

SENTRON Switching and Protection Devices – Switch Disconnectors

Introduction

Overview



Type		3LD20	3LD21	3LD22	3LD25	3LD27	3LD28
3LD main and EMERGENCY-STOP switches from 16 A to 125 A							
Rated uninterrupted current I_u							
at 35 °C ambient temperature	A	16	25	32	63	100	125
Rated operational voltage							
U_e	V	690	690	690	690	690	690
AC-3 motor load switches							
Operational switching of individual motors							
• At 220 ... 240 V	kW	3.0	4.0	5.5	11.0	18.5	22.0
• At 380 ... 440 V	kW	5.5	7.5	9.5	18.5	30.0	37.0
• At 660/690 V	kW	5.5	7.5	9.5	15.0	22.0	30.0
AC-23A main control switches, maintenance switches							
Frequent, but not operational switching of single motors							
• At 220 ... 240 V	kW	4.0	5.0	6.0	11.0	18.5	22.0
• At 380 ... 440 V	kW	7.5	9.5	11.5	22.0	37.0	45.0
• At 660/690 V	kW	7.5	9.5	11.5	18.5	30.0	37.0
Switch versions							
Front mounting							
• Central		✓	✓	✓	✓	--	--
• Four-hole		✓	✓	✓	✓	✓	✓
Floor mounting							
• Central		✓	✓	✓	✓	--	--
• Four-hole		✓	✓	✓	✓	✓	✓
Distribution board mounting							
		✓	✓	✓	✓	✓	✓
Molded-plastic enclosures							
• Metric screwed glands		✓	✓	✓	✓	✓	✓
Switch accessories							
4th pole (neutral conductor) (leading switch-on, delayed switch-off)		✓	✓	✓	✓	✓	✓
N terminals		✓	✓	✓	✓	✓	✓
PE-ground terminals		✓	✓	✓	✓	✓	✓
Auxiliary contact elements							
• 1 NO + 1 NC		✓	✓	✓	✓	✓	✓

✓ Available

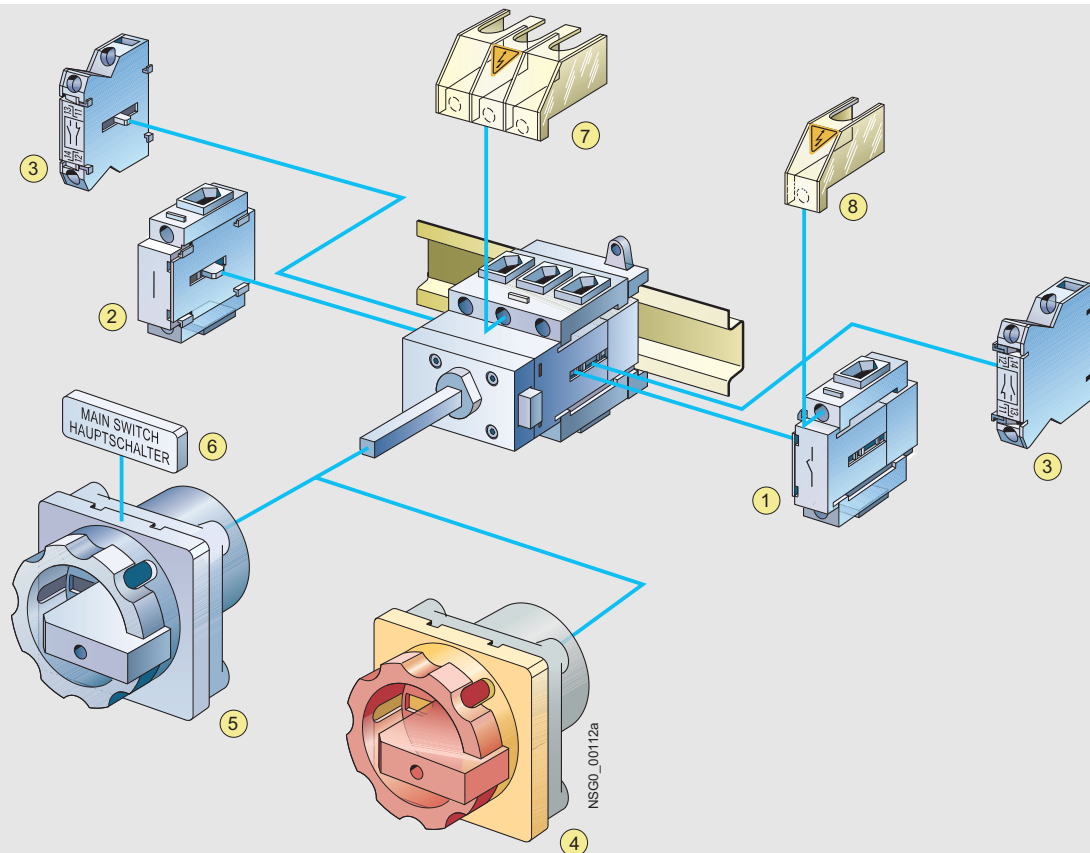
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3KA, 3KE, 3LD Switch Disconnectors

