SIEMENS

Data sheet 3KD3830-0PE20-0

Switch disconnector 250 A, Size 3, 3-pole Front operating mechanism center Basic unit without handle flat terminal



Model	
product brand name	SENTRON
product designation	3KD switch disconnector
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 disconnector	3
operational current at 35 °C rated value	250 A
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
I2t value	
● with closed switch at 1000 V for combination switch +gG/aM SITOR fuse maximum	239 650 A²·s
● of the fuse at 500 V maximum permissible	780 005 A²·s
● of the gG fuse at 690 V maximum permissible	525 005 A²·s
● of the gG/aM SITOR fuse at 1000 V maximum permissible	260 000 A²·s
● of the molded case circuit breaker at 415 V maximum permissible	4 750 000 A²·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 rated value	250 A

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• operational current	
— at 35 °C rated value	250 A
— at 40 °C rated value	250 A
— at 45 °C rated value	250 A
— at 50 °C rated value	250 A
— at 55 °C rated value	250 A
— at 60 °C rated value	250 A
— at 65 °C rated value	250 A
— at 70 °C rated value	250 A
• operational current	
— at AC-23 A at 690 V rated value	250 A
— at AC-23 A at 500 V rated value	250 A
— at AC-23 A at 400 V rated value	250 A
— at AC-22 A at 1000 V maximum	250 A
— at AC-22 A at 690 V rated value	250 A
— at AC-22 A at 500 V rated value	250 A
— at AC-22 A at 400 V rated value	250 A
— at AC-20 A at 1000 V maximum	250 A
— at AC-21 A at 500 V rated value	250 A
— at AC-21 A at 690 V rated value	250 A
— at DC-20 A at 1000 V maximum	250 A / 1
— at DC-23 A at 440 V rated value note	250 A / 3
— at DC-23 A at 220 V rated value note	250 A / 2
— at DC-22 A at 440 V rated value note	250 A / 3
— at DC-22 A at 220 V rated value note	250 A / 2
— at DC-21 A at 440 V rated value note	250 A / 3
— at DC-21 A at 220 V rated value	250 A / 2
continuous current of upstream fuse at 500 V and 690 V rated value	500 A
continuous current of upstream fuse at 1000 V rated value	500 A
continuous current of upstream molded case circuit breaker at 415 V rated value	630 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	
• 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	6 W
• with conventional rated thermal current per device	18 W
• for rated value of the current at AC in hot operating state per pole	6 W
Main circuit	
operating power	
• at AC-23 A at 500 V rated value	160 kW
operational current rated value	250 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

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number of NO contacts for auxiliary contacts	6
Suitability	
suitability for use main switch	Yes
suitability for use switch disconnector	Yes
suitability for use EMERGENCY OFF 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	
● **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
product extension optional voltage trigger	No
Short circuit	
short-time withstand current (Icw) at 1000 V AC/440 V DC limited to 1 s rated value	13 kA
short-circuit current making capacity (Icm) for switch disconnector	
● **at 1000 V AC without fuse link rated value minimum**	36 kA
● **at DC 440 V without fuse link rated value minimum**	36 kA
● **without fuse link rated value minimum**	36 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 ... 120 mm²)
type of connectable conductor cross-sections	
● with combination of Al conductor+switch	250A / 240 mm²
● for copper busbar	'1 x (30 x 10 mm²)
type of connectable conductor cross-sections for copper conductor	
● stranded with lug according to DIN 46234	1x (6 ... 240 mm²), 2x (6 ... 150 mm²)
● stranded with lug according to DIN 46235	1x (16 ... 185 mm²), 2x (16 ...150 mm²)
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	
● 4-hole front mounting	No
● front mounting with central attachment	No
● rail mounting	No
mounting position	any
Net Weight	2.834 kg
Environmental conditions	
ambient temperature during operation	
● minimum	-25 °C
● maximum	70 °C
ambient temperature during storage	
● minimum	-50 °C
● maximum	80 °C

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Certificates

reference code according to IEC 81346-2	Q

Approvals Certificates

Environment		General Product Approval			
Environmental Con-firmations	Environmental Con-firmations	CCC	VDE	Miscellaneous	EAC

