IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6	TEST SEQUENCE IV: CONDITIONAL SHORT-CIRCUIT CURRENT (Sample No. 17: 400 V, 32 A, 2-poles)		P
	Protective device details:		P
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G32	—
	- rated voltage (V) .....:	400 V	—
	- rated current (A) .....:	32 A (gG)	—
	- rated breaking capacity (kA) .....:	120 kA	—
8.3.6.2	Fuse protected short-circuit withstand		P
	test voltage (1,05 Ue) (V) .....:	L1: 420 V (242,5 V x √3) L2: 420 V (242,5 V x √3) L3: —	—
	test current (kA) .....:	L1: 101 kA L2: 101 kA L3: —	—
	rated frequency (Hz) .....:	50 Hz	—
	power factor .....:	0,19	—
	Time constant (ms).....:	—	—
	Fuse protected short-circuit withstand (equipment in closed position)		
	- max. let-through current (kA) .....:	L1: 6,35 kA L2: — L3: —	—
	- Joule integral I^2dt (A^2s) .....:	L1: 5000 A^2s L2: — L3: —	—
	Fuse protected short-circuit making		P
	- mean velocity of 15 manually under no-load conditions operations (m/s) .....:	1,6 m/s	—
	- point at which the measurement is made .....:	point of rotation	—
	- test speed during the fuse protected short-circuit making (m/s) .....:	1,5 m/s	—
	- max. let-through current (kA) .....:	L1: 6,15 kA L2: — L3: —	—
	- Joule integral I^2dt (A^2s) .....:	L1: 5000 A^2s L2: — L3: —	—

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6.2.5	Behaviour of the equipment during the test		P
	Test performed without:		—
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse in the detection circuit		P
8.3.6.2.6	Condition of the equipment after making and breaking capacity tests		P
	Immediately after the test equipment must work satisfactorily		P
	- required opening force not greater than the test force of 8.2.5.2 and table 8	22 N (required opening force) 150 N (test force acc. tab. 8)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.6.3	Dielectric verification		P
	test voltage: 2*Ue with a minimum of 1000V~ .....:	1000 V (tested with 1380 V)	—
	No flashover or breakdown		P
8.3.6.4	Leakage current		P
	test voltage (1,1 Ue) (V) .....:	440 V (tested with 759 V)	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) ≤ 0,5 mA/pole .....:		N/A
	Leakage current (other utilization categories) ≤ 2,0 mA/pole .....:	0,001 mA	P
8.3.6.5	Temperature-rise verification		P
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G32	—
	- rated current (A) .....:	32 A (gG)	—
	- power loss (W) .....:	2,9 W	—
	- rated breaking capacity (kA) .....:	120 kA	—
	- conductor cross-section (mm²) .....:	6 mm²	—
	- test current Ie (A) .....:	32 A	—
	Measured temperature-rise .....:	see appended table 8.3.6.5 on page 111	P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6	TEST SEQUENCE IV: CONDITIONAL SHORT-CIRCUIT CURRENT (Sample No. 18: 400 V, 32 A, 3-poles+N)		P
	Protective device details:		P
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G32	—
	- rated voltage (V) .....:	400 V	—
	- rated current (A) .....:	32 A (gG)	—
	- rated breaking capacity (kA) .....:	120 kA	—
8.3.6.2	Fuse protected short-circuit withstand		P
	test voltage (1,05 Ue) (V) .....:	L1: 420 V (242,5 V x √3) L2: 420 V (242,5 V x √3) L3: 420 V (242,5 V x √3)	—
	test current (kA) .....:	L1: 103 kA L2: 100 kA L3: 101 kA	—
	rated frequency (Hz) .....:	50 Hz	—
	power factor .....:	0,19	—
	Time constant (ms).....:	—	—
	Fuse protected short-circuit withstand (equipment in closed position)		
	- max. let-through current (kA) .....:	L1: 0,4 kA L2: 4,8 kA L3: 4,8 kA	—
	- Joule integral I^2dt (A^2s) .....:	L1: 0 A^2s L2: 4000 A^2s L3: 4000 A^2s	—
	Fuse protected short-circuit making		P
	- mean velocity of 15 manually under no-load conditions operations (m/s) .....:	1,6 m/s	—
	- point at which the measurement is made .....:	point of rotation	—
	- test speed during the fuse protected short-circuit making (m/s) .....:	1,5 m/s	—
	- max. let-through current (kA) .....:	L1: 1,6 kA L2: 4,2 kA L3: 4,4 kA	—
	- Joule integral I^2dt (A^2s) .....:	L1: 0 A^2s L2: 4000 A^2s L3: 4000 A^2s	—

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6.2.5	Behaviour of the equipment during the test		P
	Test performed without:		—
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse in the detection circuit		P
8.3.6.2.6	Condition of the equipment after making and breaking capacity tests		P
	Immediately after the test equipment must work satisfactorily		P
	- required opening force not greater than the test force of 8.2.5.2 and table 8	49,1 N (required opening force) 150 N (test force acc. tab. 8)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.6.3	Dielectric verification		P
	test voltage: 2*Ue with a minimum of 1000V~ .....:	1000 V (tested with 1380 V)	—
	No flashover or breakdown		P
8.3.6.4	Leakage current		P
	test voltage (1,1 Ue) (V) .....:	440 V (tested with 759 V)	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) ≤ 0,5 mA/pole .....:		N/A
	Leakage current (other utilization categories) ≤ 2,0 mA/pole .....:	0,001 mA	P
8.3.6.5	Temperature-rise verification		P
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G32	—
	- rated current (A) .....:	32 A (gG)	—
	- power loss (W) .....:	2,9 W	—
	- rated breaking capacity (kA) .....:	120 kA	—
	- conductor cross-section (mm²) .....:	6 mm²	—
	- test current Ie (A) .....:	32 A	—
	Measured temperature-rise .....:	see appended table 8.3.6.5 on page 111	P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6	TEST SEQUENCE IV: CONDITIONAL SHORT-CIRCUIT CURRENT (Sample No. 19: 500 V, 25 A, 1-pole)		P
	Protective device details:		P
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G25	—
	- rated voltage (V) .....:	500 V	—
	- rated current (A) .....:	25 A (gG)	—
	- rated breaking capacity (kA) .....:	120 kA	—
8.3.6.2	Fuse protected short-circuit withstand		P
	test voltage (1,05 Ue) (V) .....:	L1: 537 V L2: — L3: —	—
	test current (kA) .....:	L1: 107 kA L2: — L3: —	—
	rated frequency (Hz) .....:	50 Hz	—
	power factor .....:	0,2	—
	Time constant (ms).....:	—	—
	Fuse protected short-circuit withstand (equipment in closed position)		
	- max. let-through current (kA) .....:	L1: 2,59 kA L2: — L3: —	—
	- Joule integral I^2dt (A^2s) .....:	L1: 1000 A^2s L2: — L3: —	—
	Fuse protected short-circuit making		P
	- mean velocity of 15 manually under no-load conditions operations (m/s) .....:	1,6 m/s	—
	- point at which the measurement is made .....:	point of rotation	—
	- test speed during the fuse protected short-circuit making (m/s) .....:	1,5 m/s	—
	- max. let-through current (kA) .....:	L1: 3,56 kA L2: — L3: —	—
	- Joule integral I^2dt (A^2s) .....:	L1: 2000 A^2s L2: — L3: —	—

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6.2.5	Behaviour of the equipment during the test		P
	Test performed without:		—
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse in the detection circuit		P
8.3.6.2.6	Condition of the equipment after making and breaking capacity tests		P
	Immediately after the test equipment must work satisfactorily		P
	- required opening force not greater than the test force of 8.2.5.2 and table 8	11,4 N (required opening force) 150 N (test force acc. tab. 8)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.6.3	Dielectric verification		P
	test voltage: 2*Ue with a minimum of 1000V~ ..... :	1000 V (tested with 1380 V)	—
	No flashover or breakdown		P
8.3.6.4	Leakage current		P
	test voltage (1,1 Ue) (V) ..... :	550 V (tested with 759 V)	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) ≤ 0,5 mA/pole ..... :		N/A
	Leakage current (other utilization categories) ≤ 2,0 mA/pole ..... :	0,001 mA	P
8.3.6.5	Temperature-rise verification		P
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark ..... :	Bussmann	—
	- manufacturer's model or type reference ..... :	C10G25	—
	- rated current (A) ..... :	25 A (gG)	—
	- power loss (W) ..... :	2,6 W	—
	- rated breaking capacity (kA) ..... :	120 kA	—
	- conductor cross-section (mm²) ..... :	4 mm²	—
	- test current Ie (A) ..... :	25 A	—
	Measured temperature-rise ..... :	see appended table 8.3.6.5 on page 112	P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6	TEST SEQUENCE IV: CONDITIONAL SHORT-CIRCUIT CURRENT (Sample No. 20: 500 V, 25 A, 1-pole+N)		P
	Protective device details:		P
	- manufacturer's name, trademark or identification mark ..... :	Bussmann	—
	- manufacturer's model or type reference ..... :	C10G25	—
	- rated voltage (V) ..... :	500 V	—
	- rated current (A) ..... :	25 A (gG)	—
	- rated breaking capacity (kA) ..... :	120 kA	—
8.3.6.2	Fuse protected short-circuit withstand		P
	test voltage (1,05 Ue) (V) ..... :	L1: 537 V L2: — L3: —	—
	test current (kA) ..... :	L1: 107 kA L2: — L3: —	—
	rated frequency (Hz) ..... :	50 Hz	—
	power factor ..... :	0,2	—
	Time constant (ms) ..... :	—	—
	Fuse protected short-circuit withstand (equipment in closed position)		
	- max. let-through current (kA) ..... :	L1: 3,8 kA L2: — L3: —	—
	- Joule integral I^2dt (A^2s) ..... :	L1: 2000 A^2s L2: — L3: —	—
	Fuse protected short-circuit making		P
	- mean velocity of 15 manually under no-load conditions operations (m/s) ..... :	1,6 m/s	—
	- point at which the measurement is made ..... :	point of rotation	—
	- test speed during the fuse protected short-circuit making (m/s) ..... :	1,5 m/s	—
	- max. let-through current (kA) ..... :	L1: 2,22 kA L2: — L3: —	—
	- Joule integral I^2dt (A^2s) ..... :	L1: 1000 A^2s L2: — L3: —	—

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6.2.5	Behaviour of the equipment during the test		P
	Test performed without:		—
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse in the detection circuit		P
8.3.6.2.6	Condition of the equipment after making and breaking capacity tests		P
	Immediately after the test equipment must work satisfactorily		P
	- required opening force not greater than the test force of 8.2.5.2 and table 8	20,6 N (required opening force) 150 N (test force acc. tab. 8)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.6.3	Dielectric verification		P
	test voltage: 2*Ue with a minimum of 1000V~ .....:	1000 V (tested with 1380 V)	—
	No flashover or breakdown		P
8.3.6.4	Leakage current		P
	test voltage (1,1 Ue) (V) .....:	550 V (tested with 759 V)	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) ≤ 0,5 mA/pole .....:		N/A
	Leakage current (other utilization categories) ≤ 2,0 mA/pole .....:	0,001 mA	P
8.3.6.5	Temperature-rise verification		P
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G25	—
	- rated current (A) .....:	25 A (gG)	—
	- power loss (W) .....:	2,6 W	—
	- rated breaking capacity (kA) .....:	120 kA	—
	- conductor cross-section (mm²) .....:	4 mm²	—
	- test current Ie (A) .....:	25 A	—
	Measured temperature-rise .....:	see appended table 8.3.6.5 on page 112	P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6	TEST SEQUENCE IV: CONDITIONAL SHORT-CIRCUIT CURRENT (Sample No. 21: 500 V, 25 A, 2-poles)		P
	Protective device details:		P
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G25	—
	- rated voltage (V) .....:	500 V	—
	- rated current (A) .....:	25 A (gG)	—
	- rated breaking capacity (kA) .....:	120 kA	—
8.3.6.2	Fuse protected short-circuit withstand		P
	test voltage (1,05 Ue) (V) .....:	L1: 537 V (310 V x √3) L2: 537 V (310 V x √3) L3: —	—
	test current (kA) .....:	L1: 107 kA L2: 107 kA L3: —	—
	rated frequency (Hz) .....:	50 Hz	—
	power factor .....:	0,2	—
	Time constant (ms).....:	—	—
	Fuse protected short-circuit withstand (equipment in closed position)		
	- max. let-through current (kA) .....:	L1: 3,71 kA L2: — L3: —	—
	- Joule integral I^2dt (A^2s) .....:	L1: 1000 A^2s L2: — L3: —	—
	Fuse protected short-circuit making		P
	- mean velocity of 15 manually under no-load conditions operations (m/s) .....:	1,6 m/s	—
	- point at which the measurement is made .....:	point of rotation	—
	- test speed during the fuse protected short-circuit making (m/s) .....:	1,5 m/s	—
	- max. let-through current (kA) .....:	L1: 3,64 kA L2: — L3: —	—
	- Joule integral I^2dt (A^2s) .....:	L1: 1000 A^2s L2: — L3: —	—

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6.2.5	Behaviour of the equipment during the test		P
	Test performed without:		—
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse in the detection circuit		P
8.3.6.2.6	Condition of the equipment after making and breaking capacity tests		P
	Immediately after the test equipment must work satisfactorily		P
	- required opening force not greater than the test force of 8.2.5.2 and table 8	31,2 N (required opening force) 150 N (test force acc. tab. 8)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.6.3	Dielectric verification		P
	test voltage: 2*Ue with a minimum of 1000V~ .....:	1000 V (tested with 1380 V)	—
	No flashover or breakdown		P
8.3.6.4	Leakage current		P
	test voltage (1,1 Ue) (V) .....:	550 V (tested with 759 V)	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) ≤ 0,5 mA/pole .....:		N/A
	Leakage current (other utilization categories) ≤ 2,0 mA/pole .....:	0,005 mA	P
8.3.6.5	Temperature-rise verification		P
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G25	—
	- rated current (A) .....:	25 A (gG)	—
	- power loss (W) .....:	2,6 W	—
	- rated breaking capacity (kA) .....:	120 kA	—
	- conductor cross-section (mm²) .....:	4 mm²	—
	- test current Ie (A) .....:	25 A	—
	Measured temperature-rise .....:	see appended table 8.3.6.5 on page 112	P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6	TEST SEQUENCE IV: CONDITIONAL SHORT-CIRCUIT CURRENT (Sample No. 22: 500 V, 25 A, 3-poles+N)		P
	Protective device details:		P
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G25	—
	- rated voltage (V) .....:	500 V	—
	- rated current (A) .....:	25 A (gG)	—
	- rated breaking capacity (kA) .....:	120 kA	—
8.3.6.2	Fuse protected short-circuit withstand		P
	test voltage (1,05 Ue) (V) .....:	L1: 730 V (421,5 V x √3) L2: 730 V (421,5 V x √3) L3: 730 V (421,5 V x √3)	—
	test current (kA) .....:	L1: 102 kA L2: 102 kA L3: 101 kA	—
	rated frequency (Hz) .....:	50 Hz	—
	power factor .....:	0,2	—
	Time constant (ms).....:	—	—
	Fuse protected short-circuit withstand (equipment in closed position)		
	- max. let-through current (kA) .....:	L1: 1,9 kA L2: 3,8 kA L3: 2,0 kA	—
	- Joule integral I^2dt (A^2s) .....:	L1: 1000 A^2s L2: 2000 A^2s L3: 1000 A^2s	—
	Fuse protected short-circuit making		P
	- mean velocity of 15 manually under no-load conditions operations (m/s) .....:	1,6 m/s	—
	- point at which the measurement is made .....:	point of rotation	—
	- test speed during the fuse protected short-circuit making (m/s) .....:	1,4 m/s	—
	- max. let-through current (kA) .....:	L1: 0 kA L2: 3,16 kA L3: 3,16 kA	—
	- Joule integral I^2dt (A^2s) .....:	L1: 0 A^2s L2: 1000 A^2s L3: 1000 A^2s	—

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6.2.5	Behaviour of the equipment during the test		P
	Test performed without:		—
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse in the detection circuit		P
8.3.6.2.6	Condition of the equipment after making and breaking capacity tests		P
	Immediately after the test equipment must work satisfactorily		P
	- required opening force not greater than the test force of 8.2.5.2 and table 8	46,4 N (required opening force) 150 N (test force acc. tab. 8)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.6.3	Dielectric verification		P
	test voltage: 2*Ue with a minimum of 1000V~ .....:	1000 V (tested with 1380 V)	—
	No flashover or breakdown		P
8.3.6.4	Leakage current		P
	test voltage (1,1 Ue) (V) .....:	550 V (tested with 759 V)	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) ≤ 0,5 mA/pole .....:		N/A
	Leakage current (other utilization categories) ≤ 2,0 mA/pole .....:	0,002 mA	P
8.3.6.5	Temperature-rise verification		P
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G25	—
	- rated current (A) .....:	25 A (gG)	—
	- power loss (W) .....:	2,6 W	—
	- rated breaking capacity (kA) .....:	120 kA	—
	- conductor cross-section (mm²) .....:	4 mm²	—
	- test current Ie (A) .....:	25 A	—
	Measured temperature-rise .....:	see appended table 8.3.6.5 on page 113	P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6	TEST SEQUENCE IV: CONDITIONAL SHORT-CIRCUIT CURRENT (Sample No. 23: 690 V, 10 A, 1-pole)		P
	Protective device details:		P
	- manufacturer's name, trademark or identification mark .....:	SIBA	—
	- manufacturer's model or type reference .....:	50 179 06.10	—
	- rated voltage (V) .....:	690 V	—
	- rated current (A) .....:	10 A (gR)	—
	- rated breaking capacity (kA) .....:	200 kA	—
8.3.6.2	Fuse protected short-circuit withstand		P
	test voltage (1,05 Ue) (V) .....:	L1: 725 V L2: — L3: —	—
	test current (kA) .....:	L1: 52,7 kA L2: — L3: —	—
	rated frequency (Hz) .....:	50 Hz	—
	power factor .....:	0,13	—
	Time constant (ms).....:	—	—
	Fuse protected short-circuit withstand (equipment in closed position)		
	- max. let-through current (kA) .....:	L1: 2,0 kA L2: — L3: —	—
	- Joule integral I^2dt (A^2s) .....:	L1: 0 A^2s L2: — L3: —	—
	Fuse protected short-circuit making		P
	- mean velocity of 15 manually under no-load conditions operations (m/s) .....:	1,6 m/s	—
	- point at which the measurement is made .....:	point of rotation	—
	- test speed during the fuse protected short-circuit making (m/s) .....:	1,5 m/s	—
	- max. let-through current (kA) .....:	L1: 0,77 kA L2: — L3: —	—
	- Joule integral I^2dt (A^2s) .....:	L1: 0 A^2s L2: — L3: —	—

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ MIG 23 LTD.

