

# **TEST REPORT**

Reference No:	WTX21D03023971S
Manufacturer *:	Shenzhen Sunricher Technology Limited
Address::	3F & 5F, Building E, Qihang Innovation Industrial Park, No. 1008 Songbai Road, Nanshan District, Shenzhen, Guangdong 518055 China
Factory:	Shenzhen Sunricher Technology Limited
Address:	3F & 5F, Building E, Qihang Innovation Industrial Park, No. 1008 Songbai Road, Nanshan District, Shenzhen, Guangdong 518055 China
Product:	Controllers
Model(s):	See model list
Total pages:	67pages and 6 pages of photo.
Standards	<ul> <li>□ IEC 60669-1:2017/COR1:2020</li> <li>☑ EN 60669-1:2018</li> <li>Switches for household and similar fixed-electrical installations –Part 1: General requirements</li> <li>□ IEC 60669-2-1:2002+A1:2008+A2:2015</li> <li>☑ EN 60669-2-1:2004+A1:2009+A12:2010</li> <li>Switches for household and similar fixed electrical installations –Part 2-1: Particular requirements – Electronic switches</li> </ul>
Date of Receipt sample	2021-03-31
Date of Test:	2021-03-31 to 2021-04-15
Date of Issue:	2021-04-19

#### Remarks:

Test Result.....

1. The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Pass

2. "\*" Manufacturer means any natural or legal person who manufactures radio equipment or has radio equipment designed or manufactured, and markets that equipment under his name or trade mark.

# Prepared By: Waltek Testing Group Co., Ltd.

Address: No. 77, Houjie Section, Guantai Road, Houjie Town, Dongguan City, Guangdong, China

Tel:+86-769-2267 6998 Fax:+86-769-2267 6828

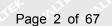
Compiled by:

Approved by:

Miffy Liu/ Project Engineer

Miffy Lin

Sam Qi / Designated Reviewer



Reference No.:WTX21D03023971S



Test item description	········ Controllers
Trademark	: N/A
Model and/or type reference	See model list
Rating(s)	: 100-240V~, 50/60Hz, 16A, Max. 3840W Resistive load
Remark:	LEK TEK TEK MILL WILL WILL WILL WILL WILL WILL WILL
Whether parts of tests for the pro	oduct have been subcontracted to other labs:
If Yes, list the related test items Test items: Lab information:	and lab information:

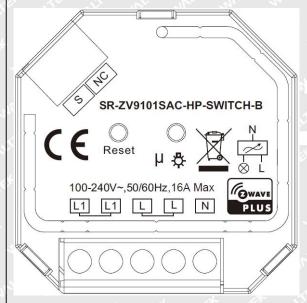
## Summary of testing:

All tests had been assessed for safety with respect to the above test specifications and found to comply with the requirements of the standards.

List of countries addressed: National Differences and Group Differences for CENELEC countries were checked.

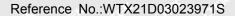
# Copy of marking plate:

For model SR-ZV9101SAC-HP-Switch-B:



#### Remark:

- 1. Above label for reference only, final label marking on product shall contain the information at least.
- 2.Name and address of the Importer and Manufacturer must be affixed on the product when the product placed on the EU market.
- 3. The height of CE mark shall be at least 5mm, the height of WEEE mark shall be at least 7mm.







Test items particulars:	The state of the s
Type of electronic switch and its function (examples	Relay Switch with an electronic control circuit;
given in Annex AA)	The Mr. M. M. M.
Pattern number:	1 the left that with with the
Contact opening (gap) and switch performance	Micro-gap switch
Degree of protection against access to hazardous parts and against harmful effects due to the ingress of solid foreign objects:	IP2X FF FF TEX MILE
Degree of protection against harmful effects	the man the the
due to the ingress of water:	IPX0
Method of actuating:	other external influences
Method of mounting:	flush-type
Method of installation:	design A
Type of terminals:	screw-type
Flexible cable outlet:	without
Rated current (A) / Rated load (VA or W):	Resistive load: Max. 3840W
Minimum current (A) / Minimum load (VA or W):	TEX WRITER WHITE WHITE WHITE WHITE WHITE
Kind of load controlled by the switch:	Resistive load
Rated voltage (V):	100-240VAC
Rated frequency (Hz)	50/60
Characteristic of fuses	N/A
Possible test case verdicts:	
- test case does not apply to the test object	N/A tree net met until until
- test object does meet the requirement:	P (Pass)
- test object does not meet the requirement:	F (Fail)
Testing	THE THE THE
Date of receipt of test item	2021-03-31
Date (s) of performance of tests	2021-03-31 to 2021-04-15

#### **General remarks:**

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

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

"(see appended table)" refers to a table appended to the report.

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



Reference No.:WTX21D03023971S



### **General product information:**

- 1. The equipment with models SR-ZV9101SAC-HP-Switch-B is Controllers.
- 2.Tests is conducted on model SR-ZV9101SAC-HP-Switch-B to represent the other model. 3.The product Rating(s): 100-240V~, 50/60Hz,16A, Max. 3840W Resistive load 4.Model list:

Model No	Description
SR-ZV9101SAC-HP-Switch-B	Both models have the same components, internal
SR-ZG9101SAC-HP-Switch-B	construction and shape, except for the different
SR-SB9101SAC-HP-Switch-B	model names.
SR-BL9101SAC-HP-Switch-B	" I st set set stell with mi
SR-9101SAC-HP-Switch-B	EX LIE MILL WILL WALL MAN WILL WILL
SR-ZV9080A	The state of the s
SR-ZG9080A	t let the tier with mit with white
SR-SB9080A	The Mr. Mr. In The The
SR-BL9080A	at let tet stet site with
SR-9080A	after with whit was all all all a





Reference No.: WTX21D03023971S Page 5 of 67

Land Alver	Mrs. Aug. Aug.	N 60669-1 & EN 60669-2-1	an.
Clause	Requirement + Test	Result - Remark	Verdict

8	MARKING	THE THE LIER NATION	Р
8.1	Switches marked with:	Very My My My My	Р
LIET AN	- rated voltage (V):	100-240VAC	P
et st	- rated control voltage, if different from rated voltage (V):	and an officer of	N
90	- rated current (A) or rated load (VA or W):	Resistive load: Max. 16A	Р
LIER	- symbol for nature of supply:	~ THE THE STEE	P
JEK	- manufacturer's or responsible vendor's name, trade mark or identification mark	The sure sure sure sure sure sure sure sur	N
7	- type reference:	SR-ZV9101SAC-HP-Switch-B	Р
CENT N	- symbol for mini-gap construction (m):	a st set set s	N
20,	- symbol for micro-gap construction (µ):	h were mer me me	Р
- 156	- symbol for semiconductor switching device (ε):	at all left the	N
MILLER	- first IP characteristic numeral, if declared higher than 2, in which case the second characteristic numeral is also marked	IP THE STEET STEET SOUTH	N M
LIEK W	- second IP characteristic numeral, if declared higher than 0, in which case the first characteristic numeral is also marked	PE MILIER MALIER M	TEKN
* A	- rated frequency (Hz):	50/60Hz	у Р <sub>о</sub>
21/2	- rating and type of any fuse incorporated:	THE WALL WALL WALL	Р
- E	- symbol for kind of load (see 8.2)	L A AT AT	Р
THE SHE	- the term "extension unit", if applicable, followed by the identifying reference:	MULT MILL MAL MARK	N N
ilek s	- the minimum height for mounting the switch indicated in the installation instruction if there is a restriction (see 10.1)	LIER WHITE WHITE WHITE	N
M. Wille	Switches with screwless terminals: marked with an indication of the suitability to accept rigid conductors only (if any)	THE LIFT NITE OF THE	N
MALTER	For electronic switches with included automatic function, number of operations shall be stated in the accompanying instruction sheet when number of operation is higher than the indicated in sub clause 19.101, 19.102 and 19.104 and 19.109	INTEX WITE WAITER WHITER	NALTEL MALTER
94 <u> </u>	- symbol for the adjustment of the delay time, if applicable	The the the the	N
- Mr	- symbol for the positions "Permanent on" and "Permanent off", if applicable:	MULL MULL MULL MULL	N
MILIT	- symbol for "Delay time":	THE STEE WITE WITE	N
3.2	Symbols used: as required in the standard	211, 24, 24,	Р



Ρ

N

Ρ

N

Ν

Ν

Р

Ρ

Ν

- length of insulation to be removed, if any - symbol for mini-gap construction, micro-gap construction or semiconductor switching device, if

Information concerning more than one type of load

Minimum and maximum current/load are stated for

Information of the iron core transformer intended to

be used with the dimmer are given in the instruction

IP code, when applicable, marked so as to be easily

discernible when the switch is mounted and wired as

Cover plates necessary for safety purposes and

intended to be sold separately: marked with the manufacturer's or responsible vendor's name, trade mark or identification mark and type reference

Marking clearly visible and easily legible

Terminals for phase conductors (supply

removed without the use of a tool

Markings are placed on parts which cannot be

conductors): identified unless method of connection is of no importance, self evident or indicated on a

Indications not placed on screws or other easily

switches of pattern number 2, 3, 03 and 6/2: similar

Terminals associated with any one pole for

identification differing from that of terminals

associated with other poles

not already marked on the electronic switch are stated in the accompanying instruction sheet

applicable

- type reference

each type of load

in normal use

wiring diagram

removable part

EN 60669-1& EN 60669-2-1					
Clause	Requirement + Test	Result - Remark	Verdict		
THE THE TEXT STEET MALE WALL WILL WILL WILL WILL WILL WILL WILL					
WALTER W	Marking for the nature of supply placed next to the marking for rated current and rated voltage	SLIER WHITER WHITER WHITER	Inti P		
LITER WAL	Other particular symbols used are explained in the installation instructions		TELN		
8.3	Marking of electronic switch placed on the main part:		P		
- rated current or rated load, rated voltage, symbol for nature of supply, rated frequency (if any), type of load, rating and type of any incorporated fuse (marked on the fuse-holder or in proximity of the fuse)		UP WHITE			
Write AU	- either the name, trade mark, or identification mark of the manufacturer or of the responsible vendor	PLIER WHITE WHITE WHITE	P		
. L 2		7 44	A		

8.4



Ρ

N

Ρ

Ν

Ν

Ν

N

Ν

N

Ν

N

Ν

Ν

Ν

Р

Ν

Neutral terminals: N.....

Earthing terminals: [earth symbol] .....:

indicated in a wiring diagram fixed to the accessory

- their marking with graphical symbols according to

IEC 60417 or colours and/or alphanumeric system,

Switches marked to indicate the switch position: they are so marked that the direction of movement of the actuating member to its different positions or the actual position is clearly indicated..... Switches having more than one actuating member:

their physical dimension or relative location

marking indicates the effect achieved by the

actuating members in an incorrect position

Marking clearly visible on the front of the switch

Not possible to fix cover, cover plate, or removable

Identification of equipment terminals may be achieved by:

Markings not placed on screws or other easily

- clearly identified unless their purpose is self

removable parts

evident, or

or

operation

8.5

8.6

Reference	No.: WTX21D03023971S Page 7 of 6	TX21D03023971S Page 7 of 67				
, Mer	EN 60669-1& EN 60669-2-1					
Clause	Requirement + Test	Result - Remark	Verdict			
''''	THE THE THE WILL WILL WILL WILL WILL WILL WILL WIL					
	Switches with more than two terminals: load terminal marked with an arrow pointing away from the terminal or with one of the symbol mentioned in 8.2	LIFER WHITER WHITER W	N N			
ek Jek	Other terminals marked corresponding to the installation instructions	and the text text	N			
JUL EN	Installation not made clear by the markings: a wiring diagram is provided with each electronic switch	MULL MULL MULL	N			
WILL V	Terminals for the control circuit of a priority RCS with a current sensitive coil or voltage sensitive coil are marked with the appropriate symbol indicated in 8.2	united white white	TEK STEK			
n m	Terminals for the control circuit: marked according to IEC 60445 and/or with the symbols according to 8.2	in mer me m	N			

Terminals for conductors not forming part of the main function of the switch:



	EN 60669-1& EN 60669-2	EN 60669-1& EN 60669-2-1	
Clause	Requirement + Test Result - Remark		Verdic
300	The state of the s	They are the to	
CLIER OF	- indicator lamp	LET THE THE ALL	NI P
	- adjusting the lamp dimmer in the lowest control state and at rated voltage minus 10%: light still visible		TEKN VIN
EX WALTER	When the indication of the electronic switch state is given only by the lamp, adjustment of the lamp at the lowest control state is made as specified in the following:		until whit
- JEE	- for incandescent lamps:	is and the state of	
All A	the adjustment of lamp dimmers is made by the manufacturer	met me me m	P
iner an	not possible to reduce the lowest setting without a tool	LETER WHITE WHITE WHITE	V PV
Lie Writ	- for fluorescent lamps:	the item street writer	N. N.
et allest	the adjustment of lamp dimmers is made by the manufacturer	in in the	N
	it is possible for the installer to alter the lowest setting if indicated in an installation instruction	white me were	N
8.7	Red colour only for push-button to open the circuit	RITE WALTE WALL WAS	N
8.8	Special precautions necessary to take when installing the switch: details of these and clear information given in an instruction sheet which accompanies the switch		P
L WILLER	Electronic switch containing a viewing window (lens) intended to be mounted at a height greater 1.7 m: information stated in the instruction sheet		STEET INTER
8.9	Marking durable and easily legible. Test: 15 s with water and 15 s with petroleum spirit	Mr. Mr. Mr. Mr.	P
9	CHECKING OF DIMENSIONS		L N
71.00 × 10.70	Switches and boxes comply with the appropriate		NO NO
	standard sheets, if any		70.
EN WALTER	Electronic switches with dimensions other than those specified in the standard sheets (if any) if they are supplied with suitable boxes	Whitek Whitek whitek a	Intil In Nit
10	PROTECTION AGAINST ELECTRIC SHOCK	White Muile Mill And	Р
10.1	Switches: live parts not accessible	TEX TEX STEE WITE	P
	Switches designed to be fitted with pilot lights supplied at voltages other than ELV have means to prevent direct contact with the lamp	THE NITER WILLER	white white
t mitek	Test with standard test finger shown in figure 1 of IEC 60529	THE THE STEEL	NITE - PEX
WITEK W	Switches with thermoplastic or elastomeric material: additional test carried out at 35 °C ± 2 °C with the test probe 11 of IEC 61032 (75 N for 1 min)	THE THE STEE OF	EX PLIE

