Data sheet

SENTRON, Switch disconnector 3LD, main switch, 3-pole, lu: 16 A, Operating power / at AC-23 A at 400 V: 7.5 kW, molded-plastic encapsulation for inch cable gland, 1 NC, 1 NO, rotary operating mechanism, black



Model	
Product brand name	SENTRON
Product designation	3LD Switch disconnector
Design of the product	Main switch
Display version / for switch position indicator manual operation	1 ON - 0 OFF
Design of the operating mechanism	Short rotary knob
Design of handle	rotary operating mechanism, black
Type of the driving mechanism / motor drive	No

General technical data	
Number of poles	3
Number of poles / Note	PE
Type of device	fixed mounting
Type of switch	Molded-plastic enclosure for inch threaded joint
Size of switch disconnector	1
Electrical endurance (switching cycles)	
• at AC-23 A / at 690 V	6 000
I2t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum	2.5 kA2.s

for combination switch + gG fuse / maximum Mechanical service life (switching cycles) / typical Operating frequency / maximum 50 1/h /oltage Insulation voltage / rated value Surge voltage resistance / rated value Operating current / at AC / rated value 16 A Operating voltage • at AC / at 50/60 Hz / rated value 690 V Protection class Protection class IP Degree of protection NEMA rating 1, 4X, 12 Protection class IP / on the front Dissipation Power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical 100 000 690 V Possibation 100 000 10		0.5140
Operating frequency / maximum 50 1/h /oltage Insulation voltage / rated value 690 V Surge voltage resistance / rated value 6 kV Operating current / at AC / rated value 16 A Operating voltage • at AC / at 50/60 Hz / rated value 690 V Protection class Protection class IP Degree of protection NEMA rating 1, 4X, 12 Protection class IP / on the front Dissipation Power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical 50 1/h 690 V Contact of the current / at AC / in hot operating state / per pole • per conductor / typical 690 V Contact of the current / at AC / in hot operating state / per pole • per conductor / typical	Let-through I2t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum	2.5 kA2.s
Insulation voltage / rated value 690 V Surge voltage resistance / rated value 6 kV Operating current / at AC / rated value 16 A Operating voltage • at AC / at 50/60 Hz / rated value 690 V Protection class Protection class IP IP65 Degree of protection NEMA rating 1, 4X, 12 Protection class IP / on the front IP65 Dissipation Power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical 0.5 W	Mechanical service life (switching cycles) / typical	100 000
Insulation voltage / rated value 690 V Surge voltage resistance / rated value 6 kV Operating current / at AC / rated value 16 A Operating voltage • at AC / at 50/60 Hz / rated value 690 V Protection class Protection class IP IP65 Degree of protection NEMA rating 1, 4X, 12 Protection class IP / on the front IP65 Dissipation Power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical 0.5 W	Operating frequency / maximum	50 1/h
Insulation voltage / rated value 690 V Surge voltage resistance / rated value 6 kV Operating current / at AC / rated value 16 A Operating voltage • at AC / at 50/60 Hz / rated value 690 V Protection class Protection class IP IP65 Degree of protection NEMA rating 1, 4X, 12 Protection class IP / on the front IP65 Dissipation Power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical 0.5 W	Voltage	
Operating current / at AC / rated value Operating voltage • at AC / at 50/60 Hz / rated value 690 V Protection class Protection class IP Degree of protection NEMA rating Protection class IP / on the front IP65 Dissipation Power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical 16 A 16 A 16 A 17 A 18 A 19 A 19 A 10 A 1		690 V
Operating voltage • at AC / at 50/60 Hz / rated value Protection class Protection class IP Degree of protection NEMA rating 1, 4X, 12 Protection class IP / on the front Dissipation Power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical 690 V IP65 Dissipation 0.5 W	Surge voltage resistance / rated value	6 kV
● at AC / at 50/60 Hz / rated value 690 V Protection class Protection class IP IP65 Degree of protection NEMA rating 1, 4X, 12 Protection class IP / on the front IP65 Dissipation Power loss [W] ● for rated value of the current / at AC / in hot operating state / per pole ● per conductor / typical 0.5 W	Operating current / at AC / rated value	16 A
Protection class IP IP65 Degree of protection NEMA rating 1, 4X, 12 Protection class IP / on the front IP65 Dissipation Power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical 0.5 W	Operating voltage	
Protection class IP Degree of protection NEMA rating 1, 4X, 12 Protection class IP / on the front IP65 Dissipation Power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical IP65 0.5 W	• at AC / at 50/60 Hz / rated value	690 V
Degree of protection NEMA rating 1, 4X, 12 Protection class IP / on the front IP65 Dissipation Power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical 1, 4X, 12 IP65 IP65 O.5 W	Protection class	
Protection class IP / on the front Dissipation Power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical IP65 0.5 W	Protection class IP	IP65
Power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical 0.5 W	Degree of protection NEMA rating	1, 4X, 12
Power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical 0.5 W	Protection class IP / on the front	IP65
 for rated value of the current / at AC / in hot operating state / per pole per conductor / typical 0.5 W 	Dissipation	
operating state / per pole • per conductor / typical 0.5 W	Power loss [W]	
• per conductor / typical 0.5 W	• for rated value of the current / at AC / in hot	0.5 W
parameter of the same of the s	operating state / per pole	
Current	• per conductor / typical	0.5 W
purient	Current	
Operating current	Operating current	
• at AC-23 A / at 690 V / rated value 9 A	• at AC-23 A / at 690 V / rated value	9 A
• at AC-23 A / at 400 V / rated value 16 A	• at AC-23 A / at 400 V / rated value	16 A
• at AC-22 A / at 690 V / rated value 16 A	• at AC-22 A / at 690 V / rated value	16 A
• at AC-21 / at 690 V / rated value 16 A	• at AC-21 / at 690 V / rated value	16 A
• at AC-21 A / at 240 V / rated value 16 A	• at AC-21 A / at 240 V / rated value	16 A
• at AC-21 A / at 440 V / rated value 16 A	• at AC-21 A / at 440 V / rated value	16 A
• at AC-22 A / at 240 V / rated value 16 A	• at AC-22 A / at 240 V / rated value	16 A
• at AC-22 A / at 440 V / rated value 16 A	• at AC-22 A / at 440 V / rated value	16 A
• at AC-23 A / at 240 V / rated value 16 A	 at AC-23 A / at 240 V / rated value 	16 A
• at AC-23 A / at 440 V / rated value 16 A	 at AC-23 A / at 440 V / rated value 	16 A
Operating current / of upstream fuse / rated value 20 A	Operating current / of upstream fuse / rated value	20 A
Let-through current / with closed switch	Let-through current / with closed switch	
• at 440 V / for combination switch + gG fuse / 3 kA	• at 440 V / for combination switch + gG fuse /	3 kA
maximum	maximum	
• at 690 V / for combination switch + gG fuse / 3 kA maximum permissible	_	3 kA
Short-time withstand current (Icw)	Short-time withstand current (Icw)	
• limited to 1 s / rated value 340 A	limited to 1 s / rated value	340 A
• at 690 V / limited to 1 s / rated value 340 A		
Main circuit	• at 690 V / limited to 1 s / rated value	340 A

