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Data sheet 3LD2185-5VD21



SENTRON switch disconnector 3LD in the enclosure, maintenance and repair switch with EMC shield plate, 6-pole, Iu: 25 A, AC 23 A, 400 V at 50/60 Hz: 9.5 kW, in frequency converter operation: 20 400 V AC at 0-550 Hz: 5.5 kW, 1 NO + 1 NC 20-150 ms leading, molded-plastic enclosure for metric cable gland, knob-operated mechanism, black, can be locked in 0 and I position, incl. shield terminals

Model	
product brand name	SENTRON
product designation	Switch disconnector
design of the product	Switch
display version for switch position indicator manual operation	1 ON - 0 OFF
type of switch	Molded-plastic enclosure for metric threaded joint
design of the actuating element	selector switch
color of the actuating element	black
design of handle	knob-operated mechanism, black
type of the driving mechanism motor drive	No
General technical data	
number of poles	6
number of poles note	PE isolated from cable shield
size of switch disconnector	2
mechanical service life (operating cycles) typical	100 000
electrical endurance (operating cycles)	
● at AC-23 A at 690 V	6 000
● between converter and motor when used as repair switch at AC-20 A at 690 V at 0-550 Hz	100 000
operating frequency maximum	50 1/h
degree of pollution	3
Voltage	
insulation voltage rated value	690 V
surge voltage resistance rated value	6 kV
operating voltage	
● at AC rated value	690 V
● between converter and motor at AC at 0-550 Hz rated value	690 V
operating frequency rated value	
● minimum	50 Hz
● maximum	60 Hz
Protection class	
protection class IP	IP65
degree of protection NEMA rating	1, 3R, 4X
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	1.1 W
Main circuit	
operating frequency between converter and motor when	

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used as repair switch	
● initial value	0 Hz
● full-scale value	550 Hz
operational current	
● at AC-21 at 690 V rated value	25 A
● at AC-21 A at 240 V rated value	25 A
● at AC-21 A at 400 V rated value	25 A
● at AC-21 A at 440 V rated value	25 A
● at AC-23 A at 400 V rated value	20 A
operating power	
● at AC-23 A at 240 V rated value	5 kW
● at AC-23 A at 440 V rated value	9.5 kW
● at AC-23 A at 690 V rated value	10 kW
● at AC-3 at 240 V rated value	4 kW
● at AC-3 at 400 V rated value	8 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	
● at 400 V at 0-550 Hz rated value	5.5 kW
● at 690 V at 0-550 Hz rated value	11 kW
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
suitability for use switch disconnector	Yes
suitability for use EMERGENCY OFF switch	No
suitability for use safety switch	No
suitability for use maintenance/repair switch	Yes
Product details	
product feature can be locked in ON position	Yes
special product feature	inclusive EMC shield plate
product feature can be locked into OFF position	Yes
Accessories	
product extension optional	
● motor drive	No
● voltage trigger	No
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
number of bracket locks maximum	3
hasp thickness of the bracket locks	4.5 ... 8.5 mm
Short circuit	
conditional short-circuit current with line-side fuse protection	
● at 690 V by gG fuse rated value	50 kA
let-through current with closed switch	
● at 240 V for combination switch + gG fuse maximum	3.5 kA
● at 440 V for combination switch + gG fuse maximum	3.5 kA
● at 690 V for combination switch + gG fuse maximum	4 kA

