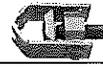
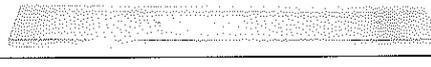
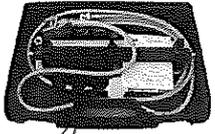


Таблица 34. Аксесоари до:

ARS 1 250 A 690V~

ARS 2 400 A 690V~

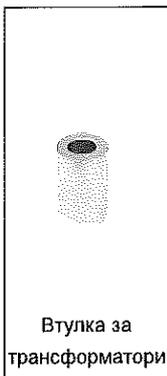
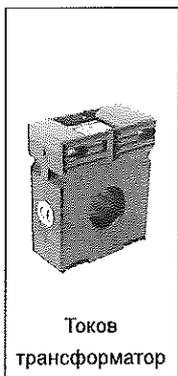
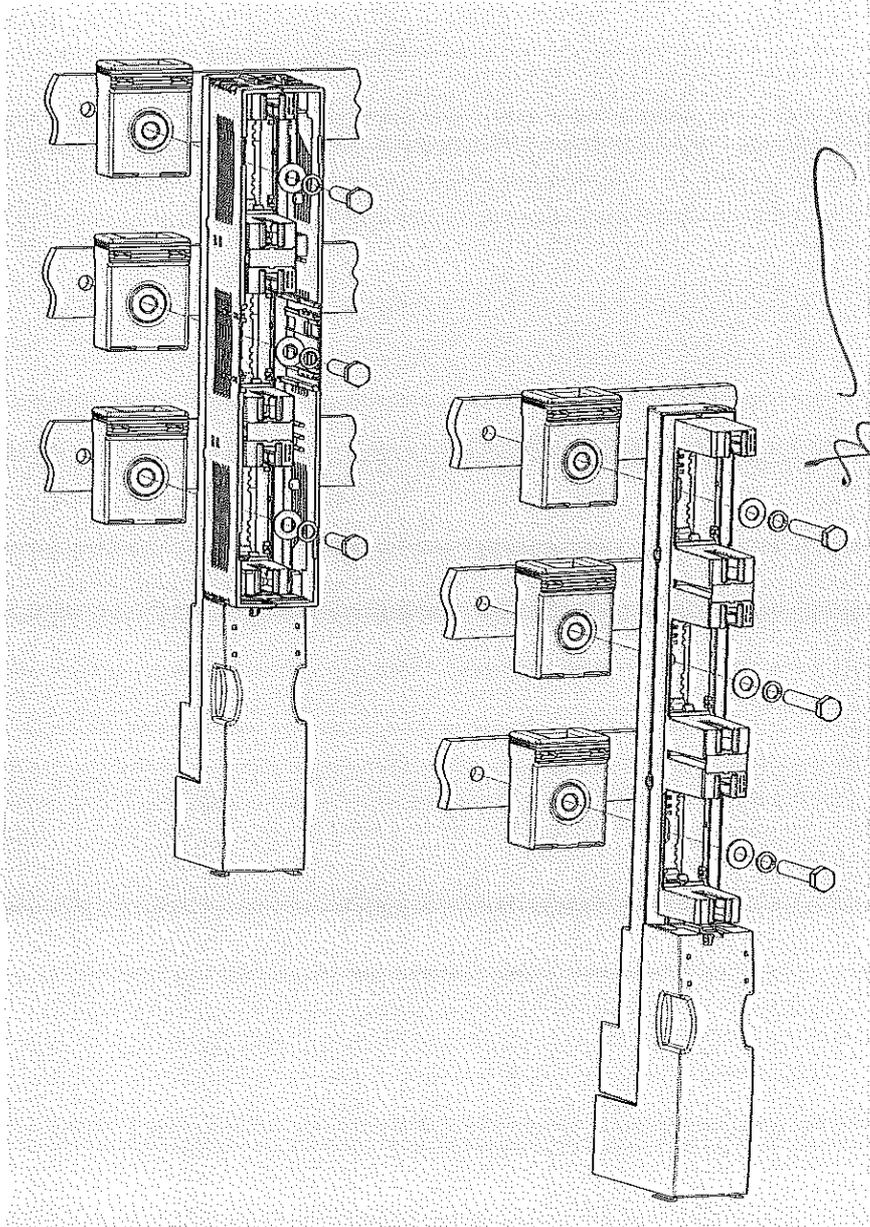
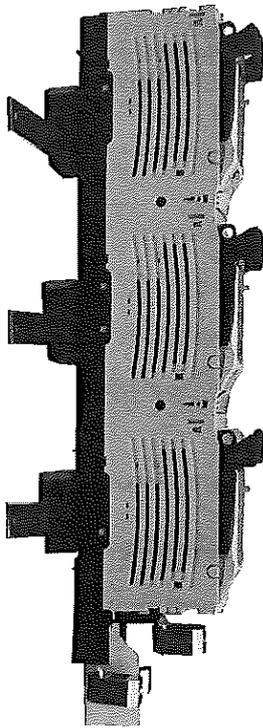
ARS 3 630 A 690V~

Означение / Артикул №	Описание	Снимка
M	Винтова клемма – M10 за ARS 1 и ARS 2, M12 за ARS 3 за свързване на кабели оборудвани с кабелни накрайници . (компл. - 3 бр.)	
50-240SW 1119510001T	V-клемма за директно свързване на почистените от изолация жила със сечение: 35 - 95 mm ²  35 - 120 mm ²  50 - 185 mm ²  50 - 240 mm ² 	
70-300SW 1119510013T	V-клемма за директно свързване на почистените от изолация жила със сечение: 50 - 120 mm ²  70 - 150 mm ²  70 - 240 mm ²  95 - 300 mm ² 	
2150-240SW 1119510007T	V-клемма за директно свързване на почистените от изолация жила със сечение: 35 - 120 mm ²  35 - 150 mm ²  50 - 185 mm ²  50 - 240 mm ² 	
HS 50-240	V- клемма HS (стоманена) за монтаж на проводник със сечение 50 - 240 mm ² „se“	
HS 2/50-240	V- клемма двойна HS (стоманена) за монтаж на 2 проводника със сечение 50 - 240 mm ² „se“	
VL240/ 1119510002T	Присъединителна шина към V- клемма за монтаж на жила със сечение от 35 mm ² до 240 mm ²	
	Притискаща клемма тип „кука“ позволяваща монтаж на ARS 1, 2, 3 върху неперфорирани шини (компл. - 3 бр.).	
1361400006T	Капак на резервното място на шините на разстояние 185 mm – ширина: 50 mm, дължина: 562 mm, дебелина: 3 mm	
1361400001T	Изолационен щифт за монтаж на капак с ширина 50 mm, M8 (компл. - 2 бр.)	
1361400007T	Капак на резервното място на шините на разстояние 185 mm – ширина: 100 mm, дължина: 562 mm, дебелина: 3 mm	
1361400002T	Изолационен щифт за монтаж на капак с ширина 100 mm, M12 (компл. - 2 бр.)	
51-930313-01	Капак изравнителен, допълнителен капак за изравняване на удължаването от капациите на кабелните клемми	
51-930272-011	Капак на присъединителната шина, преграда отделяща клемите	
51-930271-021	Капак на клем клемите	
1115718006T	Токов трансформатор ASR 22.3, клас на точност 1. Преводно отношение: от 50/5A до 600/5A.	
1115718010T	Дистанционна втулка за трансформатора ASR 22.3: дълж. 36mm, външен диаметър 22,5mm, вътрешен диаметър 12,5mm	
63-822645-011	Заземител URS-3 за разединители ARS (големина от 1 до 3)	
U.U. 00+3	Заземител универсален за големина: 00, 1, 2, 3	

ТРИФАЗНО ИЗМЕРВАНЕ НА ТОКА

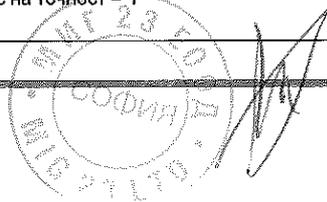
Предпазител-разединител ARS

Основи за предпазители PBS

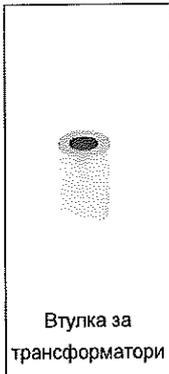
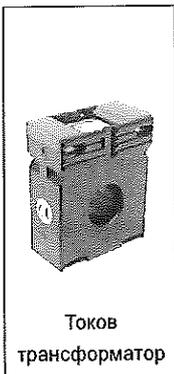
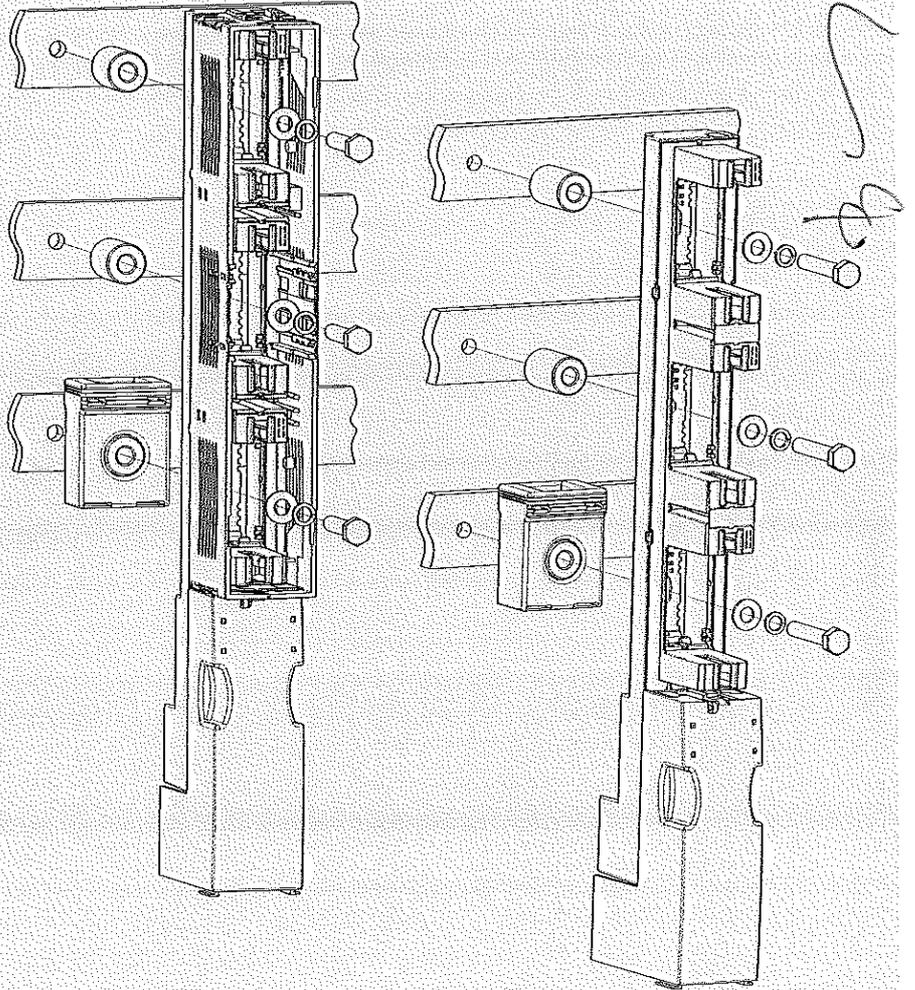
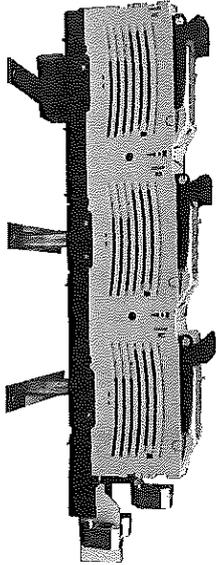


<p>Разединители: ARS 1/250A; ARS 2/400A; ARS 3/630A</p>	<p>Разединители: ARS 00/160A</p>
<p>Трансформатор ASR22.3 - с преводно отношение: 50A/5A, 100A/5A, 150A/5A, 200A/5A, 250A/5A, 300A/5A, 400A/5A, 500A/5A, 600A/5A Размери: a = 61 mm; b = 35 mm; c = 78,5 mm. Втулка: дълж. 36 mm. Ф вътр.= 12,5 mm Ф външ. = 22,5 mm, Клас на точност = 1</p>	<p>Трансформатор ASR21.3 - с преводно отношение: 100A/5A, 150A/5A Размери: a = 48,5 mm; b = 35 mm; c = 65 mm. Втулка: дълж. 36 mm. Ф вътр.= 12,5 mm Ф външ. = 22,5 mm, Клас на точност = 1</p>

ВАРНО С
ОРИГИНАЛА



ЕДНОФАЗОВО ИЗМЕРВАНЕ НА ТОКА
Предпазител-разединител ARS
Основи за предпазители PBS



**Разединители: ARS 1/250A;
ARS 2/400A; ARS 3/630A**

Трансформатор ASR22.3 - с преводно отношение: 50A/5A, 100A/5A, 150A/5A, 200A/5A, 250A/5A, 300A/5A, 400A/5A, 500A/5A, 600A/5A
 Размери: a = 61 mm; b = 35 mm; c = 78,5 mm.
 Втулка: дълж. 36 mm.
 Ф вътр. = 12,5 mm
 Ф външ. = 22,5 mm,
 Клас на точност = 1

Разединители: ARS 00/160A

Трансформатор ASR21.3 - с преводно отношение: 100A/5A, 150A/5A
 Размери: a = 48,5 mm; b = 35 mm; c = 65 mm.
 Втулка: дълж. 36 mm.
 Ф вътр. = 12,5 mm
 Ф външ. = 22,5 mm,
 Клас на точност = 1

B

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APATOR

87-100 Toruń, ul. Żółkiewskiego 21/29
BIURO SPRZEDAŻY APARATURY ŁĄCZNIKOWEJ
Tel.: (056) 61 91 150, Fax: (056) 61 91 295
e-mail: apator@apator.com.pl <http://www.apator.com.pl>

ISO 9001

ISO 14001

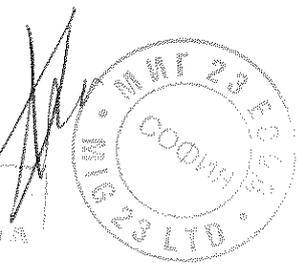
ISO 18001



Пловдив, бул. „Пещерско шосе”
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e-mail: office@intercomplex.bg

София, ул. „Кешан” 9
тел: (02) 846 60 11, факс: (02) 946 15 93
e-mail: ics@datacom.bg

www.intercomplex.bg



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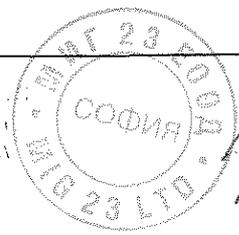


Test Report issued under the responsibility of:



TEST REPORT	
IEC/EN 60947-3	
Low-voltage switchgear and controlgear	
Part 3: Switches, disconnectors, switch-disconnectors and fuse combination units	
Report Reference No.	LA-08.121/E
Date of issue	2008-07-31
Total number of pages	48
CB/CCA Testing Laboratory	BBJ-SEP TESTING LABORATORY
Address	04-703 Warszawa, ul. Pożaryskiego 28, POLAND
Applicant's name	APATOR S.A.
Address	87-100 Toruń, ul. Żółkiewskiego 21/29 POLAND
Test specification:	
Standard.....	<input checked="" type="checkbox"/> IEC 60947-3:1999 (Second Edition) + A1:2001 + A2:2005 in conjunction with IEC 60947-1:2004 (Fourth Edition)
	<input checked="" type="checkbox"/> EN 60947-3:1999 + A1:2001 + A2:2005 in conjunction with EN 60947-1:2004
Test procedure	CCA
Non-standard test method.....	N/A
Test Report Form No.	IECEN60947_3B
Test Report Form(s) Originator.....	OVE
Master TRF	Dated 2006-08
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If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.	
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.	
If this Test Report Form is used by non-CCA members, the CIG logo and the reference to the CCA Procedure shall be removed.	
This report is not valid as a CCA Test Report unless signed by an approved CCA Testing Laboratory and appended to a CCA Test Certificate issued by an NCB in accordance with CCA	
Test item description	Fuse-switch disconnectors
Trade Mark.....	
Manufacturer	APATOR S.A. 87-100 Toruń ul. Żółkiewskiego 21/29 POLAND
Model/Type reference	ARS 2
Ratings	see page 4

BRAND.C
OSPODARSTWA
WIELKOPOLSKIEGO



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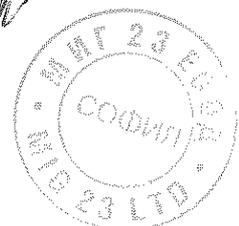
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Testing procedure and testing location:	
<input checked="" type="checkbox"/> CB/CCA Testing Laboratory:	 BBJ-SEP TESTING LABORATORY
Testing location/ address.....: 20-150 Lublin, ul. Rapackiego 13/15, POLAND	
<input type="checkbox"/> Associated CB Laboratory:	
Testing location/ address.....: N/A	
Tested by (name + signature).....:	Dariusz Szczepanowski на основание чл. 2 от 33ЛД
Approved by (+ signature)	Leszek Krzyżanowski
<input type="checkbox"/> Testing procedure: TMP	
Tested by (name + signature).....:	N/A
Approved by (+ signature)	N/A
Testing location/ address.....: N/A	
<input type="checkbox"/> Testing procedure: WMT	
Tested by (name + signature).....:	N/A
Witnessed by (+ signature).....:	N/A
Approved by (+ signature)	N/A
Testing location/ address.....: N/A	
<input type="checkbox"/> Testing procedure: SMT	
Tested by (name + signature).....:	N/A
Approved by (+ signature)	N/A
Supervised by (+ signature).....:	N/A
Testing location/ address.....: N/A	
<input type="checkbox"/> Testing procedure: RMT	
Tested by (name + signature).....:	N/A
Approved by (+ signature)	N/A
Supervised by (+ signature).....:	N/A
Testing location/ address.....: N/A	

TRF No. IECEN60947_3B

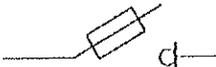
ВЯРНО С
ОРИГИНАЛА



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Copy of marking plate:

 **APATOR**
 Typ ARS 2-6-M 
 Nr 
 $U_n=690V \sim$ | $I_n=I_e=400A$
 AC-21B/690V | 2 $P_n=45W$
 AC-22B/690V | 40-60Hz IP 30
 PN-EN 60947-3

 **APATOR**
 Typ ARS 2-1-V 
 Nr 
 $U_n=690V \sim$ | $I_n=I_e=400A$
 AC-21B/690V | 2 $P_n=45W$
 AC-22B/690V | 40-60Hz IP 30
 PN-EN 60947-3

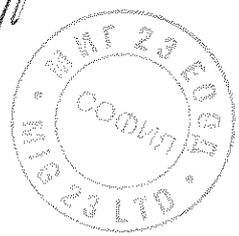
 **APATOR**
 Typ ARS 2-1-2V 
 Nr 
 $U_n=690V \sim$ | $I_n=I_e=400A$
 AC-21B/690V | 2 $P_n=45W$
 AC-22B/690V | 40-60Hz IP 30
 PN-EN 60947-3

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Marking of samples for tests:		
Type of fuse-switch disconnecter	Number of samples	Date of receipt
ARS 2-6-M	A2/1, A2/2, A2/3, A2/4, A2/5, A2/6, A2/7, A2/8, A2/9, A2/10,	2008-05-16
	3W (sample tested at IEL in Warsaw)	—
ARS 2-1-V	A2/11, A2/12, A2/13, A2/14	2008-05-16
ARS 2-1-2V	A2/15, A2/16, A2/17, A2/18	

TRF No. IECEN60947_3B

ВАРНО С
ОРИГИНАЛ



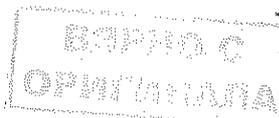
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Test item particulars:	
- method of operation.....:	Manual
- switching positions.....:	O I
- number of poles.....:	3
- kind of current.....:	AC
- number of phases.....:	3
- rated frequency (Hz).....:	40...60 Hz
- number of positions of the main contacts.....:	2
Rated and limiting values, main circuit.....:	
- rated operational voltage U_e (V).....:	400 V, 690 V - AC
- rated insulation voltage U_i (V).....:	1000 V
- rated impulse withstand voltage U_{imp} (kV).....:	12 kV
- conventional free air thermal current I_{th} (A).....:	400 A
- conventional enclosed thermal current I_{the} (A).....:	—
- rated operational current I_e (A).....:	400 A
- rated uninterrupted current I_u (A).....:	400 A
- utilization category.....:	AC-22B, AC-21B
Short-circuit characteristic.....:	
- rated short-time withstand current I_{cw} (kA).....:	—
- rated short-time making capacity I_{cm} (kA).....:	—
- rated conditional short-circuit current.....:	100 kA (fuse link 400 A)
Rated and limiting values, auxiliary circuits.....:	
- rated operational voltage (V).....:	—
- rated frequency (Hz).....:	—
- number of circuits.....:	—
- number and kind of contact elements.....:	—
Co-ordination of short-circuit protective devices.....:	
- kind of protective device.....:	fuse link 400 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.....:	2008-05-16
Date (s) of performance of tests.....:	2008-05-16 ... 2008-07-31

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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.

Note: EN Group Differences together with National Differences and Special National Conditions, if any, are in the Appendix to the main body of this TRF.

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

General product information: —

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TRF No. IEC/EN60947_3B

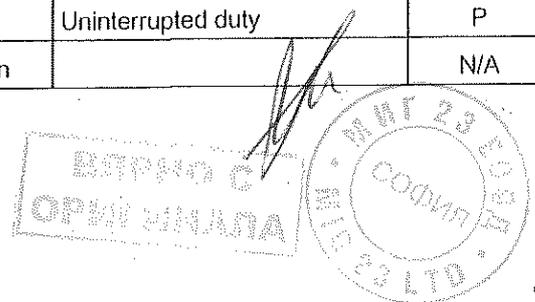


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IEC / EN 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
5.2	MARKING		P
	Marking on equipment itself or on nameplate or nameplates attached to the equipment and legible from the front after mounting		P
	- indication of the open and closed position	Visible isolating distance between open contacts	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:		P
	- manufacturer's name or trademark		P
	- type designation or serial number	ARS 2	P
	- rated operational current	See copies of marking plates	P
	- rated operational voltage	690 V - AC	P
	- utilization category	AC-22B, AC-21B	P
	- rated frequency	40 - 60 Hz	P
	- manufacturer's claim for compliance with IEC/EN 60947-3	EN 60947-3	P
	- degree of protection		N/A
	Marking on fuse-combination units:		P
	- fuse type	2 gG	P
	- maximum rated current	400 A	P
	- power loss of the fuse-link	45 W	P
	Identification of terminals:		P
	- line terminals		P
	- load terminals	L1, L2, L3	P
	- neutral pole terminal		N/A
	- protective earth terminal		N/A
	Data in the manufacturer's published information:		P
	- rated insulation voltage	1000 V	P
	- rated impulse withstand voltage for equipment suitable for isolation or when determined	12 kV	P
	- pollution degree, if different from 3	3	P
	- rated duty	Uninterrupted duty	P
	- rated short-time withstand current and duration		N/A

TRF No. IEC/EN60947_3B



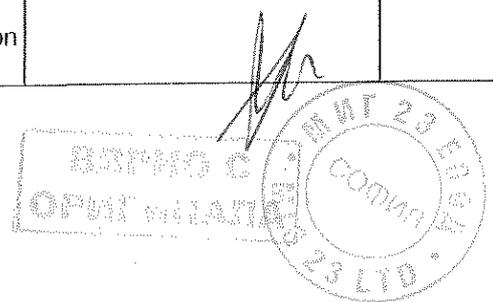
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IEC / EN 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- rated short-circuit making capacity		N/A
	- rated conditional short-circuit current	100 kA (500V AC)	P
7.1	CONSTRUCTION		P
7.1.1	Materials		P
7.1.1.1	Resistance to abnormal heat and fire		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	see appended table 7.1.1.1	P
	Flames and glowing extinguish within 30 s	see appended table 7.1.1.1	P
	No ignition of the tissue paper	see appended table 7.1.1.1	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	see appended table 7.1.1.1	P
	Flames and glowing extinguish within 30 s	see appended table 7.1.1.1	P
	No ignition of the tissue paper	see appended table 7.1.1.1	P
7.1.2	Current-carrying parts and their connection		P
7.1.3	Clearances..... : see appended table 7.1.3		P
	Creepage distances : see appended table 7.1.3		P
	Pollution degree : 3		—
	Comparative tracking index (V) : 500 V		—
	Material group : II		—
7.1.4	Actuator		P
7.1.4.1	Insulation		—
	Actuator insulated from live parts for		—
	- rated insulation voltage	1000 V	P
	- rated impulse withstand voltage	12 kV	P
	Actuator made of metal		—
	- connected to a protective conductor or provided with an additional insulation		N/A
	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		N/A

TRF No. IEC/EN60947_3B

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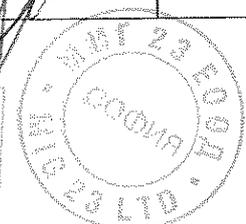
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IEC / EN 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
7.1.4.2	Direction of movement		P
	The direction of operation for actuators shall where applicable conform to IEC 60447		P
	There is no doubt of the "I" and "O" position and the direction of operation		P
7.1.5 of Part 1	Indication of contact position		P
7.1.5.1	Indicating means	Visible isolating distance between open contacts in the open position	P
7.1.5.2	Indication by the actuator		P
7.1.6	Additional safety requirements for equipment suitable for isolation		P
7.1.6.1	Additional constructional requirements for equipment suitable for isolation (U _e > 50 V):		P
	- marking according to 5.2.1b		P
	- indication of the position of the contacts		P
	- construction of the actuating mechanism		P
	- minimum clearances across open contacts (see Table XIII, Part 1) (mm)	14 mm	—
	- measured clearances (mm)	35 mm	P
	- test U _{imp} across gap (kV)	18,1 kV	P
7.1.6.2	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
7.1.6.3	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)	—	—

TRF No. IEC/EN60947_3B

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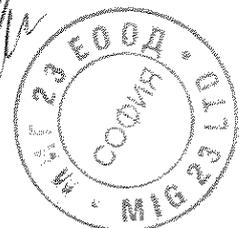


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IEC / EN 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Conductor of the largest cross-sectional area (mm ²)	240 mm ² (rigid)	—
	Number of conductor of the largest cross section :	1	—
	Diameter of bushing hole (mm)	28,6 mm	—
	Height between the equipment and the platen :	464 mm	—
	Mass at the conductor(s) (kg)	20 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. :	578 N	—
	During the test, the conductor neither slips out of the terminal nor breaks near the clamping unit		P
	Conductor of the largest and smallest cross-sectional area (mm ²)	—	—
	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
7.1.7.2	Connection capacity		P
	Type of conductors	Rigid/flexible	—
	Minimum cross-sectional area of conductor (mm ²) :	50 mm ²	—
	Maximum cross-sectional area of conductor (mm ²)	240 mm ²	—
	Number of conductors simultaneously connectable to the terminal	1	—

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Clause	Requirement + Test	Result - Remark	Verdict
8.2.4	Mechanical properties of terminals	Terminals of type 2V	P
	Mechanical strength of terminals	Sample No A2/15	P
	Maximum cross-sectional area of conductor (mm ²) :	2x240 mm ² (rigid)	—
	Diameter of thread (mm)	11,8 mm	—
	Torque (Nm)	1,1 x 40 Nm = 44 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 (mm ²)	50 mm ² (flexible)	—
	Number of conductor of the smallest cross section:	2	—
	Diameter of bushing hole (mm)	15,9 mm	—
	Height between the equipment and the platen :	343 mm	—
	Mass at the conductor(s) (kg)	9,5 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. :	236 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 (mm ²)	240 mm ² (rigid)	—
	Number of conductor of the largest cross section :	2	—
	Diameter of bushing hole (mm)	28,6 mm	—
	Height between the equipment and the platen :	464 mm	—
	Mass at the conductor(s) (kg)	20 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. :	578 N	—
	During the test, the conductor neither slips out of the terminal nor breaks near the clamping unit		P
	Conductor of the largest and smallest cross-sectional area (mm ²)	240 mm ² + 50 mm ²	—

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Clause	Requirement + Test	Result - Remark	Verdict
	Number of conductor of the smallest cross section, number of conductor of the largest cross section :	1 1	—
	Diameter of bushing hole (mm)	28,6 mm	—
	Height between the equipment and the platen	464 mm	—
	Mass at the conductor(s) (kg)	20 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.	578 N	—
	During the test, the conductor neither slips out of the terminal nor breaks near the clamping unit		P
	Conductor of the largest and smallest cross-sectional area (mm ²)	240 mm ² + 50 mm ²	—
	Number of conductor of the smallest cross section, number of conductor of the largest cross section :	1 1	—
	Diameter of bushing hole (mm)	15,9 mm	—
	Height between the equipment and the platen	343 mm	—
	Mass at the conductor(s) (kg)	9,5 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.	236 N	—
	During the test, the conductor neither slips out of the terminal nor breaks near the clamping unit		P
7.1.7.2	Connection capacity		
	Type of conductors	Rigid/flexible	—
	Minimum cross-sectional area of conductor (mm ²) :	50 mm ²	—
	Maximum cross-sectional area of conductor (mm ²)	240 mm ²	—
	Number of conductors simultaneously connectable to the terminal	2	—
7.1.7.3	Connection		P
	Terminals for connection to external conductors are readily accessible during installation		P