Waltek Testing Group Co., Ltd. http://www.waltek.com.cn



Reference No.: WTX21D03023971S Page 9 of 67

Land Music	an an an	EN 60669-1& EN 60669-2-1	nu.
Clause	Requirement + Test	Result - Remark	Verdict

	Test probe applied to:	N
20	- thin-walled knock-outs with a force of 10 N	N
iter wit	- viewing windows or the like on electronic switches intended to be mounted at a height > 1,7 m with a force of 30 N	N
MUL	During the test: switches not deform and no live parts accessible	Р
0.2	Knobs, operating levers, push buttons, rockers and the like: of insulating material, unless:	I MILE
NLTEK WI	- accessible metal parts separated from metal parts of mechanism by double or reinforced insulation, or No accessible metal parts	WALLET N.
et d	- reliably connected to earth	dr N
	For touch sensitive electronic switches the associated protective impedance does not have to comply with the requirements of clauses 16 and 23	N N
NUTEK N	Accessible parts (for example, sensing surface) of electronic switches with IPX0 are connected to live parts by means of a protective impedance that:	et N
LIEN WIN	- consists of at least two independent resistors or independent capacitors in series of the same nominal value, or a combination of both	N
y di	- resistors comply with 102.3	N.
211	- capacitors comply with 102.2	N.
WILLER.	The removal of protective impedance is only possible by destruction of the electronic switch or by rendering it unusable	TIES N
Wille M	Test carried out between accessible metal parts and earth, through a non-inductive resistor of 2 k $\Omega$ :	Je N
iek whi	current measured: ≤ 0,7 mA (peak value), for a.c. up to 1 kHz	TE N
	current measured: ≤ 0,7 mA multiplied by the value of frequency in kHz, but not exceed 70 mA, for a.c. above 1 kHz	N
WITE.	current measured: ≤ 2 mA, for d.c:	N Salah
0.3	Accessible parts of switches with In ≤ 16 A: made of insulating material	Р
0.3.1	Metal covers or cover plates protected by supplementary insulation made by insulating linings or insulating barriers	N
	Insulating linings or insulating barriers:	N
MULTE	- cannot be removed without being permanently damaged, or designed that	ST ST N



Reference No.: WTX21D03023971S Page 10 of 67

	EN 60669-1& EN 60669-2-1		
Verdict	Test Result - Remark	Requirement + Test	Clause
	Test Result - Remark	Requirement + Test	Clause

- et			44
ilek mulek Elek mulek	- cannot be replaced in an incorrect position; if they are omitted, accessories are rendered inoperable or manifestly incomplete; there is no risk of accidental contact between live parts and metal covers or cover plates; precautions are taken to prevent creepage distances or clearances becoming less than the values specified in clause 23	iller while while while while w	AND N
10.3.2	Earthing of metal covers or cover plates: connection of low resistance		N.
10.4	Metal parts of mechanism not insulated from live parts: not protrude from enclosure	Mary Mary Mary Mary	P
ne w sex sis	Switches operated by means of a removable key or similar device: metal parts of mechanism insulated from live parts	tet while while while	N
10.5	Metal parts of mechanism not accessible and insulated from accessible metal parts, unless	Mur Aur au au	P
MAL STEK	- separated from live parts (creepage distances and clearances have at least twice the value specified in clause 23), or	white white white whi	WITEK
in	- reliably connected to earth	Vr. Aur Aur Au.	N
10.6	Switches operated by means of a removable key or an intermediate part: key or an intermediate part can only touch parts insulated from live parts	THE MALIER WALTER V	N
MUL	key or intermediate part: insulated from metal parts of mechanism, unless	WHITE WHITE WHITE WA	N
	creepage distances and clearances between live parts and metal parts of mechanism have at least twice the values specified in clause 23		N N
10.7	Cord-operated switches: impossible to touch live parts when fitting or replacing the pull cord	LITER WHITE WHITE WHITE	N
10.101	If a cover or cover-plate or a fuse can be removed without a tool or if the installation instructions for the user indicate that, for the purpose of maintenance, when replacing the fuse, covers and cover plates fastened by means of a tool have to be removed, the protection against contact with live parts is assured even after removal of cover or cover-plate (this requirement does not apply when the electronic switch must be dismounted from its supporting means for the replacement of the fuse-link)	EX WHITE WHI	Po Valley
iek "lik	Compliance is checked with the test probe B of IEC 61032 (10 N); test probe does not touch live parts	+ lit The The	N N
10.102	Hole in electronic switches for adjusting the setting:	Mr. Mr. M. M.	N
WALTER	The adjustment does not involve the risk of an electric shock	NITER WITER WAITER WALL	TIN Nº



Reference No.: WTX21D03023971S Page 11 of 67

	EN 60669-1& EN 60669-2	1-1 mes were were me	
Clause	Requirement + Test	Result - Remark	Verdict
	THE STATE OF THE STATE WALLE WALLE	The Mr. M. M.	
White W	Compliance is checked by applying a test pin according to figure 101 through the hole; test pin does not touch live parts	lifes whiles whiles	N S
10.103	Ventilation openings over live parts:		N
EX MITEX	A foreign body introduced into these openings do not come into contact with any live parts	TEK LIEK OLITEK MALI	* N
WILLIE'S	Compliance is checked by applying the test probe 13 of IEC 61032 through the openings; pin of test probe does not touch live parts	WAL WITH WAITER WALTER	MALTER
11	PROVISION FOR EARTHING	TEX TEX STEX STEE	N. N. M
	Clause not applicable to SELV electronic switches	in the same	N
11.1	Accessible metal parts: provided with, or permanently and reliably connected to, an earthing terminal	Multer Whiter White My	N
11.2	Earthing terminals: with screw clamping or screwless terminals and comply with clause 12	white white whit with	WN X
White W	Capacity of earthing terminals of the same size as the corresponding terminals for the supply conductors	Nifet Whitek White White	N .
15. AU.	Any additional external earthing terminal has a size suitable for conductors of at least 6 mm <sup>2</sup> (mm <sup>2</sup> ):	anti uni u	N
11.3	Surface-type switches with an enclosure of insulating material, with IP > X0 and more than one cable inlet, are provided for the continuity of the earthing circuit with:		N
Liter.	- an internal fixed earthing terminal, or	TEN TEN LIEN SLIEN	N
unliek vn	- adequate space for a floating terminal allowing the connection of an incoming and outgoing conductor	TEX WITE WITER	N ALTERNATION
11.4	Connection between earthing terminal and accessible metal parts: of low resistance	et tet tiet witet in	TEX N
	Test current equal to 1,5 In or 25 A (A):	me me m	
ET INLIE	Resistance ≤ 0,05 Ω (Ω):	TEX TIEX NITER ONLY	N
11.101	Printed circuit of printed circuit boards board may be uearthing continuity if:	used to provide protective	N
nitek wai	- at least two tracks with independent soldering points which withstand a single short circuit test similar to 101.3 and immediately after the switch shall fulfil the requirements of 11.4, or	TEX MUTEX MUTEX MUTEX	N LTE W
y whitek	- a single track is used with two independent means of connection on each end which will withstand a single short circuit test similar to 101.3 and immediately after the switch shall fulfil the requirements of 11.4,	JUNITER WHITE WHITE	N N
. det .	In addition:	at let let let	N .



Reference No.: WTX21D03023971S Page 12 of 67

	EN 60669-1& EN 60669-2	2-1	
Clause	Requirement + Test	Result - Remark	Verdict
Anger .	THE LET THE MITTER MITTER	Write Mill Mill Mill	400
White W	- the laminated of the printed circuit board shall consist of epoxide glass fabric copper-clad laminated sheet, and	NUTER WALTER WALTER WALTE	TEK N
	- the printed circuit boards shall comply with the overload test of 101.1.1.2.	the main main main the	N
12	TERMINALS	white with water	P
12.1	General	"ALTE ANT ANT ANT	Р
UNLIER UN	Switches provided with screw-type terminals or with screwless terminals	Provided with separate terminal, with screw-type approval terminals	WALTE P IN
LIE WALT	Clamping means of terminals: not serve to fix any other components	EX WHITEK WHITEK WHITE	P
WALTER	All the test on terminals, with the exception of the test of 12.3 11, made after the test of 15.1	CATER MALTER WALTER WA	P
MULTER OF	Terminals having screw clamping complying with IEC 60998-2-1 are considered to be in compliance with the requirements and the tests of Subclause 12.2, except those of 12.2.6 and 12.2.7 and 12.2.8, provided they are chosen according Table 2.	Whitek whitek whitek whitek	N N
12.2	Terminals with screw clamping for external copper co	nductors	Р
12.2.1	Switches provided with terminals which allows the proper connection of copper conductors as shows in table 2	White mile will w	N <sup>L</sup> JEH
alle.	Rated current (A)	WILL WILL MULT AND	N N
A.F	Type of conductor (rigid / flexible)	in the state of	- N
Mr. M	Smallest / largest cross-sectional area (mm²):	LIFE WILL WILL WALL	N N
.e+ 4	Diameter of largest conductor (mm)		d⁺ N
in any	Figure of terminal	the street while while	N N
EK NITEK	Minimum diameter D (minimum dimensions) of conductor space: required (mm); measured (mm):	t let let liet liet o	LIE NE
12.2.2	Terminals allow the conductor to be connected without special preparation	The All Al A	N.
12.2.3	Terminals have adequate mechanical strength	with with more man	sal N
NITEK WY	Screws and nut for clamping the conductors have metric ISO thread or a comparable thread	TER STEEL SHITEL WALTER	W LITTE N
at de	Screws not of soft metal such as zinc or aluminium		John N
12.2.4	Terminals resistant to corrosion	THE WITE WITE WALL A	N
12.2.5	Screw-type terminals clamp the conductor(s) without undue damage	THE STEE STEEL STEEL	TE NEW
Tit.	During the test: conductor not slip out, no break near clamping unit and no damage	on the fix the	, N



Reference No.: WTX21D03023971S Page 13 of 67

	EN 60669-1& EN 60669-2	- arr ar ar	72, 7
Clause	Requirement + Test	Result - Remark	Verdict
20,	THE THE THE MITTER WALLE	Mrs. Mrs. Mrs. 1	0.00
12.2.6	Terminals clamp the conductor reliably between metal surfaces	LIEK WALTER WALTER WA	IT NI P
All S	During the test: conductor not move noticeably	at the title of	P
12.2.7	Terminals designed or placed that the conductor cannot slip out while the clamping screws or nuts are tightened	the must make must	W PW
WALTER V	After the test: no wire of the conductor escaped outside the clamping unit thus reducing creepage distances and clearances to values lower than those indicated in clause 23	Mure Aurites Mures A	ALTEK WALTER
12.2.8	Terminals not work loose from their fixing to the switch	liek whilek whilek whi	P
IEK SIFE	Torque test:	at let let ste	P
20	- rated current (A)	16A;	Р
WALTER	- solid rigid copper conductor of the largest cross- sectional area (mm²) (table 2)	4.0 mm <sup>2</sup>	WILLE IN PE
MLIEK	- torque (Nm) (table 3 or appropriate figures 1, 2, 3, 4):	0.5Nm	LIEK MILIP
nlifek wali	Screws and nuts tightened and loosened 5 times. During the test: terminals not work loose and show no damage	or militar muit	EX UNITER P
12.2.9	Clamping screws or nuts of earthing terminals: adequately locked against accidental loosening, not possible to loosen them without the aid of a tool	White white	WALL AND A
12.2.10	Earthing terminals: no risk of corrosion	TEX TEX LITER	N' N'
TEN	Body of brass or other metal no less resistant to corrosion	Mur Mr Mr A	N TEN
un un	If the body is a part of a frame or enclosure of aluminium alloy, precautions are taken to avoid the risk of corrosion	Et TEX STEX NITE	N N
12.2.11	Pillar terminals: distance g no less than the value specified in figure 1: required (mm); measured (mm):	Mr. Mr. Mr.	N TE
WIL.	Mantle terminals: distance g no less than the value specified in figure 5: required (mm); measured (mm):	mi mi mi	WIN CITY
12.2.12	Lug terminals:	WITER WITE WALL AN	Mr. N
. H	- used only for switches having rated current ≥ 40 A	, , , , , , , , , , , , , , , , , , ,	et eN
ive and	- fitted with spring washers or equally effective locking means	TER MILLE WALL MILL	N N
12.3	Screwless terminals for external copper conductors	et itet alter mite	N N
12.3.1	Screwless terminals of the type suitable for:	20, 20, 2,	N
NALL .	- for rigid copper conductors only, or	THE NITE WITE	unit ann
WILTEK W	- for both rigid and flexible copper conductors (tests carried out with rigid and then repeated with flexible conductors)	SLIEF WILET SWIFE WA	TEK JALTEN