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6.2.5	Behaviour of the equipment during the test		P
	Test performed without:		—
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse in the detection circuit		P
8.3.6.2.6	Condition of the equipment after making and breaking capacity tests		P
	Immediately after the test equipment must work satisfactorily		P
	- required opening force not greater than the test force of 8.2.5.2 and table 8	18,8 N (required opening force) 150 N (test force acc. tab. 8)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.6.3	Dielectric verification		P
	test voltage: 2*Ue with a minimum of 1000V~ .....:	1380 V	—
	No flashover or breakdown		P
8.3.6.4	Leakage current		P
	test voltage (1,1 Ue) (V) .....:	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) ≤ 0,5 mA/pole .....:		N/A
	Leakage current (other utilization categories) ≤ 2,0 mA/pole .....:	0,002 mA	P
8.3.6.5	Temperature-rise verification		P
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark .....:	SIBA	—
	- manufacturer's model or type reference .....:	50 179 06.10	—
	- rated current (A) .....:	10 A (gR)	—
	- power loss (W) .....:	2,3 W	—
	- rated breaking capacity (kA) .....:	200 kA	—
	- conductor cross-section (mm²) .....:	1,5 mm²	—
	- test current Ie (A) .....:	10 A	—
	Measured temperature-rise .....:	see appended table 8.3.6.5 on page 113	P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6	TEST SEQUENCE IV: CONDITIONAL SHORT-CIRCUIT CURRENT (Sample No. 24: 690 V, 10 A, 1-pole+N)		P
	Protective device details:		P
	- manufacturer's name, trademark or identification mark .....:	SIBA	—
	- manufacturer's model or type reference .....:	50 179 06.10	—
	- rated voltage (V) .....:	690 V	—
	- rated current (A) .....:	10 A (gR)	—
	- rated breaking capacity (kA) .....:	200 kA	—
8.3.6.2	Fuse protected short-circuit withstand		P
	test voltage (1,05 Ue) (V) .....:	L1: 726 V L2: — L3: —	—
	test current (kA) .....:	L1: 52,7 kA L2: — L3: —	—
	rated frequency (Hz) .....:	50 Hz	—
	power factor .....:	0,13	—
	Time constant (ms).....:	—	—
	Fuse protected short-circuit withstand (equipment in closed position)		
	- max. let-through current (kA) .....:	L1: 1,02 kA L2: — L3: —	—
	- Joule integral I^2dt (A^2s) .....:	L1: 0 A^2s L2: — L3: —	—
	Fuse protected short-circuit making		P
	- mean velocity of 15 manually under no-load conditions operations (m/s) .....:	1,6 m/s	—
	- point at which the measurement is made .....:	point of rotation	—
	- test speed during the fuse protected short-circuit making (m/s) .....:	1,5 m/s	—
	- max. let-through current (kA) .....:	L1: 0,78 kA L2: — L3: —	—
	- Joule integral I^2dt (A^2s) .....:	L1: 0 A^2s L2: — L3: —	—

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6.2.5	Behaviour of the equipment during the test		P
	Test performed without:		—
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse in the detection circuit		P
8.3.6.2.6	Condition of the equipment after making and breaking capacity tests		P
	Immediately after the test equipment must work satisfactorily		P
	- required opening force not greater than the test force of 8.2.5.2 and table 8	25,4 N (required opening force) 150 N (test force acc. tab. 8)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.6.3	Dielectric verification		P
	test voltage: 2*Ue with a minimum of 1000V~ .....:	1380 V	—
	No flashover or breakdown		P
8.3.6.4	Leakage current		P
	test voltage (1,1 Ue) (V) .....:	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) ≤ 0,5 mA/pole .....:		N/A
	Leakage current (other utilization categories) ≤ 2,0 mA/pole .....:	0,001 mA	P
8.3.6.5	Temperature-rise verification		P
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark .....:	SIBA	—
	- manufacturer's model or type reference .....:	50 179 06.10	—
	- rated current (A) .....:	10 A (gR)	—
	- power loss (W) .....:	2,3 W	—
	- rated breaking capacity (kA) .....:	200 kA	—
	- conductor cross-section (mm²) .....:	1,5 mm²	—
	- test current Ie (A) .....:	10 A	—
	Measured temperature-rise .....:	see appended table 8.3.6.5 on page 113	P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6	TEST SEQUENCE IV: CONDITIONAL SHORT-CIRCUIT CURRENT (Sample No. 25: 690 V, 10 A, 2-poles)		P
	Protective device details:		P
	- manufacturer's name, trademark or identification mark .....:	SIBA	—
	- manufacturer's model or type reference .....:	50 179 06.10	—
	- rated voltage (V) .....:	690 V	—
	- rated current (A) .....:	10 A (gR)	—
	- rated breaking capacity (kA) .....:	200 kA	—
8.3.6.2	Fuse protected short-circuit withstand		P
	test voltage (1,05 Ue) (V) .....:	L1: 726 V (419,16 V x √3) L2: 726 V (419,16 V x √3) L3: —	—
	test current (kA) .....:	L1: 52,7 kA L2: 52,7 kA L3: —	—
	rated frequency (Hz) .....:	50 Hz	—
	power factor .....:	0,13	—
	Time constant (ms).....:	—	—
	Fuse protected short-circuit withstand (equipment in closed position)		
	- max. let-through current (kA) .....:	L1: 0,61 kA L2: — L3: —	—
	- Joule integral I^2dt (A^2s) .....:	L1: 0 A^2s L2: — L3: —	—
	Fuse protected short-circuit making		P
	- mean velocity of 15 manually under no-load conditions operations (m/s) .....:	1,6 m/s	—
	- point at which the measurement is made .....:	point of rotation	—
	- test speed during the fuse protected short-circuit making (m/s) .....:	1,5 m/s	—
	- max. let-through current (kA) .....:	L1: 0,55 kA L2: — L3: —	—
	- Joule integral I^2dt (A^2s) .....:	L1: 0 A^2s L2: — L3: —	—

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6.2.5	Behaviour of the equipment during the test		P
	Test performed without:		—
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse in the detection circuit		P
8.3.6.2.6	Condition of the equipment after making and breaking capacity tests		P
	Immediately after the test equipment must work satisfactorily		P
	- required opening force not greater than the test force of 8.2.5.2 and table 8	34,2 N (required opening force) 150 N (test force acc. tab. 8)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.6.3	Dielectric verification		P
	test voltage: 2*Ue with a minimum of 1000V~ .....:	1380 V	—
	No flashover or breakdown		P
8.3.6.4	Leakage current		P
	test voltage (1,1 Ue) (V) .....:	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) ≤ 0,5 mA/pole .....:		N/A
	Leakage current (other utilization categories) ≤ 2,0 mA/pole .....:	0,003 mA	P
8.3.6.5	Temperature-rise verification		P
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark .....:	SIBA	—
	- manufacturer's model or type reference .....:	50 179 06.10	—
	- rated current (A) .....:	10 A (gR)	—
	- power loss (W) .....:	2,3 W	—
	- rated breaking capacity (kA) .....:	200 kA	—
	- conductor cross-section (mm²) .....:	1,5 mm²	—
	- test current Ie (A) .....:	10 A	—
	Measured temperature-rise .....:	see appended table 8.3.6.5 on page 114	P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6	TEST SEQUENCE IV: CONDITIONAL SHORT-CIRCUIT CURRENT (Sample No. 26: 690 V, 32 A, 3-poles+N)		P
	Protective device details:		P
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G32	—
	- rated voltage (V) .....:	400 V	—
	- rated current (A) .....:	32 A (gG)	—
	- rated breaking capacity (kA) .....:	120 kA	—
8.3.6.2	Fuse protected short-circuit withstand		P
	test voltage (1,05 Ue) (V) .....:	L1: 726 V (419,16 V x √3) L2: 726 V (419,16 V x √3) L3: 726 V (419,16 V x √3)	—
	test current (kA) .....:	L1: 50,9 kA L2: 52,2 kA L3: 51,0 kA	—
	rated frequency (Hz) .....:	50 Hz	—
	power factor .....:	0,23	—
	Time constant (ms).....:	—	—
	Fuse protected short-circuit withstand (equipment in closed position)		
	- max. let-through current (kA) .....:	L1: 0,9 kA L2: 5,6 kA L3: 5,6 kA	—
	- Joule integral I^2dt (A^2s) .....:	L1: 2000 A^2s L2: 8000 A^2s L3: 6000 A^2s	—
	Fuse protected short-circuit making		P
	- mean velocity of 15 manually under no-load conditions operations (m/s) .....:	1,6 m/s	—
	- point at which the measurement is made .....:	point of rotation	—
	- test speed during the fuse protected short-circuit making (m/s) .....:	1,4 m/s	—
	- max. let-through current (kA) .....:	L1: 5,3 kA L2: 5,3 kA L3: 0 kA	—
	- Joule integral I^2dt (A^2s) .....:	L1: 5000 A^2s L2: 5000 A^2s L3: 0 A^2s	—

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ MIG 23 LTD

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6.2.5	Behaviour of the equipment during the test		P
	Test performed without:		—
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse in the detection circuit		P
8.3.6.2.6	Condition of the equipment after making and breaking capacity tests		P
	Immediately after the test equipment must work satisfactorily		P
	- required opening force not greater than the test force of 8.2.5.2 and table 8	51,6 N (required opening force) 150 N (test force acc. tab. 8)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.6.3	Dielectric verification		P
	test voltage: 2*Ue with a minimum of 1000V~ .....:	1380 V	—
	No flashover or breakdown		P
8.3.6.4	Leakage current		P
	test voltage (1,1 Ue) (V) .....:	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) ≤ 0,5 mA/pole .....:		N/A
	Leakage current (other utilization categories) ≤ 2,0 mA/pole .....:	0,002 mA	P
8.3.6.5	Temperature-rise verification		P
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G32	—
	- rated current (A) .....:	32 A (gG)	—
	- power loss (W) .....:	2,9 W	—
	- rated breaking capacity (kA) .....:	120 kA	—
	- conductor cross-section (mm²) .....:	6 mm²	—
	- test current Ie (A) .....:	32 A	—
	Measured temperature-rise .....:	see appended table 8.3.6.5 on page 114	P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.7	TEST SEQUENCE V: OVERLOAD PERFORMANCE CAPABILITY (Sample No. 27: 690 V, 32 A, 1-pole)		P
8.3.7.1	Overload test		P
	ambient temperature 10-40 °C .....:	25,6 °C	—
	test enclosure W x H x D (mm x mm x mm) .....:	—	—
	material of enclosure .....:	—	—
	test current 1,6xIthe or 1,6xIth (A) .....:	52	—
	cable/busbar cross-section (mm²) / length (mm) ...:	6 mm² cable / 1000 mm long	—
	Fuse-link details:		P
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- rated current (A) .....:	32 A (gG)	—
	- power loss (W) .....:	2,9 W	—
	- rated breaking capacity (kA) .....:	120 kA	—
	- time duration of the overload test (s) .....:	824 s	—
	Within 3 to 5 min after the fuse(s) has(have) operated (or 1 h), the equipment has been operated once, i.e. opened and closed		P
	Required opening force not greater than the test force of 8.2.5.2 and table 8	14 N (required opening force) 150 N (test force acc. tab. 8)	P
	The equipment has not undergone any impairment hindering such operation		P
8.3.7.2	Dielectric verification		P
	test voltage: 2*Ue with a minimum of 1000V~ .....:	1380 V	—
	No flashover or breakdown		P
8.3.7.3	Leakage current		P
	test voltage (1,1 Ue) (V) .....:	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) ≤ 0,5 mA/pole .....:		N/A
	Leakage current (other utilization categories) ≤ 2 mA)/pole .....:	0,002 mA	P

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД • СОФИЯ • MIG 23 LTD •

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.7.4	Temperature-rise verification		P
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G32	—
	- rated current (A) .....:	32 A (gG)	—
	- power loss (W) .....:	2,9 W	—
	- rated breaking capacity (kA) .....:	120 kA	—
	Fuse links aged during the overload test are replaced by new fuse-links .....:		P
	- conductor cross-section (mm²) .....:	6 mm²	—
	- test current Ie (A) .....:	32 A	—
	Measured temperature-rise .....:	see appended table 8.3.7.4 on page 114	P

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД • MIG 23 LTD • СОФИЯ

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.7	TEST SEQUENCE V: OVERLOAD PERFORMANCE CAPABILITY (Sample No. 28: 690 V, 32 A, 2-poles)		P
8.3.7.1	Overload test		P
	ambient temperature 10-40 °C .....:	23,6 °C	—
	test enclosure W x H x D (mm x mm x mm) .....:	—	—
	material of enclosure .....:	—	—
	test current 1,6xIthe or 1,6xIth (A) .....:	52	—
	cable/busbar cross-section (mm²) / length (mm) ...:	6 mm² cable / 1000 mm long	—
	Fuse-link details:		P
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- rated current (A) .....:	32 A (gG)	—
	- power loss (W) .....:	2,9 W	—
	- rated breaking capacity (kA) .....:	120 kA	—
	- time duration of the overload test (s) .....:	573 s	—
	Within 3 to 5 min after the fuse(s) has(have) operated (or 1 h), the equipment has been operated once, i.e. opened and closed		P
	Required opening force not greater than the test force of 8.2.5.2 and table 8	17,2 N (required opening force) 150 N (test force acc. tab. 8)	P
	The equipment has not undergone any impairment hindering such operation		P
8.3.7.2	Dielectric verification		P
	test voltage: 2*Ue with a minimum of 1000V~ .....:	1380 V	—
	No flashover or breakdown		P
8.3.7.3	Leakage current		P
	test voltage (1,1 Ue) (V) .....:	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) ≤ 0,5 mA/pole .....:		N/A
	Leakage current (other utilization categories) ≤ 2 mA)/pole .....:	0,001 mA	P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.7.4	Temperature-rise verification		P
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G32	—
	- rated current (A) .....:	32 A (gG)	—
	- power loss (W) .....:	2,9 W	—
	- rated breaking capacity (kA) .....:	120 kA	—
	Fuse links aged during the overload test are replaced by new fuse-links .....:		P
	- conductor cross-section (mm²) .....:	6 mm²	—
	- test current Ie (A) .....:	32 A	—
	Measured temperature-rise .....:	see appended table 8.3.7.4 on page 115	P

ВЯРНО С ОРИГИНАЛА

MIG 23 EOOД СОФИЯ MIG 23 LTD

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.7	TEST SEQUENCE V: OVERLOAD PERFORMANCE CAPABILITY (Sample No. 29: 690 V, 32 A, 3-poles+N)		P
8.3.7.1	Overload test		P
	ambient temperature 10-40 °C .....:	23,6 °C	—
	test enclosure W x H x D (mm x mm x mm) .....:	—	—
	material of enclosure .....:	—	—
	test current 1,6xIthe or 1,6xIth (A) .....:	52	—
	cable/busbar cross-section (mm²) / length (mm) ...:	6 mm² cable / 1000 mm long	—
	Fuse-link details:		P
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- rated current (A) .....:	32 A (gG)	—
	- power loss (W) .....:	2,9 W	—
	- rated breaking capacity (kA) .....:	120 kA	—
	- time duration of the overload test (s) .....:	540 s	—
	Within 3 to 5 min after the fuse(s) has(have) operated (or 1 h), the equipment has been operated once, i.e. opened and closed		P
	Required opening force not greater than the test force of 8.2.5.2 and table 8	35,2 N (required opening force) 150 N (test force acc. tab. 8)	P
	The equipment has not undergone any impairment hindering such operation		P
8.3.7.2	Dielectric verification		P
	test voltage: 2*Ue with a minimum of 1000V~ .....:	1380 V	—
	No flashover or breakdown		P
8.3.7.3	Leakage current		P
	test voltage (1,1 Ue) (V) .....:	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) ≤ 0,5 mA/pole .....:		N/A
	Leakage current (other utilization categories) ≤ 2 mA)/pole .....:	0,001 mA	P

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ MIG 23 LTD.

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.7.4	Temperature-rise verification		P
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G32	—
	- rated current (A) .....:	32 A (gG)	—
	- power loss (W) .....:	2,9 W	—
	- rated breaking capacity (kA) .....:	120 kA	—
	Fuse links aged during the overload test are replaced by new fuse-links .....:		P
	- conductor cross-section (mm²) .....:	6 mm²	—
	- test current Ie (A) .....:	32 A	—
	Measured temperature-rise .....:	see appended table 8.3.7.4 on page 115	P
8.4	ELECTROMAGNETIC COMPATIBILITY TESTS		N/A
8.4.1	Immunity		N/A
8.4.1.1	Equipment not incorporating electronic circuits: no tests necessary		N/A
8.4.1.2	Equipment incorporating electronic circuits:		N/A
	Equipment utilizing circuits in which all components are passive are not required to be tested		N/A
	All other equipment, requirements according to 7.3.3.2 and limits according table 6 apply		N/A
	Performed tests.....:	see _____	N/A
	No unintentional separation or closing of contacts has occurred during these tests .....:		N/A
8.4.2	Emission		N/A
8.4.2.1	Equipment not incorporating electronic circuits: no tests necessary		N/A
8.4.2.2	Equipment incorporating electronic circuits:		N/A
	Equipment utilizing circuits in which all components are passive are not required to be tested		N/A
	All other equipment, requirements according to 7.3.3.2 and limits according table 7 apply		N/A
	Performed tests.....:	see _____	N/A

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
Annex A (normative)			N/A
A	Equipment for direct switching of a single motor		N/A
A.1	Additional rated duties.....:		N/A
A.1.1	- intermittent periodic duty		N/A
	- intermittent duty		N/A
A.1.1.1	Classes of intermittent duty .....:		N/A
	-class 1: up to 1 operating cycle per hour		N/A
	-class 3: up to 3 operating cycle per hour		N/A
	-class 12: up to 12 operating cycles per hour		N/A
	-class 30: up to 30 operating cycles per hour		N/A
	-class 120: up to 120 operating cycles per hour		N/A
A.1.2	Temporary duty.....:		N/A
A.5	Mechanical durability:		N/A
	Equipment mounted according to manufacturer's instruction		N/A
	Preferred number of no-load operating cycles expressed in millions.....:		N/A
	0,001 – 0,003 – 0,01 – 0,03 – 0,1 – 0,3 - 1		N/A
	If no mechanical endurance is stated by the manufacturer, a minimum mechanical endurance according to the class of intermittent duty shall be tested.	Class of intermittent duty:	N/A
	Number of no-load operating cycles performed.....:	_____	N/A
A.6	Electrical durability:		N/A
	- test according to manufacturer's instruction		N/A
A.7	Verification of making and breaking capacities:		N/A
	- utilization category .....:		—
	- rated operational voltage Ue (V) .....:		—
	- rated operational current Ie (A) or power (kW) ....:		—
	Conditions for make/break operations or make operations:		—
	- test voltage, U = 1,05 Ue ..... (V):	L1: L2: L3:	—
	- test current, I = ... x Ie (A):	L1: L2: L3:	—