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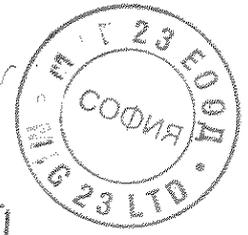
IEC / EN 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Clamping screws and nuts do not serve to fix any other component		P
7.1.7.4	Terminal identification and marking		P
	Terminal intended exclusively for the neutral conductor		N/A
	Protective earth terminal		N/A
	Other terminals	L1, L2, L3	P
7.1.8	Additional requirements for equipment provided with a neutral pole		N/A
	Equipment provided with a pole intended for the connection of neutral, this pole shall be clearly marked by the letter "N"		N/A
	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		N/A
	Conventional thermal current of neutral pole		N/A
7.1.9	Provisions for protective earthing		N/A
7.1.9.1	The exposed conductive parts are electrically interconnected and connected to a protective earth terminal		N/A
7.1.9.2	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
7.1.9.3	Protective earth terminal marking and identification		N/A
7.1.10	Enclosure for equipment		P
7.1.10.1	Design		P
	When the enclosure is opened, all parts requiring access for installation and maintenance are readily accessible	Integral enclosure	P
	Sufficient space is provided inside the enclosure		P

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Clause	Requirement + Test	Result - Remark	Verdict
	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
	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
7.1.10.2	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
7.1.11	Degree of protection of enclosed equipment		N/A
	Degree of protection : —		N/A

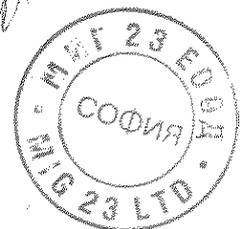


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Clause	Requirement + Test	Result - Remark	Verdict
8.3.3	TEST SEQUENCE I: GENERAL PERFORMANCE CHARACTERISTICS		P
8.3.3.1	Temperature-rise	Samples Nos. A2/10, A2/11 and A2/15	P
	ambient temperature 10-40 °C	See appended tables 8.3.3.1	—
	test enclosure W x H x D (mm x mm x mm)	—	—
	material of enclosure	—	—
	Main circuits, test conditions:		—
	- conventional thermal current I _{th} (A)	400 A	—
	- conventional enclosed thermal current I _{the} (A) . :	—	—
	- cable/busbar cross-section (mm ²) / length (mm) :	240 mm ²	—
	Fuse-link details (fuse-combination units only):		—
	- manufacturer's name, trademark or identification mark	APATOR	—
	- manufacturer's model or type reference	WTNH gG	—
	- rated current (A)	400 A	—
	- power loss (W)	31 W	—
	- rated breaking capacity (kA)	120 kA	—
	Measured temperature-rise	See appended tables 8.3.3.1	P
	Auxiliary circuits, test conditions:		N/A
	- rated operation current (A)	—	—
	- cable cross-section (mm ²)	—	—
	Measured temperature-rise	—	N/A
8.3.3.2	Test of dielectric properties	Samples Nos. A2/10, A2/11 and A2/15	P
	Rated impulse withstand voltage (kV)	12 kV	—
	- test U _{imp} main circuits (kV)	14,5 kV	P
	- test U _{imp} auxiliary circuits (kV)	—	N/A
	- test U _{imp} on open main contacts (equipment suitable for isolation) (kV)	18,1 kV	P
	Power-frequency withstand voltage (V)	2200 V	—
	- main circuits, test voltage for 5 sec. (V)	5 s	P
	- control and auxiliary circuits, test voltage for 5 sec. (V)	—	N/A
	Devices, which have been disconnected for the power-frequency withstand voltage test	—	N/A

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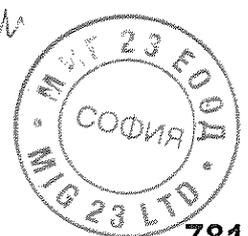
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Clause	Requirement + Test	Result - Remark	Verdict
	Equipment suitable for isolation, leakage current not exceed 0,5 mA		—
	Test voltage 1,1 Ue (V)	759 V	—
	Measured leakage current (mA)	0,009 mA	P
8.3.3.3	Making and breaking capacity	Sample No.: A2/1	P
	- utilization category	AC-22B	—
	- rated operational voltage Ue (V)	690 V	—
	- rated operational current Ie (A) or power (kW) ..	400 A	—
	Conditions for make/break operations or make operation, AC-22B:		P
	- test voltage, U = 1,05 Ue.....(V):	L1: 725 V L2: 725 V L3: 725 V	—
	- test current, I = 3x Ie (A):	L1: 1213 A L2: 1216 A L3: 1216 A	—
	- power factor	L1: 0,65 L2: 0,65 L3: 0,65	—
	Conditions for break operation, AC-22B		P
	- test voltage, U = 1,05 Ue.....(V):	L1: 725 V L2: 725 V L3: 725 V	—
	- test current, I = 3x Ie (A):	L1: 1213 A L2: 1216 A L3: 1216 A	—
	- power factor	L1: 0,65 L2: 0,65 L3: 0,65	—
	Number of make/break or make and break operations	5 make 5 break	P
	- recovery voltage duration (≥ 50 ms)	725 V	P
	- current duration (ms)	440 ms	—
	- time interval between operations	35 s	P
	Characteristic of transient recovery voltage for AC-22 and AC-23 only		P
	- oscillatory frequency (kHz)	44,24 kHz	—
	- measured oscillatory frequency (kHz)	L1: 42,80 kHz L2: 44,05 kHz L3: 43,30 kHz	P

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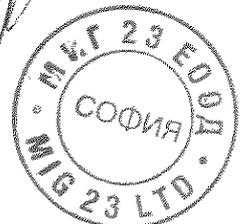
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Clause	Requirement + Test	Result - Remark	Verdict
	- factor γ	L1: 1,09 L2: 1,07 L3: 1,09	P
8.3.3.3.5	Behaviour of the equipment during making and breaking capacity tests		P
	Test performed without:		—
	- endanger to the operator		P
	- cause damage 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	120 N (before the test 90 N)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.3.4	Dielectric verification		P
	test voltage: $2 \cdot U_e$ with a minimum of 1000V~	1380 V	—
	No flashover or breakdown		P
8.3.3.5	Leakage current		P
	test voltage (1,1 U_e) (V)	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B): $\leq 0,5$ mA/pole ...	—	N/A
	Leakage current (other utilization categories): ≤ 2 mA/pole)	0,009 mA	P
8.3.3.6	Temperature-rise verification		P
	- conductor cross-section (mm ²)	240 mm ²	—
	- test current I_e (A)	400 A	—
	Measured temperature-rise	see appended tables 8.3.3.6	P

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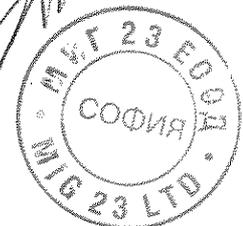


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Clause	Requirement + Test	Result - Remark	Verdict
8.3.3.3	Making and breaking capacity	Sample No.: A2/3	P
	- utilization category	AC-22B	—
	- rated operational voltage U_e (V)	400 V	—
	- rated operational current I_e (A) or power (kW) ..	400 A	—
	Conditions for make/break operations or make operation, AC-22B:		P
	- test voltage, $U = 1,05 U_e$(V):	L1: 420 V L2: 421 V L3: 421 V	—
	- test current, $I = 3$x I_e (A):	L1: 1215 A L2: 1214 A L3: 1218 A	—
	- power factor.....	L1: 0,66 L2: 0,65 L3: 0,66	—
	Conditions for break operation, AC-22B		P
	- test voltage, $U = 1,05 U_e$(V):	L1: 420 V L2: 421 V L3: 421 V	—
	- test current, $I = 3$x I_e (A):	L1: 1215 A L2: 1214 A L3: 1218 A	—
	- power factor	L1: 0,66 L2: 0,65 L3: 0,66	—
	Number of make/break or make and break operations	5 make 5 break	P
	- recovery voltage duration (≥ 50 ms)	421 V	P
	- current duration (ms)	430 ms	—
	- time interval between operations	35 s	P
	Characteristic of transient recovery voltage for AC-22 and AC-23 only		P
	- oscillatory frequency (kHz)	69,43 kHz	—
	- measured oscillatory frequency (kHz)	L1: 69,30 Hz L2: 68,25 kHz L3: 68,85 kHz	P
	- factor γ	L1: 1,08 L2: 1,09 L3: 1,06	P
8.3.3.3.5	Behaviour of the equipment during making and breaking capacity tests		P

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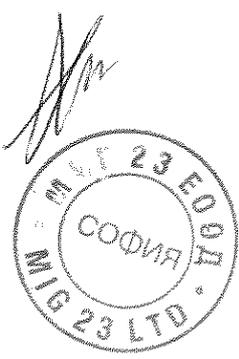
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Clause	Requirement + Test	Result - Remark	Verdict
	Test performed without:		—
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse 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	110 N (before the test 90 N)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.3.4	Dielectric verification		P
	test voltage: $2 \cdot U_e$ with a minimum of 1000V~ :	1380 V	—
	No flashover or breakdown		P
8.3.3.5	Leakage current		P
	test voltage (1,1 U_e) (V)	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B); $\leq 0,5$ mA/pole ... :	—	N/A
	Leakage current (other utilization categories): ≤ 2 mA/pole)	0,010 mA	P
8.3.3.6	Temperature-rise verification		P
	- conductor cross-section (mm ²)	240 mm ²	—
	- test current I_e (A)	400 A	—
	Measured temperature-rise	see appended tables 8.3.3.6	P

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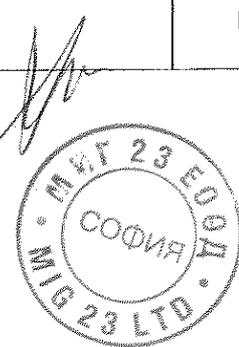
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IEC / EN 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.3.3	Making and breaking capacity	Sample No.: A2/4	P
	- utilization category	AC-21B	—
	- rated operational voltage Ue (V)	690 V	—
	- rated operational current Ie (A) or power (kW) ..	400 A	—
	Conditions for make/break operations or make operation, AC-21B:		P
	- test voltage, U = 1,05 Ue.....(V):	L1: 725 V L2: 725 V L3: 725 V	—
	- test current, I = 1,5x Ie (A):	L1: 616 A L2: 625 A L3: 612 A	—
	- power factor	L1: 0,96 L2: 0,95 L3: 0,96	—
	Conditions for break operation, AC-21B		P
	- test voltage, U = 1,05 Ue.....(V):	L1: 725 V L2: 725 V L3: 725 V	—
	- test current, I = 1,5x Ie (A):	L1: 616 A L2: 625 A L3: 612 A	—
	- power factor	L1: 0,96 L2: 0,95 L3: 0,96	—
	Number of make/break or make and break operations	5 make 5 break	P
	- recovery voltage duration (≥ 50 ms)	725 V	P
	- current duration (ms)	390 ms	—
	- time interval between operations	35 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

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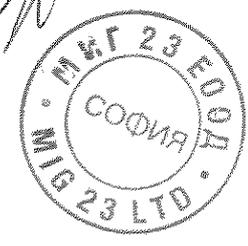
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Clause	Requirement + Test	Result - Remark	Verdict
	Test performed without:		—
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse 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	100 N (before the test 90 N)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.3.4	Dielectric verification		P
	test voltage: $2 \cdot U_e$ with a minimum of 1000V~	1380 V	—
	No flashover or breakdown		P
8.3.3.5	Leakage current		P
	test voltage (1,1 U_e) (V)	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B): $\leq 0,5$ mA/pole ...	—	N/A
	Leakage current (other utilization categories): ≤ 2 mA/pole)	0,010 mA	P
8.3.3.6	Temperature-rise verification		P
	- conductor cross-section (mm ²)	240 mm ²	—
	- test current I_e (A)	400 A	—
	Measured temperature-rise	see appended tables 8.3.3.6	P

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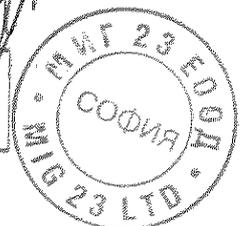


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Clause	Requirement + Test	Result - Remark	Verdict
8.3.3.3	Making and breaking capacity	Sample No.: A2/6	P
	- utilization category	AC-21B	—
	- rated operational voltage U_e (V)	400 V	—
	- rated operational current I_e (A) or power (kW) ..	400 A	—
	Conditions for make/break operations or make operation, AC-21B:		P
	- test voltage, $U = 1,05 U_e$(V):	L1: 420 V L2: 421 V L3: 421 V	—
	- test current, $I = 1,5$x I_e (A):	L1: 610 A L2: 612 A L3: 610 A	—
	- power factor.....	L1: 0,94 L2: 0,95 L3: 0,95	—
	Conditions for break operation, AC-21B		P
	- test voltage, $U = 1,05 U_e$(V):	L1: 420 V L2: 421 V L3: 421 V	—
	- test current, $I = 1,5$x I_e (A):	L1: 610 A L2: 612 A L3: 610 A	—
	- power factor	L1: 0,94 L2: 0,95 L3: 0,95	—
	Number of make/break or make and break operations	5 make 5 break	P
	- recovery voltage duration (≥ 50 ms)	421 V	P
	- current duration (ms)	430 ms	—
	- time interval between operations	35 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

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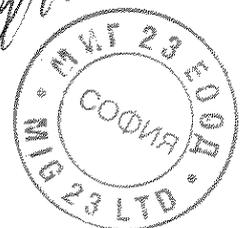
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Clause	Requirement + Test	Result - Remark	Verdict
	Test performed without:		—
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse 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	120 N (before the test 90 N)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.3.4	Dielectric verification		P
	test voltage: $2 \cdot U_e$ with a minimum of 1000V~	1380 V	—
	No flashover or breakdown		P
8.3.3.5	Leakage current		P
	test voltage (1,1 U_e) (V)	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B): $\leq 0,5$ mA/pole ...	—	N/A
	Leakage current (other utilization categories): ≤ 2 mA/pole)	0,010 mA	P
8.3.3.6	Temperature-rise verification		P
	- conductor cross-section (mm ²)	240 mm ²	—
	- test current I_e (A)	400 A	—
	Measured temperature-rise.....	see appended tables 8.3.3.6	P
8.3.3.7	Strength of actuator mechanism		N/A
8.2.5	Verification of the strength of actuator mechanism and position indicating device		N/A
	- actuator type (fig.)	1e	—
8.2.5.2.1	Dependent and independent manual operation		N/A
	- actuating force for opening (N)	90 N	—
	- test force with blocked main contacts (N)	—	—
	- used method to keep the contact closed.....	—	—

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Clause	Requirement + Test	Result - Remark	Verdict
	During and after the test, open position not indicated..... :	The main contacts position is visible in the open position – test not applicable	N/A
	Equipment with locking mean, no locking in the open position while test force is applied..... :	—	N/A
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