Reference No.: WTX21D03023971S Page 14 of 67

	EN 60669-1& EN 60669-2	- We all a	
Clause	Requirement + Test	Result - Remark	Verdict
20,	at the feet that and and	me me me	
12.3.2	Screwless terminals provided with clamping units which allow the proper connection of rigid or of rigid and flexible conductors having nominal cross-sectional areas as shown in table 7	lifek whitek whitek white	N N
	Rated current (A)	in my m	"
ier inlie	Type of conductor (rigid / flexible):	- TEX TIEX OUTER OF	
	Smallest / largest cross-sectional area (mm²):	me me me	
Mile	Diameter of largest rigid conductor (mm):	TEX LIFE OLITER WIT	in with
	Diameter of largest flexible conductor (mm):	m. m. m.	. Ţ
12.3.3	Screwless terminals allow the conductor to be connected without special preparation	LIER WILLER WHITE	N. N. W
12.3.4	Parts of screwless terminals intended for carrying current of materials as specified in 22.5	the writer writer	IN STATE NAME
12.3.5	Screwless terminals clamp specified conductors with sufficient contact pressure without undue damage to the conductor		TE NE
-LITER .	Conductor clamped between metal surfaces	LEK TEK LIEK SITE	N N
12.3.6	It is clear how the connection and disconnection of the conductors is to be made	We all the	N
ne we	Disconnection of a conductor require an operation, other than a pull, so that can be made manually with or without a general-purpose tool	The little was	N N
t Jet	It is not possible to confuse the opening for the use of a tool with the opening intended for the conductor	me me m w	N
12.3.7	Screwless terminals intended for the interconnection of two or more conductors:		An N
MUTIEK M	- during insertion, operation of clamping means of one of the conductors is independent of operation of that for the other conductor(s);	LIEK WHITEK WHITEK WHITE	N
THE WALL	- during disconnection, conductors can be disconnected either at the same time or separately;	EX WHITE WHITE WHITE.	un C. Nat
ek unltek	- each conductor introduced in a separate clamping unit.	NITER WITER WALTER WA	N.E.
Whitek o	It is possible clamp securely any number of conductors up to the maximum as designed.  Number of conductors; Nominal cross-sectional area (mm²)	Whitek Miller Miller White	et N'
12.3.8	Screwless terminals: adequate insertion obvious and over-insertion prevented	The White Muli Whi	n N
Y WALTER	Screwless terminals of switches: undue insertion of the conductor prevented by a stop if further insertion is liable to reduce creepage distances and/or clearances required in table 20 or to influence the mechanism	JUNITER WHITE WHITE	N
12.3.9	Screwless terminals properly fixed to the switch	at at At 18	Ń



Reference No.: WTX21D03023971S Page 15 of 67

EN 60669-1& EN 60669-2-1				
Clause	Requirement + Test	Result - Remark	Verdict	

	Not work loose when conductors are connected or disconnected	MALIER WALTER WITN
LIEK WAL	Self-hardening resins used to fix terminals not subject to mechanical stress	NUTER WHITER WA
12.3.10	Screwless terminals withstand mechanical stresses occurring in normal use	SET NET WITH MAN
. UEK	During application of the pull conductor not come out of the terminal	N. N.
211, 2	Test with apparatus shown in figure 10	Mr. Mr. 20, N
INLTEK WA	During the test conductors not move noticeably in the clamping unit	MILIER WALTER WILLIEN
TEK WALTE	After these tests: neither terminals nor clamping means have worked loose and conductors show no deterioration	LITER WALTER WAS EX N
12.3.11	Screwless terminals withstand electrical and thermal stresses occurring in normal use	EX WITE WITE WINE
All the	After the test: inspection show no changes	N N
une w	Repetition of test according to 12.3.10: screwless terminals withstand mechanical stresses occurring in normal use	Whit was what N
EL TEN	During application of the pull conductor not come out of the terminal	N N
2/1	Test with apparatus shown in figure 10	in in M
MALIER	During the test conductors not move noticeably in the clamping unit	* INTER WITER WIND
ing tiek and	After these tests: neither terminals nor clamping means have worked loose and conductors show no deterioration	WALTER WALTER VALLEN
12.3.12	Screwless terminals: connected rigid solid conductor remains clamped, even when deflected during normal installation	NITES WAITES WAS THE WAY

13	CONSTRUCTIONAL REQUIREMENTS	
13.1	Insulating lining, barriers and like: adequate mechanical strength and secured in a reliable manner	Whitek whitek whi P
13.2	Switches constructed so as to permit:	RITE WILL PANT
TEN SIT	- easy introduction and connection of the conductors in the terminals;	THE STEEL AND IN POSTER
10,	- correct positioning of the conductors	h b
J. William	- easy fixing of the switch to a wall or in a box	et the the P



Ν

Ν

Reference No.: WTX21D03023971S Page 16 of 67

	EN 60669-1& EN 60669-2	-1 were were and	
Clause	Requirement + Test	Result - Remark	Verdic
20,	A SH THE THE STATE MILITERS WALLED	The Mr. M. M.	4.
oneiter on	- adequate space between underside of the base and the surface on which the base is mounted or between the sides of the base and the enclosure (cover or box)	NITER WHITER WHITER WHITER	ITEK OM
et Jet	Surface-type switches: fixing means do not damage insulation of the cable	which is the company	N
MILIEK MALTEK	Switches classified as design A: permit easy positioning and removal of the cover or cover plate, without displacing the conductors	which while while with	P
13.3	Covers, cover-plates and actuating members or part protection against electric shock:	ts of them intended to ensure	P
n en Lit ek	- held in place at two or more points by effective fixings	is were my me of	Р
r whi	- fixed by means of a single fixing, for example by a screw, provided that they are located by another means (for example by a shoulder)	ex write mail mail and	N
	Fixings of covers, cover-plates or actuating members of switches of design A serves to fix the base: there is means to maintain the base in position, even after removal of the covers, coverplates or actuating members	while while while while	P
13.3.1	Covers, cover plates or actuating members whose fi	xing is of the screw-type:	N
et ce	Compliance checked by inspection only	# 1t 1	N S
13.3.2	Covers, cover plates or actuating members whose fi screws and whose removal is obtained by applying approximately perpendicular to the mounting/support	a force in a direction	P
TEX.	Compliance checked, when their removal may give a finger:	access, with the standard test	Р
- 14 - 10 14 - 10	to live parts: by the test of 20.4 (verification of the non-removal and the removal)	still when while while	Р
ik vantilik K	to non-earthed metal parts separated from live parts by creepage distances and clearances according to table 20: by the test of 20.5 (verification of the non-removal and the removal)	EEE WALTER WALTER WALTER WALT	NA
watter was	only to insulating parts, or earthed metal parts, or metal parts separated from live parts by creepage distances and clearances twice those according to table 20, or live parts of SELV circuits not greater than 25 V a.c.: by the test of 20.6 (verification of the non-removal and the removal)	INTER MUTER WHITER WHITER	MILIEK W
13.3.3	Covers, cover-plates or actuating members whose fi screws and whose removal is obtained by using a to manufacturer's information given in an instruction sh	ool, in accordance with the	N

Compliance checked, when their removal may give access, with the standard test

to live parts: by the test of 20.4 (verification of the

finger:

non-removal only)



Reference No.: WTX21D03023971S Page 17 of 67

EN 60669-1& EN 60669-2-1				
Verdict				

White v	to non-earthed metal parts separated from live parts by creepage distances and clearances according to table 20: by the test of 20.5 (verification of the non-removal only)	White white white his N
EK WILTEK	only to insulating parts, or earthed metal parts, or metal parts separated from live parts by creepage distances and clearances twice those according to table 20, or live parts of SELV circuits not greater than 25 V a.c.: by the test of 20.6 (verification of the non-removal only)	TEX WRITER WRITER WRITER WRITER
13.4	Switches: no free openings in their enclosures according to their IP classification	The little Receipt State P
TEK N	Free openings according to 10.102 and 10.103 are accepted	AND THE THE N
13.5	Knobs of electronic switches are securely fixed in a reliable manner	N N N
	knobs used to indicate the position of switches: not possible to fix them in a wrong position, if this may result in a hazard	the most water with while willer
7	Pull and push tests:	The The N
elier on	- axial pull is likely to be applied: 30 N for 1 min	LITER ONLINE NOTE NO
	- axial pull is unlikely to be applied: 15 N for 1 min	N N
er anti	- axial push: 30 N for 1 min	The State of the Mark of the National State of the National State of the State of t
	During and after these tests:	N,
Mille	- the electronic switch shows no damage	Et liet niter intie un'n
TIEN.	- an knob have not moved so as to impair compliance with this standard	all let the Link
13.6	Screws or other means for mounting the switch on a surface or in a box or enclosure: easily accessible from the front.	THE WALLEY WIFE WY TEX WY
4 0	Fixing means not serve any other fixing purpose	N
13.7	Combinations of switches, or of switches and socket-outlets, comprising separate bases: correct position of each base ensured	TEX WILL MILL WILL AN
Mr.	Fixing of each base independent of the fixing of the combination to the mounting surface	N N
13.8	Accessories combined with switches: comply with their standard	metre with metro of No
13.9	Surface-type switches with IP > 20 are in according to their classification when fitted with conduits or with sheathed cables	LIFEY WHITEY WHI A NO
with	Surface-type switches with IPX4 or IPX5 have provisions for opening a drain hole	There was well was



Reference No.: WTX21D03023971S Page 18 of 67

Land Music	an an an	EN 60669-1& EN 60669-2-1	nu.
Clause	Requirement + Test	Result - Remark	Verdict

WALTER WA	Switches provided with a drain hole: it is not less than 5 mm in diameter, or 20 mm² in area with a width and a length not less than 3 mm	N.
THE WILL	Drain hole: effective	N
EK MITEK	Lid springs (if any): of corrosion resistant material (bronze or stainless steel)	↓ N
13.10	Switches to be installed in a box: conductor ends can be prepared after the box is mounted in position, but before the switch is fitted in the box	P
N <sup>LTEK</sup> WY	Base have adequate stability when mounted in the box	P
13.11	Surface-type switches with IP > X0, pattern numbers 1, 5 and 6, with more than one inlet opening, provided with:	N N
t Tex	- fixed additional terminal complying with the requirements of clause 12, or	N
all.	- adequate space for a floating terminal	an N
13.12	Inlet openings: allow the introduction of the conduit or the sheath of the cable	MILLIN
NETEK WILL	Surface-type switches: intended conduit or protective covering can enter at least 1 mm into the enclosure	CTEK N
ek white Text	Inlet openings for conduit entries of surface-type switches: capable of accepting conduit sizes of 16, 20, 25 or 32 or a combination of at least two of these sizes not excluding two of the same size:	N. W.
intles in	Inlet openings for cable entries of surface-type switches: capable of accepting cables having the dimensions specified in table 12 or be as specified by the manufacturer: rated current (A); limits of external diameter of cables min/max (mm):	ALIER .
13.13	Surface-type switches: provision for back entry (if are intended)	N
13.14	Membranes or the like (if provided): replaceable	N
13.15	Requirements for membranes in inlet openings	N
13.15.1	Membranes, lenses and the like reliably fixed and not displaced by the mechanical and thermal stresses occurring in normal use	on N
V. 74	Test on electronic switches fitted with membranes, lenses and the like subjected to the ageing treatment specified in 15.1:	N
MUTER.	Electronic switches placed at 40 °C ± 2 °C for 2 h; force of 30 N applied for 5 s by means of the tip of test probe 11 of IEC 61032. During these tests: membranes, lenses and the like are not deformed, live parts not accessible	N. N. L.TE



Reference No.: WTX21D03023971S Page 19 of 67

nu.	EN 60669	-1& EN 60669-2-1	in Mr.
Clause	Requirement + Test	Result - Remark	Verdict
400	411 42 34	The state of the same of the same	- 2/1.

	Membranes, lenses and the like likely to be subjected to an axial pull: axial pull of 30 N applied for 5 s. During this test: membranes, lenses and the like not come out	nii N TEK NI
EK SEK	Test repeated on membranes, lenses and the like not subjected to any treatment	N
13.15.2	Membranes in inlet openings: introduction of the cables into the accessory permitted when the ambient temperature is low	NN NALIEK
TEX .	Test on membranes not subjected to the ageing treatment specified in 15.1 and fitted with the switches	N
TEX MIT	Switches kept at -5 °C for 2 h: possibility to introduce cables of the heaviest type through the membranes	EX N
t STEX	After the test: no harmful deformation, cracks or similar damage	N
13.16	Flexible cable outlet switches: flexible cable (60245 IEC 66 or 60227 IEC 53, or as specified by the manufacturer) may enter the switch through a suitable hole, groove or gland	N
NITER WAY	Maximum dimension of flexible cable having conductors specified in table B.1 accepted by the entry:	N
Et JE	- rated current (A)	* -J
1/1	- cross-sectional area (mm²) (min 1,5 mm²)	47.
"ITE	Entry shaped to prevent damage to the flexible cable	Ñ
huriek m	Switches intended to be connected via a flexible cable to an electronic extension unit having a rated current equal to the rated current of the electronic switch: flexible cable complies with 60245 IEC 66 or 60227 IEC 53 with a minimum cross sectional area of 0,75 mm²	N SEE SUN
MINITER SO	Switches intended to be connected via a flexible cable to an electronic extension unit having a rated current lower than the rated current of the electronic switch: flexible cable complies with the requirements of 13.103	N.
LIEK N	Switches with flexible cable outlet: provided with cable anchorage	TE N
IEK WALTE	Cable anchorage: contains the sheath, of insulating material or provided with an insulating lining fixed to the metal parts	N N
LIEK	Cable anchorage: anchor the flexible cable securely to the switch	N
THE THE	Cable anchorage cannot be released from the outside	N
Mr. M	Use of a special purpose tool not required	N



