



SENTRON, Switch disconnecter 3LD, emergency switching-off switch, 4-pole, Iu: 160 A, operating power / at AC-23 A 400 V: 75 kW, floor mounting with door coupling, knob-operated mechanism, red/yellow, 4-hole mounting of the handle

Model

product brand name	SENTRON
product designation	3LD Switch disconnecter
design of the product	EMERGENCY-STOP switch
display version for switch position indicator manual operation	1 ON - 0 OFF
type of switch	Floor mounting with door coupling
design of the actuating element	selector switch
color of the actuating element	red
design of handle	knob-operated mechanism, red/yellow
type of the driving mechanism motor drive	No

General technical data

number of poles	4
size of switch disconnecter	5
mechanical service life (operating cycles) typical	100 000
electrical endurance (operating cycles)	
• at AC-23 A at 690 V	6 000
operating frequency maximum	50 1/h
degree of pollution	3

Voltage

insulation voltage rated value	690 V
surge voltage resistance rated value	8 kV
operating voltage	
• at AC 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, 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	36 W
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Current

operational current rated value	160 A
operational current	
• at 40 °C rated value	160 A
• at 45 °C rated value	160 A
• at 50 °C rated value	160 A
• at 55 °C rated value	160 A

• at AC rated value	160 A
Main circuit	
operational current	
• at AC-21 at 690 V rated value	160 A
• at AC-21 A at 240 V rated value	160 A
• at AC-21 A at 400 V rated value	160 A
• at AC-21 A at 440 V rated value	160 A
• at AC-23 A at 400 V rated value	132 A
operating power	
• at AC-23 A at 240 V rated value	75 kW
• at AC-23 A at 400 V rated value	75 kW
• at AC-23 A at 440 V rated value	75 kW
• at AC-23 A at 690 V rated value	45 kW
• at AC-3 at 240 V rated value	35 kW
• at AC-3 at 400 V rated value	50 kW
• at AC-3 at 690 V rated value	37 kW
Auxiliary circuit	
number of CO contacts for auxiliary contacts	0
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
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	No
• switch disconnecter	Yes
• EMERGENCY OFF switch	Yes
• safety switch	Yes
• maintenance/repair switch	Yes
Product details	
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	3
number of connectable NO contacts for auxiliary contacts attachable maximum	5
number of connectable CO contacts for auxiliary contacts attachable maximum	0
number of bracket locks maximum	3
hasp thickness of the bracket locks	4 ... 6 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	15 kA
• at 440 V for combination switch + gG fuse maximum	15 kA
• at 690 V for combination switch + gG fuse maximum permissible	15 kA
I ² t value with closed switch	
• at 240 V for combination switch + gG fuse maximum	185 kA ² .s
• at 440 V for combination switch + gG fuse maximum	185 kA ² .s
• at 690 V for combination switch + gG fuse maximum	185 kA ² .s
design of the fuse link	
• for short-circuit protection of the main circuit required	fuse gL/gG: 160 A
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A
operational current of upstream fuse rated value	160 A

according UL	
operational current at AC according to UL 508/UL 60947-4-1 rated value	180 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	75
active power [hp] at AC at 600 V according to UL 508/UL 60947-4-1 rated value	50
short-time withstand current (SCCR) at 600 V according to UL 508/UL 60947-4-1	10 kA
continuous current of upstream fuse according to UL rated value	200 A
type of fuse according to UL	RK5

Connections	
AWG number as coded connectable conductor cross section solid	
<ul style="list-style-type: none"> • minimum • maximum 	1 4/0
type of connectable conductor cross-sections for copper conductor	
<ul style="list-style-type: none"> • solid • finely stranded with core end processing • stranded 	1x (16 ...185mm²) 1x (16...150mm²) 1x (16...185mm²)
type of connectable conductor cross-sections for auxiliary contacts	
<ul style="list-style-type: none"> • solid • finely stranded with core end processing • stranded 	lateral auxiliary switch 2x (0,75 ... 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 ... 2,5mm²) 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	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary contacts 	box terminal connection terminals

Mechanical Design	
height	169 mm
width	112 mm
depth	94 mm
type of device	fixed mounting
fastening method	Built-in unit fixed-mounted version
fastening method	
<ul style="list-style-type: none"> • 4-hole front mounting • front mounting with central attachment • rail mounting 	Yes No No
net weight	3 265 g

Environmental conditions	
ambient temperature during operation	
<ul style="list-style-type: none"> • minimum • maximum 	-25 °C 55 °C
ambient temperature during storage	
<ul style="list-style-type: none"> • minimum • maximum 	-25 °C 55 °C

General Product Approval	Declaration of Conformity
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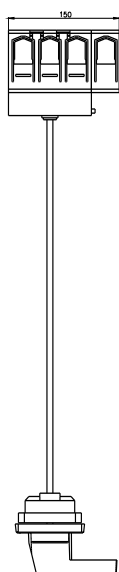
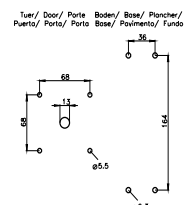
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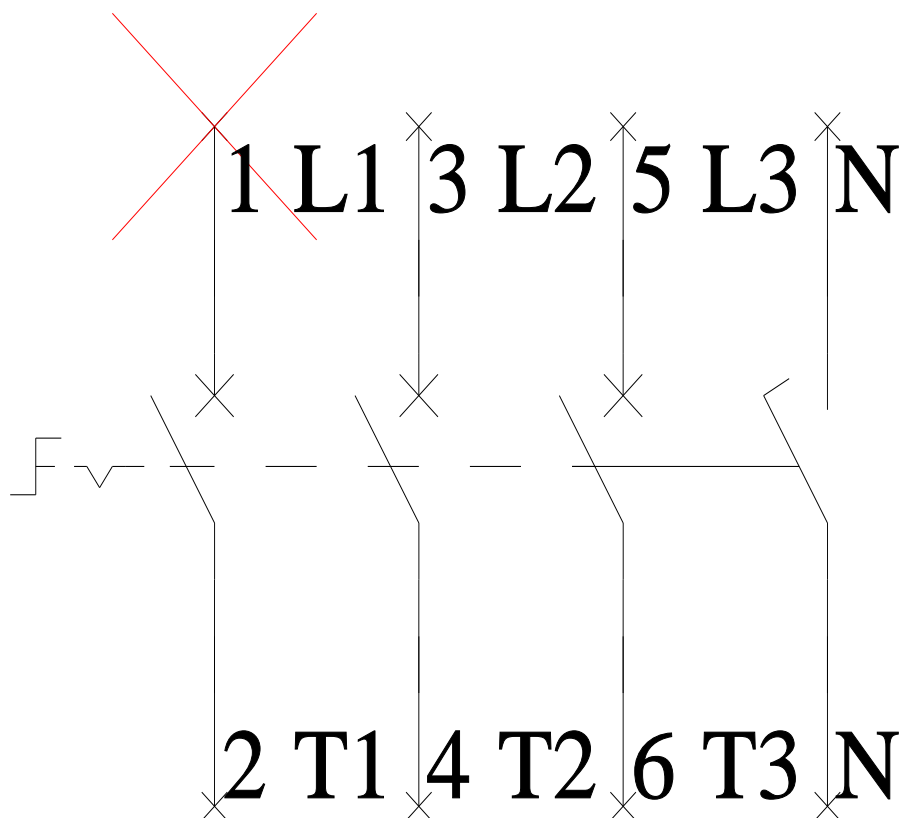
Declaration of Conformity	Test Certificates	other
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