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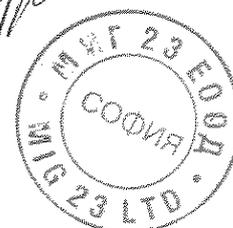
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Clause	Requirement + Test	Result - Remark	Verdict
8.3.4	TEST SEQUENCE II: OPERATIONAL PERFORMANCE CAPABILITY		P
8.3.4.1	Operational performance test	Sample No A2/2	P
	- utilization category	AC-22B	—
	- rated operational voltage (V)	690 V	—
	- rated operational current (A)	400 A	—
	Test conditions for electrical operation cycles:		
	- test voltage (V)	L1: 692 V L2: 693 V L3: 692 V	—
	- test current (A)	L1: 408 A L2: 410 A L3: 405 A	—
	- power factor/time constant	L1: 0,80 L2: 0,81 L3: 0,81	—
	Number of cycles with current	200	P
	Number of cycles without current	800	P
	First test sequence (with/without current)	without current	—
	Second test sequence (with/without current)	with current	—
	- time interval between first and second test sequence	7500 s	—
8.3.4.1.5	Behaviour of the equipment during the operational performance 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
8.3.4.1.6	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	80 N (before the test 90 N)	P
	- equipment is able to carry its rated current after normal closing operation		P

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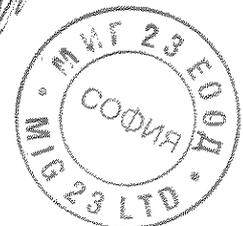


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Clause	Requirement + Test	Result - Remark	Verdict
8.3.4.2	Dielectric verification		P
	test voltage: $2 \cdot U_e$ with a minimum of 1000V~ :	1380 V	—
	No breakdown or flashover		P
8.3.4.3	Leakage current		P
	test voltage (1,1 U_e) (V)	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) $\leq 0,5$ mA/pole	—	N/A
	Leakage current (other utilization categories) ≤ 2 mA/pole	0,011 mA	P
8.3.4.4	Temperature-rise verification		P
	- conductor cross-section (mm ²)	240 mm ²	—
	- test current I_e (A)	400 A	—
	Measured temperature-rise	see appended tables 8.3.4.4	P
8.3.4.1	Operational performance test	Sample No A2/7	P
	- utilization category	AC-22B	—
	- rated operational voltage (V)	400 V	—
	- rated operational current (A)	400 A	—
	Test conditions for electrical operation cycles:		
	- test voltage (V)	L1: 400 V L2: 400 V L3: 401 V	—
	- test current (A)	L1: 406 A L2: 402 A L3: 405 A	—
	- power factor/time constant	L1: 0,79 L2: 0,79 L3: 0,79	—
	Number of cycles with current	200	P
	Number of cycles without current	800	P
	First test sequence (with/without current)	without current	—
	Second test sequence (with/without current)	with current	—
	- time interval between first and second test sequence	3000 s	—
8.3.4.1.5	Behaviour of the equipment during the operational performance test		P
	Test performed without:		—

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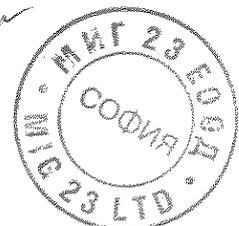


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Clause	Requirement + Test	Result - Remark	Verdict
	- endanger to the operator		P
	- cause damage to adjacent equipment		P
	No permanent arcing		P
	No flash over between poles and poles and frame		P
	No melting of the fuse in the detection circuit		P
8.3.4.1.6	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	120 N (before the test 90 N)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.4.2	Dielectric verification		P
	test voltage: $2 \cdot U_e$ with a minimum of 1000V~ :	1380 V	—
	No breakdown or flashover		P
8.3.4.3	Leakage current		P
	test voltage (1,1 U_e) (V)	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) $\leq 0,5$ mA/pole :	—	N/A
	Leakage current (other utilization categories) ≤ 2 mA/pole	0,010 mA	P
8.3.4.4	Temperature-rise verification		P
	- conductor cross-section (mm ²)	240 mm ²	—
	- test current I_e (A)	400 A	—
	Measured temperature-rise.....	see appended tables 8.3.4.4	P
8.3.4.1	Operational performance test	Sample No A2/5	P
	- utilization category	AC-21B	—
	- rated operational voltage (V)	690 V	—
	- rated operational current (A)	400 A	—
	Test conditions for electrical operation cycles:		
	- test voltage (V)	L1: 691 V L2: 692 V L3: 692 V	—

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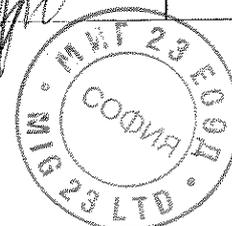


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Clause	Requirement + Test	Result - Remark	Verdict
	- test current (A)	L1: 408 A L2: 412 A L3: 405 A	—
	- power factor/time constant	L1: 0,94 L2: 0,94 L3: 0,94	—
	Number of cycles with current	200	P
	Number of cycles without current	800	P
	First test sequence (with/without current)	without current	—
	Second test sequence (with/without current)	with current	—
	- time interval between first and second test sequence	2000 s	—
8.3.4.1.5	Behaviour of the equipment during the operational performance 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
8.3.4.1.6	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	100 N (before the test 90 N)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.4.2	Dielectric verification		P
	test voltage: $2 \cdot U_e$ with a minimum of 1000V~	1380 V	—
	No breakdown or flashover		P
8.3.4.3	Leakage current		P
	test voltage (1,1 U_e) (V)	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) $\leq 0,5$ mA/pole	—	N/A
	Leakage current (other utilization categories) ≤ 2 mA/pole	0,011 mA	P

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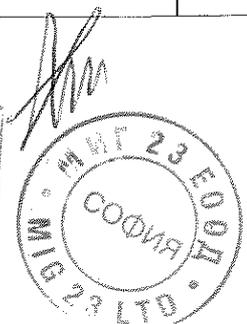


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Clause	Requirement + Test	Result - Remark	Verdict
8.3.4.4	Temperature-rise verification		P
	- conductor cross-section (mm ²)	240 mm ²	—
	- test current I _e (A)	400 A	—
	Measured temperature-rise	see appended tables 8.3.4.4	P
8.3.4.1	Operational performance test	Sample No A2/8	P
	- utilization category	AC-21B	—
	- rated operational voltage (V)	400 V	—
	- rated operational current (A)	400 A	—
	Test conditions for electrical operation cycles:		
	- test voltage (V)	L1: 400 V L2: 400 V L3: 401 V	—
	- test current (A)	L1: 402 A L2: 404 A L3: 404 A	—
	- power factor/time constant	L1: 0,95 L2: 0,96 L3: 0,95	—
	Number of cycles with current	200	P
	Number of cycles without current	800	P
	First test sequence (with/without current)	without current	—
	Second test sequence (with/without current)	with current	—
	- time interval between first and second test sequence	3500 s	—
8.3.4.1.5	Behaviour of the equipment during the operational performance 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
8.3.4.1.6	Condition of the equipment after making and breaking capacity tests		P
	Immediately after the test equipment must work satisfactorily		P

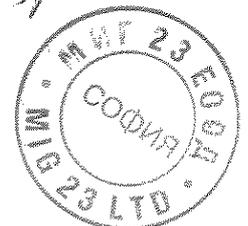
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Clause	Requirement + Test	Result - Remark	Verdict
	- required opening force not greater than the test force of 8.2.5.2 and table 8	120 N (before the test 90 N)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.4.2	Dielectric verification		P
	test voltage: $2 \cdot U_e$ with a minimum of 1000V-..... :	1380 V	—
	No breakdown or flashover		P
8.3.4.3	Leakage current		P
	test voltage (1,1 U_e) (V)	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) $\leq 0,5$ mA/pole :	—	N/A
	Leakage current (other utilization categories) ≤ 2 mA/pole	0,010 mA	P
8.3.4.4	Temperature-rise verification		P
	- conductor cross-section (mm ²)	240 mm ²	—
	- test current I_e (A)	400 A	—
	Measured temperature-rise.....	see appended tables 8.3.4.4	P

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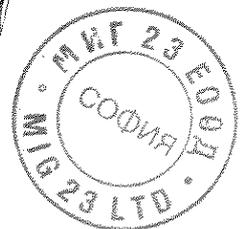
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Clause	Requirement + Test	Result - Remark	Verdict
8.3.5	TEST SEQUENCE III: SHORT-CIRCUIT PERFORMANCE CAPABILITY		N/A
	Requirements of this clause not applicable to the tested products		—

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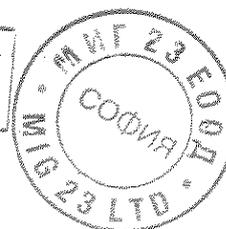
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IEC / EN 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.6	TEST SEQUENCE IV: CONDITIONAL SHORT-CIRCUIT CURRENT		P
	Short-circuit breaking capacity test was carried out at Laboratorium Badawcze Aparatury Rozdzielczej of Instytut Elektrotechniki in Warsaw. The particular results of the test are given in test report No. 7670/NBR/08		—
	Protective device details:	Sample No. 3W	P
	- manufacturer's name, trademark or identification mark	APATOR	—
	- manufacturer's model or type reference	WTNH 2 gG	—
	- rated voltage (V)	500 V	—
	- rated current (A)	400 A	—
	- rated breaking capacity (kA)	120 kA	—
8.3.6.2	Fuse protected short-circuit withstand		P
	test voltage (1,05 Ue) (V)	420 V	—
	test current (kA)	100 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: 35,54 kA L2: 26,164 kA L3: 40,95 kA	—
	- Joule integral I ² dt (A ² s)	L1: 1610 kA ² s L2: 780 kA ² s L3: 1530 kA ² s	—
	Fuse protected short-circuit making		P
	- mean velocity of 15 manually under no-load conditions operations (m/s)	1 m/s	—
	- point at which the measurement is made	Actuator	—
	- test speed during the fuse protected short-circuit making (m/s)	1 m/s	—
	- max. let-through current (kA)	L1: 39,89 kA L2: 28,07 kA L3: 11,24 kA	—
	- Joule integral I ² dt (A ² s)	L1: 1340 kA ² s L2: 648 kA ² s L3: 146 kA ² s	—
8.3.6.2.5	Behaviour of the equipment during the test		P

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Clause	Requirement + Test	Result - Remark	Verdict
	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	120 N (before the test 90 N)	P
	- equipment is able to carry its rated current after normal closing operation		P
8.3.6.3	Dielectric verification		P
	test voltage: $2 \cdot U_e$ with a minimum of 1000V~ :	1380 V	—
	No flashover or breakdown		P
8.3.6.4	Leakage current		P
	test voltage (1,1 U_e) (V)	759 V	—
	Leakage current (utilization categories AC-20A, AC-20B, DC-20A and DC-20B) $\leq 0,5$ mA/pole :	—	N/A
	Leakage current (other utilization categories) $\leq 2,0$ mA/pole	0,012 mA	P
8.3.6.5	Temperature-rise verification		P
	- conductor cross-section (mm ²)	240 mm ²	—
	- test current I_e (A)	400 A	—
	Measured temperature-rise	see appended table 8.3.6.5	P

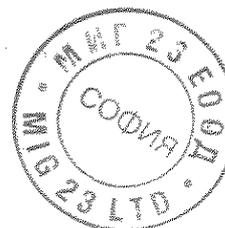
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Clause	Requirement + Test	Result - Remark	Verdict
8.3.7	TEST SEQUENCE V: OVERLOAD PERFORMANCE CAPABILITY		P
8.3.7.1	Overload test		P
	ambient temperature 10-40	24 °C	—
	test enclosure W x H x D (mm x mm x mm)	—	—
	material of enclosure	—	—
	test current 1,6xI _{th} e or 1,6xI _{th} (A)	640 A	—
	cable/busbar cross-section (mm ²) / length (mm) ..	240 mm ²	—
	Fuse-link details:		P
	- manufacturer's name, trademark or identification mark	APATOR WTNH 2	—
	- rated current (A)	400 A	—
	- power loss (W)	29 W	—
	- rated breaking capacity (kA)	120 kA	—
	- time duration of the overload test (s)	1826 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	5 min open and close	P
	Required opening force not greater than the test force of 8.2.5.2 and table 8	95 N	P
	The equipment has not undergone any impairment hindering such operation		P
8.3.7.2	Dielectric verification		P
	test voltage: 2*U _e with a minimum of 1000V-	1380 N	—
	No flashover or breakdown		P
8.3.7.3	Leakage current		P
	test voltage (1,1 U _e) (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	0,010 mA	P
8.3.7.4	Temperature-rise verification		P
	Fuse links aged during the overload test are replaced by new fuse-links	—	P
	- conductor cross-section (mm ²)	400 A	—
	- test current I _e (A)	240 mm ²	—
	Measured temperature-rise	see appended table 8.3.7.4	P

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Clause	Requirement + Test	Result - Remark	Verdict
8.4	ELECTROMAGNETIC COMPATIBILITY TESTS		P
8.4.1	Immunity		P
8.4.1.1	Equipment not incorporating electronic circuits: no tests necessary		P
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	---	N/A
	No unintentional separation or closing of contacts has occurred during these tests	---	N/A
8.4.2	Emission		P
8.4.2.1	Equipment not incorporating electronic circuits: no tests necessary		P
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	---	N/A

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IEC / EN 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
Annex A (normative)			N/A
A	Equipment for direct switching of a single motor		N/A
	Requirements of this clause not applicable to the tested products		

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Clause	Requirement + Test				Result - Remark		Verdict
7.1.3	TABLE: Clearance and creepage distance measurements						P
Type of fuse-switch disconnecter	clearance cl and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)	required cl (mm) case A / B	cl (mm)	required dcr (mm)	dcr (mm)
ARS 2-6-M	L-L	12 kV	1000	14 / 4,5	27,4	14	55,6
	L-A				9,1		15,0
ARS 2-1-V	L-L				16,6		55,6
	L-A				9,1		15,0
ARS 2-1-2V	L-L				10,0		55,6
	L-A				9,1		15,0
supplementary information: —							

7.1.1.1	TABLE: resistance to heat and fire. Glow-wire flammability test.							P
	Conditioning time	24 h					—	
	Ambient temperature	20 °C					—	
	Relative humidity	50 %					—	
	Time of glow-wire tip application (t _a)	(30 ± 1) s					—	
Tested part / material / market name / color	Thickness of material	Wire temperature	Duration from tip application to ignition	Duration from tip application to flames extinguishing	Height of flame	Specified layer ignition	Verdict	
	mm	°C	(t _i) s	(t _e) s	mm	no / yes		
Viewer I, Viewer II, terminals housing / polycarbonate / Lexan 9945A / transparent	2	650	0	0	0	no	P	
Enclosure, actuator, cover, conductor / poliamid / Starflam RX06082 / grey or black	3	650	0	0	0	no	P	
Base, arc chamber, terminals cover, blocking plate / poliamid / Starflam RF0057E / grey	2	960	5	31	3	no	P	
supplementary information:								
Test carried out on parts from equipment. Criteria of acceptance: t _e ≤ t _a + 30 s.								