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permissible	
I2t value with closed switch	
● at 240 V for combination switch + gG fuse maximum	4 kA2.s
● at 440 V for combination switch + gG fuse maximum	4 kA2.s
● at 690 V for combination switch + gG fuse maximum	4 kA2.s
design of the fuse link	
● for short-circuit protection of the main circuit required	fuse gL/gG: 25 A
● for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A
operational current of upstream fuse rated value	25 A
according UL	
operational current at AC according to UL 508/UL 60947-4-1 rated value	25 A
operating voltage at AC at 50/60 Hz according to UL 508/UL 60947-4-1 rated value	600 V
active power [hp] at AC at 480 V according to UL 508/UL 60947-4-1 rated value	10
active power [hp] at AC at 600 V according to UL 508/UL 60947-4-1 rated value	15
short-time withstand current (SCCR) at 600 V according to UL 508/UL 60947-4-1	5 kA
continuous current of upstream fuse according to UL rated value	50 A
type of fuse according to UL	RK5
Connections	
AWG number as coded connectable conductor cross section solid maximum	
●	8
●	14
type of connectable conductor cross-sections for copper conductor	
● solid	1x (1,5...16mm²)
● finely stranded with core end processing	1x (1,5...10mm²)
● stranded	1x (1,5...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
Mechanical Design	
height	199 mm
width	146 mm
depth	149 mm
type of device	fixed mounting
fastening method	Complete unit in enclosure with EMC shield plate
fastening method	
● 4-hole front mounting	No
● front mounting with central attachment	Yes
● rail mounting	No
Net Weight	1.131 kg
Environmental conditions	
ambient temperature during operation	
● minimum	-25 °C
● maximum	55 °C
ambient temperature during storage	
● minimum	-25 °C
● maximum	55 °C
Approvals Certificates	
General Product Approval	**Test Certificates**

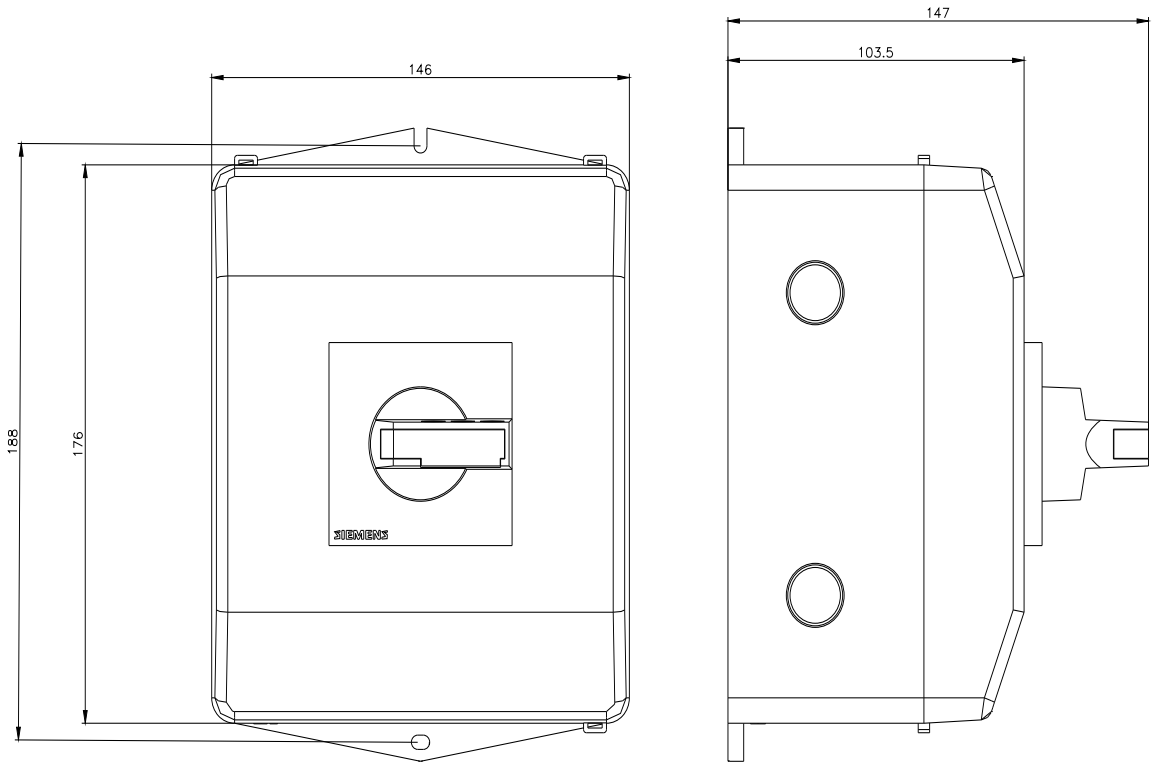
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Miscellaneous