	EN 60669-1& EN 60669-2	19 Will Mar My	
Clause	Requirement + Test	Result - Remark	Verdict
20,	THE THE THE STREET SUNTE	Mr. Mr. M. M.	- J
MUTEL M	Screws: not serve to fix any other component, unless	LIEK MLIEK WHITEK WHITE	N .
LIFER WALE	- switch is rendered manifestly incomplete if component omitted or replaced in an incorrect position, or	TEX MULTER MULTER MULTER V	IN THE N
MALTE	- component cannot be removed without further use of a tool	WALTER WALTER WALTER WAS	N
MALTER	Pull test (30 N, 25 times): cable 60227 IEC 53, cross-sectional area 1,5 mm²; torque (Nm) (2/3 table 3)	MITER WHITER WHITER WHITE	N
INCTE UN	Torque test: torque 0,15 Nm for 1 min, cable not displaced > 2 mm	LIER WHITER WHITE WHITE	N <sub>s</sub>
itek walte	Pull test (60 N, 25 times): cable 60245 IEC 66, diameter (mm) of cable; torque (Nm) (2/3 table 3)	A WILLER WILLER MILIER M	I N.
y whitek	Torque test: torque 0,35 Nm for 1 min, cable not displaced > 2 mm	if the street matrix and	e Ne
-LITER -	Test voltage of 2000 V a.c. applied for 1 min between anchorage:	the conductors and the cord	N.
an a	During the test: insulation of flexible cable not damaged (no breakdown or flashover)	The sure sure	N
13.101	Cut-outs in electronic switches for motor speed control circuits: non-self-resetting	a furth mut a	N
13.102	Electronic switches for the control of the voltage of iron core transformers for extra low-voltage incandescent lamps (for example, halogen): maximum tolerance of the phase-control angle between the positive and negative half-wave of ± 2°:	Whitek whitek whitek white	N. N
13.103	TDS shall be of the resetting type	at let let let	N.
14	MECHANISM		P
it in	Clause only applicable to electronic switches provided with mechanical switching devices	Ex MULTER MULTER ANDERS AN	Р
14.1	Actuating member of a switch, when released, automatically take up the position corresponding to that of moving contacts	White white white whi	P
14.2	Moving contact of switches can come to rest only in "on" and "off" positions	inite anti uni uni	Р
Vice Mul	Intermediate position permissible if:	LIER ALTER ANTE MALTE	N Pul
TEK DITE	- it corresponds to the intermediate position of the actuating member, and	t tet stet stet steet	EF P
WALTER.	- the insulation between fixed and moving contacts is adequate. Electric strength test as specified in 16.2: test voltage a.c. for 1 min (V)	500 V / 750 V / 1250 V / 2000 V	P
		10 10 10 10 10 10 10 10 10 10 10 10 10 1	

Ρ

No undue arcing in slowly operation

14.3



Reference No.: WTX21D03023971S Page 21 of 67

" AVE	EN 60669-1	& EN 60669-2-1	
Clause	Requirement + Test	Result - Remark	Verdict
1400	at at at the talk of	NITE WALLE WALL WILL WILL	

White W	Test carried out at the end of the test of clause 19.1: breaking of the circuit 10 times, actuating member moved over a period of 2 s. During the test: no sustained arcing	NUTER WHITER WHITER WHITER	JEX MI
14.4	Switches of pattern numbers 2, 3, 03 and 6/2 make and break all poles substantially simultaneously	and the text of	N
TH.	Neutral pole of switches of pattern numbers 03 not make after or break before the other poles	MULL MAY AND AND	N
14.5	Action of the mechanism: independent of the presence of cover or cover plate. Test: no flicker	MALLE MALLE MALL WALL	W P
14.6	Cord-operated switches: effecting a change by applic exceeding:	ation and removal a pull not	alex N'al
JEK JIE	- 45 N applied vertically, and	at left left light.	N.O
14	- 65 N applied at 45° ± 5°	the me me in	N
14.101	Position indicator used in RCS equipped with an incorporated hand-operated device indicates the position of the switching circuit clearly and without ambiguity	untited whited whited white	NITES .
ALLER WAL	TDS equipped with an incorporated hand-operated device and a position indicator is used indicates the position of the switching circuit clearly and without ambiguity	THE WALTER WALTER	N SEEL N

15	RESISTANCE TO AGEING, PROTECTION PROVIDED BY ENCLOSURES OF SWITCHES, AND RESISTANCE TO HUMIDITY		P
15.1	Resistance to ageing	STEE WITE WITE WALL	Р
UNLIEK NIN	Switches and boxes placed for 7 days (168 h) in a heating cabinet at 70 °C ± 2 °C	70 °C, 168 h	P
TEX TE	- no crack visible after test with normal or corrected vision without additional magnification	at at act act	P
20	- no sticky or greasy material as a result of heat	where any and any	Р
Et JEE	- no trace of cloth (forefinger pressed with 5 N)	Lit Let 15th 15	P
10.	- no other damage as a result of heat	Muri Mur Mur Mur Miles	Р
15.2	Protection provided by enclosures of switches	at the text of	P
15.2.1	Protection against access to hazardous parts and against harmful effects due to ingress of solid foreign objects		Р
iret unitest	Enclosure of the switch provides a degree of protection against access to hazardous parts and against harmful effects due to ingress of solid foreign objects in accordance with the IP classification of the switch	te milet milet milet mi	P
WILL	Glands: torque (Nm) (2/3 of torque applied in 20.3):	LIER SLIER WITE WALL	Thr.
at-	Screws of the enclosure: torque (Nm) (2/3 table 3):	M. M. A.	10
15.2.1.1	Protection against access to hazardous parts	LIER ALTER MAIL MALL	JULY P W



Reference No.: WTX21D03023971S Page 22 of 67

. aug	EN 60669-1& EN 60669-2	2-1	Vr. Colle
Clause	Requirement + Test	Result - Remark	Verdic
20,	A SH SEK TEK STEK MISTE MISTE	me me me m	. 4
CLIEF AL	Appropriate test according to IEC 60529	: IP20	Р
15.2.1.2	Protection against harmful effects due to ingress of	solid foreign objects	Р
LIFE INL	Appropriate test according to IEC 60529	: IP20	In The Pur
ek Jek	Dust not penetrate in quantity to interfere with satisfactory operation or to impair safety	Who will the	P
15.2.2	Protection against harmful effects due to ingress of	water	N
	Enclosure of switches provide a degree of protection against harmful effects due to ingress of water in accordance with their IP classification	united whites whitest unti	N N
heir wh	Appropriate test according to IEC 60529	Pit aller active main	N.
at a	Flush-type and semi-flush-type switches fixed:	· · · · · · · · · · · · · · · · · · ·	John N
r in	- in a test wall using an appropriate box in accordance with the manufacturer's instructions	Cantill Mutil Must	N
MUL	- in a test wall according to figure 27	LITER INCIDENTALITY IN	SIN.
	Screws of the enclosure: torque (Nm) (2/3 table 3):	20 2 X	+ 15+
Mury M	Glands: torque (Nm) (2/3 of torque applied in table 19)	Wite Mulie Mill Muli	
nite whi	Specimens withstand an electric strength test specified in 16.2 which is started within 5 min of completion of the test	THE MILIE WILLE	M. C. N. M.
15.3	Resistance to humidity	EN WITE WALL WALL W	Р
. MALTEX	Switches proof against humidity which may occur in normal use	lifet stret miles mil	P
MUTER M	Compliance checked by a humidity treatment carried out in a humidity cabinet containing air with relative humidity maintained between 91 % and 95 %. Specimens kept in the cabinet for:		VALTER
20 S	- 2 days (48 h) for switches with IPX0	93 %, 48 h	P
in Alle	- 7 days (168 h) for switches with IP>X0	" WHILL MALL WALL "	N N
et Jet	After this treatment: specimens show no damage	and the state of	P.
16	INSULATION RESISTANCE AND ELECTRIC STRE	ENGTH W	Р
16.1	The insulation resistance measured 1 min after application of 500 V d.c.	See appended table 16.1	MAL PE
16.2	Electric strength: a.c. test voltage applied for 1 min	See appended table 16.2	Р
17	TEMPERATURE RISE		Р
17.1	Switches so constructed that the temperature rise in normal use is not excessive	ex writer writer writer w	P
NALTER.	No oxidation or any other deterioration of contacts, if any	SLIET WIFE SMITH WAS	IE PE



Reference No.: WTX21D03023971S Page 23 of 67

	EN 60669-1& EN 60669-2	2-1 we we we	
Clause	Requirement + Test	Result - Remark	Verdict
70.	The life the the state and and	The Men My My	
Marie M	Material and components of electronic switch are not adversely effected by the temperature rise in normal use	THE WILLEY WILLER	ni P
in whi	During the test:	TEX WITE WITE WHILE AND IN	Р
at at	- electronic switch state not change	The state of	← P
MALL	- fuses and other protective devices not operate	CLIER WILL WALL WALL	Р
. MITEK	- permissible temperature rises determined in table 102, column concerning clause 17, not exceeded	See appended table 17	P
CIEN .	After the test, electronic switch is in operating condition	in an an are	P
in in	Sealing compounds, if any, have not flowed	reconstruction of	N
18	MAKING AND BREAKING CAPACITY	EL STEK WITER WITER WA	Р
y Milek	Electronic switches have adequate making and breaking capacity	TER STER STER WITE	PE
Whitek W	Test carried out only on electronic switches provided with mechanically or electromechanically operated contact mechanisms	while will miles whites	P
NLTEK WAL	Contact mechanisms have adequate making and breaking capacity	At Just out the	JEXP JIE
	Test made on three new specimens of the complete contact mechanism	The state of	P
	Model/type reference	SR-ZV9101SAC-HP-Switch-B	- 25.
	Pattern number	1 tet jet stret mite	N/IIE
	Rated current (A) / Rated load (W or VA):	Resistive load: Max. 3840W	LIEX
	Rated voltage (V):	100-240V	3
	Test for electronics switches for the control of:	et let let liet is	P
	- fluorescent lamp loads, as specified in 18.1 of part 1;	mer mer mer m	N
	- motor speed control circuits, as specified in 18.1 of part 1 and, additionally, in 18.101;	white white war, was	N N
	- voltage of iron core transformers for extra low-voltage incandescent lamps, as specified in 18.1, 18.2 of part 1 and, additionally, in 18.102;	INTER WHITE WHITE WHITE	or N
	- voltage of electronic step-down converters for extra low-voltage incandescent lamps, as specified in 18.2 of part 1;	the mult mult must be	N <sup>N</sup>
	- other types of load, as specified in 18.1 and 18.2 of part 1.	THE THE THE	Р
	Rate of operation (operation per minute):	30 operations per minute	2/1,



Reference No.: WTX21D03023971S Page 24 of 67

Clause	Requirement + Test Result - Remark		Verdic	
The state of the s		Will will mill mill	1,000	
Whitek M	Electronic switches whose cycle of operation limited by their application: rate of operation specified by the manufacturer (operation per minute)	LIFET WHITE WHITE	unite <del>l</del> v	
	Electronic switches fitted with conductors having nominal cross-sectional area as for the test of clause 17 (mm²)	4.0 mm <sup>2</sup>	LIFE WALTE	
18.1	Test with cos φ 0,3 alternating current	at at set of	P	
10, 1	- test voltage (1,1 Vn) (V):	264V	20,	
CIER C	- test current (1,25 ln) (cos φ 0,3) (A):	20A	LITE O	
1. 1.	- 200 operations; rate (operations per minute):	15 operations per minute	4, -4	
iter white H	- electronic switches whose rate of operation is limited by their application (for example, heat and light sensors): electronic switch is set to the shortest cycle time possible and re-activated at the end of each cycle within a time of (2 ± 0,5) s:	15 operations per minute	ni ek <u>u</u> ni Je wnife	
	- samples number:	at at all all	t wh	
24. 2	During the test: no sustained arcing	Write Murit Murr Aut	Р	
TEX S	After the test: specimens show no damage	TEX TEX	√ P	
	Test with cos φ 0,3 alternating current for electronics	TDS	Z <sub>11</sub> N <sub>Zz</sub>	
	- test voltage (1,1 Vn) (V):	The state of the s	J . J.	
	- test current (1,25 ln) (cos φ 0,3) (A)	when mer mer in	27,	
	- 200 operations; rate (operations per minute):	at left that I	EL STREET	
	- electronic TDS whose rate of operation is limited by their application (for example, heat and light sensors): electronic TDS is set to the shortest cycle time possible and re-activated at the end of each cycle within a time of (2 ± 0,5) s	white white white white	WALTER W	
	- samples number:	EL WILL WILL MILL	$n_{r}$ $\overline{\tau}_{n_{r}}$	
	During the test: no sustained arcing	a de late	N.C	
	After the test: specimens show no damage	WILL MALL MULT AND	N	
18.2	Test with tungsten filament lamps load (switches with switches of pattern numbers 3 and 03 with Vn > 250 \		JALIPE.	
d	- test voltage (Vn) (V):	264V		
ner un	- test current (≥ 1,2 ln) (A):	20A	21/20 -21/	
ret re	- number of 200 W tungsten filament lamps:	24	10th 15	
Aug.	- 200 operations; rate (operations per minute):	15 operations per minute	V. Tile	
t the	- samples number		El CER	
The Contract of the Contract o	During the test: no sustained arcing nor welding of the contacts	Murit Mari Mari Mari	Р	
اله شکاران	After the test: specimens show no damage	THE THE STATE OF THE	P	



Reference No.: WTX21D03023971S Page 25 of 67

Land Music	an an an	EN 60669-1& EN 60669-2-1	nu.
Clause	Requirement + Test	Result - Remark	Verdict

18.101	Additional test for electronic switches for the control of motor speed control circuits:	N
Ta	Rated current In (A) of electronic switch (cosφ 0.6):	
LIE WAL	Making: 50 cycles with: test current: 9 In (A); test voltage: Vn (V); $\cos \varphi$ 0.8 ± 0.05:	N
EX WALTER	Breaking: 50 cycles with: test current: 6 In (A); test voltage: Vn (V); cosφ 0.6 ± 0.05	N
TEX	During the test: no sustained arcing	N
2012 1	After the test: specimens show no damage	Z <sub>II</sub> N
18.102	Additional test for electronic switches for the control of the voltage of iron core transformers for extra low-voltage incandescent lamps (for example, halogen):	N. S.
St S	- test voltage (Vn) (V):	<i>#</i> ;
y while	- 50 making operations in a test circuit adjusted to a test current 10 times In (A) for one half-cycle of the power supply frequency:	المارة اعتبارة
70,	During the test: no sustained arcing	N
JEE	After the test: specimens show no damage	N

19	NORMAL OPERATION		P
264 '47. 144 - 41.	Electronic switches withstand the mechanical, electrical and thermal stresses occurring in normal use		PW
MULTER MILITER	Electronic switches whose cycle of operation is limited by their application: rate of operation specified by the manufacturer (operation per minute)	while whilek whilek whilek	PH.
MULTER V	For electronic switches with included automatic function the number of operations for tests of subclauses 19.101, 19.102 19.104 and 19.109 is that specified in the relevant subclause.	iek milek wilek milek w	
	If a manufacturer declares a number of operation higher than those indicated in the relevant subclause, the tests shall be made according to declared value.	JUNITER MUTER MUTER MUTE	N
WALTER	Sticking of the contacts, which does not prevent the next operation, is not considered as welding.	LIET WHITE WHITE WHITE	unti <del>le</del> v
ILITEE V	Sticking of the contacts is permitted if the contacts can be separated with a force applied to the actuator of a value which does not damage the switch mechanically	EX WHITEX WHITEX WHITEX W	ite nuti
VIII.TE	Electronic switches including electronic circuits which close the contact of the contact mechanism always at zero-crossing ± 20° phase angle, shall be tested together with their electronic circuit	WILER MUTER MUTER MUTER	WALTEK



Reference No.: WTX21D03023971S Page 26 of 67

L'EL MET	Mr. Mr. Mr.	EN 60669-1& EN 60669-2	-1 MILE MALLE WALLE WAS	an.
Clause	Requirement + Test	the man with the	Result - Remark	Verdict

WALTE.	Electronic RCS withstand without excessive wear or other harmful effect, the mechanical, electrical and thermal stresses occurring in normal use	ALTER WALTER WALTER	nt P
V. 1	- model/type reference:	SR-ZV9101SAC-HP-Switch-B	P./
.+	- pattern number:	1	∳ P.∢
11/2	- nominal cross-sectional area per clause 18 (mm <sup>2</sup> ):	THE WALL WALL WALL WALL	7/2
- 16	- test voltage (Vn) (V):	The state of the s	754
" all a	- test current (In) (cos φ 0,6) (A):	INLIE WALL WALL WALL	2/12
Et	- number of operations per table 17:	a st set set	JE .
n.	- rate (operations per minute):	The West Aug and a	- 41
JEt .	- samples number:	a of the set of	( - N
111	Reduced electric strength per clause 16	See appended table 19.1	Р
ik wil	Temperature rise test per clause 17 after normal operation	See appended table 19.1	PLE
1	After the tests the specimens not show:	The second second	P
Mers	- wear impairing their further use;	ALTER WALTER WALTER WALTER	P
ALTEK V	- discrepancy between the position of the actuating member (if indicated) and that of the moving contacts	THE MILITER WILLIAM	TEN WA
	- deterioration of enclosures, insulating lining or barriers;	MILL WALLEY WAL	Pill
+ .	- seepage of sealing compound		N
aller.	- loosening of electrical or mechanical connections;	WITE MILE MILE MILE	₩P
MLIEK	- displacement of moving contacts of switches pattern number 2, 3, 03 or 6/2	iter stier which while	nlit N
TEN	No sustained arcing in slowly operation (sub-clause 14.3)	et let let let let	SELN SING
Elf .	RCS equipped with an incorporated hand-operated of the switching circuit:	levice acting directly on	P
	- 10 % of operations indicated in table 17 made by hand or in an equivalent manner:	MUTTER MUTTER MUTE MUTE	Р
WINE.	- no sustained arcing in slowly operation (sub-clause 14.3 for a.c. only)	INTER WHITE WHITE WHITE	N <sup>P</sup> P
INLIE.	- control circuit supplied as specified in clause 18 for the remaining 90 % of the operations:	TEK WALTER WALTER WALTER OF	Pun
LIEK VIL	During normal operation test: failures allowed within 1 %; no more than three consecutive failures allowed:	AND TEX WATER WATER WATER	EF PAI
WALTER	Electronics TDS withstand without excessive wear or other harmful effect, the mechanical, electrical and thermal stresses occurring in normal use:	Whitek white white white	WITEK S



Reference No.: WTX21D03023971S Page 27 of 67

Land Music	an an an	EN 60669-1& EN 60669-2-1	nu.
Clause	Requirement + Test	Result - Remark	Verdict

	- model/type reference:	TEK TEK STEK STEEL	mite.
·	- pattern number:	hi me me in	J.F
11	- nominal cross-sectional area per clause 18 (mm²)	TER WHITE WHITE WHITE W	41
ناي 🔫	- test voltage (Vn) (V):	- LEK JEK JEK NIT	# <u></u>
- 50°	- test voltage applied to control circuit (rated control. Voltage) (V):	TALL THE THE THE	- LTEN
n,	- test current (In) (cos φ 0,6) (A):	NUTT MUT MUT MY	
JET	- adjustable TDS: adjusted delay time (s)	at let let let	NIE"
J.	-adjusted switching time interval between off and or (s):	The the the	
	number of operations indicated in table 17: (maximum test duration for adjustable and non-adjustable TDS: 1000 h)	40000 / 20000 / 10000 / 5000	N
- AUC	TDS equipped with an incorporated hand-operated of switching circuit:N switching circuit	device acting directly on the	N
ing.	- 10 % of operations indicated in table 17 made by hand or in an equivalent manner	ALTER WALTER WALTE WALT	olle N
ite 1	- no sustained arcing in slowly operation (sub- clause14.3 for a.c. only)	White white w	N
NV.	- During normal operation test: failures allowed within 1 %; no more than three consecutive failures allowed	MULTER WALTER WALTER WALE	N
William	- samples number;	CLIEB WITE WALL WALL	Mr.
, Et	- Reduced electric strength per clause 16	See appended table 19.1	N
, <del>**</del>	Temperature rise test per clause 17 after normal operation	See appended table 19.1	N
10	After the tests the specimens not show:	TEL STEE WATER WATER WA	N
- 4	- wear impairing their further use;	and the state of	N
Whi.	- discrepancy between the position of the actuating member (if indicated) and that of the moving contacts	WHITE WHITE WHITE WHITE	N UTEX
NI EN	- deterioration of enclosures, insulating lining or barriers;	with must me my	N
	- seepage of sealing compound	LIE WALLE WALL WALL ON	N
et .	- loosening of electrical or mechanical connections;	a state of a	N.
71/2	- displacement of moving contacts of switches pattern number 2, 3, 03 or 6/2	MULL MILL MILL MILL	N
MULL	No sustained arcing in slowly operation (sub-clause 14.3)	White White White White	SUN



Reference No.: WTX21D03023971S Page 28 of 67

Land Music	an an an	EN 60669-1& EN 60669-2-1	nu.
Clause	Requirement + Test	Result - Remark	Verdict

19.101	Contact mechanisms intended for incandescent lam down converters and dimmers for step-down converted 40.000:		<sub>m</sub> ijP Lik
The William	Rate of operation (operation per minute):	15 operations per minute	a)
4 4	Rated current (A) / Rated load (W or VA):	Max.16A	Ļ ,
MALITY	Rated voltage (V):	240V	CTO.
at-	During the test: specimens function correctly	Mr Mr St	Р
MUT. W	No sustained arcing in slowly operation (sub- clause 14.3)	WILLER WILLER WILLE WILL	JIP P
NLTE JUNE	Contact mechanism intended for motor speed controperations 40000:	ol circuits; number of	N
iek walie	Making: test current: 6 In (A); test voltage: Vn (V); cosφ 0.65 ± 0.05:	et writes writes writes wh	ST N
MALTER	Breaking: test current In (A); test voltage Vn (V); cosφ 0.65 ± 0.05:	THE STREET WITTE	N
4	During the test: specimens function correctly	THE THE SECTION OF SEC	N-
19.102	Contact mechanisms incorporated in electronic switted ballasted lamps (e.g. fluorescent lamps, CFL, LED) indicated in Figure 103 Load A. (For LED)		MAL'N
	- rate of operation (operation per minute)	15 operations per minute	
EK WALTER	- test voltage (Vn); test current (In) (cos φ 0,9); number of operations with load A	CITE WILL WALTER WAL	The Pilet
- LEX	Rated voltage (V)	L H A A	N
White A	During the test: copper wire F not melt, specimens function correctly, no sustained arcing or welding of contacts	White white white white	N
19.103	Semiconductor switching devices and/or electronic electronic switches:	regulating units incorporated in	N
211	Rated current (A) / Rated load (W or VA)	in with him his mi	7,,
* JUE	Rated voltage (V):	- let let let lit	کی۔
n's	Test voltage: 1.1 Vn (V)	MULL MULL MULL MULL	' 2 <sub>h</sub> .
WALTER W	Switch state changed 10 times by means of the sensing surface or unit, or/and	WITER WHITER WHITER	un N
TELL MUSE	sensing surface or unit, or/and Setting value altered 10 times from min to max and back to min by means of the sensing surface or unit	TEK MULTER MULTER MULTER	I.T. N
EK SITE	Additional test, where appropriate:	at let let step so	N
- TEX	Switch state changed 10 times by means of an electronic extension unit, and/or	me me me m	N
Mr. 1	Setting value altered 10 times from min to max and back to min by means of an electronic extension unit	WHITE MILL WITH WITH	ANN N



Reference No.: WTX21D03023971S Page 29 of 67

Land Music	an an an	EN 60669-1& EN 60669-2-1	nu.
Clause	Requirement + Test	Result - Remark	Verdict

	During the test: specimens operate correctly	THE THE STEE STEE	N
19.104	Mechanical control units incorporate in electronic sy	vitches:	N
TER OUT	Type of mechanical control unit:	et tet tet tiet itel o	(1 <sup>6</sup> 1
*	Rated current (A) / Rated load (W or VA)	Mr. And Mr. And	y
Mer	Rated voltage (V):	CLIEB WILL WALL WALL	777
_EX	Test voltage: 1.1 Vn (V):	The state of	70
whitek wh	Setting altered 10000 times from min to max and back to min by means of its control unit; rate of operation between 10 and 15 operations per minute	10 Operations per minute	NITER.
et e	During the test: specimens function correctly		→ N
19.105	Electronic switches for which a minimum load or cur manufacturer:	rrent is specified by the	N
	Test current: rated minimum current (A) / rated minimum load (W or VA):	WALTER WALTER WALTER WHITE	All Tr
SUIET I	Test voltage: 0,9 Vn (V):	let tex tex stex	1011-
in mi	Switch state changed 10 times over the whole range from min to max and back to min, and/or	met and and and	N
	Setting value altered 10 times over the whole range from min to max and back to min	a funit min m	N
Mer	Additional test, where appropriate:	E TE NITE MITE MI	N
WALTEY.	Switch state changed 10 times over the whole range from min to max and back to min by means of an electronic extension unit, and/or	MITER MITER MITER MITER	N
Wilek M	Setting value altered 10 times over the whole range from min to max and back to min by means of an electronic extension unit	NIFEE WHITEE WHITEE	N. J. N
LEK MILL	During the test: electronic switch functions correctly	FEX WILLEX WHILE AND THE AND	N
t let	Reduced electric strength per clause 16	See appended table 19	- N
Mr.	Temperature rise test after normal operation per claus	se 17:	J/N
et.	- electronic switch state not change	an we at at	N
21/2E. 21	- fuses and other protective devices not operate	CLIEF WILL WALL WALL	on N
NLTEK WA	- permissible temperature rises determined in table 102, column concerning clause 17, not	See appended table 19	JON N
ek mije	After the test, electronic switch is in operating condition	of the the tile of	er N
2,,	Sealing compounds, if any, have not flowed	Mer Mer My Ang	N
WALTER.	Evaluation of compliance after the normal operation: shall not show:	after the tests the specimens	N
et.	-wear impairing their further use;	the state of the s	N



Reference No.: WTX21D03023971S Page 30 of 67

L'EL MET	Mr. Mr. Mr.	EN 60669-1& EN 60669-2	-1 MILE MALLE WALLE WAS	an.
Clause	Requirement + Test	the man with the	Result - Remark	Verdict

unlier un	-discrepancy between the position of the actuating member (if indicated) and that of the moving contacts;	Whitek Whitek Whitek Whitek	N Cons
LITER WAL	- deterioration of enclosures, insulating lining or barriers;	WEEK WHITEK WHITEK WHITEK W	N
et jet	- loosening of electrical or mechanical	A St St S	N
7/12	- see page of sealing compound;	Will mil my	N
MULLER	- displacement of the moving contacts of switches of pattern number 2s	STEET WITH WITH WILLES	uni NX
19.106	Test for electronic RCS energized by impulses (und	der no-load conditions):	ζέN
iner un	RCS operate as intended at a control voltage between 0,9 and 1,1 times the rated value	Not energized by impulses	N
The WALL	Electronic TDS operate as intended at the voltage between 0,9 and 1,1 times the rated value control	EX WHITE WHITE WHITE WH	N
White	Test (under no-load conditions):	A TIEF WILL WILLE	N
J. J.	Rated control voltage (V)	THE THE EX	7.0°
mris n	-20 operations with a control voltage of 0,9 times the rated value V):	UNLIER WHITE WHITE WHITE	
	-20 operations with a control voltage of 1.1 times the rated value (V):	Marita White M	s
- CA	TDS operated as intended (differences in delay time permitted according to 19.102)	must me me me	N
9.107	Electronic TDS have an adequate repetitive accuracy of delay time.	White white white white	ALN.
unlifer wh	Test (under no-load conditions):	TEX LITER OUTER MOLITER	N.
et s	- rated control voltage (applied ten times) (V)		(et
et writer	- adjustable TDS: delay time set 2,5 min approximately if possible, otherwise, test made with the delay time specified by the manufacturer(s)	THE WALTER WALTER WALTER	ynli ynli
SUTER	Mean value of delay times measured (s)	-S of the The Title	CLIER.
	Maximum / minimum values of delay time measured(s)	-s/-s	LIER-
	Maximum / minimum values of delay time do not deviate by more than 15 % from the mean value	- % / - %	S
19.108	Electronic TDS revert to the full delay time when the operating means is actuated during the delay time period	TEK STEK STEK WITE	N
SET.	Adjustable TDS: three specimens initiated at rated clinitiated again at rated control voltage:	control voltage and after 1 min	N



