

Technical data

Busbar system		400 A		630 A		1000 A	1600 A	1600 A	2500 A
								CSS 2)	CSS 2)
Rated operational voltage, U _e	V	690		690		690	690	690	690
Rated insulation voltage, U _i	V	1000		1000		1000	1000	1000	1000
Rated conventional thermal current, I _{th} and rated operational current, I _B	A	400		630		1000	1600	1600	2500
Rated short-time withstand current, I _{cw}	kA _{rms/s}	30/0.2 ¹⁾		23/1 ¹⁾		40/1 ¹⁾	70/1 ¹⁾	30/1	65/1
Rated fused short-circuit current, I _{cf}	kA _{rms}	50	85	50	85	–	–	–	–
	max A	3//315	3//250	3//315	3//250	–	–	–	–
Rated peak withstand current, I _{pk}	kA _{peak}	55		55		–	–	67	148
Rated peak withstand current; 1 m long busbar without fitted device, I _{pk}	kA _{peak}	–		–		50	85	–	–
Degree of protection according to IEC 60 529		IP2X		IP2X		IP2X	IP2X	IP2X	IP2X

1) Test prerequisite: ΔT=100 K. Final temperature of the busbar max. 150° C.
2) Adjusted for use in substations and low voltage switchgears.

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Switching device with dependent manual operation, uninterrupted duty		SLD 000		SLD-FHD 000	SLD 00		SLD-FHD 00	SLD 1		SLD 2			FD 3300
Rated operational voltage, U _e	V	400	690 ¹⁾	230	400	690 ¹⁾	230	400	690 ¹⁾	400	690 ¹⁾	1000 ¹⁾	400
Rated insulation voltage, U _i	V	690		690	690		690	690		1000			690
Rated impulse withstand voltage, U _{imp}	kV	8		8	8		8	8		8			8
Rated operational current, I _B and rated conventional thermal current, I _{th} 2)	A	100	80	100	160	160	160	250	250	400	355	100	400
Utilization category according to IEC 60947-3		AC-23B	AC-22B	AC-21B	AC-23B	AC-21B	AC-21B	AC-23B	AC-22B	AC-23B	AC-22B	AC-21B	AC-21B
Rated short-time withstand current, I _{cw}	kA _{rms/s}	6.1/1 ⁵⁾		–	6.1/1 ⁵⁾		–	16.2/1 ⁵⁾		16.2/1 ⁵⁾			15/1
Rated peak withstand current, I _{pk}	kA _{peak}	10.9 ⁵⁾		–	10.9 ⁵⁾		–	34.4 ⁵⁾		34.4 ⁵⁾			42
Rated conditional fused short-circuit current, I _{cf}	kA _{rms}	50	30	30	50	30	30	50	50	50	50	30	50
	max A	100	80	100	160	160	160	250	250	400	355	100	2//400
Degree of protection according to IEC 60529	fuse	IP2X 4)		IP2X 4)	IP2X 4)		IP2X 4)	IP2X		IP2X			IP2X
Connectable conductor cross-section, Cu/Al	mm ²	2.5-95		2.5-95	2.5-95		2.5-95	50-300		50-300			50-300

Remarks
1) To be used only in dry environments.
2) Fuse with power dissipation according to IEC 60269-2-1.
3) With linking knives.
4) IP1X at operation, depending on design dimensions of the fuse.
5) Tested with the earthing device JDD.

Switching device with dependent manual operation, uninterrupted duty		SLDL 2			SLDL 2-1P			SLDL 3			SLDL 3-1P		
Rated operational voltage, U _e	V	400	690 ¹⁾	1000 ¹⁾	400	690 ¹⁾	1000 ¹⁾	400	690 ¹⁾	1000 ¹⁾	400	690 ¹⁾	1000 ¹⁾
Rated insulation voltage, U _i	V	1000			1000			1000			1000		
Rated impulse withstand voltage, U _{imp}	kV	8			8			8			8		
Rated operational current, I _B and rated conventional thermal current, I _{th} 2)	A	400	400	100	400	400	100	630	500	100	630	500	100
Utilization category according to IEC 60947-3		AC-23B	AC-22B	AC-21B	AC-23B	AC-22B	AC-21B	AC-23B	AC-22B	AC-21B	AC-23B	AC-22B	AC-21B
Rated short-time withstand current, I _{cw}	kA _{eff/s}	10,3/1			10,3/1			10,3/1			10,3/1		
Rated peak withstand current, I _{pk}	kA _{topp}	21,0			21,0			21,0			21,0		
Rated conditional fused short-circuit current, I _{cf}	kA _{eff}	50	50	28	50	50	28	50	50	28	50	50	28
	max A	400	400	100	400	400	100	630	500	100	630	500	100
Degree of protection according to IEC 60529		IP2X			IP2X			IP2X			IP2X		
Connectable conductor cross-section, Cu/Al	mm ²	35-240			35-240			35-240			35-240		
		2 x 95-240			2 x 95-240			2 x 95-240			2 x 95-240		

Remarks
1) To be used only in dry environments.
2) Fuse with power dissipation according to IEC 60269-2-1.