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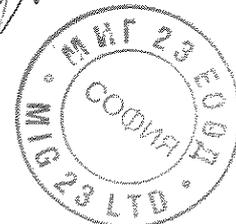


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Clause	Requirement + Test	Result - Remark	Verdict
8.3.3.1	TABLE: Temperature-rise (measurements)	Sample No A2/10	P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals	L1	67	70
	L2	68	
	L3	60	
	U	52	
	V	54	
	W	52	
Manual operating means: metallic / non-metallic		—/7	15/25
Parts intended to be touched but not hand-held: metallic / non-metallic		—/16	30/40
Parts which need not be touched during normal operation: metallic / non-metallic		—/25	40/50
supplementary information: ambient temperature: 23 °C			

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Clause	Requirement + Test	Result - Remark	Verdict
8.3.3.1	TABLE: Temperature-rise (measurements)	Sample No A2/11	P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals	L1	55	70
	L2	68	
	L3	58	
	U	41	
	V	47	
	W	42	
Manual operating means: metallic / non-metallic		—/11	15/25
Parts intended to be touched but not hand-held: metallic / non-metallic		—/36	30/40
Parts which need not be touched during normal operation: metallic / non-metallic		—/41	40/50
supplementary information: ambient temperature: 25 °C			

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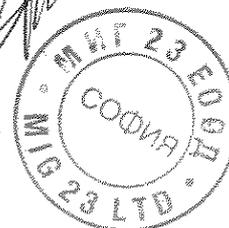
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Clause	Requirement + Test	Result - Remark	Verdict
8.3.3.1	TABLE: Temperature-rise (measurements)	Sample No A2/15	P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals	L1	47	70
	L2	65	
	L3	61	
	U	35	
	V	39	
	W	40	
Manual operating means: metallic / non-metallic		—/10	15/25
Parts intended to be touched but not hand-held: metallic / non-metallic		—/33	30/40
Parts which need not be touched during normal operation: metallic / non-metallic		—/35	40/50
supplementary information: ambient temperature: 25 °C			

8.3.3.6	TABLE: Temperature-rise (measurements)	Sample No A2/1	P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals	L1	60	80
	L2	74	
	L3	66	
	U	51	
	V	53	
	W	57	
Manual operating means: metallic / non-metallic		—/7	25/35
Parts intended to be touched but not hand-held: metallic / non-metallic		—/27	40/50
Parts which need not be touched during normal operation: metallic / non-metallic		—/45	50/60
supplementary information: ambient temperature: 24 °C			

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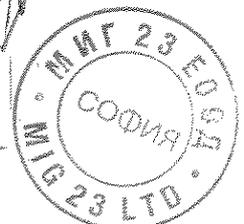
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IEC / EN 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.3.6	TABLE: Temperature-rise (measurements)	Sample No A2/3	P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals	L1	65	80
	L2	48	
	L3	50	
	U	43	
	V	45	
	W	43	
Manual operating means: metallic / non-metallic		—/10	25/35
Parts intended to be touched but not hand-held: metallic / non-metallic		—/23	40/50
Parts which need not be touched during normal operation: metallic / non-metallic		—/44	50/60
supplementary information: ambient temperature: 23 °C			

IEC / EN 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.3.6	TABLE: Temperature-rise (measurements)	Sample No A2/4	P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals	L1	61	80
	L2	41	
	L3	43	
	U	38	
	V	39	
	W	40	
Manual operating means: metallic / non-metallic		—/10	25/35
Parts intended to be touched but not hand-held: metallic / non-metallic		—/16	40/50
Parts which need not be touched during normal operation: metallic / non-metallic		—/32	50/60
supplementary information: ambient temperature: 24 °C			

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IEC / EN 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.3.6	TABLE: Temperature-rise (measurements)	Sample No A2/6	P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals	L1	75	80
	L2	45	
	L3	43	
	U	39	
	V	38	
	W	40	
Manual operating means: metallic / non-metallic		—/10	25/35
Parts intended to be touched but not hand-held: metallic / non-metallic		—/29	40/50
Parts which need not be touched during normal operation: metallic / non-metallic		—/36	50/60
supplementary information: ambient temperature: 25 °C			

8.3.4.4 TABLE: Temperature-rise (measurements)			
Clause	Requirement + Test	Sample No A2/2	P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals	L1	62	80
	L2	71	
	L3	72	
	U	55	
	V	56	
	W	52	
Manual operating means: metallic / non-metallic		—/6	25/35
Parts intended to be touched but not hand-held: metallic / non-metallic		—/26	40/50
Parts which need not be touched during normal operation: metallic / non-metallic		—/33	50/60
supplementary information: ambient temperature: 24 °C			

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

8.3.4.4	TABLE: Temperature-rise (measurements)	Sample No A2/5	P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals	L1	65	80
	L2	45	
	L3	46	
	U	42	
	V	38	
	W	40	
Manual operating means: metallic / non-metallic		—/9	25/35
Parts intended to be touched but not hand-held: metallic / non-metallic		—/28	40/50
Parts which need not be touched during normal operation: metallic / non-metallic		—/39	50/60
supplementary information: ambient temperature: 24 °C			

8.3.4.4	TABLE: Temperature-rise (measurements)	Sample No A2/7	P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals	L1	52	80
	L2	53	
	L3	56	
	U	43	
	V	45	
	W	44	
Manual operating means: metallic / non-metallic		—/10	25/35
Parts intended to be touched but not hand-held: metallic / non-metallic		—/23	40/50
Parts which need not be touched during normal operation: metallic / non-metallic		—/30	50/60
supplementary information: ambient temperature: 24 °C			

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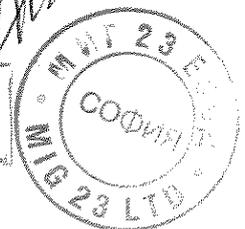
IEC / EN 60947-3			
Clause	Requirement + Test	Result - Remark	Verdict

8.3.4.4	TABLE: Temperature-rise (measurements)	Sample No A2/8	P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals	L1	63	80
	L2	62	
	L3	60	
	U	42	
	V	41	
	W	44	
Manual operating means: metallic / non-metallic		—/9	25/35
Parts intended to be touched but not hand-held: metallic / non-metallic		—/28	40/50
Parts which need not be touched during normal operation: metallic / non-metallic		—/37	50/60
supplementary information: ambient temperature: 25 °C			

8.3.6.5	TABLE: Temperature-rise (measurements)	Sample No. 3W	P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals	L1	43	80
	L2	41	
	L3	38	
	U	46	
	V	47	
	W	51	
Manual operating means: metallic / non-metallic		—/6	25/35
Parts intended to be touched but not hand-held: metallic / non-metallic		—/16	40/50
Parts which need not be touched during normal operation: metallic / non-metallic		—29	50/60
supplementary information: ambient temperature: 25 °C			

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

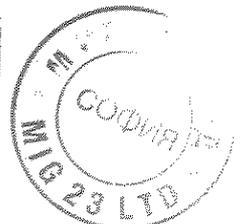
8.3.7.4	TABLE: Temperature-rise (measurements)	Sample No. A2/9	P
Temperature rise dT of part:		dT (K) measured	dT (K) required
Terminals	L1	41	80
	L2	44	
	L3	40	
	U	41	
	V	45	
	W	43	
Manual operating means: metallic / non-metallic		—/9	25/35
Parts intended to be touched but not hand-held: metallic / non-metallic		—/22	40/50
Parts which need not be touched during normal operation: metallic / non-metallic		—/28	50/60
supplementary information: ambient temperature: 25 °C			

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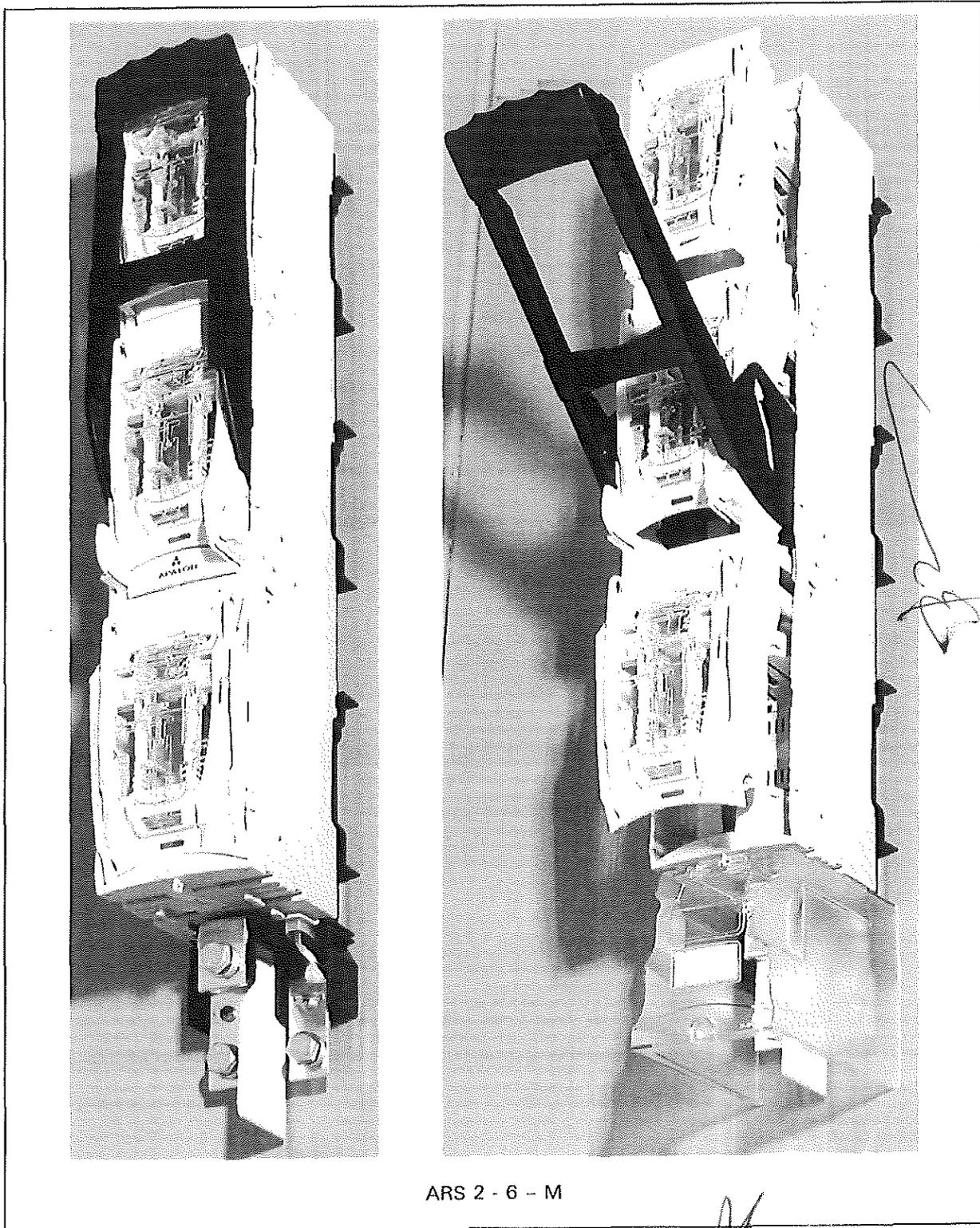
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Photos of ARS 2

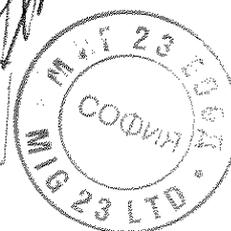


ARS 2 - 6 - M

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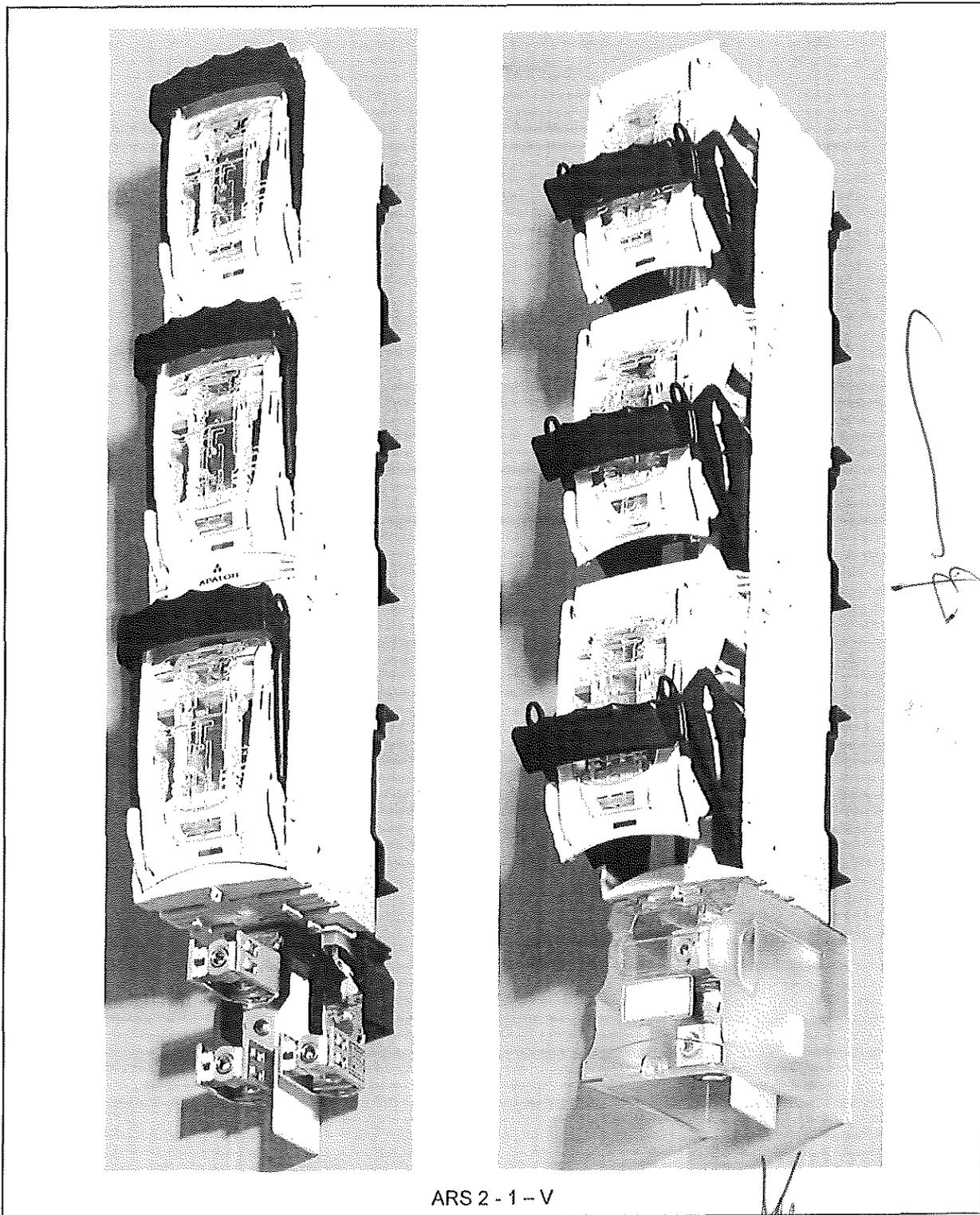
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Photos of ARS 2