Operating frequency	
● initial value	50 Hz
• Full-scale value	60 Hz
Operating power	
• at AC-23 A / at 240 V / rated value	4 kW
• at AC-23 A / at 400 V / at 50/60 Hz / rated value	7.5 kW
• at AC-23 A / at 400 V / rated value	7.5 kW
• at AC-23 A / at 440 V / rated value	7.5 kW
• at AC-23 A / at 690 V / rated value	7.5 kW
• at AC-3 / at 240 V / rated value	3 kW
• at AC-3 / at 400 V / rated value	5.5 kW
• at AC-3 / at 690 V / rated value	5.5 kW
Operating current / rated value	16 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	500 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
 switch disconnector 	Yes
 EMERGENCY OFF switch 	No
safety switch	Yes
maintenance/repair switch	Yes
Appearance	
Color / of the actuating element	black
Product details	
 Product function / can be locked into OFF position 	Yes
Number of bracket locks / maximum	3
Hasp thickness / of the bracket locks / minimum	4 mm
Hasp thickness / of the bracket locks / maximum	8 mm
Product extension / optional	
Product extension / optional • motor drive	No
•	No No

Short circuit	
Conditional short-circuit current / with line-side fuse	
protection	
• at 690 V / by gG fuse / rated value	50 kA
according UL	
Operating current / at AC / acc. to UL 508 / rated	16 A
value	
Operating voltage / at AC / at 50/60 Hz / acc. to UL 508 / rated value	600 V
Active power [hp] / at AC / at 480 V / acc. to UL 508 / rated value	7.5
Active power [hp] / at AC / at 600 V / acc. to UL 508 / rated value	10
Short-time withstand current (SCCR) / at 600 V / acc. to UL 508	5 kA
Continuous current / of upstream fuse / according to UL / rated value	50 A
Type of fuse / according to UL	RK5
Number	
Number of connectable NC contacts / for auxiliary	2
contacts / attachable / maximum	
Number of connectable NO contacts / for auxiliary	3
contacts / attachable / maximum	
Number of connectable CO contacts / for auxiliary	0
contacts / attachable / maximum	
Connections	
AWG number / as coded connectable conductor cross section / solid	
• maximum	10
• minimum	18
Type of connectable conductor cross-sections / for copper conductor	
• solid	1x (16mm²)
finely stranded / with core end processing	1x (14mm²)
• stranded	1x (16mm²)
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)
• finely stranded / with core end processing	lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x 2,5mm²
• stranded	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

fuse gL/gG: 20 A

• for short-circuit protection of the auxiliary switch

fuse gL/gG: 10 A

/ required

Mechanical Design	
Height	164 mm
Width	100 mm
Depth	118 mm
Mounting type	Complete unit in enclosure
Mounting type	
 front mounting with 4-hole attachment 	No
 front mounting with central attachment 	Yes
• rail mounting	No
Net weight	494 g

Ambient temperature / during operation

• minimum -25 °C 55 °C • maximum

Ambient temperature / during storage / minimum -25 °C

Certificates

Reference code

• acc. to DIN EN 61346-2

S

• acc. to DIN EN 81346-2

SF

General Product Approval

Declaration of Conformity









Miscellaneous



Test Certificates

Shipping Approval

other

Special Test Certificate



Environmental Confirmations

LRS

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=3LD2064-1GP51-0US2

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2064-1GP51-0US

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2064-1GP51-0US2

CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications