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- power factor .....:	L1: L2: L3:	—
	Conditions for make/break operations:		N/A
	- test voltage, U = 1,05 Ue ..... (V):	L1: L2: L3:	—
	- test current, I = ... x Ie (A):	L1: L2: L3:	—
	- power factor/ time constant .....:	L1: L2: L3:	—
	Number of make/break or make and break operations .....:		N/A
	- recovery voltage duration (≥ 50 ms)		N/A
	- current duration (ms) .....:		—
	- time interval between operations .....:		N/A
	Characteristic of transient recovery voltage if necessary:		N/A
	- oscillatory frequency (kHz) .....:		—
	- measured oscillatory frequency (kHz) .....:	L1: L2: L3:	N/A
	- factor γ .....:	L1: L2: L3:	N/A
8.3.3.3.5	Behaviour of the equipment during making and breaking capacity tests		N/A
	Test performed without:		—
	- endanger to the operator		N/A
	- cause damage to adjacent equipment		N/A
	No permanent arcing		N/A
	No flash over between poles and poles and frame		N/A
	No melting of the fuse in the detection circuit		N/A

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.3.3.6	Condition of the equipment after making and breaking capacity tests		N/A
	Immediately after the test equipment must work satisfactorily		N/A
	- required opening force not greater than the test force of 8.2.5.2 and table 8		N/A
	- equipment is able to carry its rated current after normal closing operation		N/A
8.3.3.4	Dielectric verification		N/A
	test voltage: 2*Ue with a minimum of 1000V~ .....:		—
	No flashover or breakdown		N/A
8.3.3.5	Leakage current		N/A
	test voltage (1,1 Ue) (V) .....:		—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B): ≤ 0,5 mA/pole .....:		N/A
	Leakage current (other utilization categories): ≤ 2 mA/pole) .....:		N/A
8.3.3.6	Temperature-rise verification		N/A
	- conductor cross-section (mm²) .....:		—
	- test current Ie (A) .....:		—
	Measured temperature-rise .....:	see __	N/A
A.8	Operational performance test:		N/A
	- utilization category .....:		—
	- rated operational voltage (V) .....:		—
	- rated operational current (A) .....:		—
	Test conditions for electrical operation cycles:		N/A
	- test voltage (V) .....:	L1: L2: L3:	—
	- test current (A) .....:	L1: L2: L3:	—
	- power factor/time constant .....:	L1: L2: L3:	—
	Number of cycles with current .....:		N/A
	Number of cycles without current .....:		N/A

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
	First test sequence (with/without current) .....:		—
	Second test sequence (with/without current) .....:		—
	- time interval between first and second test sequence .....:		—
8.3.4.1.5	Behaviour of the equipment during the operational performance test		N/A
	Test performed without:		—
	- endanger to the operator		N/A
	-cause damage to adjacent equipment		N/A
	No permanent arcing		N/A
	No flash over between poles and poles and frame		N/A
	No melting of the fuse in the detection circuit		N/A
8.3.4.1.6	Condition of the equipment after making and breaking capacity tests		N/A
	Immediately after the test equipment must work satisfactorily		N/A
	- required opening force not greater than the test force of 8.2.5.2 and table 8		N/A
	- equipment is able to carry its rated current after normal closing operation		N/A
8.3.4.2	Dielectric verification		N/A
	test voltage: 2*Ue with a minimum of 1000V~ .....:		—
	No breakdown or flashover		N/A
8.3.4.3	Leakage current		N/A
	test voltage (1,1 Ue) (V) .....:		—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) ≤ 0,5 mA/pole .....:		N/A
	Leakage current (other utilization categories) ≤ 2 mA/pole .....:		N/A
8.3.4.4	Temperature-rise verification		N/A
	- conductor cross-section (mm²) .....:		—
	- test current Ie (A) .....:		—
	Measured temperature-rise .....:	see __	N/A
A.9	Special tests:	see __	N/A

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
Annex C (normative)			N/A
C	Single pole operated three pole switches		N/A
C.1	Three pole operated switches of fundamentally the same design, already successfully tested are deemed to satisfy the requirements of individually operated three pole devices.		N/A
C.2	Additional-tests to be performed on single pole operated three pole switches		N/A
	Test "8.3.3.3 Making and breaking capacities" according to test sequence I with following modifications		N/A
	L1 and L2 are closed, L3 is subjected to the required make-break operation cycle .....:		N/A
	L2 closed and L3 opened, L1 is subjected to the required make-break operation cycle .....:		N/A
	Test performed in a three phase circuit		N/A
	Test "8.3.4.1 Operational performance" according to test sequence II with following modifications		N/A
	L1 and L2 are closed, L3 is subjected to the required make-break operation cycle .....:		N/A
	L2 closed and L3 opened, L1 is subjected to the required make-break operation cycle .....:		N/A
	Test performed in a three phase circuit		N/A
	Test "8.3.6.2 Fuse protected short circuit test" according to test sequence IV with following modifications		N/A
	For the making test L1 shall be open and L2 closed, L3 is subjected to the required make operation cycle .....:		N/A
	L2 closed and L3 opened, L1 is subjected to the required make-break operation cycle .....:		N/A
	Test performed in a three phase circuit		N/A
C.5	Instruction for use		N/A
	The product literature includes following statement :		N/A
	These devices are intended for power distribution systems where switching and/or isolating of an individual phase may be necessary and shall not be used for the switching of the primary circuit of three-phase equipment.		N/A

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict

7.1.4	**TABLE: Clearance and creepage distance measurements**					
clearance cl and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)	required cl (mm)	cl (mm)	required dcr (mm)	dcr (mm)
Between active parts and parts intended to be touched	7300	800	2	>5,5	11	>11
Between active parts and enclosure	7300	800	2	>5,5	11	>11
Between active parts and fuse-link with the contacts in open position	9800	800	2	>5,5	11	>11
supplementary information:						

8.3.3.1	**TABLE: Temperature-rise (measurements) (Sample No. 1: I_e = 25 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Above terminals (cable connection)		39,3	70
Below terminals (cable connection)		35,3	70
Manual operating means: ~~metallic~~ / non-metallic		4,3	25
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		8,5	40
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		12,8	50
supplementary information:	Ambient temperature:	22,7 °C	

8.3.3.6	**TABLE: Temperature-rise (measurements) (Sample No. 1: I_e = 25 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		37,2	80
Manual operating means: ~~metallic~~ / non-metallic		4,6	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		6,1	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		17,0	60
supplementary information:	Ambient temperature:	22,9 °C	

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict

8.3.3.1	**TABLE: Temperature-rise (measurements) (Sample No. 2: I_e = 10 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Above terminals (cable connection)		31,7	70
Below terminals (cable connection)		29,8	70
Manual operating means: ~~metallic~~ / non-metallic		5,0	25
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		8,8	40
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		15,3	50
supplementary information:	Ambient temperature:	22,7 °C	

8.3.3.6	**TABLE: Temperature-rise (measurements) (Sample No. 2: I_e = 10 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		32,9	80
Manual operating means: ~~metallic~~ / non-metallic		3,7	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		5,4	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		19,4	60
supplementary information:	Ambient temperature:	23,8 °C	

8.3.3.1	**TABLE: Temperature-rise (measurements) (Sample No. 3: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Above terminals (cable connection)		45,0	70
Below terminals (cable connection)		37,5	70
Manual operating means: ~~metallic~~ / non-metallic		5,5	25
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		13,8	40
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		12,0	50
supplementary information:	Ambient temperature:	22,7 °C	

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict

8.3.3.6	**TABLE: Temperature-rise (measurements) (Sample No. 3: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		39,0	80
Manual operating means: ~~metallic~~ / non-metallic		4,8	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		5,4	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		21,1	60
supplementary information:	Ambient temperature:	24,3 °C	

8.3.3.1	**TABLE: Temperature-rise (measurements) (Sample No. 4: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Above terminals (cable connection)		48,5	70
Below terminals (cable connection)		47,3	70
Manual operating means: ~~metallic~~ / non-metallic		7,8	25
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		21,8	40
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		14,5	50
supplementary information:	Ambient temperature:	22,7 °C	

8.3.3.6	**TABLE: Temperature-rise (measurements) (Sample No. 4: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		49,0	80
Manual operating means: ~~metallic~~ / non-metallic		8,8	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		12,9	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		26,9	60
supplementary information:	Ambient temperature:	24,4 °C	

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict

8.3.3.1	**TABLE: Temperature-rise (measurements) (Sample No. 5: I_e = 25 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Above terminals (cable connection)		44,3	70
Below terminals (cable connection)		42,9	70
Manual operating means: ~~metallic~~ / non-metallic		10,6	25
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		13,3	40
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		15,2	50
supplementary information:	Ambient temperature:	22,7 °C	

8.3.3.6	**TABLE: Temperature-rise (measurements) (Sample No. 5: I_e = 25 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		47,5	80
Manual operating means: ~~metallic~~ / non-metallic		8,9	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		16,2	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		22,8	60
supplementary information:	Ambient temperature:	22,9 °C	

8.3.3.1	**TABLE: Temperature-rise (measurements) (Sample No. 6: I_e = 10 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Above terminals (cable connection)		44,5	70
Below terminals (cable connection)		40,8	70
Manual operating means: ~~metallic~~ / non-metallic		9,3	25
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		19,5	40
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		14,8	50
supplementary information:	Ambient temperature:	22,7 °C	

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict

8.3.3.6	**TABLE: Temperature-rise (measurements) (Sample No. 6: I_e = 10 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		50,4	80
Manual operating means: ~~metallic~~ / non-metallic		6,3	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		13,8	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		27,0	60
supplementary information:	Ambient temperature:	23,8 °C	

8.3.3.1	**TABLE: Temperature-rise (measurements) (Sample No. 7: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Above terminals (cable connection)		63,8	70
Below terminals (cable connection)		63,9	70
Manual operating means: ~~metallic~~ / non-metallic		16,9	25
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		32,8	40
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		22,3	50
supplementary information:	Ambient temperature:	22,7 °C	

8.3.3.6	**TABLE: Temperature-rise (measurements) (Sample No. 7: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		59,9	80
Manual operating means: ~~metallic~~ / non-metallic		11,2	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		23,7	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		27,6	60
supplementary information:	Ambient temperature:	24,4 °C	

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict

8.3.4.4	**TABLE: Temperature-rise (measurements) (Sample No. 8: I_e = 25 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		39,6	80
Manual operating means: ~~metallic~~ / non-metallic		5,5	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		17,6	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		25,9	60
supplementary information:	Ambient temperature:	25,3 °C	

8.3.4.4	**TABLE: Temperature-rise (measurements) (Sample No. 9: I_e = 10 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		43,1	80
Manual operating means: ~~metallic~~ / non-metallic		3,3	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		14,0	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		20,3	60
supplementary information:	Ambient temperature:	25,3 °C	

8.3.4.4	**TABLE: Temperature-rise (measurements) (Sample No. 10: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		47,5	80
Manual operating means: ~~metallic~~ / non-metallic		10,8	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		24,4	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		26,1	60
supplementary information:	Ambient temperature:	25,3 °C	

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД • СОФИЯ • MIG 23 LTD •

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict

8.3.4.4	**TABLE: Temperature-rise (measurements) (Sample No. 11: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		42,5	80
Manual operating means: ~~metallic~~ / non-metallic		9,2	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		22,1	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		22,5	60
supplementary information:	Ambient temperature:	25,3 °C	

8.3.4.4	**TABLE: Temperature-rise (measurements) (Sample No. 12: I_e = 25 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		48,9	80
Manual operating means: ~~metallic~~ / non-metallic		8,4	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		28,8	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		30,4	60
supplementary information:	Ambient temperature:	25,3 °C	

8.3.4.4	**TABLE: Temperature-rise (measurements) (Sample No. 13: I_e = 10 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		43,8	80
Manual operating means: ~~metallic~~ / non-metallic		9,3	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		28,5	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		28,7	60
supplementary information:	Ambient temperature:	25,3 °C	

ВЯРНО С ОРИГИНАЛА

МИГ 2,3 ЕООД • СОФИЯ • MIG 2,3 LTD.

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict

8.3.4.4	**TABLE: Temperature-rise (measurements) (Sample No. 14: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		44,1	80
Manual operating means: ~~metallic~~ / non-metallic		14,5	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		34,0	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		23,3	60
supplementary information:	Ambient temperature:	25,3 °C	

8.3.5.5	**TABLE: Temperature-rise (measurements)**		N/A
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals			
Manual operating means: metallic / non-metallic			
Parts intended to be touched but not hand-held: metallic / non-metallic			
Parts which need not be touched during normal operation: metallic / non-metallic			
supplementary information:			

8.3.6.5	**TABLE: Temperature-rise (measurements) (Sample No. 15: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		53,5	80
Manual operating means: ~~metallic~~ / non-metallic		6,0	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		16,8	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		26,3	60
supplementary information:	Ambient temperature:	23,5 °C	

ВЯРНО С ОРИГИНАЛА

MIG 23 LTD СОФИЯ MIG 23 EOOD

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict

8.3.6.5	**TABLE: Temperature-rise (measurements) (Sample No. 16: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		58,5	80
Manual operating means: ~~metallic~~ / non-metallic		10,2	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		21,8	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		40,5	60
supplementary information:	Ambient temperature:	24,9 °C	

8.3.6.5	**TABLE: Temperature-rise (measurements) (Sample No. 17: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		65,9	80
Manual operating means: ~~metallic~~ / non-metallic		14,1	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		28,4	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		44,7	60
supplementary information:	Ambient temperature:	24,6 °C	

8.3.6.5	**TABLE: Temperature-rise (measurements) (Sample No. 18: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		60,3	80
Manual operating means: ~~metallic~~ / non-metallic		16,6	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		35,0	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		33,5	60
supplementary information:	Ambient temperature:	24,2 °C	

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ MIG 23 LTD

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict

8.3.6.5	**TABLE: Temperature-rise (measurements) (Sample No. 19: I_e = 25 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		35,6	80
Manual operating means: ~~metallic~~ / non-metallic		6,5	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		15,7	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		22,0	60
supplementary information:	Ambient temperature:	24,6 °C	

8.3.6.5	**TABLE: Temperature-rise (measurements) (Sample No. 20: I_e = 25 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		42,1	80
Manual operating means: ~~metallic~~ / non-metallic		8,6	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		19,1	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		24,3	60
supplementary information:	Ambient temperature:	24,6 °C	

8.3.6.5	**TABLE: Temperature-rise (measurements) (Sample No. 21: I_e = 25 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		46,6	80
Manual operating means: ~~metallic~~ / non-metallic		12,9	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		26,5	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		28,2	60
supplementary information:	Ambient temperature:	24,6 °C	

TRF No. IEC60947_3B

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД · СОФИЯ · MIG 23 LTD

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict

8.3.6.5	**TABLE: Temperature-rise (measurements) (Sample No. 22: I_e = 25 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		57,7	80
Manual operating means: ~~metallic~~ / non-metallic		16,8	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		33,8	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		30,6	60
supplementary information:	Ambient temperature:	24,6 °C	

8.3.6.5	**TABLE: Temperature-rise (measurements) (Sample No. 23: I_e = 10 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		33,5	80
Manual operating means: ~~metallic~~ / non-metallic		3,5	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		13,0	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		19,0	60
supplementary information:	Ambient temperature:	23,3 °C	

8.3.6.5	**TABLE: Temperature-rise (measurements) (Sample No. 24: I_e = 10 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		31,9	80
Manual operating means: ~~metallic~~ / non-metallic		6,1	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		17,1	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		19,3	60
supplementary information:	Ambient temperature:	23,3 °C	

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict

8.3.6.5	**TABLE: Temperature-rise (measurements) (Sample No. 25: I_e = 10 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		45,7	80
Manual operating means: ~~metallic~~ / non-metallic		8,4	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		24,1	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		25,3	60
supplementary information:	Ambient temperature:	23,3 °C	

8.3.6.5	**TABLE: Temperature-rise (measurements) (Sample No. 26: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		56,8	80
Manual operating means: ~~metallic~~ / non-metallic		13,5	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		33,0	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		30,8	60
supplementary information:	Ambient temperature:	24,6 °C	

8.3.7.4	**TABLE: Temperature-rise (measurements) (Sample No. 27: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		42,5	80
Manual operating means: ~~metallic~~ / non-metallic		2,8	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		14,0	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		21,6	60
supplementary information:	Ambient temperature:	22,6 °C	

TRF No. IEC60947_3B

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ MIG 23 LTD

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict

8.3.7.4	**TABLE: Temperature-rise (measurements) (Sample No. 28: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		46,8	80
Manual operating means: ~~metallic~~ / non-metallic		11,7	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		31,8	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		35,4	60
supplementary information:	Ambient temperature:	23,4 °C	

8.3.7.4	**TABLE: Temperature-rise (measurements) (Sample No. 29: I_e = 32 A)**		P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals		53,6	80
Manual operating means: ~~metallic~~ / non-metallic		17,5	35
Parts intended to be touched but not hand-held: ~~metallic~~ / non-metallic		33,4	50
Parts which need not be touched during normal operation: ~~metallic~~ / non-metallic		41,5	60
supplementary information:	Ambient temperature:	23,8 °C	

ВЯРНО С ОРИГИНАЛА

ЕИГ 23 ЕООД СОФИЯ EIG 23 LTD

List of test equipment used:
(Note: This is an example of the required attachment. Other forms with a different layout but containing similar information are also acceptable.)

Clause	Measurement / testing	Testing / measuring equipment / material used	Range used	Calibration date
		Not applicable,		
		only required for the MT programs		

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ MIG 23 LTD

AMO 90

АМО 90 ЕООД
БЮРО ЗА ПРЕВОДИ
1000 София
ул. Г.С.Раковски 127, офис 336
тел. 0889 319 040
0887 314 090

3200 Бяла Слатина
ул. Климент Охридски 63
тел. 0915 827 48
E-mail: amo90@abv.bg
www.amo90.com

Превод от немски език

wöhner
ALLES MIT SPANNUNG

Декларация на производителя
За съответствие на образец на държачи за цилиндрични предпазители в конструктивно изпълнение на производителя Вьонер ГмбХ и Ко КГ./ Wöhner GmbH & Co. KG/ и ОЕЗ с.р.о/OEZ, s.r.o/.,.

Вьонер ГмбХ и Ко КГ.	OEZ s.r.o.	
No на Вьонер.	ID код	изделие
31.971.062	41003	OPVF10-1
31.974.062	41004	OP VF 10-2
31.110.162	41005	OPVA10-1
31.130.162	41006	OPVA10-1-S
31.111.162	41007	OPVA10-1N
31.112.162	41008	OPVA10-2
31.132.162	41009	OPVA10-2-S
31.113.162	41010	OPVA10-3
31.133.162	41011	OPVA10-3-S
31.114.162	41012	OPVA10-3N
31.275.062	41013	OPVP10-1
31.276.062	41014	OPVP10-2
31.277.062	41015	OPVP10-3
31.115.162	41016	OPVA14-1
31.135.162	41017	OPVA14-1-S
31.116.162	41018	OPVA14-1N
31.117.162	41019	OPVA14-2
31.137.162	41020	OPVA14-2-S
31.118.162	41021	OPVA14-3
31.138.162	41022	OPVA14-3-S
31.119.162	41023	OPVA14-3N
31.278.062	41024	OPVP14-1
31.279.062	41025	O PVP 14-2
31.280.062	41026	OPVP14-3
31.120.162	41027	OPVA22-1
31.140.162	41028	OPVA22-1-S
31.121.162	41029	OPVA22-1N
31.122.162	41030	OPVA22-2

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ MIG 23 LTD

Ед. дружество с ограничена отговорност АМО 90 Бяла Слатина AMO 90

31.142.162	41031	OPVA22-2-S
31.123.162	41032	OPVA22-3
31.143.162	41033	OPVA22-3-S
31.124.162	41034	OPVA22-3N
31.281.062	41035	OPVP22-1
31.282.062	41036	OPVP22-2
31.283.062	41037	OPVP22-3

Производствена база за посочените по-горе държачи на предпазителите:
Вьонер ГмбХ и Ко КГ. Мьонхрьоденер щрасе 10 D - 96472 Рьодентал

Номер на дело на VDE

DE 1-49452	249800-4402-0705/152633	(10x38)
DE 1-29569	249800-4402-0705/26504	(14x51)
DE1-50312	249800-4402-0708/158641	(22x58)
В момента се обработва		(10x38 PV)

С настоящето декларираме, че посочените по-горе държачи за предпазители на производителя Вьонер ГмбХ и Ко КГ и ОЕЗ с.р.о са произведени в посочената производствена база в съответствие със същите чертежи.
Потвърждаваме, че държачите за предпазители могат да се продават и под името на фирмата ОЕЗ с.р.о.
Изпълненията на двете изделия са идентични по отношение на конструкцията и на използваните материали, а се различават само по външния дизайн и надписите.

Рьодентал 28.06.2012

Алекс Бютнер
(Управител)

Подписаната, Аксиния Асенова Ганева, удостоверявам верността на превода направен от мен от немски на български език на приложения документ – Декларация на производителя. Преводът се състои от 2 страници.

Преводач на основание чл. 2 от ЗЗЛД *Аксиния Асенова Ганева*

ВЯРНО С ОРИГИНАЛА

wöhner
ALLES MIT SPANNUNG

Herstellererklärung

zur Baumusterkonformität der Sicherungshalter für zylindrische Sicherungen in den Bauartausführungen der Hersteller
Wöhner GmbH & Co. KG und OEZ, s.r.o.,.

Wöhner GmbH & Co. KG	OEZ s.r.o.	
Wöhner Nr.	ID code	ITEM
31.971.062	41003	OPVF10-1
31.974.062	41004	OPVF10-2
31.110.162	41005	OPVA10-1
31.130.162	41006	OPVA10-1-S
31.111.162	41007	OPVA10-1N
31.112.162	41008	OPVA10-2
31.132.162	41009	OPVA10-2-S
31.113.162	41010	OPVA10-3
31.133.162	41011	OPVA10-3-S
31.114.162	41012	OPVA10-3N
31.275.062	41013	OPVP10-1
31.276.062	41014	OPVP10-2
31.277.062	41015	OPVP10-3
31.115.162	41016	OPVA14-1
31.135.162	41017	OPVA14-1-S
31.116.162	41018	OPVA14-1N
31.117.162	41019	OPVA14-2
31.137.162	41020	OPVA14-2-S
31.118.162	41021	OPVA14-3
31.138.162	41022	OPVA14-3-S
31.119.162	41023	OPVA14-3N
31.278.062	41024	OPVP14-1
31.279.062	41025	OPVP14-2
31.280.062	41026	OPVP14-3
31.120.162	41027	OPVA22-1
31.140.162	41028	OPVA22-1-S
31.121.162	41029	OPVA22-1N
31.122.162	41030	OPVA22-2

ВЯРНО С ОРИГИНАЛА
MIG 23 EOOD СОФИЯ MIG 23 LTD.

wöhner
ALLES MIT SPANNUNG

31.142.162	41031	OPVA22-2-S
31.123.162	41032	OPVA22-3
31.143.162	41033	OPVA22-3-S
31.124.162	41034	OPVA22-3N
31.281.062	41035	OPVP22-1
31.282.062	41036	OPVP22-2
31.283.062	41037	OPVP22-3

Fertigungsstätte für die oben genannten Sicherungshalter:

Wöhner GmbH & Co. KG
Mönchrödener Strasse 10
D - 96472 Rödental

VDE-Aktenzeichen

DE1-49452	249800-4402-0705/152633	(10x38)
DE1-29569	249800-4402-0705/26504	(14x51)
DE1-50312	249800-4402-0708/158641	(22x58)
Zurzeit noch in Bearbeitung		(10x38 PV)

Hiermit erklären wir, dass die oben genannten Sicherungshalter der Hersteller Wöhner GmbH & Co. KG und OEZ, s.r.o. in der angegebenen Fertigungsstätte nach denselben Zeichnungen gefertigt werden.

Wir bestätigen, dass die Sicherungshalter auch unter dem Firmennamen OEZ, s.r.o. vertrieben werden können.

Beide Geräteausführungen besitzen einen identischen Aufbau bezüglich der Konstruktion und des verwendeten Materials und unterscheiden sich nur im äußeren Design und in den Aufschriften.

Rödental, den 28.06.2012

на основание чл. 2 от ЗЗЛД

Alex Büttner
(Geschäftsleitung)

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД · СОФИЯ · MIG 23 LTD

Списък на изпитванията от типови изпитания:

- Техническа характеристика

– Тип Код;
– Номинално напрежение;
– Номинален ток;
– Номинална честота;
– Номинална изключвателна възможност;
– Размер.

- Типов тест;

- Рутинен тест;
- Тестване на образци;
- Съответствие с изискванията за конструкции;

DAkkS
Deutsche
Akkreditierungsstelle

Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV
Signatory to the Multilateral Agreements of
EA, ILAC and IAF for Mutual Recognition

Accreditation

The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

VDE Prüf- und Zertifizierungsinstitut GmbH

at the following locations:

Merianstraße 28, 63069 Offenbach
Goethering 43, 63067 Offenbach
Landsberger Allee 378a, 12681 Berlin

is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out tests in the following fields:

Verification of technical documentation and investigation of airborne acoustical noise of equipment and machines listed in this annex according to article 12 of Directive 2000/14/EG; Measurement of sound power level for equipment and machines according to article 13 of Directive 2000/14/EG; Safety of machines as defined by Directive 2006/42/EG for products listed in the annex;
Type testing covered by the authorization for granting the GS Mark according to the German Product Safety Act (ProdSG) for products listed in the annex;
Safety of electrical equipment and their components; Electronic components; Industrial low-voltage switchgear and controlgear and installations; Electric tools and power drive systems; Cables and cords; Laboratory equipment; Photometry; Optics; Energy efficiency; Environmental tests and methods for performance measuring; Accumulators and batteries; Electromagnetic Compatibility (EMC) and radio; Acoustics and noise emission; Electric bicycles (Pedelec);
Analytic chemistry; Functional safety; Energy Star Program (EPA) for the products listed in the annex;
Technical Directive for power generation units and power installations - Part 3: Determination of electric characteristics of power generation units for medium-voltage power grid, high-voltage grid and supergrid;
Construction products;
Testing of construction products (system for evaluation and inspection of performance reliability 3) according to Regulation (EU) No. 305/2011 for determination of harmonised conditions for marketing of construction products (Constructional Products Regulation CPR)

The accreditation certificate shall only apply in connection with the notice of accreditation of 23.03.2018 with the accreditation number D-PL-12061-01 and is valid until 16.06.2021. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 19

на основание чл. 2 от ЗЗЛД

Registration number of the certificate: **D-PL-12061-01-01**

Frankfurt am Main, 23.03.2018	Dipl.-Ing. (FH) Ralf Egner Head of Division	Translation issued: 23.03.2018	Head of Division

This document is a translation. The definitive version is the original German accreditation certificate.

See notes overleaf.

ВЕРНО С ОРИГИНАЛА

1128

Deutsche Akkreditierungsstelle GmbH

Office Berlin
Spittelmarkt 10
10117 Berlin

Office Frankfurt am Main
Europa-Allee 52
60327 Frankfurt am Main

Office Braunschweig
Bundesallee 100
38116 Braunschweig

The accreditation was granted pursuant to the Act on the Accreditation Body (AkkStelleG) of 31 July 2009 (Federal Law Gazette I p. 2625) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products (Official Journal of the European Union L 218 of 9 July 2008, p. 30). DAkkS is a signatory to the Multilateral Agreements for Mutual Recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Cooperation (ILAC). The signatories to these agreements recognise each other's accreditations.

The up-to-date state of membership can be retrieved from the following websites:
EA: www.european-accreditation.org
ILAC: www.ilac.org
IAF: www.iaf.nu

АМО 90

АМО 90 ЕООД
БЮРО ЗА ПРЕВОДИ
1000 София
ул. Г.С.Раковски 127, офис 336
тел. 0889 319 040
0878 314 090

3200 Бяла Слатина
ул. Климент Охридски 63
тел. 0915 827 48
E-mail: amo90@abv.bg
www.amo90.com

Превод от немски език

Уведомление на орган в рамките на директивата за техническа хармонизация

от : Централен орган на провинциите за безопасностік (ZLS)
Розенкавалиерплац 2
D-8 1925 Мюнхен
Германия

до: **Европейска комисия**
Генерална дирекция РАСТЕЖ
200 Rue де ла Loi,
B-1049 Брюксел.
Други държави-членки

референция : Законодателство: 2000/1 4 / ЕО Емисии на шум в околната среда на съоръжения за използване на открито

Име на органа, адрес, телефон, факс, имейл, уебсайт :

Институт за изпитване и сертифициране VDE /VDE - Prüf- und Zertifizierungsinstitut GmbH/
Мерианщрасе 28
63069 Офенбах
Германия
Тел : +49 (0) 69 8306 0
факс : +49 (0) 69 8306 555
Email : vde-institut@vde.com
Website : www.vde.com

Орган : **NB 0366**

Създаден: неизвестно (Уведомления до 2006 не са включени в тези списъци) | последна актуализация : 15/08/2016

Органът официално е акредитиран по:

EN 45012 - EN ISO/IEC 17021

EN 45001 - EN ISO/IEC 17025

EN 45011 - EN ISO/IEC 17065

Наименование на Националния орган по акредитация (NAB): DAkkS (Deutsche Akkreditierungsstelle GmbH)

Акредитацията обхваща категориите продукти и процедурите за оценка на съответствието, засегнатите от това уведомление : Да

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД София MIG 23 LTD

Ел. дружество с ограничена отговорност АМО 90 Бяла Слатина

Задачи, изпълнени от органа :

Създаден : 03/05/2016 |последна актуализация : 03/05/2016

Продуктова линия, продукт /използване по предназначение/продуктова гама	Процедура/модули	Анекси или членове на директиви
Оборудване, обект на ограничение на шума - уплътнителни машини (само вибрационни и не-вибрационни валяци, вибрационни плочи и трамбовки) - компресори (<350 кВт) - бетонни къртачи и къртачни чукове, ръчни - хидравлични агрегати - Косачки за трева (с изключение на земеделска и горска техника и многоцелеви устройства, чийто основен моторизиран елемент има инсталирана мощност над 20 кВт) - тример за трева / тример за тревата в краищата на лехи - Мотокултиватори (<3 кВт) - Електрически генератори (<400 кВт) - заваръчни генератори	Пълно гарантиране на качеството Вътрешен контрол на продукцията с оценка на техническата документация и периодичен контрол Верификация на модула	Annex VIII Annex VI Annex VII

Подписаната, Аксиния Асенова Ганева, удостоверявам верността на превода направен от мен от английски и немски на български език на приложения документ – Уведомление на орган в рамките на директивата за техническа хармонизация. Преводът се състои от 2 страници.

Преводач: *Аксиния Асенова Ганева*

на основание чл. 2 от ЗЗЛД

ВЯРНО С ОРИГИНАЛА

Notification of a Body in the framework of a technical harmonization directive

From : Zentralstelle der Länder für Sicherheitstechnik (ZLS)
Rosenkavalierplatz 2
D-81925 München
Germany

To : **European Commission**
GROWTH Directorate-General
200 Rue de la Loi,
B-1049 Brussels.

Other Member States

Reference : Legislation : 2000/14/EC Noise emission in the environment by equipment for use outdoors

Body name, address, telephone, fax, email, website :

VDE - Prüf- und Zertifizierungsinstitut GmbH
Merianstraße 28
63069 Offenbach
Germany
Phone : +49 (0) 69 8306 0
Fax : +49 (0) 69 8306 555
Email : vde-institut@vde.com
Website : www.vde.com

Body : **NB 0366**

Created : Unknown (Notifications pre-dating 2006 are not available in these lists) | **Last update :** 15/08/2016

The body is formally accredited against :

EN 45012 - EN ISO/IEC 17021

EN 45001 - EN ISO/IEC 17025

EN 45011 - EN ISO/IEC 17065

Name of National Accreditation Body (NAB) : DAkkS (Deutsche Akkreditierungsstelle GmbH)

The accreditation covers the product categories and conformity assessment procedures concerned by this notification : Yes

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ МИГ 23 LTD

Tasks performed by the Body :

Created : 03/05/2016 | **Last update :** 03/05/2016

Product family, product /Intended use/Product range	Procedure/Modules	Annexes or articles of the directives
Equipment subject to noise limits - compaction machines (only vibrating and non-vibrating rollers, vibratory plates and vibratory rammers) - compressors (< 350 kW) - concrete-breakers and picks, hand-held - hydraulic power packs - lawnmowers (excluding agricultural and forestry equipment, and multi-purpose devices, the main motorised component of which has an installed power of more than 20 kW) - lawn trimmers/lawn edge trimmers - motor hoes (< 3 kW) - power generators (< 400 kW) - welding generators	Full quality assurance Internal control of production with assessment of technical documentation and periodical checking Unit verification	Annex VIII Annex VI Annex VII

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД • СОФИЯ • MIG 23 LTD

1133

OEZ s.r.o
Седивска 339, Летохрад
Чехия

Летохрад, 18.02.2009

Инструкции за монтаж на апаратурата доставена от OEZ s.r.o

ПРЕВОД

Общи препоръки за апаратура на OEZ
Превантивни проверки на OEZ устройства

1. Обща характеристика на OEZ устройствата
OEZ устройствата са конструирани като устройства без специална поддръжка, но има фабрики, където общите или местните правилата за безопасност изискват редовни превантивни проверки на устройствата в таблата.
Преди да поставите нови устройства в експлоатация или в хода на табло за изключване, ние препоръчваме да се провери дали устройствата са експолатирани в работни условия, необходими за правилното им функциониране.
Инструкции за експлоатация и работа са посочени в ръководството за експлоатация, което се доставя заедно с устройствата. Оперативните ръководства могат да бъдат изтеглени също така и от www.oez.cz.

Инсталиране на устройствата в таблото и тестове на правилното функциониране на управляващите вериги, ако устройството е оборудвано с тях, могат да се извършват само от лица с подходяща електрическа квалификация и съответния сертификат.
Тестовете и предписаните инспекции на таблото или на цялата инсталация може да се извършва само от лица със съответната квалификация и сертификат.
Електронното функциониране на защитите, включително тяхното настройка трябва да бъдат проверени от сервизния отдел на OEZ или от специализирани фирми.
Състоянието на тези дейности е обхванато от специален тест оборудване.
Освен ако местните разпоредби за експлоатационно състояние не предписват друго, ние препоръчваме извършване на превантивни проверки на интервали:

- веднъж годишно или
- след 1000 превключвания или
- след изключване на тежко късо съединение

1.1 Дейности преди поставяне на табло в експлоатация

- проверка на правилния монтаж на устройството в табло по документация.

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД · СОФИЯ · MIG 23 LTD

1134

- Премахване на чужди предмети (стружки, кабели остатъци, инструменти и т.н.), евентуално отстраняване на прах и проводими частици от изолационни части на устройството.
- Проверка на затягане на винтовете на клемите с момент на затягане в съответствие с инструкциите за употреба.
- проверка на закрепването на входните и изходните проводници срещу ефекта на електродинамични сили.
- Проверка на маркировката на устройството с обратно свързване с преупредителна табела с изключен прекъсвач, напрежението присъства на долните клеми на прекъсвача.

1.2 Дейности, които могат да бъдат извършвани от обучен оператор на потребителя в превантивна инспекция

- проверка на замърсяване на устройството, евентуална отстраняване на прах, както от проводящите и изолацираните части на устройството.
- Проверка на изолиращи прегради и тяхната подмяна, ако са повредени.
- Измерване на изолационното състояние. Най-сериозената повреда в експлоатация е изключяане на прекъсвача или предпазител поради късо съединение (в устройството или в разпределително табло има видими следи, оставени от прекъсва или прекъсващие секции на дъгата). След изключване на тока на късо съединение устройството не трябва да бъде използвано по-нататък, ако неговото Risul изолационното съпротивление се понижи под 2 MΩ Съпротивление на изолацията се измерва:
- с несвързани контакти между клеми 1-2, 3-4, 5-6
- със свързани контакти между клеми 1-3 и 3-5
- Измерване на повишаване на температурата на устройството на клемите и връзките на силовите проводници в таблото по време на работа. С номинално натоварване, съгласно стандарта ČSN EN 947-1,2 покачване на температурата на клемите не трябва да надвишава 70 K. Ако покачването на температурата на връзка е по-висока от
- 70 K е необходимо да се демонтира връзката, почистване на контактни повърхности, и затегане на връзката с предписания въртящ момент. (повишаване на температурата на клемата = температура на клемата - температурата на околната среда) каталожната референтна температура е 40 ° C).
- Проверка на затягане на винтовете на клемите със момент на затягане, в съответствие с инструкциите за употреба. •

1.3 Цялостен ремонт се извършва от отдел на OEZ
Веднъж на 5 години във важни и непрекъснати процеси.
Извършва се проверка на функционирането и се се издава сервизен доклад от OEZ.
Диагностиката и поддръжката се извършва по едно и също време

Хана Ваврова
Регионален мениджър експорт

OEZ s.r.o, Седивска 339, Летохрад,Чехия
тел.:+420 465 672 268, факс: +420 465 672 398 e-mail: hana.vavrova@oez.com,
www.oez.com

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ MIG 23 LTD

OEZ

GENERAL RECOMMENDATIONS FOR OEZ DEVICES

Preventive inspections of OEZ devices

1. General characteristic of OEZ devices

OEZ devices are designed as maintenance-free devices, however there are plants, where general or local safety regulations require regular preventive inspections of the devices in switchboards. Before putting new devices in service or in course of switchboard shutdown, we recommend checking whether the devices have operating conditions ensured as necessary for their correct functioning. The device operation and handling instructions are stated in the operation manual which is delivered together with the devices. The operation manuals can also be downloaded from www.oez.cz. Installation of the devices in the switchboard and the tests of correct function of the control circuits, if the device is equipped with them, can only be performed by persons with appropriate electrical qualification. The tests and prescribed inspections of the switchboard or of the entire plant can only be performed by persons with corresponding electrical qualification and relevant certification.

