

SWITCH DISCONNECTOR FUSE 250A, FRAME SIZE 3, 4-POLE FOR LV HRC FUSE SIZE 0 AND 1 SIDE OPERATING RIGHT BASIC UNIT WITHOUT HANDLE FLAT TERMINAL WITHOUT FUSES



Model	
Product brand name	SENTRON
Product designation	Switching device
Design of the product	3KF switch disconnecter with fuses
Design of the operating mechanism	without
Design of handle	Without
Direction of actuation	from right
Type of the driving mechanism / motor drive	No
Number of poles	4
Size of disconnecting link	1 and 0
Size of switch disconnecter	3
Size of fuse link	NH0, NH1
Electrical endurance (switching cycles)	
• at AC-23 A / at 440 V / at 50/60 Hz	5 000
• at AC-23 A / at 690 V / at 50/60 Hz	4 000
• at DC-23 A / at 440 V	1 000
I <sup>2</sup> t value	
• with closed switch / for combination switch + fuse / at 500 V / maximum	437 000 A <sup>2</sup> ·s

• with closed switch / for combination switch + fuse / at 400 V / maximum	437 000 A <sup>2</sup> ·s
• with closed switch / at 690 V / for combination switch + gG fuse / maximum	490 100 A <sup>2</sup> ·s
• with closed switch / at 690 V / for combination switch + aM fuse / maximum	490 100 A <sup>2</sup> ·s
• of the fuse / at 500 V / maximum permissible	1 500 000 A <sup>2</sup> ·s
• of the gG fuse / at 690 V / maximum permissible	940 000 A <sup>2</sup> ·s
• of the aM fuse / at 690 V / maximum permissible	1 400 000 A <sup>2</sup> ·s
<b>Mechanical service life (switching cycles) / typical</b>	10 000
<b>Position / of the switch operating mechanism</b>	at the right end
<b>Fuse system</b>	LV HRC fuse
<b>Overvoltage category</b>	IV
<b>Operating voltage / with current paths in series</b>	
• with degree of pollution 2 / at DC / rated value / Note	440 / 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
<b>Overvoltage in percent / relative to the operating voltage / at AC / at 50/60 Hz</b>	10 %

<b>Protection class</b>	
<b>Protection class IP</b>	IP00
<b>Protection class IP</b>	
• with closed switch / with cover or cable lug cover	IP20
• on the front	IP00

<b>Dissipation</b>	
<b>Power loss [W]</b>	
• with conventional rated thermal current / per pole	15 W
• with conventional rated thermal current / per device	45 W
• with conventional rated thermal current / without fuse / per pole	15 W
• with conventional rated thermal current / without fuse / per device	45 W
• of the fuse / per fuse / maximum	25.5 W
• maximum	121.5 W
<b>Operating current</b>	

• at AC-21 A / at 400 V / maximum	250 A
• at AC-21 A / at 500 V / maximum	250 A
• at AC-21 A / at 690 V / maximum	250 A
• at AC-23 A / at 500 V / at 50/60 Hz / rated value / maximum	250 A
• at AC-22 A / at 500 V / at 50/60 Hz / rated value / maximum	250 A
• at AC-22 A / at 400 V / at 50/60 Hz / rated value / maximum	250 A
• at AC-22 A / at 690 V / at 50/60 Hz / rated value / maximum	250 A
• at AC-23 A / at 400 V / at 50/60 Hz / rated value / maximum	250 A
• at AC-23 A / at 690 V / at 50/60 Hz / rated value / maximum	250 A
• at DC-23 A / at 440 V / rated value / maximum	250 A
• at DC-23 A / at 220 V / rated value / maximum	250 A
• at DC-22 A / at 440 V / rated value / maximum	250 A
• at DC-22 A / at 220 V / rated value / maximum	250 A
• at DC-21 A / at 440 V / rated value / maximum	250 A
• at DC-21 A / at 220 V / maximum	250 A
<b>Continuous current</b>	
• 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	200 A
Continuous current / at DC / rated value	250 A
<b>Let-through current / of the fuse / at 500 V / maximum permissible</b>	33 700 A
<b>Let-through current / of the gG fuse / at 690 V / maximum permissible</b>	37 700 A
<b>Let-through current / of the aM fuse / at 690 V / maximum permissible</b>	39 700 A
<b>Let-through current / with closed switch</b>	
• at 690 V / for combination switch + aM fuse / maximum permissible	30 310 A
• at 690 V / for combination switch + gG fuse / maximum permissible	30 310 A
• for combination switch + fuse / at 400 V / maximum permissible	28 700 A