Reference No.: WTX21D03023971S Page 31 of 67

Lite Mili	Mr. Aug Aug	EN 60669-1& EN 60669-2-	1 Mile while while whi	all.
Clause	Requirement + Test	Tr. Mr. M. M.	Result - Remark	Verdict

ALTER O	- rated control voltage (V)	CITE.
STEP ST	- delay time adjusted between 2 min and 3 min (s) (V)	TEK-
EN LEN	Total delay time resulting for each specimens is between 3 min and 4 min (min)	N
"WE	Non-adjustable TDS: three specimens initiated at rated control voltage and after 1 min initiated again at rated control voltage:	N
MALL	- rated control voltage (V)	mr.
J.	- delay time (declared by the manufacturer) (min) . :	75 <del>1</del>
iner on	Total delay time is the delay time (declared by the manufacturer) ±5 % plus 1 min (min)	N
ite whit	Non-adjustable TDS when the delay time is less than 1 min: three specimens initiated at rated control voltage and after half the delay time declared by the manufacturer initiated again at rated control voltage:	N
11/1	- rated control voltage (V)	415
TEX	- delay time (declared by the manufacturer) (min) . :	S. C. L. P.
Mr. A	Total delay time is 1,5 times the delay time (declared by the manufacturer) ±5 % (min)	N
19.109	Contact mechanisms incorporated in electronic switches, intended for self-ballasted lamps (e.g. fluorescent lamps, CFL, LED) are tested as 19.102 except for the requirements related to the power supply which are given for information only.	P.
k Wilek	Compliance is checked by connecting the load B as given in figure 103 via the electronic switch under test to a power supply.	NILITE NILITE
MUTIEK M	The values for the maximum peak value and the maximum I²t of the inrush current are given in table 108)	NITER.
All S	- rate of operation (operation per minute)	{E!\-
EK TIEK	During the test: copper wire F not melt, specimens function correctly, no sustained arcing or welding of contacts	P

20	MECHANICAL STRENGTH		Р
-1/4 	Switches, boxes and screwed glands have adequate mechanical strength	INTE MILL MILL WITH	Р
20.1	For all types of switches and for boxes: impact test (9 blows)	See appended table 20.1	Р
TIER WAL	After the test: no damage, live parts no become accessible	A MILIER WHITER WHITER WHI	P
20.2	Bases of surface-type switches first fixed to a cylinder of rigid steel sheet of radius equal to 4,5 times the distance between fixing holes (mm):	WHITEK WHITEK WHITEK WHITE	N. N.
CLIE .	Bases then fixed to a flat steel sheet	THE THE LIFE WITE	IN IN IN



Reference No.: WTX21D03023971S Page 32 of 67

's MUL	EN 60669-1& EN 6	60669-2-1	
Clause	Requirement + Test	Result - Remark	Verdict
20.	The state of the s	ane, and any any an	
40	Torque applied to fixing screws (Nm)	. 0.5 Nm / 1.2 Nm	

The .	Torque applied to fixing screws (Nm):	0,5 Nm / 1,2 Nm	NITE.
0,, 3,	During and after the test: bases show no damage	the many many	N
20.3	Screwed glands of switches other than ordinary: toro	que test	N
2000	- diameter of cylindrical metal test rod (mm):	mi mi m	
er Jie	- type of material:	metal / moulded material	
-4/-	- torque for 1 min (table 19) (Nm):	mi mi m	
MULTER	After the test: no damage of glands and enclosure of the specimens	MITEL WHITEL WHITEL WHITE	M <sup>C</sup> OLO
20.4	Force necessary for covers, cover-plates or actuatin to come off (accessibility with the test finger to live page 1).		UT P
20.4.1	Verification of the non-removal of covers, cover-plates or actuating member		J P
r ik	Force applied for 1 min in direction perpendicular to the mounting surface	80 N	12.
White	Covers, cover-plates or actuating members not come off	MILLER WALLER WALLE WALL	-uP
MULITER O	Test repeated on new specimens with a sheet of hard material, 1 mm ± 0,1 mm thick, fitted around the supporting frame (fig. 19)	NIFEK WHITEK WHITEK	nti P
VIII WA	Covers, cover-plates or actuating members not come off	THE WILL WE	Р
EK OLIE	After the test: no damage	The little out	Р
20.4.2	Verification of the removal of covers, cover-plates or	actuating members	Р
	Force not exceeding 120 N applied 10 times in direction perpendicular to the mounting / supporting surface: covers, cover-plates or actuating members come off	MULTER WHITER WHITER WHITER	WN P
iliek will	Test repeated on new specimens with a sheet of hard material, 1 mm ± 0,1 mm thick, fitted around the supporting frame (fig. 19)	EF THE STEET WITEE	P
EK SLIFEK	Covers, cover-plates or actuating members come off	THE THE STEE STEE	Р
20	After the test: no damage	Mur Mur Mr Mr	Р
20.5	Force necessary for covers, cover-plates or actuating members to come off or not to come off (accessibility with the test finger to non-earthed metal parts separated from live parts by creepage distances and clearances according to table 20)		<sub>M</sub> TÍÑ
20.4.1	Verification of the non-removal of covers, cover-plates or actuating members		N
TEK OLTE	Force applied for 1 min in direction perpendicular to the mounting surface	10 N / 20 N	»! 
120	Covers or cover-plates not come off	my my my m	N
WALTER	Test repeated on new specimens with a sheet of hard material, 1 mm ± 0,1 mm thick, fitted around the supporting frame (fig. 19)	MALIER MALIER MALIER MALIE	N <sub>UV</sub>



Reference No.: WTX21D03023971S Page 33 of 67

EN 60669-1& EN 60669-2-1			
Clause	Requirement + Test	Result - Remark	Verdict

- E	Covers, cover plates or actuating members not	N
mer, m	Covers, cover-plates or actuating members not come off	IN.
SER S	After the test: no damage	N
20.4.2	Verification of the removal of covers, cover-plates or actuating members	N
	Force not exceeding 120 N applied 10 times in direction perpendicular to the mounting / supporting surface: covers, cover-plates or actuating members come off	N.
WILLER W	Test repeated on new specimens with a sheet of hard material, 1 mm ± 0,1 mm thick, fitted around the supporting frame (fig. 19)	N N
i Tek Zir	Covers, cover-plates or actuating members come off	N
21,	After the test: no damage	N
20.6	Force necessary for covers, cover-plates or actuating members to come off or not to come off (accessibility to insulating parts, earthed metal parts, live parts of SELV ≤ 25 V a.c. or metal parts separated from live parts by creepage distances twice those according to table 20)	PE
20.4.1	Verification of the non-removal of covers, cover-plates or actuating members	Р
NITER WAS	Force 10 N applied for 1 min in direction perpendicular to the mounting surface: covers, cover-plates or actuating members not come off	Р
- WILL	Test repeated on new specimens with a sheet of hard material, 1 mm ± 0,1 mm thick, fitted around the supporting frame (fig. 19)	Р
City.	Covers, cover-plates or actuating members not come off	√III P
Will M	After the test: no damage	Р
20.4.2	Verification of the removal of covers, cover-plates or actuating members	ΗP
ek muliek	Force not exceeding 120 N applied 10 times in direction perpendicular to the mounting / supporting surface: covers, cover-plates or actuating members come off	P
WALTER	Test repeated on new specimens with a sheet of hard material, 1 mm ± 0,1 mm thick, fitted around the supporting frame (fig. 19)	MALTER
ULIEK MU	Covers, cover-plates or actuating members come off	P
et e	After the test: no damage	J P
20.7	Test with gauge of figure 20 applied according to figure 21 for verification of the outline of covers, cover-plates or actuating members: distances between face C of gauge and outline of side under test, not decrease	unite vinite



N

Reference No.: WTX21D03023971S Page 34 of 67

	EN 60669-1& EN 60669-2	11 mile mer me	
Clause	Requirement + Test	Result - Remark	Verdict
20.8	Test with gauge according to figure 23 applied as shown in figure 24 (1 N): gauge not enter more than 1mm	complying	10111 <u>-</u> 1
20.9	Operating members of cord-operated switch have adequate strength	TEX WALTER WALTE WALTE	II NI
IER WILLE	Pull test: pull 100 N for 1 min (normal use); pull of 50 I direction). After the test:	N for 1 min (unfavourable	J. N.J.
- JEK	- switch show no damage	at at at at	N
The A	- operating member not broken and cord-operated switch still operate	inti mit mit mit	N
21	RESISTANCE TO HEAT	LIFE WALTER WALTE WALTE	J PJ
21.1	Switches kept for 1 h in a heating cabinet at a temperature	ature of 100 °C ± 2 °C	# P
T SH	During the test: no change impairing their further use and sealing compound, if any, not flow	MULL MILL WILL W	Р
MILL	After the test: no access to live parts, markings still legible	White White White Whi	Р
21.2	Parts of insulating material necessary to retain current-carrying parts and parts of the earthing circuit in position: ball-pressure test (1 h, 125 °C)	See appended table 21.2	MILL P
21.3	Parts of insulating material not necessary to retain current-carrying parts and parts of the earthing circuit in position, even though in contact with them: ball-pressure test (1 h)	See appended table 21.3	un C. Pun
22	SCREWS, CURRENT-CARRYING PARTS AND CO	ONNECTIONS	P
22.1	Connections withstand mechanical stresses	min min min min	Р
MALTER M	Thread-forming or thread-cutting screws used only if supplied together with the piece in which they are intended to be inserted	LITER WALTER WALTER WALTER	N S
	Screws and nuts which transmit contact pressure: in engagement with a metal thread	ex writer write write w	u, bu
EE MITE	Threaded part torque test	See appended table 22.1	Р
22.2	Screws in engagement with a thread of insulating material: correct introduction into the screw hole or nut ensured	with the while	N
22.3	Contact pressure: not transmitted through insulating material other than ceramic, pure mica or other material no less suitable unless there is sufficient resiliency in metallic parts	TEX WALTER WALTER	W LITE P
22.4	Screws and rivets locked against loosening or turning	MULLE MULLE MULL M	Р
22.5	Current-carrying parts of metal having mechanical stream and resistance to corrosion adequate:	ength, electrical conductivity	w P

- copper;



Reference No.: WTX21D03023971S Page 35 of 67

	EN 60669-1& EN 60669-2	2-1 we was all	
Clause	Requirement + Test	Result - Remark	Verdict
40	t life feet feet street americanness	mer mer me m	
warie w	- alloy with at least 58 % copper for parts made from cold-rolled sheet or with at least 50 % copper for other parts;	NIFEK WALLER WALLE	P
ir. Aur	- stainless steel with at least 13 % chromium and not more than 0,12 % carbon	THE WALTER WALTER WALTER	in Ni
er white	- steel with electroplated coating of zinc (ISO 2081): service condition ISO no. (1/2/3); IP (X0/X4/X5); thickness (μm)	Whitek Whitek Whitek W	N N
WAL V	- steel with electroplated coating of nickel and chromium (ISO 1456): service condition ISO no. (2/3/4); IP (X0/X4/X5); thickness (µm)	united united white white	N N
TEX WALT	- steel with electroplated coating of tin (ISO 2093): service condition ISO no. (2/3/4); IP (X0/X4/X5); thickness (µm)	AND THE MALTER MALTER	IN SUN
WALTER	Current-carrying parts subjected to mechanical wear: not of steel with electroplated coating	NITER MUTER MUTER WA	P
and text	Metals having a great difference of electrochemical potential: not used in contact with each other	ited still nited mile	P
22.6	Contacts subjected to sliding action: of metal resistant to corrosion	the sub-	P
22.7	Thread-forming screws and thread-cutting screws not used for the connection of current-carrying parts	The The	P
MUTTER	Thread-forming screws and thread-cutting screws used to provide earthing continuity: not necessary to disturb the connection and at least two screws are used for each connection	MUNITER MILLS WHITEK WHI	N VINLTER
23	CREEPAGE DISTANCES, CLEARANCES AND DIS	STANCES THROUGH	P
ite vinis Mister	Values of items 1, 2, 6 and 7 of table 20 applied to terminals for external wiring and not applied to other live parts which are protected by a directly associated fuse with adequate breaking capacity or other current-limiting means, under the provision that the requirements of 101 are fulfilled	Whitek whitek whitek wh	P
2112 Z	Electronic switches without directly associated fuse or other current-limiting means: comply with table 20	White Mile Mail Mari	Р
23.1	Creepage distances, clearances and distances through sealing compound no less than the values shown in table 20	See appended table 23.1	WILL BA
23.2	Insulating compound: not protrude above the edge of the cavity in which it is contained	WALLE WALL WHEN A	N



