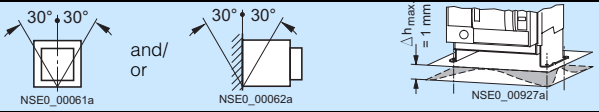


Technical specifications

Size		II		
Type		3WL12 10	3WL12 20	3WL12 40
Rated current I_n at 40 °C				
Main conductor	A	Up to 1000	2000	4000
Rated operational voltage U_e (1000 V version, see Catalog LV 1, order code "A05")		V DC Up to 600/1000	Up to 600/1000	Up to 600/1000
Rated insulation voltage U_i		V AC 1000	1000	1000
Rated impulse withstand voltage U_{imp}				
• Main current paths	kV	12	12	12
• Auxiliary circuits	kV	4	4	4
• Control circuits	kV	2.5	2.5	2.5
Isolating function to EN 60947-2		Yes	Yes	Yes
Permissible ambient temperature				
• Operation	°C	-25/+75	-25/+75	-25/+75
• Storage	°C	-40/+70	-40/+70	-40/+70
Permissible load				
Up to 40 °C	A	1000	2000	4000
At rear horizontal main circuit connections	A	1000	2000	3640
Up to 60 °C	A	1000	2000	3500
(Cu painted black) Up to 70 °C	A	1000	1950	3250
Power loss at I_n				
With symmetrical load				
Withdrawable circuit breakers	W	280	770	1640
Operating times				
• Make-time	ms	35	35	35
• Opening time	ms	34	34	34
• Electrical make-time (through activation solenoid) ¹⁾	ms	100	100	100
• Electrical opening time (through shunt trip unit)	ms	73	73	73
• Electrical opening time (instantaneous undervoltage trip unit)	ms	73	73	73
Endurance³⁾				
• Mechanical (without maintenance)	Operating cycles	10 000	10 000	10 000
• Mechanical (with maintenance) ²⁾	Operating cycles	15 000	15 000	15 000
• Electrical (without maintenance)	Operating cycles	6 000	6 000	4 000
• 1000 V version	Operating cycles	1 000	1 000	1 000
• Electrical (with maintenance) ²⁾	Operating cycles	15 000	15 000	15 000
Switching frequency				
• 600 V version	1/h	60	60	60
• 1000 V version	1/h	20	20	20
Mounting position				
Degree of protection		IP20 without cabinet door, IP41 with door sealing frame, IP55 with cover		
Auxiliary conductors (Cu)				
Standard connection = strain-relief clamp				
Max. number of auxiliary conductors × cross-section (solid/stranded)				
• Without end sleeve		2 × 0.5 mm ² (AWG 20) ... 2 × 1.5 mm ² (AWG 16); 1 × 2.5 mm ² (AWG 14)		
• With end sleeve to DIN 46228 Part 2		1 × 0.5 mm ² (AWG 20) ... 1 × 1.5 mm ² (AWG 16)		
• With twin end sleeve		2 × 0.5 mm ² (AWG 20) ... 2 × 1.5 mm ² (AWG 16)		
Optional connection = tension spring				
• Without end sleeve		2 × 0.5 mm ² (AWG 20) ... 2 × 2.5 mm ² (AWG 14)		
• With end sleeve to DIN 46228 Part 2		2 × 0.5 mm ² (AWG 20) ... 2 × 1.5 mm ² (AWG 16)		
Weights 3-pole				
• Fixed-mounted circuit breakers	kg	56	56	64
• Withdrawable circuit breakers	kg	60	60	68
• Guide frame	kg	31	31	45
4-pole				
• Fixed-mounted circuit breakers	kg	67	67	77
• Withdrawable circuit breakers	kg	72	72	82
• Guide frames	kg	37	37	54

¹⁾ Make-time through activation solenoid for synchronization purposes (short-time excited) 50 ms.

²⁾ Maintenance means: replace main contact elements and arc chutes (see Operator's Guide).

³⁾ Further technical specifications on request.

Size		II	
Type		3WL12	
Switching capacity class		DC	
Short-circuit breaking capacity			
Up to 300 V DC	I_{cc}	kA	30
Up to 600 V DC	I_{cc}	kA	25
Up to 1000 V DC	I_{cc}	kA	20
Rated short-time withstand current I_{cw}			
0.5 s		kA	--
1 s		kA	30 ¹⁾ /25 ²⁾ /20 ³⁾
2 s		kA	--
3 s		kA	--

¹⁾ At $U_e = 300$ V DC.

²⁾ At $U_e = 600$ V DC.

³⁾ At $U_e = 1000$ V DC.