## **SIEMENS**

Data sheet 3KF3425-4LF11

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



Model	
Product brand name	SENTRON
Product designation	Switching device
Design of the product	3KF switch disconnector 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	1 and 0
Size of switch disconnector	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
I2t value	
<ul> <li>with closed switch / for combination switch + fuse / at 500 V / maximum</li> </ul>	437 000 A <sup>2</sup> ·s

<ul> <li>with closed switch / for combination switch + fuse / at 400 V / maximum</li> </ul>	437 000 A²-s
<ul> <li>with closed switch / at 690 V / for combination switch + gG fuse / maximum</li> </ul>	490 100 A²·s
<ul> <li>with closed switch / at 690 V / for combination switch + aM fuse / maximum</li> </ul>	490 100 A²·s
• of the fuse / at 500 V / maximum permissible	1 500 000 A²-s
<ul> <li>of the gG fuse / at 690 V / maximum permissible</li> </ul>	940 000 A²·s
<ul> <li>of the aM fuse / at 690 V / maximum permissible</li> </ul>	1 400 000 A <sup>2</sup> ·s
Mechanical service life (switching cycles) / typical	10 000
Position / of the switch operating mechanism	at the left end
Fuse system	LV HRC fuse
Overvoltage category	IV
Operating voltage / with current paths in series	
<ul><li>with degree of pollution 2 / at DC / rated value / Note</li></ul>	440 / 3
<ul><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
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> <li>with closed switch / with cover or cable lug cover</li> </ul>	IP20
• on the front	IP00
Dissipation	
Power loss [W]	
<ul> <li>with conventional rated thermal current / per pole</li> </ul>	15 W
with conventional rated thermal current / per device	45 W
<ul> <li>with conventional rated thermal current / without fuse / per pole</li> </ul>	15 W
<ul> <li>with conventional rated thermal current / without fuse / per device</li> </ul>	45 W
• of the fuse / per fuse / maximum	25.5 W
• maximum	
	121.5 W
Operating current	121.5 W

• 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
Continuous current	
• 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
Let-through current / of the fuse / at 500 V / maximum permissible	33 700 A
Let-through current / of the gG fuse / at 690 V / maximum permissible	37 700 A
Let-through current / of the aM fuse / at 690 V / maximum permissible	39 700 A
Let-through current / with closed switch	
<ul> <li>at 690 V / for combination switch + aM fuse / maximum permissible</li> </ul>	30 310 A
<ul> <li>at 690 V / for combination switch + gG fuse / maximum permissible</li> </ul>	30 310 A
<ul> <li>for combination switch + fuse / at 400 V / maximum permissible</li> </ul>	28 700 A