Electronic function of releases including their setting shall be verified by the personnel of the OEZ service department or by specialized firms. The condition of these activities is ownership of special test equipment.

Unless local operating regulations state otherwise, we recommend performing preventive inspections in intervals:

- once a year or
- after 1000 switching operations or
- after switching off a heavy short-circuit

1.1 Activities before putting a switchboard into operation

- Check of correct installation of the device in the switchboard according to documentation.
- Removal of foreign objects (filings, wire residues, tools, etc.), possibly evacuation of dust and conductive particles from insulating parts of the device.
- Check of tightening of terminal screws by tightening torque according to instructions for use.
- Check of fastening of inlet and outlet conductors against effect of electrodynamic forces.
- Check of marking of the device with reverse connection by a warning table (with circuit breaker switched off, voltage is present on lower terminals of the circuit breaker).

1.2 Activities that can be performed by trained operator of the user in preventive inspection

- Check of device contamination, possibly evacuation of dust, both from conductive and insulating parts of the device.
- Check of insulating covers and their replacement, if damaged.
- Measuring insulation state. The most serious failure in operation is switching the circuit breaker or fuse off due to short circuit (on the device or in the switchboard there are visible traces left by the

ВЯРНО С ОРИГИНАЛА MIG 23 LTD. MIG 23 ЕООД СОФИЯ

OEZ s.r.o.
Šedivská 339
561 51 Letohrad
Czech Republic

T +420 465 672 111
F +420 465 672 151
E mail:

oeztrade.cz@oez.com, www.oez.cz

interrupted column of the arc). After switching off the short-circuit current the device must not be further used, if its insulation resistance R_{isul} drops under 2 MΩ Insulation resistance is measured:

- with disconnected contacts between terminals 1-2, 3-4, 5-6
- with connected contacts between terminals 1-3 and 3-5
- Measuring temperature rise of the device terminals and connections of power conductors in the switchboard during operation. With rated load, according to standard ČSN EN 947-1,2 temperature rise of the terminals must not exceed 70 K . If temperature rise of a connection is higher than
- 70 K, it is necessary to demount the connection, clean contact surfaces, and tighten the connection by prescribed torque. (Terminal temperature rise = terminal temperature – ambient temperature [K, °C, °C] catalogue reference temperature is 40 °C).
- Check of tightening of terminal screws by tightening torque according to instructions for use.

1.3 Complete overhaul - shall be performed by the OEZ service

Once in 5 years in important and continuous processes.
The check of function is performed and the service report is issued by the OEZ service. Diagnostics and maintenance is performed in one-time operation.

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ MIG 23 LTD

OEZ s.r.o.
Šedivská 339
561 51 Letohrad
Czech Republic

T +420 465 672 111
F +420 465 672 151
E mail:

oeztrade.cz@oez.com, www.oez.cz

OEZ s.r.o
Седивска 339, Летохрад
Чехия

Летохрад, 25.06.2012

Инструкции за съхранение на апаратурата доставена от OEZ s.r.o

Устройствата не трябва да се съхраняват в среда с висока влажност на въздуха , наличието на корозивни вещества или резки промени на температурата и кондензни изпарения. Устройствата са доставени и трябва да се съхраняват в разединено състояние.

Устройството трябва да се съхранява в среда със следните параметри като CSN EN 60721-3-1 : 1K2 / 1Z1 / 1B1 / 1C2 / 1S2 / 1M2 .

Иван Ханзал
Регионален мениджър експорт

OEZ s.r.o, Седивска 339, Летохрад,Чехия
тел.:+420 465 672 268, факс: +420 465 672 398 e-mail:
hana.vavrova@oez.com, www.oez.com

ВЯРНО С ОРИГИНАЛА

1138

OEZ

OEZ s.r.o

Sedivska 339, Letohrad,

Czech Republic

Letohrad, 25. 6. 2012

INSTRUCTIONS FOR STORAGE FOR THE DEVICES DELIVERED BY OEZ s.r.o.

The devices must not be stored in the environment with high humidity, presence of corrosive substances or rapid changes of temperature and condensing vapours. The devices are delivered and must be stored in disengaged condition.

The device must be store in an environment with the following parameters as ČSN EN 60721-3-1: 1K2/1Z1/1B1/1C2/1S2/1M2.

OEZ s. r. o.
Šedivská 339, Letohrad 561 51

на основание чл. 2 от ЗЗЛД

Ivan
Reg

OEZ s.r.o., Sedivska 339, 561 51 Letohrad, Czech Republic
phone: +420 465 672 268, fax: +420 465 672 398, e-mail: ivan.hanzl@oez.com , www.oez.com

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД • СОФИЯ • MIG 23 LTD •

OEZ s.r.o.
Šedivská 339
561 51 Letohrad
Czech Republic

T +420 465 672 111
F +420 465 672 151
E mail: oeztrade.cz@oez.com, www.oez.cz

OEZ s.r.o
Седивска 339, Летохрад
Чехия

Летохрад, 25.06.2012

Инструкции за транспорт на апаратурата доставена от OEZ s.r.o

Условията на транспортиране са в съответствие с Инкотермс 2000, подразделени и публикувани от Международната камера за търговия. Всяка търговска фактура, издадена от OEZ s.r.o точно спесифицира предварително уговорените условия на доставка.

Иван Ханзал
Регионален мениджър експорт

OEZ s.r.o, Седивска 339, Летохрад,Чехия
тел.:+420 465 672 268, факс: +420 465 672 398 e-mail:
hana.vavrova@oez.com, www.oez.com

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ MIG 23 LTD

OEZ

OEZ s.r.o

Sedivska 339, Letohrad,

Czech Republic

Letohrad, 25. 6. 2012

INSTRUCTIONS FOR TRANSPORTATION FOR THE DEVICES DELIVERED BY OEZ s.r.o.

The devices must not be transported in the environment with high humidity, presence of corrosive substances or rapid changes of temperature and condensing vapours. The devices are delivered and must be stored in disengaged condition.

The devices must be transporte in an environment with the following parameters as EN 60721-3-1.

Transport conditions are treated in compliance with the Incoterms 2010 devised and published by the International Chamber of Commerce. Each commercial invoice issued by OEZ s.r.o. clearly specify the beforehand agreed delivery term.

OEZ®
OEZ s. r. o.
Šedivská 339, Letohrad 561 51
Česká republika
IČO: 49810146, DIČ: CZ49810146

Ivan Ha
Region

На основание чл. 2 от ЗЗЛД

OEZ s.r.o., Šedivská 339, 561 51 Letohrad, Czech Republic
phone: +420 465 672 268, fax: +420 465 672 398, e-mail: ivan.hanzl@oez.com , www.oez.com

ВЯРНО С ОРИГИНАЛА

ММГ 23 ЕООД СОФИЯ MIG 23 LTD

OEZ s.r.o.
Šedivská 339
561 51 Letohrad
Czech Republic

T +420 465 672 111
F +420 465 672 151
E mail: oeztrade.cz@oez.com, www.oez.cz

Наименование на материала:
Комплект измервателен клемен блок с клеми за медни проводници от проходен тип и 1P, 3P или 3P+N стопяеми цилиндрични предпазител-прекъсвач-разединители

№ по ред	Документ	Приложение № или текст
1.	Точно означение на типа, производителя и страната на производство (произход) и последно издание на каталога на производителя	Клеморед Тип 0055, Вайдбул, Приложение 1
2.	Техническо описание и чертежи с нанесени на тях размери	Приложение 2
3.	ЕО декларация за съответствие	Приложение 3
4.	Протоколи от типови изпитвания на английски или български език съответно за 1P, 3P или 3P+N стопяеми цилиндрични предпазител-прекъсвач-разединители и клемните блокове, проведени от независима изпитвателна лаборатория – заверени копия, с приложен списък на отделните изпитвания на български език	Приложение 4
5.	Сертификат/акредитация на независимата изпитвателна лаборатория, провела типовите изпитвания по т. 4 – заверено копие	Приложение 5

на основание чл. 2 от ЗЗЛД

Управител
/Антон Илиев/

Вайд-Бул ЕООД

Weid-Bul

гр. София 1756, бул. Св. Климент Охридски" №13 тел. 02/963 25 60 факс. 02/963 10 98
www.weidbul.com

Означение на типа, производителя и страната на производство (произход)

Тип 0055 - Комплект измервателен клемен блок с клеми за медни проводници от проходен тип и 1P, 3P или 3P+N стопяеми цилиндрични предпазител-прекъсвач-разединители

№	ТИП	КАТ. №	ПРОИЗВОДИТЕЛ	СТРАНА - ПРОИЗХОД
1	WTL 6/1 Клема измервателна, делима	1016700000	Вайдмюлер	Чехия
2	WAP WTL 6/1 Крайна плочка	1068300000	Вайдмюлер	Румъния
3	WTW WTL 6/1 Разделителна стена	1068400000	Вайдмюлер	Румъния
4	QVS 2 Двуполюсен мост подвижен	0307300000	Вайдмюлер	Германия
5	VH 19 Втулка	0318000000	Вайдмюлер	Германия
6	STB35 Гнездо за сонда жълто	0389000000	Вайдмюлер	Германия
7	STB35 Гнездо за сонда зелено	0388900000	Вайдмюлер	Германия
8	STB35 Гнездо за сонда червено	0388800000	Вайдмюлер	Германия
9	BS 25 Винт за мост	0334700000	Вайдмюлер	Германия
10	Stb 25 SW Гнездо за сонда черно	0271500000	Вайдмюлер	Германия
11	Stb 14 Гнездо за сонда	0169900000	Вайдмюлер	Германия
12	DEK 5 GW N Маркировка за клема	0522761034	Вайдмюлер	Германия
13	DEK 5/5 MC-10 NEUT. WS Маркировка за клема, бяла, надписана	1609801044	Вайдмюлер	Германия
14	Шина симетрична, перфорирана 35x7,5x2000	BK3593-35Z	Балди	Италия
15	Основа за предпазител 10x38 3P 32A 690V	8033	OEZ	Чехия
16	Предпазител вложка PV 10x38 4A gG 500V	6693	OEZ	Чехия
17	Краен притискач с винтове	P60228	Вайд-Бул	България
18	Защитен монолитен капак IP4x	K1008000	Вайд-Бул	България

на основание чл. 2 от ЗЗЛД

гр. София ,
дата: 17. 01 . 2017 г

.....

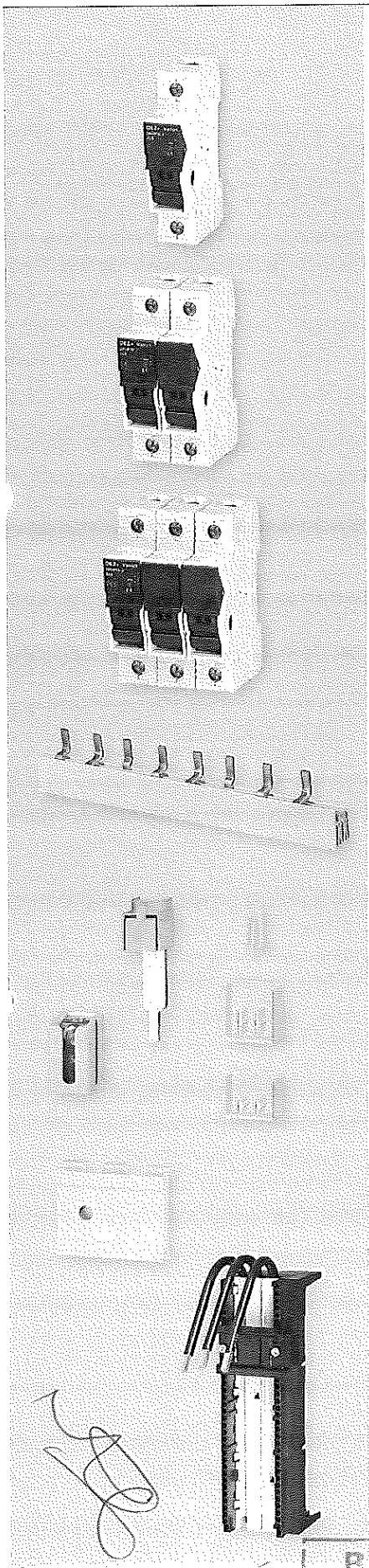
инж. П. Ценов – продуктов мениджър

/фамилия, длъжност и подпис на произв. или негов представител/

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД • MIG 23 LTD • СОФИЯ

FUSE SWITCH-DISCONNECTORS OPVP10 UP TO 32 A



- Fuse switch-disconnectors OPVP10 are intended for cylindrical fuse-links size 10x38.
- They can safely switch off rated current and overcurrent. Devices meet the requirements for safe disconnection.
- Inverse connection is permissible and it affects neither the technical parameters nor the safety of the operator.
- Fuse switch-disconnectors OPVP10 can be sealed in the closed state.
- The devices are designed as modular for 45 mm cutout in the switchboard.
- Mounted on „U" rail of type TH35 according to EN 60715.
- Switch-Disconnector design ...-S features LED signalization of the state of fuse-link for each pole.
- Fuse-link state can also be indicated by means of MD-M3 electronic signalling.

Fuse switch-disconnectors

Type	Order code	I_n [A]	Number of poles	Weight [kg]	Package [pcs]
OPVP10-1	OEZ:41013	32	1	0.063	12
OPVP10-1-S	OEZ:43683		1	0.068	12
OPVP10-1N	OEZ:43686		1+N	0.133	6
OPVP10-2	OEZ:41014		2	0.128	6
OPVP10-2-S	OEZ:43684		2	0.137	6
OPVP10-3	OEZ:41015		3	0.193	4
OPVP10-3-S	OEZ:43685		3	0.193	4
OPVP10-3N	OEZ:43687		3+N	0.271	3

Accessories

Description	Type	Order code	Weight [kg]	Package [pcs]
1-pole interconnecting busbar, cross-section 10 mm², max. current 63 A rated operating voltage AC 690 V / DC 1 000 V, length 210 mm	**S1L-210-10**	OEZ:38475	0.047	50
1-pole interconnecting busbar, průřez 16 mm², max. current 80 A rated operating voltage AC 690 V / DC 1 000 V, length 1 m	**S1L-1000-16**	OEZ:37375	0.302	50
2-pole interconnecting busbar, cross-section 10 mm², max. current 63 A rated operating voltage AC 415 V, length 210 mm	**S2L-210-10**	OEZ:38476	0.110	20
2-pole interconnecting busbar, cross-section 16 mm², max. current 80 A rated operating voltage AC 415 V, length 1 m	**S2L-1000-16**	OEZ:37378	0.447	20
3-pole interconnecting busbar, cross-section 10 mm², max. current 63 A rated operating voltage AC 415 V, length 210 mm	**S3L-210-10**	OEZ:38482	0.110	25
3-pole interconnecting busbar, cross-section 16 mm², max. current 80 A rated operating voltage AC 415 V, length 1 m	**S3L-1000-16**	OEZ:37379	0.737	20
End cap, for single-pole busbars of cross-section 10, 16 mm²	**EKC-1**	OEZ:37383	0.0005	10
End cap, for 2-pole and 3-pole rails 16 mm²	**EKC-2+3**	OEZ:37384	0.001	10
End cap, for 3-pole rails of cross-section 10 mm²	**EKC-3**	OEZ:37385	0.001	10
Terminal extension, with long terminal, cross-section Cu 6 ÷ 50 mm²	**AL-50-S-L**	OEZ:63149	0.033	1
Connection block, enables power supply of interconnecting busbars by conductors of cross-section up to 35 mm², the use of the block extends the mounting with by additional N-poles	**ES-35-GS**	OEZ:37388	0.03	10
Adapter on „U" rail TH35, for OPVP10	**OD-OPV-AD45**	OEZ:43148	0.008	1
Adapter for busbar system with spacing 60 mm, busbar thickness 5 or 10 mm, busbar width 12 ÷ 30 mm, cable outlet bottom, max. current 63 A	**GA-60/63/54-1x7,5**	OEZ:11883	0.56	1

Specifications

Rated operating current	I_e		32 A
Rated operating voltage	U_e		AC 690 V / DC 440 V
LED signalling voltage range			AC/DC 110 ÷ 690 V
Utilization category		AC 400 V	AC-21B
		AC 690 V	AC-20B
		DC 250 V	DC-21B
Rated thermal current with fuse-link	I_{th}		32 A
Rated frequency	f_n		50 ÷ 60 Hz
Rated insulation voltage	U_i		AC 800 V
Rated conditional short-circuit current with fuse-links PV (RMS)	I_{cc}	AC 400 V	100 kA
		AC 690 V	50 kA
Rated impulse withstand voltage	U_{imp}		6 kV
Fuse-link size	diameter x length		10x38
Max. power losses of the fuse-link	P_v		4.3 W
Rated short-time withstand current	I_{cw} 1 s		1.6 kA
Rated short-circuit making capacity at DC 440 V	I_{cm}		3.5 kA

FUSE SWITCH-DISCONNECTORS OPVP10 UP TO 32 A

Specifications

Electrical endurance	operating cycles	300
Mechanical endurance	operating cycles	2 000
Degree of protection from front side, built-in device, cover closed		IP20
Connection cross-section		Cu / 0.75 ÷ 25 mm² 2x (6 ÷ 16) stranded in the same size
Torque		2 ÷ 2.5 Nm
Operating ambient temperature	t	-25 ÷ +55 °C
Max. sea level		2 000 m
Seismic resistance according to VE ŠKODA		3 g / 8 ÷ 50 Hz
Overvoltage category / Rated voltage		I(II*) / AC 690 V, II(III*) / AC 500 V, III / AC 400 V
Standards		IEC 60947-1, -3; EN 60947-1, -3
Approval marks		

* For underground cable distribution systems with overvoltage protection or for exposure to a low thunderstorm electricity (table H2 EN 60947-1, IEC 60947-1).

EN 60947-3 ed. 2/A2, p. C.5 Instructions for the use of 1-pole controlled devices states:
These devices are intended for distribution systems, with possible necessity of switching and/or safe disconnection of individual phases, and must not be used for switching a primary circuit of a three-phase equipment.

