# **SIEMENS**

Data sheet 3LD2185-5VD21



SENTRON switch disconnector 3LD in molded-plastic enclosure, repair and maintenance switch with EMC plate, 6-pole lu: 25A, AC23A 400V at 50/60Hz: 9,5kW, used with frequency converter: AC20 400V at 0-550Hz: 5,5kW, 1NO + 1NC 20-150ms leading, molded-plastic encapsulation for metric cable gland, knob-operated mechanism, black, lockable in 0- and I-position, incl. cable shield clamps

Model	
product brand name	SENTRON
product designation	3LD Switch disconnector
design of the product	Switch
display version / for switch position indicator manual operation	1 ON - 0 OFF
design of the operating mechanism	selector switch
design of handle	knob-operated mechanism, black
type of the driving mechanism / motor drive	No

General technical data	
number of poles	6
type of device	fixed mounting
type of switch	Molded-plastic enclosure for metric threaded joint
size of switch disconnector	2
mechanical service life (switching cycles)	
• typical	100 000
electrical endurance (switching cycles)	
● at AC-23 A / at 690 V	6 000

• between converter and motor / when used as	100 000
repair switch / at AC-20 A / at 690 V / at 0-550 Hz	
I2t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum	4 kA2.s
let-through I2t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum	4 kA2.s
operating frequency / maximum	50 1/h
Voltage	
insulation voltage / rated value	690 V
surge voltage resistance / rated value	6 kV
operating current / at AC / rated value	25 A
operating voltage	
• at AC / at 50/60 Hz / rated value	690 V
• between converter and motor / at AC / at 0-550 Hz / rated value	690 V
Protection class	
protection class IP	IP65
protection class IP / on the front	IP65
Dissipation	
power loss [W]	
• for rated value of the current / at AC / in hot	1.1 W
operating state / per pole	
• per conductor / typical	1.1 W
Current	
operating current	
• at AC-23 A / at 690 V / rated value	11 A
	IIA
<ul><li>at AC-23 A / at 400 V / rated value</li></ul>	20 A
<ul> <li>at AC-23 A / at 400 V / rated value</li> <li>at AC-22 A / at 690 V / rated value</li> </ul>	
	20 A
• at AC-22 A / at 690 V / rated value	20 A 25 A
<ul><li>at AC-22 A / at 690 V / rated value</li><li>at AC-21 / at 690 V / rated value</li></ul>	20 A 25 A 25 A
<ul> <li>at AC-22 A / at 690 V / rated value</li> <li>at AC-21 / at 690 V / rated value</li> <li>at AC-21 A / at 240 V / rated value</li> </ul>	20 A 25 A 25 A
<ul> <li>at AC-22 A / at 690 V / rated value</li> <li>at AC-21 / at 690 V / rated value</li> <li>at AC-21 A / at 240 V / rated value</li> <li>at AC-21 A / at 440 V / rated value</li> </ul>	20 A 25 A 25 A 25 A
<ul> <li>at AC-22 A / at 690 V / rated value</li> <li>at AC-21 / at 690 V / rated value</li> <li>at AC-21 A / at 240 V / rated value</li> <li>at AC-21 A / at 440 V / rated value</li> <li>at AC-22 A / at 240 V / rated value</li> <li>at AC-22 A / at 440 V / rated value</li> </ul>	20 A 25 A 25 A 25 A 25 A
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<ul> <li>at AC-22 A / at 690 V / rated value</li> <li>at AC-21 / at 690 V / rated value</li> <li>at AC-21 A / at 240 V / rated value</li> <li>at AC-21 A / at 440 V / rated value</li> <li>at AC-22 A / at 240 V / rated value</li> <li>at AC-22 A / at 440 V / rated value</li> <li>at AC-23 A / at 240 V / rated value</li> <li>at AC-23 A / at 440 V / rated value</li> <li>operating current / of upstream fuse / rated value</li> <li>let-through current / with closed switch</li> <li>at 440 V / for combination switch + gG fuse /</li> </ul>	20 A 25 A 25 A 25 A 25 A 25 A 25 A 20 A 20 A 20 A
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• at 690 V / limited to 1 s / rated value	640 A
Main circuit	
operating frequency	
● initial value	50 Hz
• full-scale value	60 Hz
operating frequency / between converter and motor /	
when used as repair switch	
● initial value	0 Hz
• full-scale value	550 Hz
operating power	
• at AC-23 A / at 240 V / rated value	5 kW
• at AC-23 A / at 400 V / at 50/60 Hz / rated value	9.5 kW
• at AC-23 A / at 440 V / rated value	9.5 kW
• at AC-23 A / at 690 V / rated value	9.5 kW
• at AC-3 / at 240 V / rated value	4 kW
• at AC-3 / at 400 V / rated value	7.5 kW
• at AC-3 / at 690 V / rated value	7.5 kW
operating active power [W] / between converter and	
motor / when used as repair switch / at AC-20 A	
<ul> <li>at 400 V / at 0-550 Hz / rated value</li> </ul>	5.5 kW
<ul> <li>at 690 V / at 0-550 Hz / rated value</li> </ul>	11 kW
operating current / rated value	25 A
continuous current / between converter and motor /	
when used as repair switch / at AC-20	
• at 230 V / rated value	17.5 A
• at 400 V / rated value	13.2 A
• at 690 V / rated value	14 A
Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0
number of NC contacts / for auxiliary contacts	1
number of NO contacts / for auxiliary contacts	1
operating voltage / of auxiliary contacts / at AC / maximum	600 V
continuous current / of the auxiliary contact / rated value	10 A
insulation voltage / of the auxiliary switch / rated value	500 V
Suitability	
suitability for use	
• main switch	Yes
<ul> <li>switch disconnector</li> </ul>	Yes