Short-time current resistance (low) / at 690 V AC/440 V DC / limited to 1 s / rated value  Main circuit  Operating power / at AC-23 A  • at 400 V / at 50/60 Hz / rated value  132 kW  • at 500 V / at 50/60 Hz / rated value  • at 690 V / at 50/60 Hz / rated value  • at 67 / rated value / maximum  690 V  Operating voltage  • at AC / at 50/60 Hz / rated value  • at AC / rated value / maximum  690 V  Auxiliary circuit  Number of connected NC contacts / for auxiliary contacts  Number of connected NC contacts / for auxiliary contacts  Suitability for use  • Main switch  • switch disconnector  • EMERGENCY OFF switch  • safety switch  • maintenance/repair switch  Ves  Product feature / interlock  Product component  • Voltage trigger  • undervoltage release  • undervoltage release  • undervoltage release with leading contact  • Auxiliary switch  • coptional  — locking capability  — motor drive  — fuse monitoring  • use monitoring  No	<ul> <li>for combination switch + fuse / at 500 V / maximum permissible</li> </ul>	28 700 A
Operating power / at AC-23 A  • at 400 V / at 50/60 Hz / rated value 132 kW  • at 500 V / at 50/60 Hz / rated value 250 kW  Operating voltage  • at AC / at 50/60 Hz / rated value 690 V  • at AC / rated value / maximum 690 V  Auxiliary circuit  Number of connected NC contacts / for auxiliary contacts  Number of connected NO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Suitability for use  • Main switch Yes  • switch disconnector Yes  • safety switch Yes  • after switch Yes		8 kA
at 400 V / at 50/60 Hz / rated value at 500 V / at 50/60 Hz / rated value at 690 V / at 50/60 Hz / rated value at 690 V / at 50/60 Hz / rated value at 690 V / at 50/60 Hz / rated value at 690 V  at AC / at 50/60 Hz / rated value at C / rated value / maximum  690 V  Auxiliary circuit  Number of connected NC contacts / for auxiliary contacts  Number of connected NO contacts / for auxiliary contacts  Number of connected NO contacts / for auxiliary contacts  Suitability for use  Main switch switch disconnector safety switch safety switch affective / respectively maintenance/repair switch  Product feature / interlock  Product feature / interlock  Product component Voltage trigger undervoltage release undervoltage release with leading contact  Product feature / sealable  Product extension Auxiliary switch product gapability motor drive product function  Product function	Main circuit	
at 500 V / at 50/60 Hz / rated value at 690 V / at 50/60 Hz / rated value at 690 V / at 50/60 Hz / rated value background of the first own	Operating power / at AC-23 A	
• at 690 V at 50/60 Hz / rated value 250 kW  Operating voltage • at AC / at 50/60 Hz / rated value 690 V • at AC / rated value / maximum 690 V  Auxiliary circuit  Number of connected NC contacts / for auxiliary contacts  Number of connected NO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Suitability for use • Main switch Yes • switch disconnector Yes • EMERGENCY OFF switch Yes • safety switch • safety switch • maintenance/repair switch Yes  Product feature / interlock No  Product component • Voltage trigger No • undervoltage release with leading contact No  Product feature / sealable Yes  Product teature / sealable Yes  Product extension • Auxiliary switch Yes • optional — locking capability — motor drive — fuse monitoring  Product function	<ul> <li>at 400 V / at 50/60 Hz / rated value</li> </ul>	132 kW
Operating voltage  • at AC / at 50/60 Hz / rated value 690 V  • at AC / rated value / maximum 690 V  Auxiliary circuit  Number of connected NC contacts / for auxiliary contacts Number of connected NO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Suitability for use  • Main switch Yes • switch disconnector Yes • switch disconnector Yes • safety switch Yes • safety switch Yes • safety switch Yes • maintenance/repair switch Yes  Product feature / interlock No  Product component  • Voltage trigger No • undervoltage release with leading contact No  Product feature / sealable Yes  Product feature / sealable Yes  Product teature / sealable Yes  Product extension  • Auxiliary switch • optional — locking capability Yes — motor drive — fuse monitoring  Product function	• at 500 V / at 50/60 Hz / rated value	160 kW
at AC / at 50/60 Hz / rated value at AC / rated value / maximum  690 V  Auxiliary circuit  Number of connected NC contacts / for auxiliary contacts  Number of connected NO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Suitability for use  Main switch switch / Yes switch disconnector / Yes EMERGENCY OFF switch / Yes safety switch / Yes safety switch / Yes maintenance/repair switch / Yes Product feature / interlock / No  Product feature / sealable / Yes  Product teature / sealable / Yes  Product teature / sealable / Yes  Product teature / sealable / Yes  Product contact / Yes  Indervoltage release with leading contact / No  Product teature / sealable / Yes  Product teature / sealable / Yes  Product extension  Auxiliary switch / Yes  optional — locking capability / Yes — motor drive / No — fuse monitoring / Yes  Product function	• at 690 V / at 50/60 Hz / rated value	250 kW
at AC / rated value / maximum  Auxiliary circuit  Number of connected NC contacts / for auxiliary contacts  Number of connected NO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Suitability for use  Main switch  switch disconnector  EMERGENCY OFF switch  safety switch  maintenance/repair switch  Product feature / interlock  Product reature / interlock  No  Product component  Voltage trigger  undervoltage release  undervoltage release with leading contact  No  Product feature / sealable  Product extension  Auxiliary switch  optional  locking capability  motor drive  fuse monitoring  Product function	Operating voltage	
Number of connected NC contacts / for auxiliary contacts  Number of connected NO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Suitability for use  • Main switch • switch disconnector • EMERGENCY OFF switch • safety switch • safety switch • maintenance/repair switch  Product feature / interlock  Product component • Voltage trigger • undervoltage release • undervoltage release with leading contact  Product feature / sealable  Product extension • Auxiliary switch • optional — locking capability — motor drive — fuse monitoring  Product function	• at AC / at 50/60 Hz / rated value	690 V
Number of connected NC contacts / for auxillary contacts  Number of connected NO contacts / for auxillary contacts  Number of connected CO contacts / for auxillary contacts  Number of connected CO contacts / for auxillary contacts  Sultability for use	• at AC / rated value / maximum	690 V
Number of connected NC contacts / for auxillary contacts  Number of connected NO contacts / for auxillary contacts  Number of connected CO contacts / for auxillary contacts  Number of connected CO contacts / for auxillary contacts  Sultability for use	Auxiliany circuit	
contacts  Number of connected NO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Number of connected CO contacts / for auxiliary contacts  Suitability for use  Main switch Switch disconnector EMERGENCY OFF switch Safety switch Safety switch Main switch No  Product feature / interlock  Product component Voltage trigger Mo undervoltage release undervoltage release with leading contact  Product feature / sealable  Product extension Auxiliary switch Syes  Product extension Auxiliary switch Syes  Product disconnection  Auxiliary switch Syes  Product extension Auxiliary switch Syes Froduct disconnection  Product feature / sealable  Product extension Auxiliary switch Syes  Product extension Froduct feature / sealable  Prose  Product extension Auxiliary switch Syes  Product extension Froduct feature / sealable  Prose Product extension Syes  Prod		0