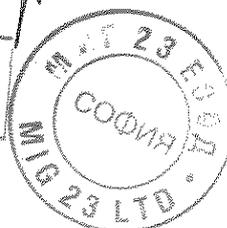


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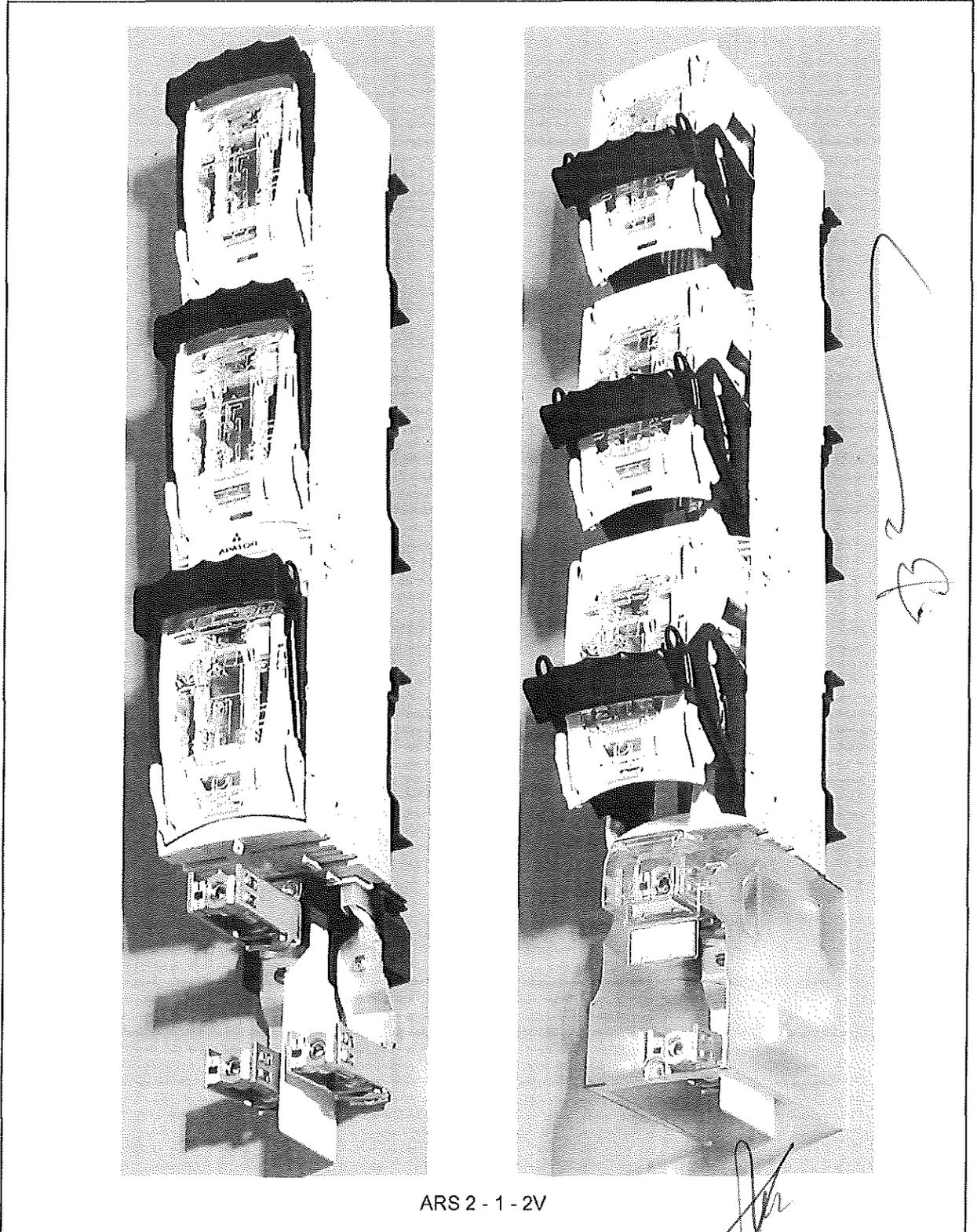
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Photos of ARS 2

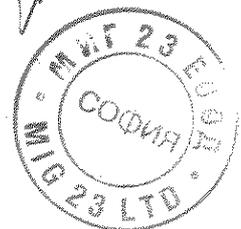


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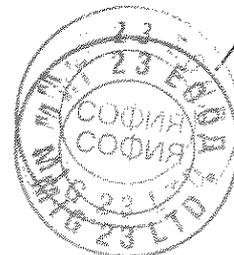
**ВЯРНО С
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СПИСЪК

на типовите изпитвания, проведени от независима изпитвателна лаборатория,
за предлаганите вертикални предпазител-разединители, както следва:

- Маркировка
- Конструкция
- Основни характеристики
- Повишаване на температурата
- Диелектрични свойства
- Работна и гранична изключвателна възможност при късо съединение
- Проверка на диелектричните свойства
- Ток на утечка
- Проверка при повишаване на температурата
- Експлоатационна възможност на задвижващия механизъм
- Работни характеристики
- Изпитване на експлоатационната възможност
- Проверка на диелектричните свойства на прекъсвач-разединителя
- Ток на утечка
- Проверка при повишаване на температурата
- Характеристики при късо съединение
- Издържан импулсен ток
- Работна изключвателна възможност при късо съединение
- Проверка на диелектричните свойства
- Ток на утечка
- Проверка при повишаване на температурата
- Условен ток на късо съединение
- Издържан ток на късо съединение със стопяем предпазител
- Проверка на диелектричните свойства
- Ток на утечка
- Проверка при повишаване на температурата
- Характеристики при претоварване
- Изпитване на претоварване
- Проверка на диелектричните свойства
- Ток на утечка
- Проверка при повишаване на температурата



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ПОЛСКИ ЦЕНТЪР ЗА АКРЕДИТАЦИЯ

АКРЕДИТАЦИЯ НА СЕРТИФИКАТ ЗА ИЗПИТВАНЕ ЛАБОРАТОРИЯ
№ AC 012

Това е в потвърдете, че:

АСОЦИАЦИЯ НА ПОЛСКИТЕ ЕЛЕКТРОИНЖЕНЕРИ
ул. Светокрузка 14, 00-050 Варшава
ИЗСЛЕДОВАТЕЛСКИ ЦЕНТЪР НА ПОЛСКИТЕ ЕЛЕКТРОИНЖЕНЕРИ за.
ЛАБОРАТОРНО ТЕСТВАНЕ НА КАЧЕСТВОТО
ул. М. Позарускиего 28, 04-703 Варшава

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отговаря на изискванията на PN-EN 45011:2000 стандарт

Акредитирани дейност се определя в обхвата на акредитация № AC 012

Тази акредитация остава в сила, при условие че лабораторията спазва изискванията на Акредитационния Орган, определени в договора № AC 012

Сертификатът за акредитация е валиден до 21.12.2018

Акредитацията се предоставя от 22.12.1993

ДИРЕКТОР
ПОЛСКИ ЦЕНТЪР ЗА АКРЕДИТАЦИЯ

ИНЖЕНЕР В.РОГУСКИ

Варшава, 19 декември, 2014 година

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СОФИА

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POLSKIE CENTRUM AKREDYTACJI
POLISH CENTRE FOR ACCREDITATION



Sygnatariusz EA MLA
EA MLA Signatory

CERTYFIKAT AKREDYTACJI
JEDNOSTKI CERTYFIKUJĄCEJ WYROBY
ACCREDITATION CERTIFICATE FOR PRODUCT CERTIFICATION BODY
Nr AC 012

Potwierdza się, że: / This is to confirm that:

STOWARZYSZENIE ELEKTRYKÓW POLSKICH
ul. Świętokrzyska 14, 00-050 Warszawa
STOWARZYSZENIE ELEKTRYKÓW POLSKICH
BIURO BADAWCZE DO SPRAW JAKOŚCI
JEDNOSTKA CERTYFIKUJĄCA
ul. M. Pożaryskiego 28, 04-703 Warszawa

spełnia wymagania normy PN-EN 45011:2000
meets requirements of the PN-EN 45011:2000 standard

Akredytowana działalność jest określona w Zakresie Akredytacji Nr AC 012
Accredited activity is defined in the Scope of Accreditation No AC 012

Akredytacja pozostaje w mocy pod warunkiem przestrzegania
wymagań jednostki akredytującej określonych w kontrakcie Nr AC 012
This accreditation remains in force provided the Body observes
the requirements of Accreditation Body defined in the Contract No AC 012

Certyfikat akredytacji ważny do dnia 21.12.2018 r.
The certificate of accreditation is valid until 21.12.2018

Akredytacji udzielono dnia 22.12.1993 r.
Accreditation was granted on 22.12.1993



DYREKTOR
POLSKIEGO CENTRUM AKREDYTACJI

на основание чл. 2 от 33ЛД

ELCENIUSZ W. ROGUSKI

ВЕРНО
ОРИГИНАЛ

Warszawa, 19 grudnia 2014 roku



ZAKRES AKREDYTACJI JEDNOSTKI CERTYFIKUJĄCEJ WYROBY Nr AC 012

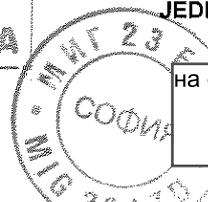
wydany przez
POLSKIE CENTRUM AKREDYTACJI
01-382 Warszawa, ul. Szczotkarska 42

Wydanie nr 11 Data wydania: 19 grudnia 2014 r.

 <p>AC 012</p>	<p>Nazwa i adres jednostki certyfikującej</p> <p>STOWARZYSZENIE ELEKTRYKÓW POLSKICH ul. Świętokrzyska 14, 00-050 Warszawa</p> <p>STOWARZYSZENIE ELEKTRYKÓW POLSKICH BIURO BADAWCZE DO SPRAW JAKOŚCI JEDNOSTKA CERTYFIKUJĄCA ul. M. Pożaryskiego 28, 04-703 Warszawa</p>
<p>Certyfikacja :</p> <p>- zgodności wyrobów, kod ICS: 13.260; 17.220; 19.080; 29.020; 29.060; 29.120; 29.130; 29.140; 29.180; 29.200; 29.240; 33.120; 33.160; 35.020; 35.260; 91.060; 91.120; 97.030; 97.100; 97.120; 97.170; 97.200.</p> <p>- na znaki zgodności, kod ICS: 13.260; 17.220; 19.080; 29.020; 29.060; 29.120; 29.130; 29.140; 29.180; 29.200; 29.240; 33.120; 33.160; 35.020; 35.260; 91.060; 91.120; 97.030; 97.100; 97.120; 97.170; 97.200.</p>	

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KIEROWNIK
DZIAŁU AKREDYTACJI
JEDNOSTEK CERTYFIKUJĄCYCH
I INSPEKCYJNYCH

На основание чл. 2 от ЗЗЛД

Niniejszy dokument jest załącznikiem do Certyfikatu Akredytacji Nr AC 012 z dnia 19.12.2014 r.
Status akredytacji oraz aktualność zakresu akredytacji można potwierdzić na stronie internetowej PCA www.pca.gov.pl

Rodzaj działalności:

CERTYFIKACJA ZGODNOŚCI WYROBÓW / CERTYFIKACJA NA ZNAKI ZGODNOŚCI

Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
Urządzenia ochrony przed porażeniem prądem elektrycznym	1a 5	CZ B-BBJ	PN-E-08509:1988	13.260
			PN-EN 61230:2011 EN 61230:2008 IEC 61230:2008	
			PN-EN 61243-3:2010 EN 61243-3:2010 IEC 61243-3:2009	
Przyrządy pomiarowe wielkości elektrycznych i magnetycznych	1a 5	CZ B-BBJ	PN-EN 60044-1:2000 PN-EN 60044-1:2000/A1:2003 PN-EN 60044-1:2000/A2:2004 EN 60044-1:1999 EN 60044-1:1999/A1:2000 EN 60044-1:1999/A2:2003 IEC 60044:1996 IEC 60044:1996/A1:2000 IEC 60044:1996/A2:2002	17.220
Elektryczne i elektroniczne przyrządy pomiarowe	1a 5	CZ B-BBJ	PN-EN 61010-1:2011 EN 61010-1:2010 IEC 61010-1:2010	19.080
Elektryczne i elektroniczne wyposażenie maszyn	1a 5	CZ B-BBJ	PN-EN 50102:2001 PN-EN 50102:2001/AC:2011 EN 50102:1995 EN 50102:1995/A1:1998 EN 50102:1995/AC:2002	29.020
			PN-EN 60529:2003 EN 60529:1991 EN 60529:1991/A1:2000 IEC 60529:2001	
			PN-EN 62262:2003 EN 62262:2002 IEC 62262:2002	
Kable i przewody elektryczne	1a 5	CZ B-BBJ	PN- E-90050:1987	29.060
			PN- E-90052:1987	
			PN- E-90054:1987	
			PN- E-90056:1987	
			PN- E-90060:1987	
			PN- E-90067:1987	
			PN- E-90070:1987	
			PN- E-90071:1987	
			PN- E-90073:1987	
			PN- E-90074:1987	
			PN- E-90115:1988	
			PN- E-90116:1988	
			PN- E-90117:1988	
			PN- E-90120:1968	
			PN- E-90121:1968	
			PN- E-90122:1968	
			PN- E-90123:1968	
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PN- E-90126:1968				
PN- E-90180:1974				
PN- E-90181:1974				