	EN 60669-1& EN 60669-2	I will will will will	
Clause	Requirement + Test	Result - Remark	Verdict
20,	A SH SH THE STEE MISTER WALL	me me me	2.
23.101	Electronic switches having control circuit suitable for connection to a SELV supply, the switching circuit being supplied with a voltage greater than the SELV: creepage distances and clearances between the control and switching circuits are not less than 5,5 mm (mm)	No SELV.	ILLE ON THE
Whitek	In case of electronic RCS and electronic TDS classified according to 7.103, see the relevant requirements in IEC 60669-2-2 and IEC 60669-2-3 for clearance and creepage between SELV and mains. (mm)	Miller Miller Miller Miller	VN VINITER
23.102	Wire enamel at least grade 1 according to IEC 60317: clearances between the wire of the control coil, live parts of different polarity and exposed conductive parts may be reduced to a value equal to two-thirds the clearances required in absence of enamel	LIEK WHITEK WHITEK WHITEK WAS	NET NOT
24	RESISTANCE OF INSULATING MATERIAL TO ABNORMAL HEAT, TO FIRE AND TO TRACKING		√n P
24.1	Parts of insulating material which might be exposed to thermal stresses due to electric effects and the deterioration of which might impair the safety are not unduly affected by abnormal heat and fire	NITER WALTER WALTER WALTER	MAL'P
24.1.1	Glow-wire test according to IEC 60695-2-1	See appended table 24.1.1	, P
24.2	Parts of insulating material retaining live parts in position of switches with IP>X0: of material resistant to tracking	White white white whi	N.
in.	Tracking test with solution A of IEC 60112	See appended table 24.2	N
25	RESISTANCE TO RUSTING	THE LIE STEE WHILE	PLICE N S
7	Ferrous parts protected against rusting	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	25 N
EK LEK	Test: 10 min in carbontetrachloride, trichloroethane 10 min 10 % solution of ammonium chloride, 10 min moisture and 10 min at 100 °C ± 5 °C:		N
111	No signs of rust	Mer. Aur. Mu. All	N
26	EMC REQUIREMENTS	NIET WILL WHILE	on P
NITER WY	Electronic switches designed to operate correctly under the conditions of electromagnetic environment in which they are intended to be used	TEX MULTER MULTER MULTER W	ILTE P
26.1	Immunity	et jet liet miei	P
y white	Electronic switches designed so that the switch state (ON or OFF) and/or the setting value are protected against interference	MILES WILLES WHILE	PANLIER
all the	Type of load:	a state	C Carlo
- C			

Waltek Testing Group Co., Ltd. http://www.waltek.com.cn

Test current: In (A) / Rated load (W or VA) .....:



Reference No.: WTX21D03023971S Page 37 of 67

Land Music	EN 60669-1& EN 60669-2-1			
Clause	Requirement + Test	Result - Remark	Verdict	

	Test voltage: Vn (V)	VILLE.
LIEK WAL	Variation of less than ± 10 % of the value of the output power (rms) is not considered to be a change of setting	TEX P
EX INLIER	Electronic switches shall be tested according to Table 104 with or without operation as specified in the relevant paragraph.	P
WILLER	If the load connected to the electronic switch is controlled by mechanical switching devices and no semiconductor devices are present in the load circuit, test is conducted with resistive load only	PA
NET W	For test without operation the electronic switch is tested in the following states:	P.s
	a) in the ON state, highest setting	Р
TE MET	b) in the ON state, lowest setting	P
y whitek	For electronic switches whose cycle of operation is limited by their application, the rate of operation during the test shall be specified by the manufacturer.	P
26.1.1	Voltage dips and short interruptions	P
NITEK WAY	Electronic switch tested using the equipment specified in IEC 61000-4-11 in accordance with table 105: sequence: 3 dips/interruptions (duration: 10 cycles at rated frequency) with interval of 10 s minimum between each test event:	TEKP
ek antië	The test shall be done on the power supply lines of the electronic switch.	P
- L	During the test, the electronic switch is not operated	Р
White.	During the test, the state and setting of electronic switch may alter, flickering is neglected.	un'P
TEX	Test level: 0 % U <sub>T</sub>	P
no in	Test level: 40 % U <sub>T</sub>	Р
at S	Test level: 70 % U <sub>T</sub>	Р
4 E4	After the test: electronic switch is in the original state and the setting is unchanged	Р
MAL	After the test, the electronic switch shall be in the original state and setting and shall operate as intended.	WP LIEN
26.1.2	Surge immunity test for 1,2/50 µs wave impulses	Р
NITEK WY	Test carried out according to IEC 61000-4-5 applying two positive discharges and two negative discharges at each of the following angles 0°, 90°, 270°, at a repetition rate of (60 ± 5) s, with an open-circuit test voltage of Table110	TE P
ie site	A test with lower voltages is not required	Р
20,	During the test , the electronic switch is not operated	Р
WILLER	During the test , the state and setting of electronic switch may alter, flickering is neglected.	P
nnlifek w	After the test, the electronic switch shall be in the original state and setting and shall operate as intended.	ALT P



Reference No.: WTX21D03023971S Page 38 of 67

EN 60669-1& EN 60669-2-1			an.	
Clause	Requirement + Test	the man with the	Result - Remark	Verdict

26.1.3	Electrical fast transient/burst test	P
m Tilek mur	Test carried out according to IEC 61000-4-4 in accordance with table 106, duration of the test 1 min +5/0 s for each positive and negative polarities: open-circuit output test voltage (± 10 %):	P P
	During the test , the electronic switch is not operated	Р
2,	Supply terminals/terminations: 1 kV	Р
.clife.	Control terminals/terminations: 0,5 kV	Р
ULLER ML	During the test, the state and setting of the electronic switch may alter, flickering caused by the electronic switch is allowed.	Р
TEX WALT	After the test: the electronic switch shall be in the original state and setting and shall operate as intended.	y P
26.1.4	Electrostatic discharge test	Р
MULIER	Electronic switch not intended to operate incandescent lamp: test carried out with only one load of the loads specified within the manufacturer's instructions	P
LIFER	Test carried out according to EN 61000-4-2 applying 10 positive and 10 negative discharge:	Р
et de	A test with lower voltages is not required	Р
alle	During the test , the electronic switch is not operated	Р
. WITEK	During the test , the state and setting of electronic switch may alter, flickering is neglected.	P
TEX.	- contact discharge to the conductive surface and to coupling planes (test voltage: 4 kV)	Р
'n- 'n	- air discharge at insulating surfaces (test voltage: 8 kV)	Р
it with	After the test: the electronic switch shall be in the original state and setting and shall operate as intended.	P/r
VIII.	Electronic switches with an adjustable time delay devices shall be adjusted in such way that the time delay is higher than the testing time	WP CLIEN
26.1.5	Radiated electromagnetic field test	Р
LITER OUT	Test applicable only to electronic switches containing infra-red (IR) receivers, radio frequency receivers, passive infra-red (PIR) devices, devices containing microprocessors or similar	P
F 764	Test carried out according to IEC 61000-4-3 applying a field strength of 3 V/m in the frequency range 80 MHz to 1000 MHz and 1400 MHz to 2000 MHz:	Р
Aug	Electronic switch shall be loaded with resistive load only.	√ P



Reference No.: WTX21D03023971S Page 39 of 67

EN 60669-1& EN 60669-2-1			
Requirement + Test	Result - Remark	Verdict	

	the lite the the this will make my the the	
	During the test, the electronic switch is operated, if it contains automatics functions or can be remotely controlled	Р
	During the test , the electronic switch shall operate as intended, flickering is not allowed.	Р
MALTER	Flickering of lamps or irregular running of motors due to the switching transient caused by frequency changes of the test equipment during the test procedure is neglected.	P
26.1.6	Radio-frequency voltage test	Р
ilek muri	Test applicable only to electronic switches containing infra-red (IR) receivers, radio frequency receivers, passive infra-red (PIR) devices, devices containing microprocessors or similar	P.N
y MITEN	Electronic switch shall be loaded with resistive load only.	MITE
TEX.	Test carried out according to IEC 61000-4-6 applying a conducted radio-frequency voltage of 3 V r.m.s. on supply lines and control lines:	P
nizek ani	During the test, the electronic is operated, if it contains automatics functions or can be remotely controlled	Р
Et Cle	During and after the test , the electronic switch shall operate as intended, flickering is not allowed.	P
MULTER	Flickering of lamps or irregular running of motors due to the switching transient caused by frequency changes of the test equipment during the test procedure is neglected.	P
26.1.7	Power-frequency magnetic field test	σÑ
riek ovi	Test applicable only to electronic switches containing devices susceptible to magnetic fields, for example, Hall elements, electrodynamic	N
	Test carried out according to IEC 61000-4-8 applying a magnetic field of 3 A/m, 50 Hz:	N
74.	Electronic switch shall be loaded with resistive load only.	N N
MUTTE A	During the test, the electronic is operated, if it contains automatics functions or can be remotely controlled	on N
NE VIN	Flickering of lamps or irregular running of motors due to the switching transient caused by frequency changes of the test equipment during the test procedure is neglected.	N N
26.2	Emission	P
26.2.1	Low-frequency emission	, P
	Electronic switches designed that they do not cause excessive disturbances in the network	P



Reference No.: WTX21D03023971S Page 40 of 67

EN 60669-1& EN 60669-2-1			an.	
Clause	Requirement + Test	the man with the	Result - Remark	Verdict

White M	Electronic switch complies with IEC 61000-3-2 and IEC 61000-3-3	NIFEK WILLER WILLER WALTER	P
LIEK WA	This requirements applies to each channel of a multichannel dimmer provided that the channel are independent from each other	LEK MULTER MULTER MU	TEK P
Whitek w	Load terminals/terminations of electronic switches with electromechanically operated contact mechanism (for example, a relay), do not cause harmonic current emissions and are deemed to meet the requirements of IEC 61000-3-2 without need for testing. Therefore only the mains supply terminal/terminations of those products shall be tested.	unlies whiles whiles whiles	MALIER MALIER ALIER MA
26.2.2	Radio-frequency emission	at the life of	OF P.O
it lik	Electronic switches designed that they do not cause excessive radio interference	white whi with whi	P
Mr	Electronic switch complies with the requirements of CISPR 14 or CISPR 15.	White white white white	WP.
Whiteh V	Electronic switch complies with the requirements of CISPR 15 (modified on sub-clauses 8.1.4.2 and 8.1.4.3)	Writer Writer Writer.	n P

101	ABNORMAL CONDITIONS		P
WALTE	Electronic switches do not create hazard under abnormal conditions	WHITE WILLES WHITE WHITE	Р
WALTER OF	If in case of failure the maximum power taken by the electronic switches is less than 0,5 W, the requirements of the abnormal condition are deemed to be met	Whitek whitek whitek whitek	WA PE
101.1.1.1	Fault conditions test: temperature rises not exceed the values given in table 102, column concerning clause 101	See appended table 101.1.1.1	P
Et STEK	Temperature limited by a fuse: additional test carried out in case of doubt	See appended table 101.1.1.1	P
101.1.1.2	Electronic switches without incorporated temperature-limiting devices and without incorporated fuses:		N
JUPL WI LIEK NI	Test current: conventional tripping current If (A) for 1h of the fuse which, in the installation, will protect the electronic switch	unite white white white	ave-
TER TER	Temperature rise measured after steady state or after 4h	t at at the item.	N
211	Electronic switches protected by automatic protective	ve devices (including fuses):	Р
MALIER	Current with which the protecting device releases after 1 h (A)		UNEXE
WITEK WA	Test current: 0.95 times the current with which the protecting device releases after 1 h (A)	Tripping current: 18A Test current: 17.1A	NITES.



Reference No.: WTX21D03023971S Page 41 of 67

Land Music	EN 60669-1& EN 60669-2-1			
Clause	Requirement + Test	Result - Remark	Verdict	

JALTEY A	Temperature rise measured after steady state or	THE THE LIEF SLITE	NIT P
20, 20,	after 4 h	See appended table 101.1.1.2	
JEF W	Electronic switches protected by incorporated fuse	s complying with IEC 60127:	N
	Rated current of incorporated fuse (A)	in the the the	L -
and the	Test current: 2.1 In (A)	e the the atternation	ناتان
	Temperature rise measured after 30 min	: See appended table 101.1.1.2	N
MULTE.	Additional test on new specimen shall be carried o the electronic switch turn off before the temperatur		<sub>SUP</sub> N
TEX.	Test current: 1.1 In (A)	if the test of the	J. F.
	Test current then increased by 10% until temperature stabilize	With the title the title	
Y WILLEY	The above test is repeated by 10 % until the conventional tripping current of the protective device is reached or the electronic switch is destroyed	THE WALTER WALTER WALTER	<u>w</u> n
101.2	Protection against electric shock even during fault conditions	TEX STEEL STEEK SOUTH	JALI P
LIEK N	Electronic switches tested according to clause 10 immediately following the test of 101.1	the state of	P
101.3	Short circuit test: prospective short circuit of the su	pply: 1500 A; I²t: 15000 A²s:	Р
EK WILLE	Test voltage Vn (V)	: 240V	100
MULLER	Type of fuse recommended by the manufacturer	Type C circuit breaker, according to IEC/EN 60898-1 shall be installed in the fixed wiring for protection	uni <sup>TE</sup>
ALTER 1	N° of short circuits; N° of specimens used	: 3,3	ME
iter mur	During the test, emission of flames or burning particles, if any, shall not be dangerous to the environment.	of the sure with white was	P W
WALTER	The above requirement is fulfilled if during the test there are no emission of flame or burning particles visible without magnification.	E WHITEK WHITEK WHITEK WHITE	P
WILLER V	If there is a visible emission, the test shall repeated using a polyethylene film.	DUTER WHITER WHITER	P
delt .	After the test:	a de de de	Р
vr. 10	- accessible metal parts not live	WILL MULL MULL MULL WILL WILL	Р
TEK WALT	- emissions of flame or burning particles have not visibly perforated the film when examined without magnification	THE WALTER WALTER WALTER	P
WALTER	- the conductors, the flush mounting box and mounting surface shall not show traces of burns.  Traces which can be cleaned are ignored	WHITEK WALTER WALTER WALTER	UN P



Reference No.: WTX21D03023971S Page 42 of 67

	EN 60669-1& EN 60669-2	1.1 with white white w	
Clause	Requirement + Test	Result - Remark	Verdict
7/2	THE THE THE MITTER SMITH	MULL MULL MILL MINE	- 20
unitek wi	<ul> <li>the specimen is re-energized in its normal operating position, and its behaviour is monitored for 4 h . The specimen shall show no dangerous behaviour, maximum temperature of Table 102 shall not be exceeded.</li> </ul>	NIET WHIEF WHIEF WHIEF	ILLE MAL
EX MITE	- the electronic switches shall withstand the dielectric strength test of Clause 16.	- ITEX SITEX NITEX W	P
101.4	Abnormal operation of the control circuit (only for electimpulses)	tronic RCS energized by	N.C.
10, 1	Behaviour of electronic RCS during abnormal	The Mrs. Mrs. Mrs. Mrs.	N