Reduction of rated current of fuse-links PV gG, aM according to the number of poles

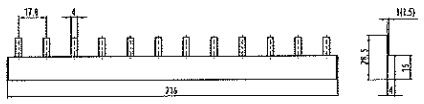
Type	I_n [A]	Reduced rated current [A] (number of poles)					
		1	2	3	5	7	10
OPVP10	32	32	32	32	32	32	32

Fuse switch-disconnector with disconnecting link

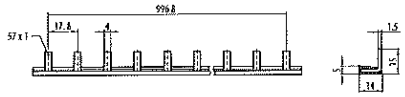
Rated operating current	I_e		32 A
Thermal current with disconnecting link ZPV10	I_{th}		100 / 25 mm²
Utilization category			AC-20B
Rated short-time withstand current	I_{cw} 1 s		1.6 kA
Rated short-circuit making capacity	I_m	AC 690 V	3.5 kA
		DC 440 V	4 kA
Power losses with disconnecting link at I_e	P_v		4.5 W
Connection cross-section			0.75 ÷ 25 mm²

Interconnecting busbars

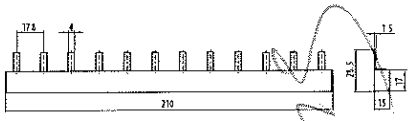
S1L-210-10



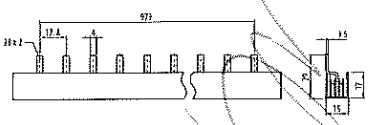
S1L-1000-16



S2L-210-10

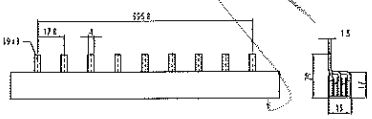


S2L-1000-16

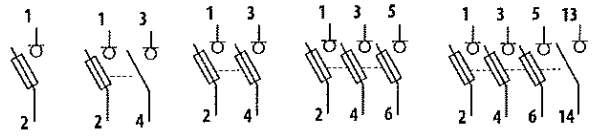


S3L-210-10

S3L-1000-16

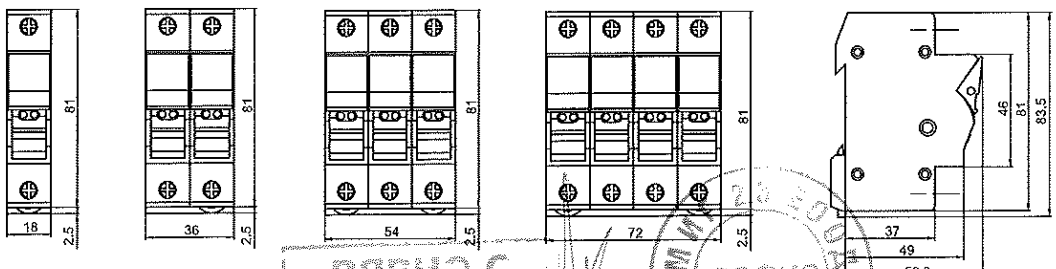


Diagram



1-pole 1N-pole 2-pole 3-pole 3N-pole

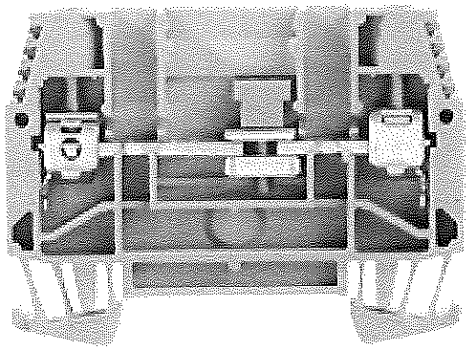
Dimensions



Weidmüller

W-Series
WTL 6/1

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com



Special instruments are required for measuring electrical energy. One wrong connection during maintenance work is enough to ruin a current transformer! Disconnect test terminals represent a reliable way of solving this problem. As a leading supplier of line connectors, Weidmüller has developed special disconnect test terminals in close cooperation with users. These modular terminals ensure optimum realisation of all important circuits for the measurement of current, voltage and energy. Different current transformer circuits, e.g. for replacing measuring instruments or electricity meters, can be implemented. Besides disconnect test terminals with screw or tension clamp connections, Weidmüller also has a comprehensive range of accessories, including test adapters, cross-connections and markers for the testing of 3-phase and AC circuits as well as voltages.

General ordering data

Type	WTL 6/1
Order No.	1016700000
Version	W-Series, Test-disconnect terminal, Rated cross-section: 6 mm², Screw connection
GTIN (EAN)	4008190151171
Qty.	50 pc(s).

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ MIG 23 LTD

Weidmüller

W-Series
WTL 6/1

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Technical data

Dimensions and weights

Length	65 mm	Width	7.9 mm
Height of lowest version	48.5 mm	Net weight	19.78 g

Temperatures

Operating temperature		Storage temperature	
Continuous operating temp., min.	-50 °C	Continuous operating temp., max.	120 °C

2 clampable wires (H05V/H07V) same cross-section (rated connection)

Wire connection cross section, finely stranded, two clampable wires, min.	0.5 mm²	Wire cross-section, finely stranded, two clampable wires, max.	2.5 mm²
Wire connection cross section, finely stranded with wire-end ferrules DIN 46228/1, 2 clampable wires, min.	0.5 mm²	Wire connection cross section, finely stranded with wire-end ferrules DIN 46228/1, 2 clampable wires, max.	2.5 mm²

Additional technical data

Explosion-tested version	No	Number of similar terminals	1
Open sides	right	Type of mounting	Snap-on
Version	Screw connection, Disconnection element, for screwable cross-connection, One end without connector		

CSA ratings data

Certificate No. (CSA)	200039-1057876	Voltage size C (CSA)	300 V
Voltage size D (CSA)	600 V	Current size C (CSA)	45 A
Current size D (CSA)	5 A	Wire cross section max. (CSA)	8 AWG
Wire cross section min. (CSA)	20 AWG		

Clampable wires (additional connection)

Conductor cross-section, flexible plus plastic collar DIN 46228/1, further connection, min.	0.5 mm²	Conductor cross-section, flexible plus plastic collar DIN 46228/1, further connection, max.	6 mm²

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД · СОФИЯ · MIG 23 LTD

Creation date November 17, 2013 7:12:39 AM CET

Weidmüller

W-Series
WTL 6/1

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Technical data

Clampable wires (rated connection)

Type of connection	Screw connection	Stripping length	12 mm
Blade size	0.8 x 4.0 mm	Connection direction	on side
Number of connections	2	Clamping range, rated connection, min.	0.5 mm²
Clamping range, rated connection, max.	10 mm²	Clamping screw	M 3.5
Tightening torque, min.	1 Nm	Tightening torque, max.	1.6 Nm
Torque level with DMS electric screwdriver	3	Gauge to IEC 60947-1	A5
Wire connection cross section, solid core, max. rated connection	0.5 mm²	Wire connection cross section, solid core max. rated connection	10 mm²
Wire connection cross section, stranded, rated connection, min.	1.5 mm²	Wire connection cross section, stranded, rated connection, max.	10 mm²
Wire connection cross section, finely stranded, max.	10 mm²	Wire connection cross-section, finely stranded, min.	0.5 mm²
Wire connection cross section, finely stranded with wire-end ferrules DIN 46228/1, rated connection, min.	0.5 mm²	Wire connection cross section, finely stranded with wire-end ferrules DIN 46228/1, rated connection, max.	6 mm²
Cross-section for connected conductor, finely stranded with wire-end ferrules and plastic collars DIN 46228/4, rated connection, min.	0.5 mm²	Wire connection cross-section, finely stranded with wire-end ferrules and plastic collars DIN 46228/4, rated connection, max.	6 mm²
Wire connection cross section AWG, min.	AWG 20	Wire connection cross section AWG, max.	AWG 8

Disconnect terminals

Cross-disconnect	sliding	Integral test socket	No
Slitting	sliding	Tightening torque, max.	1.6 Nm
Tightening torque, min.	1 Nm	Torque level with DMS electric screwdriver	3

Rated data

Rated cross-section	6 mm²	Rated voltage	630 V
Rated impulse withstand voltage	6 kV	Rated current	41 A
Current at maximum wires	57 A	Pollution severity	3

UL ratings data

Certificate No. (UR)	E60693	Voltage size C (UR)	300 V
Current size C (UR)	45 A	Conductor size Factory wiring max. (UR)	8 AWG
Conductor size Factory wiring min. (UR)	20 AWG	Conductor size Field wiring max. (UR)	8 AWG

Material data

Material	Wemid	Colour	Dark Beige
UL 94 flammability rating	V-0		

System specifications

Product family	W-Series	Type of connection	Screw connection
Connection direction	on side	Number of levels	1
Number of connections	2	No. of clamping points per level	2
Levels cross-connected internally	No	Mounting rail	TS 35
End cover plate required	Yes		

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ MIG 23 LTD

Creation date November 17, 2013 7:12:39 AM CET

Weidmüller

W-Series
WTL 6/1

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Technical data

Classifications

ETIM 3.0	EC000902	UNSPSC	30-21-18-11
eClass 5.1	27-14-11-26	eClass 6.2	27-14-11-26
eClass 7.1	27-14-11-26		

Product information

Descriptive text ordering data	TS32 version on request
Descriptive text technical data	Use as 500 V disconnect terminal. Wire connection H07V-K10, H07V-R10 and AWG 8/7 with tightening torque of 1.4 Nm.

Approvals

Approvals	ME25
ROHS	Conform

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД · СОФИЯ · MIG 23 LTD

Creation date November 17, 2013 7:12:39 AM CET

Weidmüller

W-Series
WTL 6/1

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Drawings

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ МИГ 23 LTD

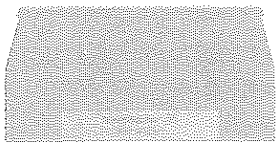
Weidmüller

W-Series
WTL 6/1

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Accessories

WAP WTL 6/1



The versatile and extensive range of products - from 0.05 mm² to 300 mm² - means that you have diverse options for your applications at your disposal.
Hardened steel for mechanical strength and high-quality tinned copper for optimum conductivity. All materials comply with RoHS requirements and have been tested to current environment guidelines.

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
WAP WTL6/1	1068300000	W-Series, Accessories, End plate	4008190088330	20 pc(s).

Blank

The dekafix (DEK) marker is the universal marker for all conductor and plug-in connectors as well as for electronic sub-assemblies. The system is ideal for short number sequences and covers a large range of ready-printed markers.
Strips for fast installation in one work step. The printing is easy to read, rich in contrast, and is available in five widths.

- Large range of ready-to-use markers
- Strips for fast installation
- Connector markers, suitable for all Weidmüller cable connectors
- Available as blank cards, MultiCard or as cards with standard printing

General ordering data

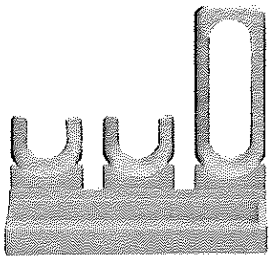
Type	Order No.	Version	GTIN (EAN)	Qty.
DEK 5/8 MC NE WS	1856740000	Terminal markers, MultiCard, 5 x 8 mm, Polyamide 66, Colour: White	4032248400850	800 pc(s).

W-Series
WTL 6/1

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Accessories

Cross-connection slider



The versatile and extensive range of products - from 0.05 mm² to 300 mm² - means that you have diverse options for your applications at your disposal.
Hardened steel for mechanical strength and high-quality tinned copper for optimum conductivity. All materials comply with RoHS requirements and have been tested to current environment guidelines.

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
QVS 2 SAKT1+2	0307300000	SAK Series, Accessories, Cross-connector, Cross-connector, No. of poles: 2	4008190036140	20 pc(s).
QVS 3 SAKT1+2	0329300000	SAK Series, Accessories, Cross-connector, Cross-connector, No. of poles: 3	4008190084714	20 pc(s).

WQV 6

The versatile and extensive range of products - from 0.05 mm² to 300 mm² - means that you have diverse options for your applications at your disposal.
Hardened steel for mechanical strength and high-quality tinned copper for optimum conductivity. All materials comply with RoHS requirements and have been tested to current environment guidelines.

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
WQV 6/10	1052260000	W-Series, Accessories, Cross-connector, For the terminals, No. of poles: 10	4008190153977	20 pc(s).
WQV 6/2	1052360000	W-Series, Accessories, Cross-connector, For the terminals, No. of poles: 2	4008190075866	50 pc(s).
WQV 6/3	1054760000	W-Series, Accessories, Cross-connector, For the terminals, No. of poles: 3	4008190174163	50 pc(s).
WQV 6/4	1054860000	W-Series, Accessories, Cross-connector, For the terminals, No. of poles: 4	4008190180799	50 pc(s).

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД · СОФИЯ · MIG 23 LTD

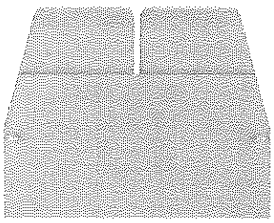
Creation date November 17, 2013 7:12:39 AM CET

W-Series
WTL 6/1

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Accessories

WTW WTL 6.1

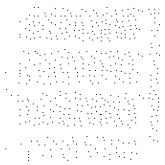


The versatile and extensive range of products - from 0.05 mm² to 300 mm² - means that you have diverse options for your applications at your disposal.
Hardened steel for mechanical strength and high-quality tinned copper for optimum conductivity. All materials comply with RoHS requirements and have been tested to current environment guidelines.

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
WTW WTL6/1 DB	1068400000	W-Series, Accessories, Test adapter	4008190091996	20 pc(s).

Blank



WS markers are the perfect match for the W-series connectors. Thanks to their system compatibility, the WS tags can also be used with the I-series and the Z-series. The large marking surfaces do not only permit long character strings but also multi-line text.
WS markers are ideal for labels with long, customised character strings. Thanks to the proven MultiCard format, printing with laser printer, PrintJet ADVANCED, plotter or MC-Mobilo is possible.
- Can be fitted in strips or individually
- Markers in proven MultiCard format

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
WS 12/6.5 MC NE WS	1609920000	Terminal markers, MultiCard, 12 x 6.5 mm, Polyamide 66, Colour: White	4008190203511	640 pc(s).

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ MIG 23 LTD

W-Series
WTL 6/1

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Accessories

connecting sleeve

Some 60% of all modular terminals have a cross-connection.
Weidmüller has a huge range of solutions on offer.

VH 12/4.9/3.3 024900

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
VH 19/6/4.2 SAKT1	0318000000	SAK Series, Accessories, Connecting sleeve, for cross-connection link, No. of poles: 1	4008190059460	50 pc(s).

StB 35

The SAKR disconnect terminals are available already fitted with sockets (see disconnect terminals). The sockets are equipped with a slit so that they can be actuated with a screwdriver. Weidmüller can supply special screwdrivers with a shoulder for this purpose.

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
STB 35 IH/BL	0388700000	SAK Series, Accessories, Socket	4008190082383	50 pc(s).
STB 35 IH/VI	0389100000	SAK Series, Accessories, Socket	4008190137755	50 pc(s).
STB 35 IH/GE	0389000000	SAK Series, Accessories, Socket	4008190396985	50 pc(s).
STB 35 IH/GN	0388900000	SAK Series, Accessories, Socket	4008190010409	50 pc(s).

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД · СОФИЯ · MIG 23 LTD

Creation date November 17, 2013 7:12:39 AM CET

Вайд-Бул ЕООД

Weid-Bul

гр. София 1756, бул. Св. Климент Охридски" №13 тел. 02/963 25 60 факс. 02/963 10 98
www.weidbul.com

ТЕХНИЧЕСКО ОПИСАНИЕ

Тип 0055 - Комплект измервателен клемен блок с клеми за медни проводници от проходен тип и 1P, 3P или 3P+N стопяеми цилиндрични предпазител-прекъсвач-разединители

№	Наименование, описание и технически характеристики	Кат. №
	Общи данни за клеми Неотслабваща сила на притискане на проводника при вибрации и стареене Отговаря на EN 60947-7-1 (виж Приложение 20) С винтова връзка за свързване на проводника С висока устойчивост на чупене Изолационен материал на клемите WEMID Устойчивост на токове на утечка ≥ CTI 600 Работна температура - -50°C ...+120°C Клас на горимост по UL 94 V0, самозагасящ материал, Без вредни съставки по Ro Hs Устойчивост срещу електролитна корозия	
1	**WTL 6/1** Измервателна делима клема с възможност за разкъсване на веригата в клемата и монтиране на по едно стандартно гнездо от двете страни на клемата, за присъединяване на външна измервателна апаратура с размер на отвора Ф 4 mm; възможност за мостова връзка между клемите; с монтирани гнезда за сонди . Номинални данни по IEC 60947-7-1 / VDE 0100-537: напрежение - 630 V; ток - 41 A; импулсно напрежение - 6000 V; максимален ток - 57 A; максимално сечение на проводника - 10 mm²	1016700000
2	**WAP WTL 6/1** Крайна капачка за клема WTL 6/1 дебелина 1,5 mm, материал - WEMID	1068300000
3	**WTW WTL 6/1** Разделителна стена за клема WTL 6/1 дебелина 1,5 mm, материал - WEMID	1068400000
4	**QVS 2** мост, двуполюсен, подвижен, изолиран, монтира се с винтове,	0307300000
5	**VH 19** Втулка съединителна, за свързване на мост	0318000000
6	**STB35** Гнездо за сонда жълто	0389000000
7	**STB35** Гнездо за сонда зелено	0388900000
8	**STB35** Гнездо за сонда червено	0388800000
9	**BS 25** Винт за мост	0334700000
10	**Stb 25 SW** Гнездо за сонда черно	0271500000
11	**Stb 14** Гнездо безцветно	0169900000
12	**DEK 5 GW N** Маркировка за клема	0522761034
13	**DEK 5/5 MC-10 NEUT. WS** Маркировка за клема, бяла, надписана	1609801044
14	Шина симетрична, перфорирана 35x7,5x2000	BK3593-35Z
15	Основа за предпазител 10x38 3P 32A 690V	8033
16	Предпазител вложка PV 10x38 4A gG 500V	6693
17	Краен притискач с винтове	[illegible]
18	Защитен монолитен капак IP4x	[illegible]

на основание чл. 2 от ЗЗЛД

Съставил:
инж. П. Ценов – продуктов мениджър

ВЯРНО С ОРИГИНАЛА

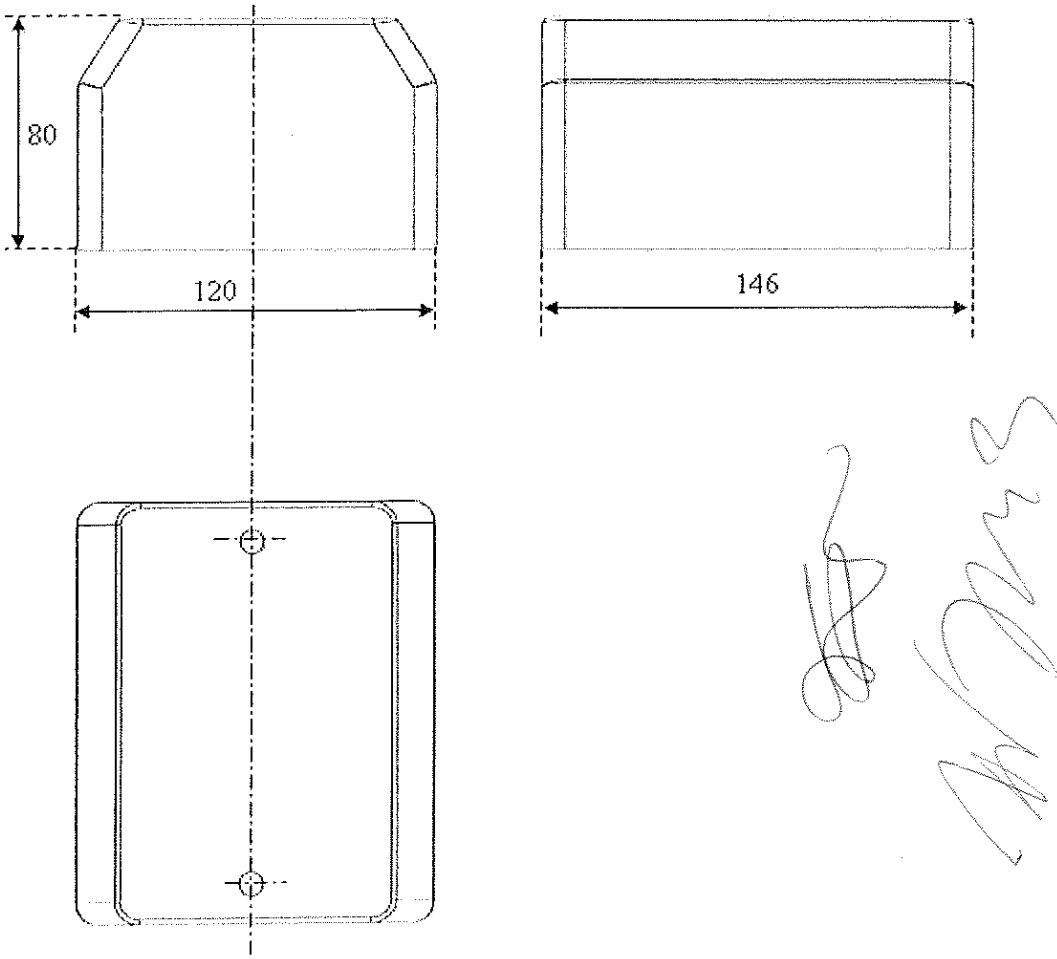
Вайд-Бул ЕООД

Weid-Bul

гр. София 1756, бул. Св. Климент Охридски" №13 тел. 02/963 25 60 факс. 02/963 10 98
www.weidbul.com

ЧЕРТЕЖ С НАНЕСЕНИ РАЗМЕРИ

Комплект измервателен клемен блок с клеми за медни проводници от проходен тип и 1P, 3P или 3P+N стопяеми цилиндрични предпазител-прекъсвач-разединители



на основание чл. 2 от ЗЗЛД

гр. София ,
дата: 17. 01 . 2017 г

.....