640 A

• limited to 1 s / rated value

<ul> <li>EMERGENCY OFF switch</li> </ul>	No
<ul><li>safety switch</li></ul>	No
maintenance/repair switch	Yes
Appearance	
color / of the actuating element	black
Product details	
<ul> <li>product function / can be locked into OFF position</li> </ul>	Yes
<ul> <li>product feature / can be locked in ON position</li> </ul>	Yes
number of bracket locks / maximum	3
hasp thickness / of the bracket locks / minimum	4.5 mm
hasp thickness / of the bracket locks / maximum	8.5 mm
special product feature	inclusive EMC shield plate
product extension / optional	
• motor drive	No
<ul> <li>voltage trigger</li> </ul>	No
Short circuit	
conditional short-circuit current / with line-side fuse	
protection	
• at 690 V / by gG fuse / rated value	50 kA
Number	
number of connectable NC contacts / for auxiliary contacts / attachable / maximum	2
number of connectable NO contacts / for auxiliary contacts / attachable / maximum	4
number of connectable CO contacts / for auxiliary contacts / attachable / maximum	0
Connections	
AWG number / as coded connectable conductor	
cross section / solid	
• maximum	8
• minimum	14
type of connectable conductor cross-sections / for copper conductor	
• solid	1x (1,516mm²)
• finely stranded / with core end processing	1x (1,510mm²)
• stranded	1x (1,516mm²)
type of connectable conductor cross-sections / for auxiliary contacts	
• solid	lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²)

<ul><li>finely stranded / with core end processing</li><li>stranded</li></ul>	lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x 2,5mm² lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²)
type of electrical connection  • for main current circuit	box terminal
• for auxiliary contacts	connection terminals

# Requirements

design of the fuse link

• for short-circuit protection of the main circuit / required

• for short-circuit protection of the auxiliary switch / required

fuse gL/gG: 25 A

fuse gL/gG: 10 A

Mechanical Design	
height	199 mm
width	146 mm
depth	149 mm
mounting type	Complete unit in enclosure with EMC shield plate
mounting type	
• front mounting with 4-hole attachment	No
<ul> <li>front mounting with central attachment</li> </ul>	Yes
• rail mounting	No
net weight	760 g

Environmental conditions	
ambient temperature / during operation	
• minimum	-25 °C
• maximum	55 °C
ambient temperature / during storage / minimum	-25 °C

## Certificates

reference code

• acc. to DIN EN 61346-2

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• acc. to DIN EN 81346-2

- Test Certificates

General Product Approval

Declaration of Conformity

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=3LD2185-5VD21

# Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3LD2185-5VD21

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3LD2185-5VD21">http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3LD2185-5VD21</a>

#### **CAx-Online-Generator**

http://www.siemens.com/cax

## **Tender specifications**

http://www.siemens.com/specifications