contacts  Number of connected CO contacts / for auxiliary contacts  Suitability for use  • Main switch • switch disconnector • EMERGENCY OFF switch • safety switch • maintenance/repair switch  Product feature / interlock  Product component • Voltage trigger • undervoltage release • undervoltage release with leading contact  Product feature / sealable  Product extension • Auxiliary switch • optional — locking capability — motor drive — motor drive — fuse monitoring  Product function	-	
Number of connected CO contacts / for auxiliary contacts  Suitability for use  • Main switch • switch disconnector • EMERGENCY OFF switch • safety switch • maintenance/repair switch  Product feature / interlock  Product component  • Voltage trigger • undervoltage release with leading contact  Product setaure / sealable  Product extension • Auxiliary switch • optional — locking capability — motor drive — fuse monitoring  Product function	Number of connected NO contacts / for auxiliary	0
contacts  Suitability for use  Main switch switch disconnector EMERGENCY OFF switch safety switch maintenance/repair switch Yes  Product feature / interlock No  Product sealable Product sealable Product extension Auxiliary switch Optional — locking capability — motor drive — fuse monitoring Product function  Product function  Product function  Suitability for use  Ves  Product switch Yes  Ves  Product sealable Yes  Product extension  Auxiliary switch Yes  Product sealable Yes  Product fixen ye witch Yes  Product fixen ye witch Yes  Product fixen ye witch Yes  Product fixen monitoring Yes  Product function	contacts	
Suitability for use  • Main switch • switch disconnector • EMERGENCY OFF switch • safety switch • maintenance/repair switch Product feature / interlock  Product component • Voltage trigger • undervoltage release • undervoltage release with leading contact  Product feature / sealable  Product extension • Auxiliary switch • optional — locking capability — motor drive — motor drive — fuse monitoring  Product function	-	0
<ul> <li>Main switch</li> <li>switch disconnector</li> <li>EMERGENCY OFF switch</li> <li>safety switch</li> <li>maintenance/repair switch</li> <li>maintenance/repair switch</li> <li>Product component</li> <li>Voltage trigger</li> <li>undervoltage release</li> <li>undervoltage release with leading contact</li> <li>Product feature / sealable</li> <li>Yes</li> <li>Product extension</li> <li>Auxiliary switch</li> <li>optional</li> <li>locking capability</li> <li>motor drive</li> <li>motor drive</li> <li>No</li> <li>Product function</li> </ul>		
switch disconnector     EMERGENCY OFF switch     safety switch     safety switch     maintenance/repair switch  Product feature / interlock  Product component     Voltage trigger     No     undervoltage release     undervoltage release with leading contact  Product eature / sealable  Product extension     Auxiliary switch     optional     — locking capability     — motor drive     — fuse monitoring  Product function  Product function  Switch  Yes  Product function	Suitability for use	
EMERGENCY OFF switch     safety switch     maintenance/repair switch  Product feature / interlock  Product component     Voltage trigger     undervoltage release     undervoltage release with leading contact  Product extension     Auxiliary switch     optional     — locking capability     — motor drive     — fuse monitoring  Product function  Yes  Product function	Main switch	Yes
<ul> <li>safety switch</li> <li>maintenance/repair switch</li> <li>Product feature / interlock</li> <li>No</li> <li>Product component <ul> <li>Voltage trigger</li> <li>undervoltage release</li> <li>undervoltage release with leading contact</li> <li>undervoltage release with leading contact</li> </ul> </li> <li>Product feature / sealable</li> <li>Yes</li> <li>Product extension <ul> <li>Auxiliary switch</li> <li>optional</li> <li>locking capability</li> <li>motor drive</li> <li>motor drive</li> <li>fuse monitoring</li> </ul> </li> <li>Product function</li> </ul> <li>Froduct function</li>	switch disconnector	
<ul> <li>maintenance/repair switch</li> <li>Product feature / interlock</li> <li>No</li> <li>Product component <ul> <li>Voltage trigger</li> <li>undervoltage release</li> <li>undervoltage release with leading contact</li> <li>undervoltage release with leading contact</li> </ul> </li> <li>Product feature / sealable</li> <li>Yes</li> <li>Product extension <ul> <li>Auxiliary switch</li> <li>optional</li> <li>locking capability</li> <li>motor drive</li> <li>motor drive</li> <li>fuse monitoring</li> </ul> </li> <li>Product function</li> </ul> <li>Froduct function</li>	<ul> <li>EMERGENCY OFF switch</li> </ul>	Yes
Product feature / interlock  Product component  • Voltage trigger  • undervoltage release  • undervoltage release with leading contact  Product feature / sealable  Product extension  • Auxiliary switch  • optional  — locking capability  — motor drive — fuse monitoring  Product function	safety switch	Yes
Product component  • Voltage trigger  • undervoltage release  • undervoltage release with leading contact  Product feature / sealable  Product extension  • Auxiliary switch  • optional  — locking capability  — motor drive — fuse monitoring  Product function	<ul> <li>maintenance/repair switch</li> </ul>	Yes
<ul> <li>Voltage trigger</li> <li>undervoltage release</li> <li>undervoltage release with leading contact</li> <li>Product feature / sealable</li> <li>Product extension</li> <li>Auxiliary switch</li> <li>optional</li> <li>locking capability</li> <li>motor drive</li> <li>fuse monitoring</li> <li>Product function</li> </ul> Product function No Yes Product function	Product feature / interlock	No
<ul> <li>undervoltage release</li> <li>undervoltage release with leading contact</li> <li>Product feature / sealable</li> <li>Product extension</li> <li>Auxiliary switch</li> <li>optional</li> <li>locking capability</li> <li>motor drive</li> <li>fuse monitoring</li> <li>Product function</li> </ul> Product function	Product component	
<ul> <li>undervoltage release with leading contact</li> <li>Product feature / sealable</li> <li>Product extension</li> <li>Auxiliary switch</li> <li>optional</li> <li>locking capability</li> <li>motor drive</li> <li>fuse monitoring</li> <li>Product function</li> </ul> No Yes Product function	<ul> <li>Voltage trigger</li> </ul>	No
Product feature / sealable  Product extension  Auxiliary switch  optional  locking capability  motor drive  fuse monitoring  Product function  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	<ul> <li>undervoltage release</li> </ul>	No
Product extension	<ul> <li>undervoltage release with leading contact</li> </ul>	No
<ul> <li>◆ Auxiliary switch</li> <li>◆ optional</li> <li>─ locking capability</li> <li>─ motor drive</li> <li>─ fuse monitoring</li> <li>Product function</li> </ul> Yes Yes Product function	Product feature / sealable	Yes
● optional  — locking capability  — motor drive — fuse monitoring  Product function   Yes  Yes  Yes	Product extension	
<ul> <li>— locking capability</li> <li>— motor drive</li> <li>— fuse monitoring</li> <li>Product function</li> </ul> Yes Product function	Auxiliary switch	Yes
— motor drive No Yes  Product function	• optional	
— fuse monitoring Yes  Product function	— locking capability	Yes
Product function	— motor drive	No
	— fuse monitoring	Yes
• fuse monitoring No	Product function	
	• fuse monitoring	No