инж. П. Ценов – продуктов мениджър

/фамилия, длъжност и подпис на произв. или негов представител/

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД • СОФИЯ • MIG 23 LTD

1156

Вайд-Бул ЕООД

Weid-Bul

гр. София 1756, бул. Св. Климент Охридски" №13 тел. 02/963 25 60 факс. 02/963 10 98
www.weidbul.com

Инструкции за транспортиране, складиране, монтиране, вкл. въртящия момент на затягане на клемовите съединения, обслужване и поддържане

I. Материалите се доставят пакетирани в кутии и кашони. Всяка опаковка е удобна за транспортиране и съхранение. За запазване цялостта на опаковките не се изискват специални условия на транспорт и складиране.

II. При транспорт:

II. Да не се подлагат на преки атмосферни влияния – дъжд, сняг.
III. Товаро-разтоварните работи да се извършват в сухо време.
IV. Да се транспортират внимателно в стандартната си опаковка и да не се хвърлят или притискат силно.

III. Правилно складиране:

Редът и начинът за приемане, съхранение на материалите е съгласно Наредба №7 за проучване и доставка на машини и съоръжение към Правилника за капитално строителство и съгласно стандартизационните документи.

1. Материалите да се съхраняват в закрити, сухи помещения, годни за складиране на електрически материали.
2. Да не се подлагат на преки атмосферни влияния – дъжд, сняг.
3. В отворена кутия трябва да се вземат мерки за отстраняване на възможността за попадане на прах, пепел и др.
4. Температурен диапазон в помещението - (-5°C до +40°C)
5. Относителна влажност в помещението – до 50% при 40°C, 90% при 20°C
6. Чистота на средата – чиста от химически активни или агресивни компоненти, действащи разрушаващо на електрическата изолация и тоководещите части

IV. Монтаж

Монтажът на оборудването се осъществява върху стандартна DIN-шина.
Монтажът, демонтажът и работата с предпазител-прекъсвачи със стопяеми цилиндрични вложки трябва да се извършва единствено и само от квалифициран и оправомощен за това персонал. Задължително е да се вземат мерки за безопасност съгласно утвърдените наредби и правилници и да се осигуряват изискваните лични предпазни средства при работа по електрически мрежи. Не се допуска да се прави опит за ремонт или модификация на оборудването.
Въртящият момент на затягане на клемовите съединения е 2Nm.

V. Обслужване и поддържане

Предпазител-прекъсвачи със стопяеми цилиндрични вложки не изискват специална поддръжка. Необходимо е периодично да се проверява целостта на вложката и при необходимост тя да бъде подменена.

на основание чл. 2 от ЗЗЛД

гр. София

17.01.2017г.

Съставил: .....

инж. Петър Ценов

ВЯРНО С ОРИГИНАЛА

MIG 23 EOOД • MIG 23 LTD • СОФИЯ

1157

ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ

Аз (Ние) „ВАЙД БУЛ" ЕООД
(наименование на доставчика)

гр. София 1756 бул. „Свети Климент Охридски" № 13
(адрес)

декларирам(е) на собствена отговорност, че продуктът

Измервателен клемен блок с токови и напреженови клеми тип WTL и аксесоари към тях
(наименование, тип или модел, номер на партидата, извадката)

Производство на: Weidmüller - Германия
(пробата) или серията, евентуално произход и брой на екземплярите)

за който се отнася тази декларация, е в съответствие със следния(те) стандарт(и):
IEC 60695-2-2, IEC60947-7-1, IEC60947-7-2, IEC60947-1, EN 50019

или друг(и) нормативен(ни) документ(и):

ISO 9001:2008
(наименование и/или номер и дата на издаване на стандарта(тите) или друг(и) нормативен(ни) документ(и))

на основание чл. 2 от ЗЗЛД

17.01.2017 г, гр. София
(място и дата на издаване)

инж. Петър Ценов
(фамилия и подпис на упълномощено лице)

Weld-Bul
София

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД
СОФИЯ
MIG 23 LTD

1158

Test Report issued under the responsibility of:

VDE

TEST REPORT
IEC 60947-3
Low-voltage switchgear and controlgear
Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units

Report Reference No. ..... :	249800-4402-0705/152633
Date of issue..... :	2011-12-12
Total number of pages ..... :	116
CB Testing Laboratory..... :	**VDE Prüf- und Zertifizierungsinstitut GmbH** VDE Testing and Certification Institute
Address ..... :	Merianstraße 28 · 63069 Offenbach , Germany
Applicant's name..... :	Wöhner GmbH & Co. KG Elektrotechnische Systeme
Address ..... :	Mönchrödener Straße 10, 96472 Rödental, Germany
Test specification:	
Standard..... :	IEC 60947-3: 3rd Edition (2008) in conjunction with IEC 60947-1: 5th Edition (2007)
Test procedure ..... :	CB
Non-standard test method..... :	N/A
Test Report Form No. ..... :	IEC60947_3B
Test Report Form(s) Originator ..... :	OVE
Master TRF ..... :	Dated 2009-08

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

Test item description ..... :	Fuse-switch-disconnector
Trade Mark ..... :	**wöhner**
Manufacturer ..... :	Wöhner GmbH & Co. KG Elektrotechnische Systeme
Model/Type reference..... :	AES 10x38
Ratings ..... :	See page 6 and 7

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЛТД СОФИЯ

Testing procedure and testing location:	
☒ **CB Testing Laboratory:**	**VDE Prüf- und Zertifizierungsinstitut GmbH** **VDE** Testing and Certification Institute
Testing location/ address ..... :	Merianstraße 28 , 63069 Offenbach , Germany
☒ **Associated CB Test Laboratory:**	**IPH Institut** "Prüffeld für elektrische Hochleistungstechnik" GmbH
Testing location/ address ..... :	Landsberger Allee 378 A , 12681 Berlin , Germany
Tested by (name + signature) ..... :	H. Schmidt
Approved by (+ signature) ..... :	T. Kohushölter
☐ Testing procedure: TMP	
Testing location/ address ..... :	
Tested by (name + signature) ..... :	
Approved by (+ signature) ..... :	
☐ Testing procedure: WMT	
Testing location/ address ..... :	
Tested by (name + signature) ..... :	
Witnessed by (+ signature) ..... :	
Approved by (+ signature) ..... :	
☐ Testing procedure: SMT	
Testing location/ address ..... :	
Tested by (name + signature) ..... :	
Approved by (+ signature) ..... :	
Supervised by (+ signature) ..... :	
☐ Testing procedure: RMT	
Testing location/ address ..... :	
Tested by (name + signature) ..... :	
Approved by (+ signature) ..... :	
Supervised by (+ signature) ..... :	

на основание чл. 2 от ЗЗЛД

ВЯРНО С ОРИГИНАЛА

MIG 23 EOOД СОФИЯ MIG 23 LTD

Summary of testing:

The tests are carried-out according to IEC 60947-1 (ed.5);am1:2010-12 and IEC 60947-3 (ed.3).

Tests performed (name of test and test clause):	**Testing location:**
Clause 7.1 (Construction)	**VDE Testing and Certification Institute**
Test sequence I:	**IPH Institut**
Sample No.1: AC-21B, 500 V, 25 A, 1-pole	see page 16 - 20
Sample No.2: AC-21B, 690 V, 10 A, 1-pole	see page 21 - 25
Sample No.3: AC-22B, 400 V, 32 A, 1-pole	see page 26 - 30
Sample No.4: AC-22B, 400 V, 32 A, 2-pole	see page 31 - 35
Sample No.5: AC-22B, 500 V, 25 A, 2-pole	see page 36 - 40
Sample No.6: AC-22B, 690 V, 10 A, 2-pole	see page 41 - 45
Sample No.7: AC-22B, 690 V, 32 A, 3-pole+N	see page 46 - 50
Test sequence II:	**IPH Institut**
Sample No.8: AC-21B, 500 V, 25 A, 1-pole	see page 51 - 52
Sample No.9: AC-21B, 690 V, 10 A, 1-pole	see page 53 - 54
Sample No.10: AC-22B, 400 V, 32 A, 1-pole	see page 55 - 56
Sample No.11: AC-22B, 400 V, 32 A, 2-pole	see page 57 - 58
Sample No.12: AC-22B, 500 V, 25 A, 2-pole	see page 59 - 60
Sample No.13: AC-22B, 690 V, 10 A, 2-pole	see page 61 - 62
Sample No.14: AC-22B, 690 V, 32 A, 3-pole+N	see page 63 - 64
Test sequence IV:	**IPH Institut**
Sample No.15: 400 V a.c., 100 kA, 1-pole (with fuse-link 32 A / 400 V)	see page 68 - 69
Sample No.16: 400 V a.c., 100 kA, 1-pole+N (with fuse-link 32 A / 400 V)	see page 70 – 71
Sample No.17: 400 V a.c., 100 kA, 2-pole (with fuse-link 32 A / 400 V)	see page 72 - 73
Sample No.18: 400 V a.c., 100 kA, 3-pole+N (with fuse-link 32 A / 400 V)	see page 74 - 75

Summary of testing: (Continuation)

The tests are carried-out according to IEC 60947-1 (ed.5);am1:2010-12 and IEC 60947-3 (ed.3).

Tests performed (name of test and test clause):	Testing location:
Test sequence IV:	**IPH Institut**
Sample No.19: 500 V a.c., 100 kA, 1-pole (with fuse-link 25 A / 500 V)	see page 76 - 77
Sample No.20: 500 V a.c., 100 kA, 1-pole+N (with fuse-link 25 A / 500 V)	see page 78 - 79
Sample No.21: 500 V a.c., 100 kA, 2-pole (with fuse-link 25 A / 500 V)	see page 80 - 81
Sample No.22: 500 V a.c., 100 kA, 3-pole+N (with fuse-link 25 A / 500 V)	see page 82 - 83
Sample No.23: 690 V a.c., 50 kA, 1-pole (with fuse-link 10 A / 690 V)	see page 84 - 85
Sample No.24: 690 V a.c., 50 kA, 1-pole+N (with fuse-link 10 A / 690 V)	see page 86 - 87
Sample No.25: 690 V a.c., 50 kA, 2-pole (with fuse-link 10 A / 690 V)	see page 88 - 89
Sample No.26: 690 V a.c., 50 kA, 3-pole+N (with fuse-link 32 A / 400 V)	see page 90 - 91
Test sequence V:	**IPH Institut**
Sample No.27: 690 V, 32 A, 1-pole (with fuse-link 32 A / 400 V)	see page 92 - 93
Sample No.28: 690 V, 32 A, 2-pole (with fuse-link 32 A / 400 V)	see page 94 - 95
Sample No.29: 690 V, 32 A, 3-pole+N (with fuse-link 32 A / 400 V)	see page 96 - 97

Summary of compliance with National Differences:

Not applicable

ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД СОФИЯ MIG 23 LTD

Copy of marking plate

Front printing: (for example a single pole device)

wöhner

AES10x38
32A 10x38
31 110 1P

Side printing:

IEC 60947-3 AC-22B 32A 400V 50/60Hz Ui:AC800V

c UL us
30A 600V
Do not operate under load

gG	32A	6 □	3.0W
aM	32A	6 □	1.2W
aR/gR	consult		

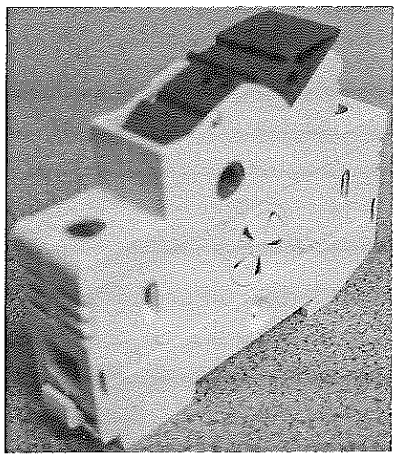
IEC 60269 690V

18..4AWG
0.75..25mm²
Cu only.
75°C wire

PZ2 2.5Nm
22lb-in

When two conductors per terminal are used, only stranded wires of the same size within the range of 18-6AWG, may be used

Picture of the fuse-switch-disconnector: (for example a single pole device)



ВЯРНО С ОРИГИНАЛА

МИГ 23 ЕООД • СОФИЯ • MIG 23 LTD

Test item particulars ....:

- method of operation ....: Dependent manual operation
- suitability for isolation ....: Suitable / ~~not suitable~~
- degree of protection ....: IP20
- number of poles...: 1; 2; 3; 1+N; 3+N
- kind of current...: a.c.
- number of positions of the main contacts...................: 2 (open and closed)

Rated and limiting values, main circuit:

- rated operational voltage Ue (V) ....: 400 V a.c.
500 V a.c.
690 V a.c.
- rated insulation voltage Ui (V) ....: 800 V
- rated impulse withstand voltage Uimp (kV) ....: 6 kV
- conventional free air thermal current Ith (A) ....: 32 A
- conventional enclosed thermal current Ithe (A)..........: —
- rated operational current Ie (A) ....: See utilization category
- rated uninterrupted current Iu (A)...............................: See utilization category
- rated frequency (Hz)...: 50/60 Hz
- utilization category...:

	Ue [V]	Ie [A]	Number of poles
AC-21B	500	25 **)	1; 1+N
	690	10 *)	1; 1+N
AC-22B	400	32 **)	1; 2; 3; 1+N; 3+N
	500	25 **)	2; 3; 3+N
		32 *)	3; 3+N
	690	10 *)	2
		32 *)	3; 3+N

*) Corresponding short circuit current: 50 kA
**) Corresponding short circuit current: 100 kA

Short-circuit characteristic:

- rated short-time withstand current Icw (kA)................: —
- rated short-time making capacity Icm (kA).................: —
- rated conditional short-circuit current.........................: 50 kA; 100 kA (See utilization category)

Control circuits ....: —

Auxiliary circuits ....: —

Relays and releases ....: —

Co-ordination of short-circuit protective devices:	
- kind of protective device..... :	Fuse-links with cylindrical contact caps for fuse system F (size 10,3 x 38) Rated currents: 10 A (gR), 25 A (gG) and 32 A (gG)
Possible test case verdicts:	
- test case does not apply to the test object..... :	N/A
- test object does meet the requirement..... :	P (Pass)
- test object does not meet the requirement..... :	F (Fail)
Testing..... :	
Date of receipt of test item ..... :	2011-06
Date (s) of performance of tests ..... :	2011-06 up to 2011-11

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

Throughout this report a comma (point) is used as the decimal separator.

General product information:

The fuse-switch-disconnectors of type AES10x38 are available for DIN-rail mounting with cable connection on the line and load side.

The cable connection is possible by screw terminals (box terminal connection).
The box terminal connection is suitable for cable cross-sections between 0,75mm² and 25mm².

Upon the tests of the making and breaking capacities and the performance under short-circuit conditions the distances between the metallic screen and the test items were 0 mm to the sides and 0 mm to the top.