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Switching device with independent manual operation		SEKOD	SEKOD		SLOB			LBOC		
		160	250	400	400	630	800	630	800	1600
Rated operational voltage, U_e	V	690	690	690	690	690	690	690	690	690
Rated insulation voltage, U_i	V	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated impulse withstand voltage, U_{imp}	kV	12	12	12	–	–	–	–	–	–
Rated conventional thermal current, I_{th} and rated operational current, I_e	A	125 ¹⁾ 160 ²⁾	224 ¹⁾ 250 ²⁾	355 ¹⁾ 400 ²⁾	355 ¹⁾ 400 ²⁾	630	800	630	800	1600
Utilization category according to IEC 60947-3		AC-23A	AC-23A	AC-23A	AC-23A	AC-23A	AC-22A	AC-23A	AC-22A	AC-22A
Rated short-time withstand current, I_{cw}	kA _{rms/s}	5	8	14	14	16	16	17	17	50
Rated peak withstand current, I_{pk}	kA _{peak}	–	–	–	–	–	–	80	80	105
Rated conditional fused short-circuit current, I_{cf}	kA _{rms}	18	32	46	50	50	50	–	–	–
	Fuse max A	160	250	400	400	630	800	–	–	–
Degree of protection according to IEC 60529		IP2X	IP2X	IP2X	IP2X	IP2X	IP2X	IP2X	IP2X	IP2X
Connectable conductor cross-section, Cu/Al	mm ²	50-300	50-300	–	–	–	–	–	–	–

1) Mounting with horizontal fuses limits the current by 8 % which gives the fuse sizes according to the table.

2) With linking knives 160 A, 250 A and 400 A respectively.

Connectors IEC 61238-1		ADC 25	AD 70	ADO 240	AD 350	AD 95	AD 2150	AD 300	ADB 3M	AD 400
Rated operational voltage, U_e	V	690	690	690	690	690	690	690	500	690
Rated insulation voltage, U_i	V	–	–	–	–	1000	690	1000	690	1000
Rated conventional thermal current, I_{th} and rated operational current, I_e	A	63	200	400	400	200	400	630	500	630
Max. fuse	A	–	–	–	–	–	2//200	–	–	–
Rated short-time withstand current, I_{cw}	kA _{rms/s}	–	19/1	–	25/1	30/0.2	30/0.2	30/1	–	35/1
Rated conditional short-circuit current with fuse I_{cf}	kA _{rms}	–	50	50	50	50	50	50	–	–
	max. A	–	200	400	400	200	2//200	400	–	–
Degree of protection according to IEC 60529		–	–	–	–	IP2X	IP2X	IP2X	IP2X	IP2X
Connectable conductor cross-section Cu/Al	mm ²	1.5 - 25	6 - 95	70-240	3 x 6-50	6 - 95	35-2//150	50 - 300	50-300	50-400

Connectors		STM 400	ADP 300	KSSM-S 630	KSSM-S 1200	AB 800	AB 1200	ADR M8/M12	ADR H12
Rated operational voltage, U_e	V	690	690	500	500	500	500	–	–
Rated insulation voltage, U_i	V	690	1000	690	690	690	690	–	–
Rated conventional thermal current, I_{th} and rated operational current, I_e	A	400	630	630	1200	800	1200	630	630
Degree of protection according to IEC 60529		IP2X	IP2X	IP2X	IP2X	–	–	–	–
Connectable conductor cross-section Cu/Al	mm ²	50-300	2//50-300						

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Switching devices with independent manual operation		AS-T3		KLAP T5 630	
		with SACE Tmax T3		with SACE Tmax T5	
Rated operational voltage, U_e	V	400	690	400	690
Rated insulation voltage, U_i	V	800		1000	
Rated impulse withstand voltage, U_{imp}	kV	8		8	
Rated conventional thermal current, I_{th} and rated operational current, I_e	A	250		525	
Utilization category according to IEC 60947-2		A		A	
Rated ultimate short-circuit breaking capacity, I_{cu}	kA	36	5	36	20
Rated service short-circuit breaking capacity, I_{cs}	kA	27	4	36	20
Degree of protection according to IEC 60529, mounted		IP2X	–	–	IP2X ¹⁾
Connectable conductor cross-section, Cu/Al	mm ²	50-300		–	

1) May only be installed disconnected.

