

switch disconnecter fuse 80A, frame size 1, 4-pole for LV HRC Fuse size 000 side operating left basic unit without handle box terminal without fuses



Model	
Product brand name	SETRON
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 left
Type of the driving mechanism / motor drive	No
Number of poles	4
Size of disconnecting link	00 and 000
Size of switch disconnecter	1
Size of fuse link	NH000, NH00
Electrical endurance (switching cycles)	
<ul style="list-style-type: none"> <li>at AC-23 A / at 440 V / at 50/60 Hz</li> </ul>	10 000
<ul style="list-style-type: none"> <li>at AC-23 A / at 690 V / at 50/60 Hz</li> </ul>	6 000
<ul style="list-style-type: none"> <li>at DC-23 A / at 440 V</li> </ul>	1 500
I <sup>2</sup> t value	
<ul style="list-style-type: none"> <li>with closed switch / for combination switch + fuse / at 500 V / maximum</li> </ul>	33 200 A <sup>2</sup> ·s

<ul style="list-style-type: none"> <li>• with closed switch / for combination switch + fuse / at 400 V / maximum</li> </ul>	33 200 A <sup>2</sup> ·s
<ul style="list-style-type: none"> <li>• with closed switch / at 690 V / for combination switch + gG fuse / maximum</li> </ul>	40 700 A <sup>2</sup> ·s
<ul style="list-style-type: none"> <li>• with closed switch / at 690 V / for combination switch + aM fuse / maximum</li> </ul>	40 700 A <sup>2</sup> ·s
<ul style="list-style-type: none"> <li>• of the fuse / at 500 V / maximum permissible</li> </ul>	34 000 A <sup>2</sup> ·s
<ul style="list-style-type: none"> <li>• of the gG fuse / at 690 V / maximum permissible</li> </ul>	55 000 A <sup>2</sup> ·s
<ul style="list-style-type: none"> <li>• of the aM fuse / at 690 V / maximum permissible</li> </ul>	55 000 A <sup>2</sup> ·s
<b>Mechanical service life (switching cycles) / typical</b>	15 000
<b>Position / of the switch operating mechanism</b>	at the left end
<b>Fuse system</b>	LV HRC fuse
<b>Overvoltage category</b>	IV
<b>Operating voltage / with current paths in series</b>	
<ul style="list-style-type: none"> <li>• with degree of pollution 2 / at DC / rated value / Note</li> </ul>	440 / 3
<ul style="list-style-type: none"> <li>• with degree of pollution 3 / at DC / rated value / Note</li> </ul>	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>	IP20
<b>Protection class IP</b>	
<ul style="list-style-type: none"> <li>• with closed switch / with cover or cable lug cover</li> </ul>	IP20
<ul style="list-style-type: none"> <li>• on the front</li> </ul>	IP20

<b>Dissipation</b>	
<b>Power loss [W]</b>	
<ul style="list-style-type: none"> <li>• with conventional rated thermal current / per pole</li> </ul>	2.8 W
<ul style="list-style-type: none"> <li>• with conventional rated thermal current / per device</li> </ul>	8.4 W
<ul style="list-style-type: none"> <li>• with conventional rated thermal current / without fuse / per pole</li> </ul>	2.8 W
<ul style="list-style-type: none"> <li>• with conventional rated thermal current / without fuse / per device</li> </ul>	8.4 W
<ul style="list-style-type: none"> <li>• of the fuse / per fuse / maximum</li> </ul>	8.5 W
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	33.9 W
<b>Operating current</b>	

• at AC-21 A / at 400 V / maximum	80 A
• at AC-21 A / at 500 V / maximum	80 A
• at AC-21 A / at 690 V / maximum	80 A
• at AC-23 A / at 500 V / at 50/60 Hz / rated value / maximum	80 A
• at AC-22 A / at 500 V / at 50/60 Hz / rated value / maximum	80 A
• at AC-22 A / at 400 V / at 50/60 Hz / rated value / maximum	80 A
• at AC-22 A / at 690 V / at 50/60 Hz / rated value / maximum	80 A
• at AC-23 A / at 400 V / at 50/60 Hz / rated value / maximum	80 A
• at AC-23 A / at 690 V / at 50/60 Hz / rated value / maximum	80 A
• at DC-23 A / at 440 V / rated value / maximum	80 A
• at DC-23 A / at 220 V / rated value / maximum	80 A
• at DC-22 A / at 440 V / rated value / maximum	80 A
• at DC-22 A / at 220 V / rated value / maximum	80 A
• at DC-21 A / at 440 V / rated value / maximum	80 A
• at DC-21 A / at 220 V / maximum	80 A
<b>Continuous current</b>	
• rated value	80 A
• at 40 °C / rated value	80 A
• at 45 °C / rated value	80 A
• at 50 °C / rated value	80 A
• at 55 °C / rated value	80 A
• at 60 °C / rated value	80 A
• at 65 °C / rated value	80 A
• at 70 °C / rated value	80 A
Continuous current / at DC / rated value	80 A
<b>Let-through current / of the fuse / at 500 V / maximum permissible</b>	11 800 A
<b>Let-through current / of the gG fuse / at 690 V / maximum permissible</b>	11 500 A
<b>Let-through current / of the aM fuse / at 690 V / maximum permissible</b>	11 500 A
<b>Let-through current / with closed switch</b>	
• at 690 V / for combination switch + aM fuse / maximum permissible	11 200 A
• at 690 V / for combination switch + gG fuse / maximum permissible	11 200 A
• for combination switch + fuse / at 400 V / maximum permissible	10 400 A