3LD Main Control and EMERGENCY-STOP Switches up to 125 A

General data

Overview



- ① 4th contact (N conductor)
- ② N or PE/ground terminal, continuous
- ③ Auxiliary switch 1 NO + 1 NC
- ④ Rotary operating mechanism, red/yellow
- ⑤ Rotary operating mechanism, black
- ⑥ Front plate, English/German
- ⑦ Terminal cover, three-pole
- ⑧ Terminal cover, one-pole

Application

The 3LD switches are used for switching main and auxiliary circuits, but also for switching induction motors and other loads during maintenance and repair work.

They are manually operated switch disconnectors according to IEC 60947-3/VDE 0660 Part 107 (EN 60947-3) and comply with the conditions for switch disconnectors.

The 3LD can be used as

- ON-OFF switch
- EMERGENCY-STOP switch
- Main control switch according to EN 60204-1

In EN 60204-1 (VDE 0113 Part 1), main control switches are called "mains isolating devices", while EMERGENCY-STOP switches are termed "devices for emergency shutdown". Maintenance personnel can protect themselves against unauthorized startup with padlocks (up to three can be fitted).

3LD main control and EMERGENCY-STOP switches are approved according to UL 508.

3KA, 3KE, 3LD Switch Disconnectors

3LD Main Control and EMERGENCY-STOP Switches up to 125 A

Front mounting

Selection and ordering data

Number and version of the contacts		Rated data at 50 ... 60 Hz 380 ... 440 V			DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Main contact elements	Auxiliary contact elements	P/AC-3	P/AC-23A	I _u							
		kW	kW	A							kg

Main control and EMERGENCY-STOP switches with rotary operating mechanism

- Lockable in 0 position with up to max. 3 padlocks
- Degree of protection at front side IP65
- Front plate
 - 3LD2 0, 3LD2 1, 3LD2 2: 67 mm × 67 mm
 - 3LD2 5 to 3LD2 8: 90 mm × 90 mm.

Four-hole mounting



3LD2 203-0TK53

	3	--	5.5	7.5	16	▶	3LD2 003-0TK..	1	1 unit	103	0.207
			7.5	9.5	25	▶	3LD2 103-0TK..	1	1 unit	103	0.206
			9.5	11.5	32	▶	3LD2 203-0TK..	1	1 unit	103	0.206
			18.5	22	63	▶	3LD2 504-0TK..	1	1 unit	103	0.424
			30	37	100	▶	3LD2 704-0TK..	1	1 unit	103	0.501
			37	45	125	A	3LD2 804-0TK..	1	1 unit	103	0.503
	3 + N	--	5.5	7.5	16	▶	3LD2 003-1TL..	1	1 unit	103	0.217
			7.5	9.5	25	A	3LD2 103-1TL..	1	1 unit	103	0.243
			9.5	11.5	32	A	3LD2 203-1TL..	1	1 unit	103	0.243
			18.5	22	63	A	3LD2 504-1TL..	1	1 unit	103	0.424
			30	37	100	▶	3LD2 704-0TK.. +1)	1	1 unit	103	0.501
			37	45	125	A	3LD9 280-0B	1	1 unit	103	0.101
						▶	3LD2 804-0TK.. +1)	1	1 unit	103	0.503
							3LD9 280-0B	1	1 unit	103	0.101

Center-hole mounting Ø 22.5 mm

	3	--	5.5	7.5	16	A	3LD2 054-0TK..	1	1 unit	103	0.215
			7.5	9.5	25	A	3LD2 154-0TK..	1	1 unit	103	0.215
			9.5	11.5	32	A	3LD2 254-0TK..	1	1 unit	103	0.214
			18.5	22	63	A	3LD2 555-0TK..	1	1 unit	103	0.443
	3 + N	--	5.5	7.5	16	A	3LD2 054-1TL..	1	1 unit	103	0.230
			7.5	9.5	25	A	3LD2 154-1TL..	1	1 unit	103	0.256
			9.5	11.5	32	A	3LD2 254-1TL..	1	1 unit	103	0.260
			18.5	22	63	A	3LD2 555-0TK.. +1)	1	1 unit	103	0.443
						▶	3LD9 250-0BA	1	1 unit	103	0.079

Actuators

Black

Red/yellow (EMERGENCY-STOP)

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¹⁾ 4th contact element as neutral conductor to be ordered separately, see Accessories.