<ul style="list-style-type: none"> <li>• for combination switch + fuse / at 500 V / maximum permissible</li> </ul>	28 700 A
Short-time current resistance (I <sub>cw</sub> ) / at 690 V AC/440 V DC / limited to 1 s / rated value	8 kA

### Main circuit

<b>Operating power / at AC-23 A</b>	
<ul style="list-style-type: none"> <li>• at 400 V / at 50/60 Hz / rated value</li> <li>• at 500 V / at 50/60 Hz / rated value</li> <li>• at 690 V / at 50/60 Hz / rated value</li> </ul>	<p>132 kW</p> <p>160 kW</p> <p>250 kW</p>
<b>Operating voltage</b>	
<ul style="list-style-type: none"> <li>• at AC / at 50/60 Hz / rated value</li> <li>• at AC / rated value / maximum</li> </ul>	<p>690 V</p> <p>690 V</p>

### 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
<b>Suitability for use</b>	
<ul style="list-style-type: none"> <li>• Main switch</li> <li>• switch disconnector</li> <li>• EMERGENCY OFF switch</li> <li>• safety switch</li> <li>• maintenance/repair switch</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
Product feature / interlock	No
<b>Product component</b>	
<ul style="list-style-type: none"> <li>• Voltage trigger</li> <li>• undervoltage release</li> <li>• undervoltage release with leading contact</li> </ul>	<p>No</p> <p>No</p> <p>No</p>
Product feature / sealable	Yes
<b>Product extension</b>	
<ul style="list-style-type: none"> <li>• Auxiliary switch</li> <li>• optional <ul style="list-style-type: none"> <li>— locking capability</li> <li>— motor drive</li> <li>— fuse monitoring</li> </ul> </li> </ul>	<p>Yes</p> <p>Yes</p> <p>No</p> <p>Yes</p>
<b>Product function</b>	
<ul style="list-style-type: none"> <li>• fuse monitoring</li> </ul>	No

### Short circuit

Short-circuit current making capacity (I <sub>cm</sub> ) / for switch disconnecter / at 690 V AC/440 V DC / without fuse link / rated value / minimum	13.6 kA
<b>Conditional short-circuit current / with line-side fuse protection</b>	
• at 500 V / by gG fuse / rated value	100 kA
• at 690 V / by gG fuse / rated value	100 kA

### Connections

Arrangement of electrical connectors / for main current circuit	Top and bottom
<b>Tightening torque / with screw-type terminals</b>	
• minimum	30 N·m
• maximum	44 N·m
• Type of connectable conductor cross-sections / for copper busbar	1x (25x3 mm)
• Type of connectable conductor cross-sections / for aluminum conductor / stranded / with lug	1x (6 ... 240 mm <sup>2</sup> ), 2x (6 ... 120 mm <sup>2</sup> )
• Type of connectable conductor cross-sections / for copper conductor / stranded / with lug / acc. to DIN 46234	1x (6 ... 240 mm <sup>2</sup> ), 2x (6 ... 120 mm <sup>2</sup> )
• Type of connectable conductor cross-sections / for copper conductor / stranded / with lug / acc. to DIN 46235	1x (6 ... 240 mm <sup>2</sup> ), 2x (6 ... 120 mm <sup>2</sup> )
<b>Type of electrical connection</b>	
• for main current circuit	flat connector

### Mechanical Design

<b>Height</b>	207 mm
<b>Width</b>	308.5 mm
<b>Depth</b>	188.5 mm
<b>Mounting position</b>	any
<b>Mounting type</b>	floor mounting
<b>Mounting type</b>	
• front mounting with 4-hole attachment	No
• front mounting with central attachment	No
• rail mounting	No
<b>Net weight</b>	5 500 g

### Environmental conditions

<b>Degree of pollution</b>	3
<b>Ambient temperature</b>	
• during operation / minimum	-25 °C
• during operation / maximum	70 °C
• during storage / minimum	-50 °C
• during storage / maximum	80 °C

## Certificates

Equipment marking / acc. to DIN EN 61346-2

Q

General Product Approval

other



CCC



VDE

[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=3KF3425-4RF11>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3KF3425-4RF11>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3KF3425-4RF11](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3KF3425-4RF11)

**CAX-Online-Generator**

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

**Tender specifications**

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