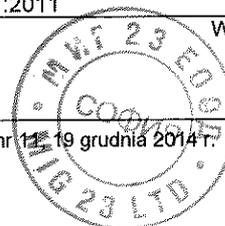
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Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
Kable i przewody elektryczne	1a 5	CZ B-BBJ	PN-EN 50143:2009	29.060
			EN 50143:2009	
			PN-EN 50149:2002	
			EN 50149:2001	
			PN-EN 50149:2012	
			EN 50149:2012	
			PN-EN 50182:2002	
			PN-EN 50182:2002/AC:2006	
			PN-EN 50182:2002/AC:2014-07	
			EN 50182:2001	
			EN 50182:2001/AC:2005	
			EN 50182:2001/AC:2013	
			PN-EN 50183:2002	
			EN 50183:2000	
			PN-EN 50189:2002	
			EN 50189:2000	
			PN-EN 50214:2008	
			EN 50214:2006	
			PN-EN 50264-1:2008	
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			EN 50264-2-2:2008	
			PN-EN 50267-2-2:2001	
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			PN-EN 50267-2-3:2001	
			EN 50267-2-3:1998	
			IEC 60754-2:1991	
			IEC 60754-2:1991/Am1:1997	
			PN-EN 50306-1:2003	
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			PN-EN 50397-1:2007	
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Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
Kable i przewody elektryczne	1a 5	CZ B-BBJ	PN-EN 50525-2-72:2011	29.060
			EN 50525-2-72:2011	
			PN-EN 50525-2-81:2011	
			EN 50525-2-81:2011	
			PN-EN 50525-2-82:2011	
			EN 50525-2-82:2011	
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			EN 50525-2-83:2011	
			PN-EN 50525-3-11:2011	
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			PN-EN 50525-3-21:2011	
			EN 50525-3-21:2011	
			PN-EN 50525-3-31:2011	
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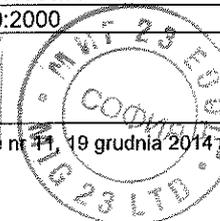
Wersja strony: A

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Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
Kable i przewody elektryczne	1a 5	CZ B-BBJ	PN-EN 60317-2:1998 PN-EN 60317-2:1998/A1:2000 PN-EN 60317-2:1998/A2:2002 EN 60317-2:1994 EN 60317-2:1994/A1:1998 EN 60317-2:1994/A2:2000 IEC 60317-2:1990 IEC 60317-2:1990/A1:1997 IEC 60317-2:1990/A2:1999 IEC 60317-2:2000 PN-EN 60317-2:2013-05 EN 60317-2:2012 IEC 60317-2:2012 IEC 60317-3:2004 PN-EN 60317-4:1998 PN-EN 60317-4:1998/A1:2000 PN-EN 60317-4:1998/A2:2002 EN 60317-4:1994 EN 60317-4:1994/A1:1998 EN 60317-4:1994/A2:2000 IEC 60317-4:1990 IEC 60317-4:1990/A1:1997 IEC 60317-4:1990/A2:1999 IEC 60317-4:2000 IEC 60317-7:1997 PN-EN 60317-8:2010 EN 60317-8:2010 IEC 60317-8:2010 PN-EN 60317-12:2010 EN 60317-12:2010 IEC 60317-12:2010 PN-EN 60317-13:2010 EN 60317-13:2010 IEC 60317-13:2010 PN-EN 60317-15:2005 PN-EN 60317-15:2005/A1:2010 EN 60317-15:2004 EN 60317-15:2004/A1:2010 IEC 60317-15:2004 IEC 60317-15:2004/A1:2010 IEC 60317-16:1990 IEC 60317-16:1990/Am1:1997 PN-EN 60317-17:2010 EN 60317-17:2010 IEC 60317-17:2010 PN-EN 60317-18:2005 PN-EN 60317-18:2005/A1:2010 EN 60317-18:2004 EN 60317-18:2004/A1:2010 IEC 60317-18:2004 IEC 60317-18:2004/A1:2009 PN-EN 60317-19:1998 PN-EN 60317-19:1998/A1:2000 PN-EN 60317-19:1998/A2:2002 EN 60317-19:1995 EN 60317-19:1995/A1:1998 EN 60317-19:1995/A2:2000 IEC 60317-19:1990 IEC 60317-19:1990/A1:1997 IEC 60317-19:1990/A2:1999 IEC 60317-19:2000	29.060

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Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
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			IEC 60317-20:1990/A1:1997	
			IEC 60317-20:1990/A2:1999	
			IEC 60317-20:2000	
			PN-EN 60317-20:2014-04	
			IEC 60317-20:2013	
			EN 60317-20:2014	
			PN-EN 60317-21:1998	
			PN-EN 60317-21:1998/A1:2000	
			PN-EN 60317-21:1998/A2:2002	
			EN 60317-21:1995	
			EN 60317-21:1995/A1:1998	
			EN 60317-21:1995/A2:2000	
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PN-EN 60317-23:1998				
PN-EN 60317-23:1998/A1:2000				
PN-EN 60317-23:1998/A2:2002				
EN 60317-23:1995				
EN 60317-23:1995/A1:1998				
EN 60317-23:1995/A2:2000				
IEC 60317-23:1990				
IEC 60317-23:1990/A1:1997				
IEC 60317-23:1990/A2:1999				
IEC 60317-23:2000				
PN-EN 60317-23:2014-04				
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Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
Kable i przewody elektryczne	1a 5	CZ B-BBJ	PN-EN 60317-27:2014-04 IEC 60317-27:2013 EN 60317-27:2014	29.060
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			PN-EN 60317-31:2002 PN-EN 60317-31:2002/A2:2006 EN 60317-31:1996 EN 60317-31:1996/A1:1997 EN 60317-31:1996/A2:2005 IEC 60317-31:1990 IEC 60317-31:1990/A1:1997 IEC 60317-31:1990/A2:2005 IEC 60317-31:1997	
			PN-EN 60317-32:2002 PN-EN 60317-32:2002/A2:2006 EN 60317-32:1996 EN 60317-32:1996/A1:1997 EN 60317-32:1996/A2:2005 IEC 60317-32:1990 IEC 60317-32:1990/A1:1997 IEC 60317-32:1990/A2:2005 IEC 60317-32:1997	
			PN-EN 60317-33:2002 PN-EN 60317-33:2002/A2:2006 EN 60317-33:1996 EN 60317-33:1996/A1:1997 EN 60317-33:1996/A2:2005 IEC 60317-33:1990 IEC 60317-33:1990/A1:1997 IEC 60317-33:1990/A2:2005 IEC 60317-33:1997	
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Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
Kable i przewody elektryczne	1a 5	CZ B-BBJ	PN-EN 60317-35:2014-05	29.060
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			PN-EN 60317-36:1998	
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			PN-EN 60317-36:1998/A2:2002	
			EN 60317-36:1994	
			EN 60317-36 :1994/A1:1998	
			EN 60317-36:1994/A2:2000	
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			IEC 60317-36:1992/A2 :1999	
			IEC 60317-36:2000	
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EN 60317-37:2014				
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EN 60317-38:2014				
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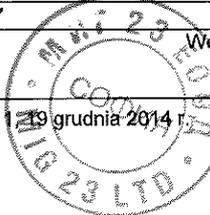
Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
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Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
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			IEC 60332-3-23:2000/A1:2008	
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			EN 60332-3-24:2009	
			IEC 60332-3-24:2000	
			IEC 60332-3-24:2000/A1:2008	
			PN-EN 60332-3-25:2009	
			EN 60332-3-25:2009	
			IEC 60332-3-25:2000	
			IEC 60332-3-25:2000/A1:2008	
			PN-EN 60702-1:2002	
			EN 60702-1:2002	
			IEC 60702-1:2002	
			PN-EN 61034-2:2010	
			PN-EN 61034-2:2010/A1:2014-02	
			EN 61034-2:2005	
			EN 61034-2:2005/A1:2013	
			IEC 61034-2:2005	
			IEC 61034-2:2005/A1:2013	
			PN-EN 61138:2009	
			EN 61138:2007	
			IEC 61138:2007	
			PN-EN 62219:2003	
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HD 21.9 S2:1995				
HD 21.9 S2:1995/A1:1999				
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HD 603 S1:1994/A2:2003				
HD 603 S1:1994/A3:2007				
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PN-HD 604 S1:2002				
PN-HD 604 S1:2002/A2:2003				
PN-HD 604 S1:2002/A3:2006				
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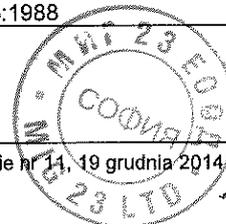
Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
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			HD 622 S1:1996/A1:2000	
			HD 622 S1:1996/A2:2005	
			PN-HD 626 S1:2002	
			PN-HD 626 S1:2002/A2:2003	
			HD 626 S1:1996	
			HD 626 S1:1996/A1:1997	
			HD 626 S1:1996/A2:2002	
			PN-HD 627 S1:2002	
			PN-HD 627 S1:2002/A2:2006	
			HD 627 S1:1996	
			HD 627 S1:1996/A1:2000	
			HD 627 S1:1996/A2:2005	
			PN-HD 632 S2:2009	
			HD 632 S2:2008	
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			IEC 60055-1:1997/A1:2005	
			IEC 60055-1:2005	
			IEC 60055-2:1981	
			IEC 60055-2:1981/A1:1989	
			IEC 60055-2:1981/A2:2005	
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			IEC 60227-5:2003	
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Osprzęt elektryczny	1a 5	CZ B-BBJ	PN-E-93209:1998	29.120
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			EN 50086-1:1993/AC:2005	
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			EN 50428:2005	
			EN 50428:2005/A1:2007	
			EN 50428:2005/A2:2009	
			PN-EN 60127-1:2008	
			PN-EN 60127-1:2008/A1:2012	
			EN 60127-1:2006	
			EN 60127-1:2006/A1:2011	
IEC 60127-1:2006				
IEC 60127-1:2006/A1:2011				
PN-EN 60127-2:2006				
PN-EN 60127-2:2006/A2:2010				
EN 60127-2:2003				
EN 60127-2:2003/A1:2003				
EN 60127-2:2003/A2:2010				
IEC 60127-2:2003				
IEC 60127-2:2003/A1:2003				
IEC 60127-2:2003/A2:2010				
PN-EN 60127-3:2006				
EN 60127-3:1996				
EN 60127-3:1996/A2:2003				
IEC 60127-3:1988				
IEC 60127-3:1988/A1:1991				
IEC 60127-3:1988/A2:2002				
PN-EN 60127-4:2006				
PN-EN 60127-4:2006/A1:2010				
PN-EN 60127-4:2006/A2:2013-11				
EN 60127-4:2005				
EN 60127-4:2005/A1:2009				
EN 60127-4:2005/A2:2013				
IEC 60127-4:2005				
IEC 60127-4:2005/A1:2008				
IEC 60127-4:2005/A2:2012				
PN-EN 60127-5:2002				
EN 60127-5:1991				
IEC 60127-5:1988				

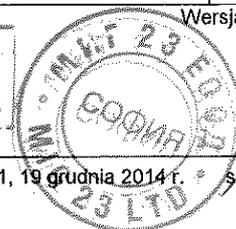
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Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
Osprzęt elektryczny	1a 5	CZ B-BBJ	PN-EN 60127-6:2006	29.120
			EN 60127-6:1994	
			EN 60127-6:1994/A1:1996	
			EN 60127-6:1994/A2:2003	
			IEC 60127-6:1994	
			IEC 60127-6:1994/A1:1996	
			IEC 60127-6:1994/A2:2002	
			PN-EN 60269-1:2010	
			PN-EN 60269-1:2010/A1:2012	
			EN 60269-1:2007	
EN 60269-1:2007/A1:2009				
IEC 60269-1:2006				
IEC 60269-1:2006/A1:2009				
PN-EN 60269-4:2010				
PN-EN 60269-4:2010/A1:2012				
EN 60269-4:2009				
EN 60269-4:2009/A1:2012				
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IEC 60269-4:2009/A1:2012				
PN-EN 60309-1:2002				
PN-EN 60309-1:2002/A1:2009				
PN-EN 60309-1:2002/A2:2013-03				
EN 60309-1:1999				
EN 60309-1:1999/A11:2004				
EN 60309-1:1999/A1:2007				
EN 60309-1:1999/A2:2012				
IEC 60309-1:1999				
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IEC 60309-1:1999/A2:2012				
PN-EN 60309-2:2002				
PN-EN 60309-2:2002/A1:2009				
PN-EN 60309-2:2002/A2:2012				
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EN 60309-2:1999/A1:2007				
EN 60309-2:1999/A2:2012				
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IEC 60309-2:1999/A2:2012				
PN-EN 60320-1:2005				
PN-EN 60320-1:2005/A1:2009				
EN 60320-1:2001				
EN 60320-1:2001/A1:2007				
IEC 60320-1:2001				
IEC 60320-1:2001/A1:2007				
PN-EN 60320-2-1:2001				
EN 60320-2-1:2000				
IEC 60320-2-1:2000				
PN-EN 60320-2-2:2001				
EN 60320-2-2:1998				
IEC 60320-2-2:1998				
PN-EN 60669-1:2006				
PN-EN 60669-1:2006/A2:2008				
EN 60669-1:1999				
EN 60669-1:1999/A1:2002				
EN 60669-1:1999/A2:2008				
IEC 60669-1:1998				
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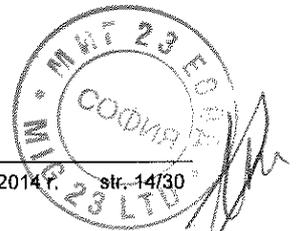
Wersja strony: A

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Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
Osprzęt elektryczny	1a 5	CZ B-BBJ	PN-EN 60669-2-1:2007	29.120
			PN-EN 60669-2-1:2007/A1:2009	
			PN-EN 60669-2-1:2007/A12:2010	
			EN 60669-2-1:2004	
			EN 60669-2-1:2004/A1:2009	
			EN 60669-2-1:2004/A12:2010	
			IEC 60669-2-1:2002	
			IEC 60669-2-1:2002/A1:2008	
			PN-EN 60669-2-2:2008	
			EN 60669-2-2:2006	
			IEC 60669-2-2:2006	
			PN-EN 60669-2-3:2008	
			EN 60669-2-3:2006	
			IEC 60669-2-3:2006	
			PN-EN 60670-1:2007	
PN-EN 60670-1:2007/A1:2013-06				
EN 60670-1:2005				
EN 60670-1:2005/A1:2013				
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PN-EN 60670-21:2009				
EN 60670-21:2007				
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EN 60670-22:2006				
IEC 60670-22:2003				
PN-EN 60799:2004				
EN 60799:1998				
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PN-EN 60898:2002				
EN 60898:1991				
EN 60898:1991/A1:1991				
EN 60898:1991/A11:1994				
EN 60898:1991/A12:1995				
EN 60898:1991/A13:1995				
EN 60898:1991/A14:1995				
EN 60898:1991/A15:1995				
EN 60898:1991/A16:1996				
EN 60898:1991/A17:1998				
EN 60898:1991/A18:1998				
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IEC 60898:1987				
IEC 60898:1987/A1:1989				
PN-EN 60898-1:2007				
PN-EN 60898-1:2007/A12:2008				
PN-EN 60898-1:2007/A13:2012				
EN 60898-1:2003				
EN 60898-1:2003/A1:2004				
EN 60898-1:2003/A11:2005				
EN 60898-1:2003/A12:2008				
EN 60898-1:2003/A13:2012				
IEC 60898-1:2002				
IEC 60898-1:2002/A1:2002				
PN-EN 60898-2:2008				
EN 60898-2:2006				
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IEC 60898-2:2000/A1:2003				