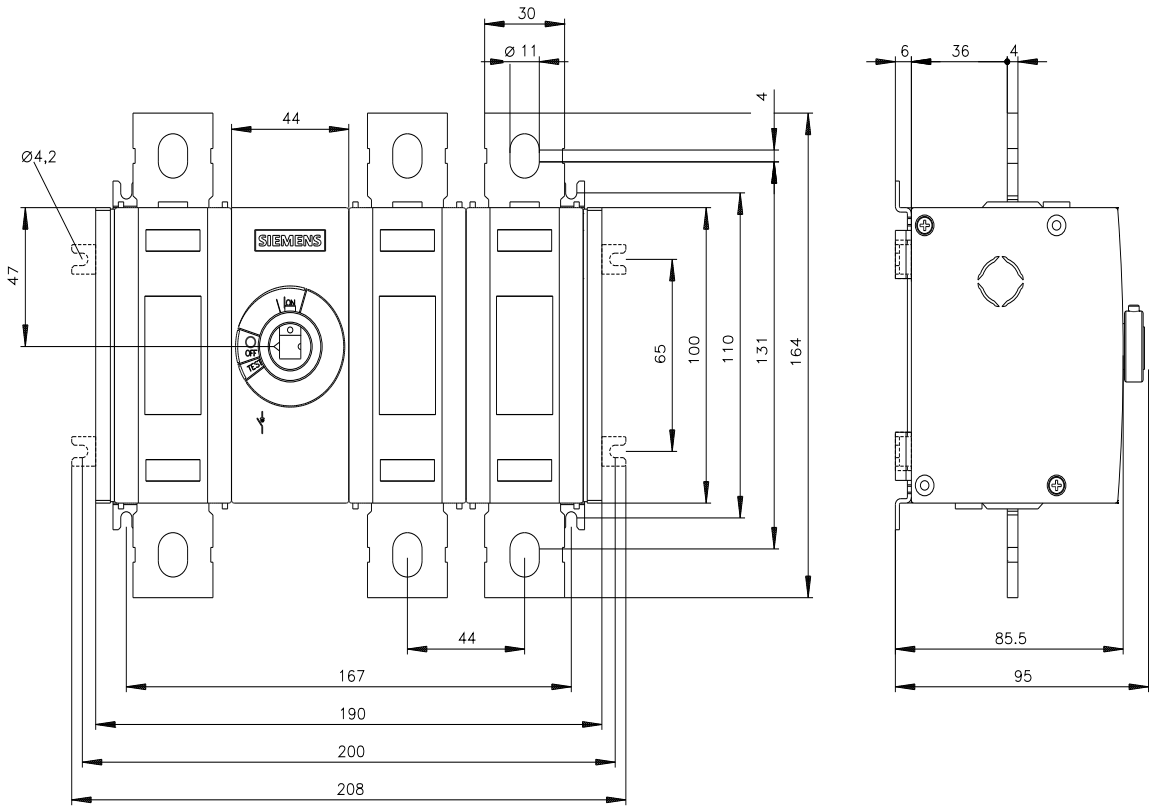
General Product Approval			Test Certificates	Maritime application	
Confirmation	CE EG-Konf.	UKCA	Type Test Certific-ates/Test Report	DNV	Lloyd's Register LRS

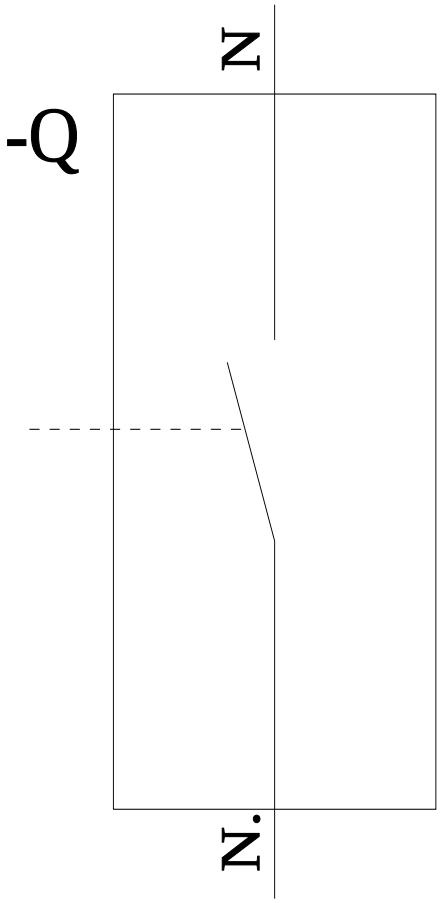
other		
产品合格 QC PASS	Confirmation	Miscellaneous

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=3KD3830-0PE20-0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3KD3830-0PE20-0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3KD3830-0PE20-0
CAx-Online-Generator
https://www.siemens.com/cax
Tender specifications
https://www.siemens.com/specifications
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https://curves.simaris.siemens.com/curves/3KD3830-0PE20-0

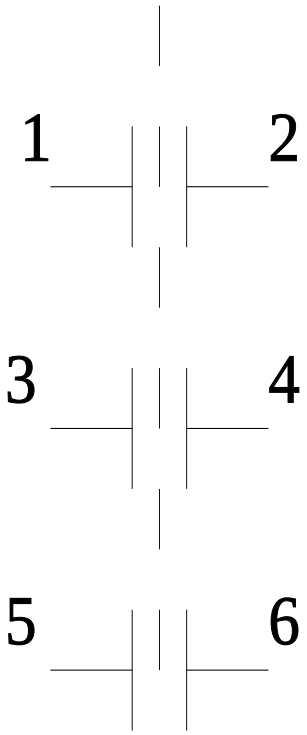
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