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Accessories		PHD 2	PHD 2 SDC	JDDA 000	JDDA 00	JDDA 1	JDDA 2	KBS 20
Rated operational voltage, U_e	V	400	400	–	–	–	–	–
Rated insulation voltage, U_i	V	690	690	690	690	690	690	690
Rated conventional thermal current, I_{th} and rated operational current, I_e	A	400 ¹⁾	400 ¹⁾	–	–	–	–	–
Utilization category acc to IEC 60947-3		AC-23B	AC-23B	–	–	–	–	–
Rated short-time withstand current, I_{cw}	kA _{rms/s}	–	–	6.1/1	6.1/1	16.2/1	16.2/1	21.1/1 ²⁾
Rated peak withstand current, I_{pk}	kA _{peak}	–	–	10.9	10.9	34.4	34.4	43.3 ²⁾
Rated fused short-circuit current, I	kA _{rms}	50	50	–	–	–	–	–
		400	400	–	–	–	–	–

Remarks

1) Fuses with power dissipation according to IEC 60269-2-1.

2) With 95 mm² earthing cable.

Cable distribution cabinets		400 A		630 A	
Rated operational voltage, U_e	V	400		400	
Rated insulation voltage, U_i	V	1000		1000	
Rated conventional thermal current, I_{th} and rated operational current, I_e	kV	400		630	
Max. fuse	A	3//315		3//315	
Rated short-time withstand current, I_{cw}	A	30/0.2 ¹⁾		23/1 ¹⁾	
Rated fuse short-circuit current, I_{cf}	kA _{rms/s}	50	85	50	85
	max A	3//315	3//250	3//315	3//250
Rated peak withstand current, I_{pk}	kA _{peak}	55		55	
Degree of protection acc. to IEC 60529	Busbar system	IP2X		IP2X	
	Enclosure	IP34D		IP34D	

1) Test prerequisite: $\Delta T=100$ K. Final busbar temperature max. 150° C.

Torque wrench for switching devices and enclosures

Designation	To phase busbar	Cable connection			
		2.5-35 mm ²	50-95 mm ²	120-300 mm ²	Others
SLD 000, SLD 00	15 Nm	15 Nm	20 Nm	–	–
SLD-FHD 000, SLD-FHD 00	15 Nm	15 Nm	20 Nm	–	–
SLD 1, SLD 2	15 Nm	–	20 Nm	35 Nm	–
FD 3300	20 Nm	–	20 Nm	45 Nm	–
SLDL 2, SLDL 3	15 Nm	–	25 Nm	25 Nm	35 Nm ¹⁾
SLDL 2-1P, SLDL 3-1P	15 Nm	–	25 Nm	25 Nm	35 Nm ¹⁾
AD 70	20 Nm	20 Nm (from 6 mm ²)	20 Nm	–	–
ADO 240	20 Nm	–	–	35 Nm (max 240 mm ²)	–
AD 350	20 Nm	20 Nm (from 6 mm ²)	20 Nm (max 50 mm ²)	–	–
AD 95	20 Nm	20 Nm (from 6 mm ²)	20 Nm	–	–
AD 300	20 Nm	–	20 Nm	45 Nm	–
AD 2150	20 Nm	–	20 Nm	45 Nm	–
ADB 3M	20 Nm	–	–	–	20 Nm ²⁾
AD 400	20 Nm	–	20 Nm	45 Nm	–
SEKOD 160	15 Nm	–	20 Nm	45 Nm	20 Nm ³⁾
SEKOD 250	15 Nm	–	20 Nm	45 Nm	20 Nm ³⁾
SEKOD 400	15 Nm	–	20 Nm	45 Nm	20 Nm ³⁾
AS-T3	20 Nm	–	20 Nm	45 Nm	20 Nm ³⁾
KLAP T5	20 Nm	–	–	–	20 Nm ⁴⁾
TRAFO-C/S 630	20 Nm	–	–	–	–
KSSM-S 630/1200	20 Nm	–	–	–	–
KLKB-S 630/1200	20 Nm	–	–	–	–

1) The torque refers to the connection between the SLDL and the cable (cable lug or cable connector).

2) The torque refers to the connection between the ADB 3M contact and the AD 300 connector.

3) The torque refers to the connection between the connection on the switch and the cable connection.

4) The torque refers to the connection between the adapter plate and the plug-in socket.

Designation	Cable connection							Screw
	6 mm ²	50 mm ²	95 mm ²	120 mm ²	150 mm ²	185 mm ²	300 mm ²	M10
TC 50-12	12 Nm							
TC 70-15		20 Nm		25 Nm		45 Nm		
TC 120-20								
TC 300-25								
TCD 185-25			20 Nm					35 Nm
TC 300-40			35 Nm		45 Nm			35 Nm
TCD 300-40								