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
5.2	MARKING		P
	Marking on equipment itself or on nameplate or nameplates attached to the equipment and legible from the front after mounting		—
	- indication of the open and closed position		P
	- suitability for isolation		P
	- disconnectors AC-20 and DC-20 only: marked "Do not operate under load"		N/A
	Marking on equipment not needed to be visible after mounting:		—
	- manufacturer's name or trademark	**wöhner**	P
	- type designation or serial number	AES 10x38	P
	- rated operational currents	10 A, 25 A, 32 A	P
	- rated operational voltage	400 V, 500 V, 690 V a.c.	P
	- utilization category	See page 6	P
	- rated frequency	50/60 Hz	P
	- manufacturer's claim for compliance with IEC 60947-3		P
	- degree of protection	IP20	P
	Marking on fuse-combination units:		—
	- fuse type	Fuse System F (size 10,3x38)	P
	- maximum rated current	32 A	P
	- power loss of the fuse-link	< 3 W	P
	Identification of terminals:		—
	- line terminals, unless connection is immaterial	Not labelled, free line and load connection choice	P
	- load terminals, unless connection is immaterial		P
	- neutral pole terminal		N/A
	- protective earth terminal		N/A
	Data in the manufacturer's published information:		—
	- rated insulation voltage	800 V	P
	- rated impulse withstand voltage for equipment suitable for isolation or when determined	6 kV	P
	- pollution degree, if different from 3	3	P
	- rated duty	uninterrupted	P
	- rated short-time withstand current and duration		N/A
	- rated short-circuit making capacity		N/A

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- rated conditional short-circuit current	50 kA, 100 kA	P
5.3	Instructions for installation, operation and maintenance		P
6	Normal service, mounting and transport conditions		P
7.1	CONSTRUCTIONAL AND PERFORMANCE REQUIREMENTS		P
7.1.2	Materials		P
7.1.2.2	Resistance to abnormal heat and fire		P
	Test performed on ..... :	- ~~the equipment~~ - sections taken from the equipment - ~~samples of identical material~~	P
	Glow-wire test according to IEC 60695-2-10 and IEC 60695-2-11		—
	Parts made of insulating material necessary to retain current-carrying parts in position: test temperature 960 °C		P
	No visible flame and no sustained glowing		P
	Flames and glowing extinguish within 30 s		P
	No ignition of the tissue paper		P
	Parts of insulating material not necessary to retain current-carrying parts in position, even though in contact with them: test temperature 650 °C		P
	No visible flame and no sustained glowing		P
	Flames and glowing extinguish within 30 s		P
	No ignition of the tissue paper		P
7.1.3 of Part 1	Current-carrying parts and their connection		P
7.1.4	Clearances ..... :	see appended table 7.1.4 on page 103	P
	Creepage distances ..... :	see appended table 7.1.4 on page 103	P
	Pollution degree ..... :	3	—
	Comparative tracking index (V) ..... :	CTI 600 (housing) CTI 575 (actuator)	—
	Material group ..... :	II	—

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
7.1.5 of Part 1	Actuator		P
7.1.5.1	Insulation		—
	Actuator insulated from live parts for		—
	- rated insulation voltage	800 V	P
	- rated impulse withstand voltage	6 kV	P
	Actuator made of metal		—
	- connected to a protective conductor or provided with an additional insulation		P
	Actuator made of or covered by insulating material :		—
	- internal metal parts, which might become accessible in the event of an insulation failure, are also insulated from live parts for the rated insulation voltage		P
7.1.5.2	Direction of movement		P
	The direction of operation for actuators shall where applicable conform to IEC 60447		P
	There is no doubt of the "I" and "O" position and the direction of operation		P
7.1.6 of Part 1	Indication of contact position		P
7.1.6.1	Indicating means		N/A
7.1.6.2	Indication by the actuator		P
7.1.7	Additional safety requirements for equipment suitable for isolation		P
7.1.7.1	Additional constructional requirements		P
	- marking according to 5.2.1b		P
	- indication of the position of the contacts		N/A
	- construction of the actuating mechanism		P
	- minimum clearances across open contacts (see Table 13, Part 1) (mm) ..... :	2 mm	—
	- measured clearances (mm) ..... :	> 5,5 mm	P
	- test Uimp across gap (kV) ..... :	9,8 kV	P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
7.1.7.2	Supplementary requirements for equipment with provision for electrical interlocking with contactors or circuit-breakers:		N/A
	Auxiliary switch is rated according to IEC 60947-5-1 (unless the equipment is rated AC-23)		N/A
	Time interval between opening of the contacts of the auxiliary contact and the contacts of the main poles: ≥20 ms .....:		—
	Measured time interval (ms) .....:		N/A
	During the closing operation the contacts of the auxiliary switch closes after or simultaneously with the contacts of the main poles		N/A
7.1.7.3	Supplementary requirements for equipment provided with means for padlocking the open position:		N/A
	The locking means is so designed that it cannot be removed with the appropriate padlock(s) installed		N/A
	Test force F applied to the actuator in an attempt to operate to the closed position (N) .....:		—
	Rated impulse withstand voltage (kV) .....:		—
	Test Uimp on open main contacts at the test force		N/A
7.1.8 of Part 1	Terminals		P
7.1.8.1	All parts of terminals which maintain contact and carry current are of metal having adequate mechanical strength	(see 8.2.4 below)	P
	Terminal connections are such that necessary contact pressure is maintained	(see 8.2.4 below)	P
	Terminals are so constructed that the conductor is clamped between suitable surfaces without damage to the conductor and terminal	(see 8.2.4 below)	P
	Terminals do not allow the conductor to be displaced or to be displaced themselves in a manner detrimental to the operator of equipment and the insulation voltage is not reduced below the rated value	(see 8.2.4 below)	P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.2.4	Mechanical properties of terminals (box terminal connection)		P
	Mechanical strength of terminals		P
	Maximum cross-sectional area of conductor (mm²) .....:		—
	Diameter of thread (mm) .....:	Screw M5	—
	Torque (Nm) .....:	2,75 Nm (manufacturer indicates: 2 – 2,5 Nm)	—
	5 times on 2 separate clamping units		P
	Testing for damage to and accidental loosening of conductor (flexion test)		P
	Conductor of the smallest cross-sectional area (mm²) .....:	0,75 mm²	—
	Number of conductor of the smallest cross section :	1	—
	Diameter of bushing hole (mm) .....:	6,5 mm	—
	Height between the equipment and the platen .....:	260 mm	—
	Mass at the conductor(s) (kg) .....:	0,4 kg	—
	135 continuous revolutions: the conductor neither slips out of the terminal nor breaks near the clamping unit		P
	Pull-out test		P
	Force (N), applied for 1 min. .....:	30 N	—
	During the test, the conductor neither slips out of the terminal nor breaks near the clamping unit		P
	Conductor of the largest cross-sectional area (mm²) .....:	25 mm²	—
	Number of conductor of the largest cross section .:	1	—
	Diameter of bushing hole (mm) .....:	13 mm	—
	Height between the equipment and the platen .....:	300 mm	—
	Mass at the conductor(s) (kg) .....:	4,5 kg	—
	135 continuous revolutions: the conductor neither slips out of the terminal nor breaks near the clamping unit		P
	Pull-out test		P
	Force (N), applied for 1 min. .....:	135 N	—
	During the test, the conductor neither slips out of the terminal nor breaks near the clamping unit		P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Conductor of the largest and smallest cross-sectional area (mm²) ..... :		—
	Number of conductor of the smallest cross section, number of conductor of the largest cross section ..:		—
	Diameter of bushing hole (mm) ..... :		—
	Height between the equipment and the platen ..... :		—
	Mass at the conductor(s) (kg) ..... :		—
	135 continuous revolutions: the conductor neither slips out of the terminal nor breaks near the clamping unit		N/A
	Pull-out test		N/A
	Force (N), applied for 1 min. ..... :		—
	During the test, the conductor neither slips out of the terminal nor breaks near the clamping unit		N/A
7.1.8.2	Connection capacity		P
	Type of conductors ..... :	Rigid, stranded or flexible	—
	Minimum cross-sectional area of conductor (mm²) :	0,75 mm²	—
	Maximum cross-sectional area of conductor (mm²) ..... :	25 mm²	—
	Number of conductors simultaneously connectable to the terminal ..... :		—
7.1.8.3	Connection		P
	Terminals for connection to external conductors are readily accessible during installation		P
	Clamping screws and nuts do not serve to fix any other component		P
7.1.8.4	Terminal identification and marking		P
	Terminal intended exclusively for the neutral conductor	Only if applicable	P
	Protective earth terminal		N/A
	Other terminals		P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
7.1.9	Additional requirements for equipment provided with a neutral pole		P
	Equipment provided with a pole intended for the connection of neutral, this pole shall be clearly marked by the letter "N"		P
	The switched neutral pole does not break before and does not make after the other poles except		N/A
	- a pole having the appropriate short-circuit breaking and making capacity is used as neutral pole, all poles may operate together	The connection is given by a dummy (piece of copper), which is inside the actuator.	P
	Conventional thermal current of neutral pole	32 A	P
7.1.10	Provisions for protective earthing		N/A
7.1.10.1	The exposed conductive parts are electrically interconnected and connected to a protective earth terminal		N/A
7.1.10.2	Protective earth terminal is readily accessible		N/A
	Protective earth terminal is suitably protected against corrosion		N/A
	Electrical continuity between the exposed conductive parts of the protective earth terminal and the metal sheathing of connecting conductors		N/A
	Protective earth terminal has no other functions		N/A
7.1.10.3	Protective earth terminal marking and identification		N/A
7.1.11	Enclosure for equipment		N/A
7.1.11.1	Design		N/A
	When the enclosure is opened, all parts requiring access for installation and maintenance are readily accessible		N/A
	Sufficient space is provided inside the enclosure		N/A
	The fixed parts of a metal enclosure are electrically connected to the other exposed conductive parts of the equipment and connected to a terminal which enables them to be earthed or connected to a protective conductor		N/A
	Under no circumstances a removable metal part of the enclosure is insulated from the part carrying the earth terminal when the removable part is in place		N/A
	The removable parts of the enclosure are firmly secured to the fixed parts by a device such that they cannot be accidentally loosened or detached owing to the effects of operation of the equipment or vibrations		N/A

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
	When an enclosure is so designed as to allow the covers to be opened without the use of tools, means is provided to prevent loss of the fastening devices		N/A
	If the enclosure is used for mounting push-buttons, it is not possible to remove the buttons from the outside of the enclosure		N/A
7.1.11.2	Insulation		N/A
	If, in order to prevent accidental contact between a metallic enclosure and live parts, the enclosure is partly or completely lined with insulating material, then this lining is securely fixed to the enclosure		N/A
7.1.12	Degree of protection of enclosed equipment		N/A
	Degree of protection .....:	IP	N/A
7.1.13	Conduit pull-out, torque and bending with metallic conduits		N/A
	Withstand the stress occurring during its installation .....:	IP	N/A

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.3	TEST SEQUENCE I: GENERAL PERFORMANCE CHARACTERISTICS (Sample No. 1: AC-21B, 500 V, 25 A, 1-pole)		P
8.3.3.1	Temperature-rise		P
	ambient temperature 10-40 °C .....:	22,7 °C	—
	test enclosure W x H x D (mm x mm x mm) .....:		—
	material of enclosure .....:		—
	Main circuits, test conditions:		—
	- rated operational current Ie (A) .....:	25 A	—
	- cable/busbar cross-section (mm²) / length (mm)..:	4 mm² cables / 1000 mm long	—
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark .....:	Bussmann	—
	- manufacturer's model or type reference .....:	C10G25	—
	- rated current (A) .....:	25A (gG)	—
	- power loss (W) .....:	2,6 W	—
	- rated breaking capacity (kA) .....:	120 kA	—
	Measured temperature-rise .....:	see appended table 8.3.3.1 on page 103	P
	Auxiliary circuits, test conditions:		N/A
	- rated operation current (A) .....:		—
	- cable cross-section (mm²).....:		—
	Measured temperature-rise .....:	see appended table 8.3.3.1 on page ___	N/A
8.3.3.2	Test of dielectric properties		P
	Rated impulse withstand voltage (kV) .....:	6 kV	—
	- test Uimp main circuits (kV) .....:	7,3 kV	P
	- test Uimp auxiliary circuits (kV) .....:		N/A
	- test Uimp on open main contacts (equipment suitable for isolation) (kV) .....:	9,8 kV	P
	Power-frequency withstand voltage (V) .....:	800 V	—
	- main circuits, test voltage for 5 sec. (V) .....:	2000 V	P
	- control and auxiliary circuits, test voltage for 5 sec. (V) .....:		N/A

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Devices, which have been disconnected for the power-frequency withstand voltage test		N/A
	Equipment suitable for isolation, leakage current not exceed 0,5 mA		—
	Test voltage 1,1 Ue (V) ..... :	550 V (tested with 759 V)	—
	Measured leakage current (mA) ..... :	0,001 mA	P
8.3.3.3	Making and breaking capacity		P
	- utilization category ..... :	AC-21B	—
	- rated operational voltage Ue (V) ..... :	500 V	—
	- rated operational current Ie (A) or power (kW) .... :	25 A	—
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark ..... :	Bussmann	—
	- manufacturer's model or type reference ..... :	C10G25	—
	- rated current (A) ..... :	25 A (gG)	—
	- power loss (W) ..... :	2,6 W	—
	- rated breaking capacity (kA) ..... :	120 kA	—
	Conditions for make/break operations or make operation, AC-23A and AC-23B only:		N/A
	- test voltage, U = 1,05 Ue ..... (V):	L1: L2: L3:	—
	- test current, I = ... x Ie (A):	L1: L2: L3:	—
	- power factor ..... :	L1: L2: L3:	—
	Conditions for break operation, AC-23A and AC-23B only:		N/A
	- test voltage, U = 1,05 Ue ..... (V):	L1: L2: L3:	—
	- test current, I = ... x Ie (A):	L1: L2: L3:	—
	- power factor ..... :	L1: L2: L3:	—

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Conditions for make/break operations, other than AC-23A/B:		P
	- test voltage, U = 1,05 Ue ..... (V):	L1: 525 V L2: — L3: —	—
	- test current, I = ... 1,5 x Ie (A):	L1: 38 A L2: — L3: —	—
	- power factor/ ~~time constant~~ .....:	0,91	—
	Number of make/break or make and break operations .....:	5	P
	- recovery voltage duration (≥ 50 ms)	> 50 ms	P
	- current duration (ms) .....:	70 ms	—
	- time interval between operations .....:	30 s	P
	Characteristic of transient recovery voltage for AC-22 and AC-23 only		N/A
	- oscillatory frequency (kHz) .....:		—
	- measured oscillatory frequency (kHz) .....:	L1: L2: L3:	N/A
	- factor γ .....:	L1: L2: L3:	N/A
8.3.3.3.5	Behaviour of the equipment during making and breaking capacity tests		P
	Test performed without:		—
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse in the detection circuit		P
8.3.3.3.6	Condition of the equipment after making and breaking capacity tests		P
	Immediately after the test equipment must work satisfactorily		P
	- required opening force not greater than the test force of 8.2.5.2 and table 8	13,2 N (required opening force) 150 N (test force acc. tab. 8)	P
	- equipment is able to carry its rated current after normal closing operation		P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.3.4	Dielectric verification		P
	test voltage: 2*Ue with a minimum of 1000V~ ..... :	1000 V (tested with 1380 V)	—
	No flashover or breakdown		P
8.3.3.5	Leakage current		P
	test voltage (1,1 Ue) (V) ..... :	550 V (tested with 759 V)	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B): ≤ 0,5 mA/pole ..... :		N/A
	Leakage current (other utilization categories): ≤ 2 mA/pole) ..... :	< 2 mA	P
8.3.3.6	Temperature-rise verification		P
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark ..... :	Bussmann	—
	- manufacturer's model or type reference ..... :	C10G25	—
	- rated current (A) ..... :	25 A (gG)	—
	- power loss (W) ..... :	2,6 W	—
	- rated breaking capacity (kA) ..... :	120 kA	—
	- conductor cross-section (mm²) ..... :	4 mm²	—
	- test current Ie (A) ..... :	25 A	—
	Measured temperature-rise ..... :	see appended table 8.3.3.6 on page 103	P
8.3.3.7	Strength of actuator mechanism		P
8.2.5	Verification of the strength of actuator mechanism and position indicating device		
	- actuator type (fig.) ..... :	figure 1b (one-finger operated)	—
8.2.5.2.1	Dependent and independent manual operation	dependent manual operation	P
	- actuating force for opening (N) ..... :	10,2 N	—
	- test force with blocked main contacts (N) ..... :	50 N	—
	- used method to keep the contact closed ..... :	Fuse-links were held tight with a piece of wire	—
	During and after the test, open position not indicated ..... :		P
	Equipment with locking mean, no locking in the open position while test force is applied ..... :		P

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.2.5.2.2	Dependent power operation		N/A
	- main contacts fixed together in the closed position:		N/A
	- used method to keep the contact closed .....:		N/A
	- 110% of the rated supply voltage applied to the equipment (3 times) .....:		N/A
	During and after the test, open position not indicated .....:		N/A
	Equipment show no damage impairing its normal operation .....:		N/A
	Equipment with locking mean, no locking in the open position while test force is applied .....:		N/A
8.2.5.2.3	Independent power operation		N/A
	- main contacts fixed together in the closed position:		N/A
	- used method to keep the contact closed .....:		N/A
	- stored energy of the power operator released (3 times) .....:		N/A
	During and after the test, open position not indicated .....:		N/A
	Equipment show no damage impairing its normal operation .....:		N/A
	Equipment with locking mean, no locking in the open position while test force is applied .....:		N/A

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.3	TEST SEQUENCE I: GENERAL PERFORMANCE CHARACTERISTICS (Sample No. 2: AC-21B, 690 V, 10 A, 1-pole)		P
8.3.3.1	Temperature-rise		P
	ambient temperature 10-40 °C ..... :	22,7 °C	—
	test enclosure W x H x D (mm x mm x mm) ..... :		—
	material of enclosure ..... :		—
	Main circuits, test conditions:		—
	- rated operational current Ie (A) ..... :	10 A	—
	- cable/busbar cross-section (mm²) / length (mm) .. :	1,5 mm² cables / 1000mm long	—
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark ..... :	SIBA	—
	- manufacturer's model or type reference ..... :	50 179 06.10	—
	- rated current (A) ..... :	10 A (gR)	—
	- power loss (W) ..... :	2,3 W	—
	- rated breaking capacity (kA) ..... :	200 kA	—
	Measured temperature-rise ..... :	see appended table 8.3.3.1 on page 104	P
	Auxiliary circuits, test conditions:		N/A
	- rated operation current (A) ..... :		—
	- cable cross-section (mm²) ..... :		—
	Measured temperature-rise ..... :	see appended table 8.3.3.1 on page __	N/A
8.3.3.2	Test of dielectric properties		P
	Rated impulse withstand voltage (kV) ..... :	6 kV	—
	- test Uimp main circuits (kV) ..... :	7,3 kV	P
	- test Uimp auxiliary circuits (kV) ..... :		N/A
	- test Uimp on open main contacts (equipment suitable for isolation) (kV) ..... :	9,8 kV	P
	Power-frequency withstand voltage (V) ..... :	800 V	—
	- main circuits, test voltage for 5 sec. (V) ..... :	2000 V	P
	- control and auxiliary circuits, test voltage for 5 sec. (V) ..... :		N/A

IEC 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Devices, which have been disconnected for the power-frequency withstand voltage test		N/A
	Equipment suitable for isolation, leakage current not exceed 0,5 mA		—
	Test voltage 1,1 Ue (V) ..... :	759 V	—
	Measured leakage current (mA) ..... :	0,001 mA	P
8.3.3.3	Making and breaking capacity		P
	- utilization category ..... :	AC-21B	—
	- rated operational voltage Ue (V) ..... :	690 V	—
	- rated operational current Ie (A) or power (kW) .... :	10 A	—
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark ..... :	SIBA	—
	- manufacturer's model or type reference ..... :	50 179 06.10	—
	- rated current (A) ..... :	10 A (gR)	—
	- power loss (W) ..... :	2,3 W	—
	- rated breaking capacity (kA) ..... :	200 kA	—
	Conditions for make/break operations or make operation, AC-23A and AC-23B only:		N/A
	- test voltage, U = 1,05 Ue ..... (V):	L1: L2: L3:	—
	- test current, I = ... x Ie (A):	L1: L2: L3:	—
	- power factor ..... :	L1: L2: L3:	—
	Conditions for break operation, AC-23A and AC-23B only:		N/A
	- test voltage, U = 1,05 Ue ..... (V):	L1: L2: L3:	—
	- test current, I = ... x Ie (A):	L1: L2: L3:	—
	- power factor ..... :	L1: L2: L3:	—