<ul style="list-style-type: none"> <li>• for combination switch + fuse / at 500 V / maximum permissible</li> </ul>	10 400 A
Short-time current resistance (I <sub>cw</sub> ) / at 690 V AC/440 V DC / limited to 1 s / rated value	2.5 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> </ul>	37 kW
<ul style="list-style-type: none"> <li>• at 500 V / at 50/60 Hz / rated value</li> </ul>	55 kW
<ul style="list-style-type: none"> <li>• at 690 V / at 50/60 Hz / rated value</li> </ul>	75 kW
<b>Operating voltage</b>	
<ul style="list-style-type: none"> <li>• at AC / at 50/60 Hz / rated value</li> </ul>	690 V
<ul style="list-style-type: none"> <li>• at AC / rated value / maximum</li> </ul>	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
<b>Suitability for use</b>	
<ul style="list-style-type: none"> <li>• Main switch</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• switch disconnecter</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• EMERGENCY OFF switch</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• safety switch</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• maintenance/repair switch</li> </ul>	Yes
Product feature / interlock	No
<b>Product component</b>	
<ul style="list-style-type: none"> <li>• Voltage trigger</li> </ul>	No
<ul style="list-style-type: none"> <li>• undervoltage release</li> </ul>	No
<ul style="list-style-type: none"> <li>• undervoltage release with leading contact</li> </ul>	No
Product feature / sealable	Yes
<b>Product extension</b>	
<ul style="list-style-type: none"> <li>• Auxiliary switch</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• optional</li> </ul>	
<ul style="list-style-type: none"> <li>— locking capability</li> </ul>	Yes
<ul style="list-style-type: none"> <li>— motor drive</li> </ul>	No
<ul style="list-style-type: none"> <li>— fuse monitoring</li> </ul>	Yes
<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	3.55 kA
<b>Conditional short-circuit current / with line-side fuse protection</b>	
<ul style="list-style-type: none"> <li>• at 500 V / by gG fuse / rated value</li> <li>• at 690 V / by gG fuse / rated value</li> </ul>	<p>100 kA</p> <p>100 kA</p>

### Connections

Arrangement of electrical connectors / for main current circuit	Top and bottom
<b>Tightening torque / with screw-type terminals</b>	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<p>5 N·m</p> <p>6.5 N·m</p>
<ul style="list-style-type: none"> <li>• Type of connectable conductor cross-sections / for copper conductor / finely stranded / with core end processing</li> <li>• Type of connectable conductor cross-sections / with flexible busbar</li> <li>• Type of connectable conductor cross-sections / for copper conductor / stranded</li> </ul>	<p>1x (6 ... 25 mm<sup>2</sup>)</p> <p>2x (0,8x9 mm)</p> <p>1x (6 ... 25 mm<sup>2</sup>)</p>
<b>Type of electrical connection</b>	
<ul style="list-style-type: none"> <li>• for main current circuit</li> </ul>	Box terminal

### Mechanical Design

<b>Height</b>	122 mm
<b>Width</b>	203.8 mm
<b>Depth</b>	130.5 mm
<b>Mounting position</b>	any
<b>Mounting type</b>	Floor mounting and snap-on mounting on 35 mm standard mounting rail
<b>Mounting type</b>	
<ul style="list-style-type: none"> <li>• front mounting with 4-hole attachment</li> <li>• front mounting with central attachment</li> <li>• rail mounting</li> </ul>	<p>No</p> <p>No</p> <p>Yes</p>
<b>Net weight</b>	1 750 g

### Environmental conditions

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

### Certificates

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=3KF1408-4LB11>**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**<https://support.industry.siemens.com/cs/ww/en/ps/3KF1408-4LB11>**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3KF1408-4LB11](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3KF1408-4LB11)**CAX-Online-Generator**<http://www.siemens.com/cax>**Tender specifications**<http://www.siemens.com/specifications>