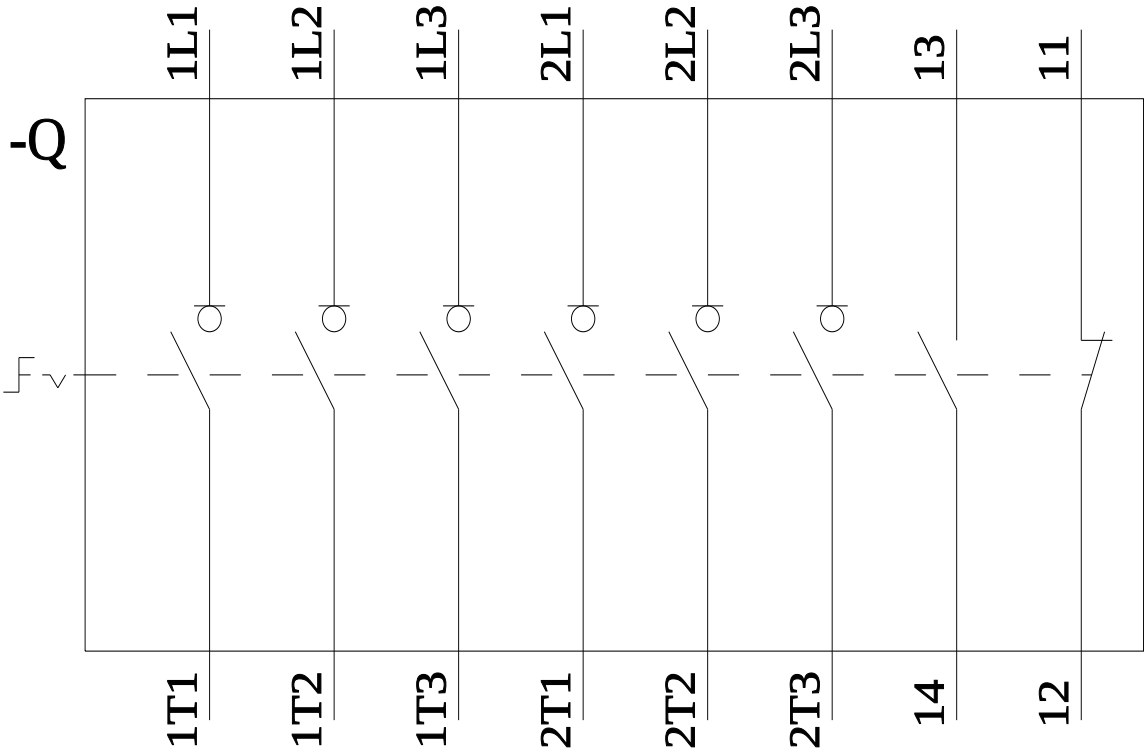
Maritime application	other		Environment	
		Confirmation	Environmental Con-firmations	Environmental Con-firmations

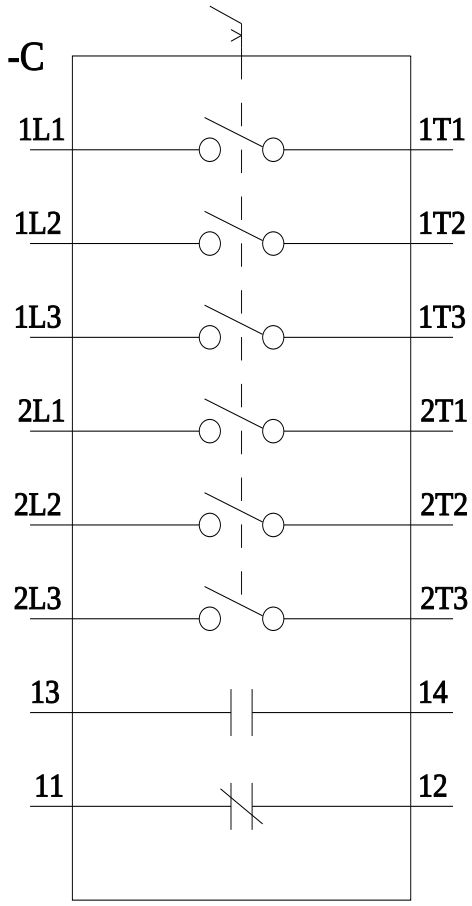
Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
Information- and Downloadcenter (Catalogs, Brochures,…)
https://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, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2185-5VD21
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