Short circuit

Short-circuit current making capacity (Icm) / for switch disconnector / at 690 V AC/440 V DC / without fuse link / rated value / minimum	13.6 kA
Conditional short-circuit current / with line-side fuse protection	
• 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
Tightening torque / with screw-type terminals	
• minimum	30 N·m
• maximum	44 N·m
<ul> <li>Type of connectable conductor cross-sections / for copper busbar</li> </ul>	1x (25x3 mm)
<ul> <li>Type of connectable conductor cross-sections / for aluminum conductor / stranded / with lug</li> </ul>	1x (6 240 mm²), 2x (6 120 mm²)
<ul> <li>Type of connectable conductor cross-sections / for copper conductor / stranded / with lug / acc. to DIN 46234</li> </ul>	1x (6 240 mm²), 2x (6 120 mm²)
<ul> <li>Type of connectable conductor cross-sections / for copper conductor / stranded / with lug / acc. to DIN 46235</li> </ul>	1x (6 240 mm²), 2x (6 120 mm²)
Type of electrical connection	
• for main current circuit	flat connector

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

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

## Certificates

Equipment marking / acc. to DIN EN 61346-2

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## **General Product Approval**

other





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=3KF3425-4LF11

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

https://support.industry.siemens.com/cs/ww/en/ps/3KF3425-4LF11

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3KF3425-4LF11

**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://www.siemens.com/specifications