3KA, 3KE, 3LD Switch Disconnectors

3LD Main Control and EMERGENCY-STOP Switches up to 125 A

Molded-plastic enclosures

Selection and ordering data

Number and version of the contacts		Base terminal	Rated data at 50 ... 60 Hz 380 ... 440 V P/AC-23A		DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.		
Main contact elements	Auxiliary contact elements			I _u									
						kW	A					kg	
Main control and EMERGENCY-STOP switches • With N and/or PE-ground terminals • Lockable in 0 position with up to max. 3 padlocks • Degree of protection IP65 • Rotary operating mechanisms with center-hole mounting • For floor-mounted auxiliary switches													
Metric screwed glands													
	3	--	PE + N	7.5	16	A	3LD2 064-0TB..	1	1 unit	103	0.463		
			PE + N	9.5	25	A	3LD2 164-0TB..	1	1 unit	103	0.463		
			PE + N	11.5	32	A	3LD2 264-0TB..	1	1 unit	103	0.465		
			PE + N	22	63	A	3LD2 565-0TB..	1	1 unit	103	0.906		
			PE + N	37	100	A	3LD2 766-0TB..	1	1 unit	103	1.890		
			PE + N	45	125	A	3LD2 866-0TB..	1	1 unit	103	1.890		
	3 + N	--	PE	7.5	16	A	3LD2 064-1TC..	1	1 unit	103	0.453		
			PE	9.5	25	A	3LD2 164-1TC..	1	1 unit	103	0.487		
			PE	11.5	32	C	3LD2 264-1TC..	1	1 unit	103	0.500		
			PE	22	63	C	3LD2 565-1TC..	1	1 unit	103	0.960		
			PE + N	37	100	A	3LD2 766-0TB.. + ¹⁾	1	1 unit	103	1.890		
			▶ 3LD9 280-0C	1	1 unit	103	0.102						
			PE + N	45	125	A	3LD2 866-0TB.. + ¹⁾	1	1 unit	103	1.890		
			▶ 3LD9 280-0C	1	1 unit	103	0.102						
			3	1 NO + 1 NC	N-type	7.5	16	A	3LD2 064-1GP..	1	1 unit	103	0.507
					N-type	9.5	25	A	3LD2 164-1GP..	1	1 unit	103	0.501
					N-type	11.5	32	A	3LD2 264-1GP..	1	1 unit	103	0.488
					N-type	22	63	A	3LD2 565-1GP..	1	1 unit	103	0.935
	N-type	37			100	A	3LD2 766-1GP..	1	1 unit	103	1.838		
	N-type	45			125	A	3LD2 866-1GP..	1	1 unit	103	1.843		
	3 + N	1 NO + 1 NC	PE	7.5	16	A	3LD2 064-1TC.. + ²⁾	1	1 unit	103	0.453		
			▶ 3LD9 200-5C	1	1 unit	103	0.046						
			PE	9.5	25	A	3LD2 164-1TC.. + 3LD9 200-5C	1	1 unit	103	0.487		
			▶ 3LD9 200-5C	1	1 unit	103	0.046						
			PE	11.5	32	C	3LD2 264-1TC.. + 3LD9 200-5C	1	1 unit	103	0.500		
			▶ 3LD9 200-5C	1	1 unit	103	0.046						
			PE	22	63	C	3LD2 565-1TC.. + 3LD9 200-5C	1	1 unit	103	0.960		
			▶ 3LD9 200-5C	1	1 unit	103	0.046						
N-type			37	100	A	3LD2 766-1GP.. + 3LD9 280-0C	1	1 unit	103	1.838			
▶ 3LD9 280-0C			1	1 unit	103	0.102							
N-type			45	125	A	3LD2 866-1GP.. + 3LD9 280-0C	1	1 unit	103	1.843			
▶ 3LD9 280-0C			1	1 unit	103	0.102							

Actuators

Black

Red/yellow (EMERGENCY-STOP)

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¹⁾ 4th contact element as neutral conductor to be ordered separately, see Accessories for floor mounting.

²⁾ Please order auxiliary switches 1 NO + 1 NC separately, see Accessories.