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Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
Osprzęt elektryczny	1a 5	CZ B-BBJ	PN-EN 60934:2004	29.120
			PN-EN 60934:2004/A1:2012	
			PN-EN 60934:2004/A2:2013-07	
			EN 60934:2001	
			EN 60934:2001/A1:2007	
			EN 60934:2001/A2:2013	
			IEC 60934:2000	
			IEC 60934:2000/A1:2007	
			IEC 60934:2000/A2:2013	
			PN-EN 60998-1:2006	
			EN 60998-1:2004	
			IEC 60998-1:2002	
			PN-EN 60998-2-1:2006	
			EN 60998-2-1:2004	
			IEC 60998-2-1:2002	
			PN-EN 60998-2-2:2006	
			EN 60998-2-2:2004	
			IEC 60998-2-2:2002	
			PN-EN 60998-2-3:2007	
			EN 60998-2-3:2004	
			IEC 60998-2-3:2002	
			PN-EN 60998-2-4:2007	
			EN 60998-2-4:2005	
			IEC 60998-2-4:2004	
			PN-EN 60999-1:2002	
			EN 60999-1:2000	
			IEC 60999-1:1999	
			PN-EN 61008-1:2007	
PN-EN 61008-1:2007/A11:2007				
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EN 61008-1:2004/A11:2007				
EN 61008-1:2004/A12:2009				
EN 61008-1:2004/A13:2012				
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PN-EN 61008-2-1:2007				
EN 61008-2-1:1994				
EN 61008-2-1:1994/A11:1998				
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PN-EN 61009-1:2008				
PN-EN 61009-1:2008/A11:2008				
PN-EN 61009-1:2008/A12:2009				
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EN 61009-1:2004				
EN 61009-1:2004/A11:2008				
EN 61009-1:2004/A12:2009				
EN 61009-1:2004/A13:2009				
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PN-EN 61009-1:2013				
EN 61009-1:2012				
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Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
Osprzęt elektryczny	1a 5	CZ B-BBJ	PN-EN 61034-2:2010	29.120
			EN 61034-2:2005	
			IEC 61034-2:2005	
			PN-EN 61058-1:2005	
			PN-EN 61058-1:2005/A2:2008	
			EN 61058-1:2002	
			EN 61058-1:2002/A2:2008	
			IEC 61058-1:2000	
			IEC 61058-1:2000/A1:2001	
			IEC 61058-1:2000/A2:2007	
			PN-EN 61058-2-1:2011	
			EN 61058-2-1:2011	
			IEC 61058-2-1:2010	
			PN-EN 61058-2-5:2011	
			EN 61058-2-5:2011	
			IEC 61058-2-5:2010	
			PN-EN 61210:2010	
			EN 61210:2010	
			IEC 61210:2010	
			PN-EN 61238-1:2004	
EN 61238-1:2003				
IEC 61238-1:2003				
PN-EN 61242:2001				
PN-EN 61242:2001/A1:2010				
EN 61242:1997				
EN 61242:1997/A1:2008				
IEC 61242:1995				
IEC 61242:1995/A1:2008				
PN-EN 61316:2003				
EN 61316:1999				
IEC 61316:1999				
PN-EN 61386-1:2011				
EN 61386-1:2008				
IEC 61386-1:2008				
PN-EN 61386-21:2005				
PN-EN 61386-21:2005/A11:2011				
EN 61386-21:2004				
EN 61386-21:2004/A11:2010				
IEC 61386-21:2002				
PN-EN 61386-22:2005				
PN-EN 61386-22:2005/A11:2011				
EN 61386-22:2004				
EN 61386-22:2004/A11:2010				
IEC 61386-22:2002				
PN-EN 61386-23:2005				
PN-EN 61386-23:2005/A11:2011				
EN 61386-23:2004				
EN 61386-23:2004/A11:2010				
IEC 61386-23:2002				
PN-EN 61543:1999				
PN-EN 61543:1999/A11:2005				
PN-EN 61543:1999/A12:2011				
PN-EN 61543:1999/A2:2011				
EN 61543:1995				
EN 61543:1995/A11:2003				
EN 61543:1995/A12:2005				
EN 61543:1995/A2:2006				
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PN-EN 61810-1:2010				
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Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
Osprzęt elektryczny	1a 5	CZ B-BBJ	PN-HD 60269-3:2010 PN-HD 60269-3:2010/A1:2013-10 HD 60269-3:2010 HD 60269-3:2010/A1:2013 IEC 60269-3:2010 IEC 60269-3:2010/A1:2013 IEC 60269-3:2010/AC1:2013	29.120
Aparatura łączeniowa i sterownicza	1a 5	CZ B-BBJ	PN-EN 50123-1:2003 EN 50123-1:2003 PN-EN 50123-2:2003 EN 50123-2:2000 PN-EN 60238:2007 PN-EN 60238:2007/A1:2010 PN-EN 60238:2007/A2:2011 EN 60238:2004 EN 60238:2004/A1:2008 EN 60238:2004/A2:2011 IEC 60238:2004 IEC 60238:2004/A1:2008 IEC 60238:2004/A2:2011 PN-EN 60439-1:2003 PN-EN 60439-1:2003/A1:2006 EN 60439-1:1999 EN 60439-1:1999/A1:2003 IEC 60439-1:2004 PN-EN 60439-2:2004 PN-EN 60439-2:2004/A1:2007 EN 60439-2:2000 EN 60439-2:2000/A1:2005 IEC 60439-2:2000 IEC 60439-2:2000/A1:2005 PN-EN 60439-4:2008 EN 60439-4:2004 IEC 60439-4:2004 PN-EN 60439-5:2008 EN 60439-5:2006 IEC 60439-5:2006 PN-EN 60947-1:2010 PN-EN 60947-1:2010/A1:2011 EN 60947-1:2007 EN 60947-1:2007/A1:2011 IEC 60947-1:2007 IEC 60947-1:2007/A1:2010 PN-EN 60947-2:2009 PN-EN 60947-2:2009/A1:2010 PN-EN 60947-2:2009/A2:2013-06 EN 60947-2:2006 EN 60947-2:2006/A1:2009 EN 60947-2:2006/A2:2013 IEC 60947-2:2006 IEC 60947-2:2006/A1:2009 IEC 60947-2:2006/A2:2013 PN-EN 60947-3:2009 PN-EN 60947-3:2009/A1:2012 EN 60947-3:2009 EN 60947-3:2009/A1:2012 IEC 60947-3:2008 IEC 60947-3:2008/A1:2012	29.130

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Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
Aparatura łączeniowa i sterownicza	1a 5	CZ B-BBJ	PN-EN 60947-3:2013 EN 60947-3:2009 EN 60947-3:2009/A1:2012 IEC 60947-3:2008 IEC 60947-3:2008/A1:2012 PN-EN 60947-4-1:2010 PN-EN 60947-4-1:2010/A1:2013-05 EN 60947-4-1:2010 EN 60947-4-1:2010/A1:2012 IEC 60947-4-1:2009 IEC 60947-4-1:2009/A1:2012 PN-EN 60947-4-2:2004 PN-EN 60947-4-2:2004/A2:2010 EN 60947-4-2:2000 EN 60947-4-2:2000/A1:2002 EN 60947-4-2:2000/A2:2006 IEC 60947-4-2:1999 IEC 60947-4-2:1999/A1:2001 IEC 60947-4-2:1999/A2:2006 PN-EN 60947-4-2:2012 EN 60947-4-2:2012 IEC 60947-4-2:2011 PN-EN 60947-4-3:2002 PN-EN 60947-4-3:2002/A1:2008 PN-EN 60947-4-3:2002/A2:2012 EN 60947-4-3:2000 EN 60947-4-3:2000/A1:2006 EN 60947-4-3:2000/A2:2011 IEC 60947-4-3:1999 IEC 60947-4-3:1999/A1:2006 IEC 60947-4-3:1999/A2:2012 PN-EN 60947-5-1:2006 PN-EN 60947-5-1:2006/A1:2012 EN 60947-5-1:2004 EN 60947-5-1:2004/A1:2009 IEC 60947-5-1:2003 IEC 60947-5-1:2003/A1:2009 PN-EN 60947-5-2:2011 PN-EN 60947-5-2:2011/A1:2013-06 EN 60947-5-2:2007 EN 60947-5-2:2007/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2:2007/A1:2012 PN-EN 60947-5-5:2002 PN-EN 60947-5-5:2002/A1:2007 PN-EN 60947-5-5:2002/A11:2013-06 EN 60947-5-5:1997 EN 60947-5-5:1997/A1:2005 EN 60947-5-5:1997/A11:2013 IEC 60947-5-5:1997 IEC 60947-5-5:1997/A1:2005 PN-EN 60947-6-1:2009 PN-EN 60947-6-1:2009/A1:2014-05 EN 60947-6-1:2005 EN 60947-6-1:2005/A1:2014 IEC 60947-6-1:2005 IEC 60947-6-1:2005/A1:2013 PN-EN 60947-7-1:2012 EN 60947-7-1:2009 IEC 60947-7-1:2009	29.130

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Aparatura łączeniowa i sterownicza	1a 5	CZ B-BBJ	PN-EN 60947-7-2:2012 EN 60947-7-2:2009 IEC 60947-7-2:2009	29.130				
			PN-EN 60947-7-3:2010 EN 60947-7-3:2009 IEC 60947-7-3:2009					
			PN-EN 61095:2011 EN 61095:2009 IEC 61095:2009					
			PN-EN 61439-1:2011 EN 61439-1:2011 IEC 61439-1:2011					
			PN-EN 61439-2:2011 EN 61439-2:2011 IEC 61439-2:2011					
			PN-EN 61439-3:2012 EN 61439-3:2012 IEC 61439-3:2012					
			PN-EN 61439-4:2013-06 EN 61439-4:2013 IEC 61439-4:2012					
			PN-EN 61439-5:2011 EN 61439-5:2011 IEC 61439-5:2010					
			PN-EN 61439-6:2013-03 EN 61439-6:2012 IEC 61439-6:2012					
			PN-EN 62208:2006 EN 62208:2003 IEC 62208:2002					
			PN-EN 62208:2011 EN 62208:2011 IEC 62208:2011					
			Lampy i ich wyposażenie		1a 5	CZ B-BBJ	PN-EN 60155:2005 PN-EN 60155:2005/A2:2007 EN 60155:1995 EN 60155:1995/A1:1995 EN 60155:1995/A2:2007 IEC 60155:1993 IEC 60155:1993/A1:1995 IEC 60155:1993/A2:2006	29.140
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Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
Lampy i ich wyposażenie	1a 5	CZ B-BBJ	PN-EN 60432-1:2001	29.140
			PN-EN 60432-1:2001/A1:2006	
			PN-EN 60432-1:2001/A2:2012	
			EN 60432-1:2000	
			EN 60432-1:2000/A1:2005	
			EN 60432-1:2000/A2:2012	
			IEC 60432-1:1999	
			IEC 60432-1:1999/A1:2005	
			IEC 60432-1:1999/A2:2011	
			PN-EN 60432-2:2001	
			PN-EN 60432-2:2001/A1:2007	
			PN-EN 60432-2:2001/A2:2012	
			EN 60432-2:2000	
			EN 60432-2:2000/A1:2005	
			EN 60432-2:2000/A2:2012	
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IEC 60432-2:1999/A1:2005				
IEC 60432-2:1999/A2:2012				
PN-EN 60432-3:2008				
PN-EN 60432-3:2008/A2:2008				
EN 60432-3:2003				
EN 60432-3:2003/A2:2008				
IEC 60432-3:2002				
IEC 60432-3:2002/A2:2008				
PN-EN 60432-3:2013-06				
EN 60432-3:2013				
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PN-EN 60598-2-3:2006				
PN-EN 60598-2-3:2006/A1:2012				
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EN 60598-2-3:2003/A1:2011				
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PN-EN 60598-2-4:2002				
EN 60598-2-4:1997				
IEC 60598-2-4:1997				
PN-EN 60598-2-5:2000				
EN 60598-2-5:1998				
IEC 60598-2-5:1998				
PN-EN 60598-2-6:2000				
EN 60598-2-6:1994				
EN 60598-2-6:1994/A1:1997				
IEC 60598-2-6:1994				
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EN 60598-2-7:1989				
EN 60598-2-7:1989/A2:1996				
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ОРИГИНАЛА**



Nazwa wyrobu/ grupy wyrobów	System certyfikacji wg PKN-Guide 67	Akronim programu certyfikacji	Numer normy lub dokumentu kryterialnego	ICS
Lampy i ich wyposażenie	1a 5	CZ B-BBJ	PN-EN 60598-2-8:2000 PN-EN 60598-2-8:2000/A1:2003 PN-EN 60598-2-8:2000/A2:2008 EN 60598-2-8:1997 EN 60598-2-8:1997/A1:2000 EN 60598-2-8:1997/A2:2008 IEC 60598-2-8:1996 IEC 60598-2-8:1996/A1:2000 IEC 60598-2-8:1996/A2:2007 PN-EN 60598-2-8:2013-12 EN 60598-2-8:2013 IEC 60598-2-8:2013 PN-EN 60598-2-9:2002 EN 60598-2-9:1989 EN 60598-2-9:1989/A1:1994 IEC 60598-2-9:1987 IEC 60598-2-9:1987/A1:1993 PN-EN 60598-2-10:2005 EN 60598-2-10:2003 IEC 60598-2-10:2003 PN-EN 60598-2-11:2006 EN 60598-2-11:2005 IEC 60598-2-11:2005 PN-EN 60598-2-11:2014-01 EN 60598-2-11:2013 IEC 60598-2-11:2013 PN-EN 60598-2-13:2007 PN-EN 60598-2-13:2007/A1:2012 EN 60598-2-13:2006 EN 60598-2-13:2006/A1:2012 IEC 60598-2-13:2006 IEC 60598-2-13:2006/A1:2011 PN-EN 60598-2-17:2002 EN 60598-2-17:1989 EN 60598-2-17:1989/A2:1991 IEC 60598-2-17:1984 IEC 60598-2-17:1984/A1:1987 IEC 60598-2-17:1984/A2:1990 PN-EN 60598-2-18:2002 PN-EN 60598-2-18:2002/A1:2012 EN 60598-2-18:1994 EN 60598-2-18:1994/AC:1996 EN 60598-2-18:1994/A1:2012 IEC 60598-2-18:1993 IEC 60598-2-18:1993/A1:2011 PN-EN 60598-2-20:2010 EN 60598-2-20:2010 IEC 60598-2-20:2010 PN-EN 60598-2-22:2004 PN-EN 60598-2-22:2004/A2:2010 EN 60598-2-22:1998 EN 60598-2-22:1998/A1:2003 EN 60598-2-22:1998/A2:2008 IEC 60598-2-22:1997 IEC 60598-2-22:1997/A1:2002 IEC 60598-2-22:1997/A2:2008 PN-EN 60598-2-23:2005 EN 60598-2-23:1996 EN 60598-2-23:1996/A1:2000 IEC 60598-2-23:1996 IEC 60598-2-23:1996/A1:2000	29.140

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