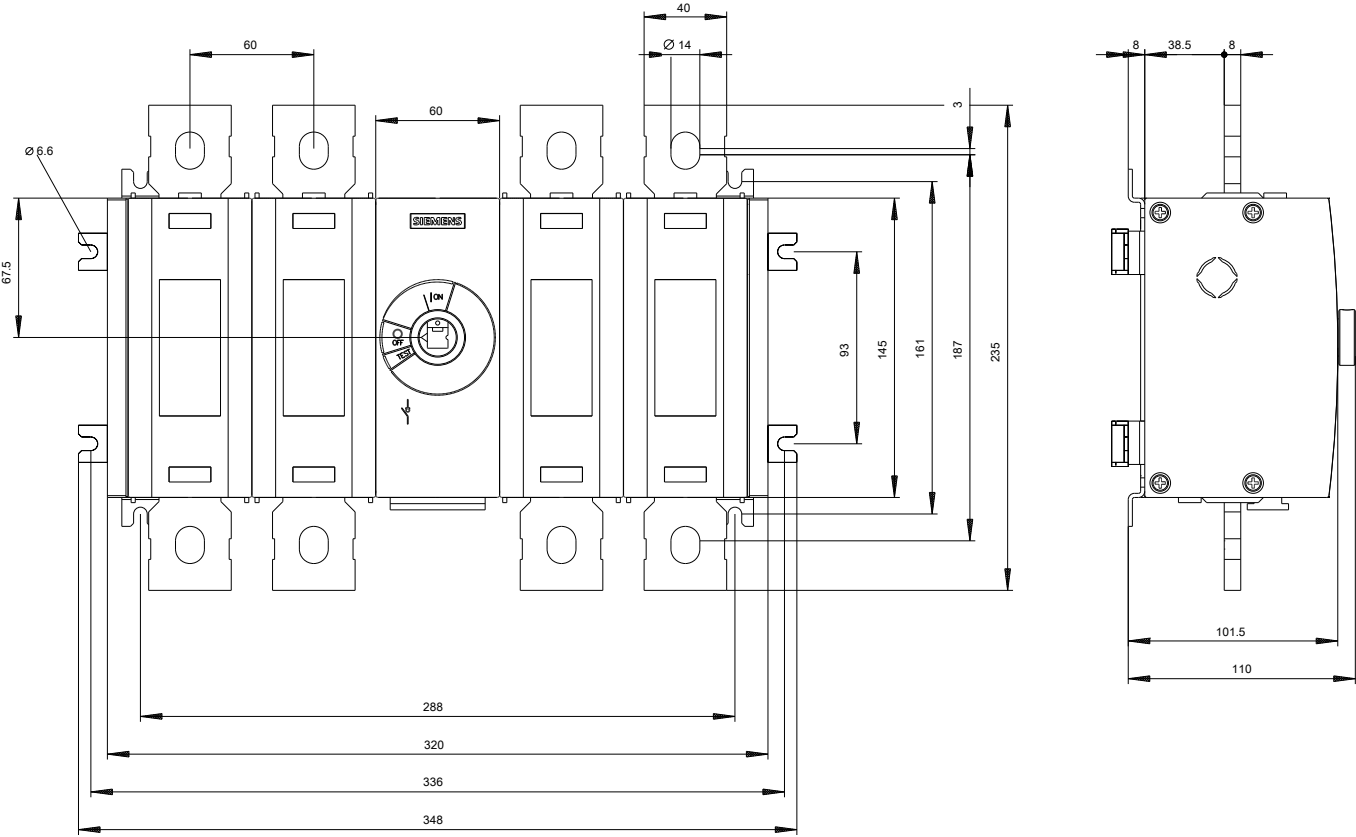
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3KD4440-0QE20-0>

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

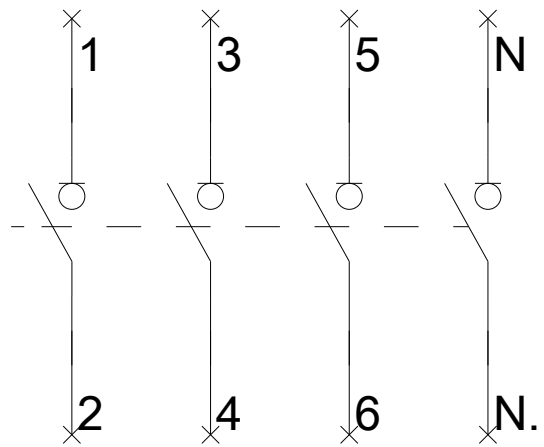
<https://support.industry.siemens.com/cs/ww/en/ps/3KD4440-0QE20-0>

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



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