Reference No.: WTX21D03023971S Page 43 of 67

The same	EN 60669-1& EN 60669-2-1					
Clause	Requirement + Test	Result -	Remark	/erdict		

	Test made on three additional specimens of electronic TDS meeting with requirements of clauses 15 and 16:	N TIN
LIEK WIL	Control circuit continuously energized at its rated voltage (V)	TEK ON
EX MITE	Switching circuit loaded for 6 h with rated current (A) at rated voltage (V) A; - V	k - LI
TEK	Adjustable electronic TDS: adjusted to the shortest delay time (s):	LIFEK.
an .	After this test:	<sub>2,0</sub> N
TEN .	- electronic TDS still operate	σÑ
TEK MUT	- temperature rise of any part of the electronic TDS enclosure and plywood support, which may be touched by the standard test finger, test probe B of IEC 61032, ≤ 75 K (K)	N W
WILTER	- temperature rise of the plywood support which cannot be touched by the standard test finger, test probe B of IEC 61032, ≤ 100 K (K):	N.
UNITE V	- electronic TDS did not emit flames, melted material, glowing particles or burning drops of insulating material	JEN N
10 m	After cooling down to ambient temperature:	N
ex while	Electronic TDS withstand a dielectric test (sub-clause 16.2), test voltage (a.c., for 1 min), between switching and control circuits:	* N
- ×	- test voltage (V)	
WELL	During the test: no flashover or breakdown	W.N
at-	Electronic TDS still meet the requirements of 10.1	N
101.5	Dimmers for incandescent and/or self-ballasted lamps shall so designed that no part shall reach such a temperature that there is danger of fire to the surrounding of the dimmer when non-dimmable self-ballasted lamps are installed in the load circuit.	N A
# _{E}	Tests made on dimmers mounted and connected as specified in clause 17.	N
VILER	The dimmer is loaded with a number of lamp simulation circuit as Figure 103 Load B (25 W non dimmable self-ballasted lamp)	WILLER WILLER
an Riter an Ext. Th	Dimmer not for self-ballasted lamps the dimmer is loaded with a number of lamp simulation circuit as Figure 103 Load B having a total power equivalent to 1/5 <sup>th</sup> of the declared incandescent lamp load (W)	EK N
m	- test voltage (V)	$\tau_{0}$ .
MALTER	- permissible temperature rises determined in table 102, column concerning clause 101, not exceeded See appended table 101.1.1.2	NE
×	After this test:	N-
1000	- accessible metal parts shall not be live	N



Reference No.: WTX21D03023971S Page 44 of 67

	EN 60669-1& EN 60669-2	1 mil mer were we	
Clause	Requirement + Test	Result - Remark	Verdict
WUTER AN	- contacts of any incorporated automatic protective device not welded, unless the electronic switch is obviously useless	HITEK WHITEK WHITEK	N
102	COMPONENTS	the many many many many	Р
E WILLE	Components which, if they fail, may impair the safety of the electronic switch comply with the relevant IEC standards, as far as applicable	WALTER WALTER WALTER WALTER	P
WILL V	Components marked with their operating characteristics used in accordance with these markings	MILITER WALLE WALL WALL WALL	JUN P
102.1	Fuses comply with:	ree were mer mer a	N
JEH JE	- IEC 60127	at the fifty	N.O
11/2	- other relevant IEC publications	THE WE WE WE	N
the Clark	Rated breaking capacity (A): 1500 A or 35 A:	at the tite of	N
102.2	Capacitors: the short-circuiting or disconnection of with the requirements under fault conditions with regard		N
ال شامان	Trade mark; article of capacitor:	See appended table 102	· 11/1/- 1
	Capacitor complies with IEC 60384-14		N
nit was	Capacitor passing the damp heat steady-state test specified in 4.12 of IEC 60384-14 with a duration of not less than 21 days are considered acceptable	MALLE WHILL M	No.
	Capacitor in accordance with table 107: approved type of capacitor required by table 107 according to the application in the electronic switch; observed	See appended table 102	WALTER
,et	Capacitor marked with:	The state of the s	ζŃ
are ar	- rated voltage (V):	See appended table 102	N-1
et e	- rated capacitance (µF):		A N
rie aller	- reference temperature (°C):		N
EK WILLER	Capacitors: the short-circuiting of which cause a cur terminals of the capacitor:	rent = 0,5 A through the	N
	Trade mark; article of capacitor:	See appended table 102	7-6
MALTER	Capacitor complies with IEC 60384-14	TEX LIER OLIER WITE	w <sup>o</sup> N .
INLIEK WA	Capacitor passing the damp heat steady-state test specified in 4.12 of IEC 60384-14 with a duration of not less than 21 days are considered acceptable	itek writek writek writek	LETE N
TEK WALTE	Capacitor in accordance with table 107: approved type of capacitor required by table 107 according to the application in the electronic switch; observed	See appended table 102	EX NIT
Mrc.	Capacitor marked with:	ALTER MALTE MALTE MALT	20°N
d	- rated voltage (V):	See appended table 102	∠N <sup>±</sup>
11 ch	- rated capacitance (µF):	# 10 N N	N W



Reference No.: WTX21D03023971S Page 45 of 67

Land Music	EN 60669-1& EN 60669-2-1					
Clause	Requirement + Test	Result - Remark	Verdict			

WITE WIL	- reference temperature (°C):	See appended table 102	Ň
<u> </u>	Capacitors: for suppression of electromagnetic inter	ference:	N
IIE WILLE	Trade mark; article of capacitor:	See appended table 102	7601
	Capacitor complies with IEC 60384-14	Mr. Mr. M.	N
Marie.	Capacitor passing the damp heat steady-state test specified in 4.12 of IEC 60384-14 with a duration of not less than 21 days are considered acceptable	Whitek whitek white	N
White whit	Capacitor in accordance with table 107: approved type of capacitor required by table 107 according to the application in the electronic switch; observed	See appended table 102	ON N
TER OLIVE	Capacitor marked with:	CH TEN TEN STEEL IN	N
	- rated voltage (V) :::::::::::::::::::::::::::::::::::	See appended table 102	N
WITE.	- rated capacitance (µF):	See appended table 102	Ń
7	- reference temperature (°C):	See appended table 102	N
102.3	Resistors: the short-circuiting or interruption of which requirements with regard to the protection against find a defect:		unii N
ri, whi	Manufacturer / characteristics of resistor:	10Ω	
* 11	- constant value under overload conditions		у N.
MUT	reference temperature of the resistor according to clause 17 (°C)	white white white whi	N
WITE W	- comply with sub-clause 14.1 of IEC 60065	TEX TEX STEE WITE	Ñ
102.4	Automatic protective devices (other than fuses)	me m. n.	N
intite divis	Automatic protective devices comply with IEC 60730 as far as applicable	THE MITTER WITTER WITTER	N
102.4.1	Automatic protective devices which switch off the cu	rrent (cut-outs):	N.
20	Adequate making and breaking capacity	MULL ME ME ME	N
	Reference temperature above 55 °C: specimens tested at reference temperature according to clause 17 (°C)	WALTER WALTER WALTER WALTE	N.
02.4.1.1	Non-self-resetting cut-outs in the load circuit of the e	electronic switch:	N
	Test voltage: 1.1 Vn (V):	12 24 24 A	_÷
The William	Cut-outs in electronic switches for incandescent or fl	luorescent lamps:	N
EK WALTEK	10 cycles; test current: 2.1 In (A) of the protecting fuse (IEC 60127) or the conventional fusing current (other fuses)	at united multiple multiple multiple	ik -
TEX	During the test: no sustained arcing	a at at at	N
me n	After the test: specimens show no damage	Write Whit whit whi	-20 N
INLIEK WA	Electric strength between open contacts: test voltage 500 V a.c. for 1 min	the state state state	ni N



Reference No.: WTX21D03023971S Page 46 of 67

EN 60669-1&	EN 60669-2-1	
Requirement + Test	Result - Remark	Verdict
		EN 60669-1& EN 60669-2-1    Requirement + Test

	Cut-outs in electronic switches for speed control circ	uits:	N
1 <sub>1</sub> , 2 <sub>1</sub> ,	. I st sit sit sit sit one	ur and any	
	In (A) of electronic switch (cosφ 0.6):	at at all all a	JE*
1. T. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	Making: 10 operations with: test current: 9 In (A); cosφ 0.8 ± 0.05:	which was the same	, - ·
nu.	Breaking: 10 operations with: test current: 6 ln (A); $\cos \varphi$ 0.6 ± 0.05	MULL MILL MILL WILL	<u>"</u>
WILL M	During the test: no sustained arcing	LIER ALTER WITE MALL	N
.4	After the test: specimens show no damage	in an an	N
LEX LEX	Test voltage (V) for cuts-out in electronic switches for speed control circuit: 1200 V a.c. ( $Vn \le 130 \text{ V}$ ) or 2000 V ( $Vn > 130 \text{ V}$ ) for 1 min:	LIET WHITE MILIE WHITE W	N
- 112 - 112	Test voltage (V) for cuts-out in electronic switches for lighting circuit: 500 V a.c. for 1 min:	MILL MILL MILL MI	N
102.4.1.2	Self-resetting cut-outs in the load circuit of the electron	onic switch:	<sub>S</sub> N
J.	Test voltage: 1.1 Vn (V):	All The The	75
ares air	Cut-outs in electronic switches for incandescent lam	ps: The state of t	N
LIEK WALT	200 cycles; test current: 2.1 In (A) of the protecting fuse (IEC 60127) or conventional fusing current (other fuses):	THE WALTER WALTER	LTEX-
et Jet	During the test: no sustained arcing	the set of	N
24	After the test: specimens show no damage	arti unti uni un	N
WALTER	Electric strength between open contacts: test voltage 500 V a.c. for 1 min	STEE WIFE WATER WATER	ALC N
102.4.2	Automatic protective devices which only decrease cu (10 cycles):	urrent to the electronic switch	N. N
	Test current per clause 17 for 4 h (A):		.t
TE MILL	Test current increased to 2.1 In (A) of the protecting fuse (IEC 60127) or the conventional fusing current (other fuses) for 30 min:	EX WHITE WHITE WHITE WH	5 7 5 7
1/1/2	After the test: specimens function correctly	CLIE WILL WILL WALL	N
E.E.	Temperature rise test per clause 17:	The state of	N
aler all	- electronic switch state not change	CLIEB WILL WALL WALL	ON.N
ill a	- fuses and other protective devices not operate		ζŃ
the way	- permissible temperature rises determined in table 102, column concerning clause 17, not exceeded	See appended table 102.4.2	N
WALTE	After the test, electronic switch is in operating condition	MALIER WALTER WALTER WAL	N
JEE	Sealing compounds, if any, have not flowed	the set of	N



Reference No.: WTX21D03023971S Page 47 of 67

	EN 60669-1& EN 60669-2	2-1 11 11 11	
Clause	Requirement + Test	Result - Remark	Verdic
20, 1	A SE SEE THE STEE WILLE WILL	The Me Me	111 - 2
102.5	Transformer	LEK TEK TEK	JIE NIN
LIEK WALTE	Transformers intended for SELV circuits shall be of the safety isolating type and shall comply with the relevant requirements of IEC 61558-2-6.	TEX MULTER MULTER MULT	EK TEKN
ANNEC CC	ADDITION REQUIREMENTS FOR ELECTRONIC S DLT_TECNOLOGY ACCORDING TO IEC 62756-1	WITCHES USING	unit unit
CC.8	MARKING	at the little	N N
CC.8.1	Switches marked with:	MULL MULL MULL A	N
TEK NI	- the symbol for DLT control device(DLT):	the state of	N N
CC.8.2	Symbols used:	Will Mary July Me	N
JEK JIEK	DLT control device(DLT):	at all all of	N.
of the	Supported telegram types for DLT control devices (TPX)	mer and an	N
2002 21	DLT controlled load	MITE NALL WALL	mr. MN
	The maximum cable length between DLT control device and DLT load shall also be given in the instruction sheet.	MITER WALTER WALTER W	NITEK WALINE
CC.17	TEMPERATURE RISE	at the si	N
iek autiek	In lamp dimmer, DLT control devices and speed controllers, the setting is adjusted such that the highest temperature will occur.	The lift mitter	N N
CC.19	NORMAL OPERATION	24, 24, 2,	N.
CC.19.103	Semiconductor switching devices and/or electronic regulating devices including DLT control devices incorporated in electronic switches are subjected to the following test.	White white white	Unit N
LIEK WALTER	For DLT control devices, a cable, having the maximum cable length, as declared in 8.3, is installed between the control device and the loads.	Est united united whit	it in the in
CC.26	EMC REQUIREMENTS	a start	N.S
CC.26.2	Emission	WILL MULL MULL	n N
CC.26.2.1	Low-frequency emission	A ST ST	ALL N
Mr. M.	DLT control devices shall be tested with maximum resistive load	write mir and a	N Su N
12.2.5	TABLE: test with apparatus shown in figure 10 (s	crew terminals)	N
TEX MITER	type of conductors smallest/largest cross-sectional area per table	- Company of the special speci	one whi

12.2.5	TABLE: test with apparatus shown in figure 10 (screw terminals)				
A B	rated current (A)	1 1 1	J X		
CL WILL	type of conductors	of the state with the	747		
t Tet	smallest/largest cross-sectional area per table 2(mm²)	-who who we the	- <del>-</del> 564		
770	number of conductors	- The Kill of Mr.	2/15-		
MITEK W	nominal diameter of thread (mm); torque per table 3(Nm)	TEX STEX WITH WITH	UNLIEK U		



Reference No.: WTX21D03023971S Page 48 of 67

The same	EN 60669-1& EN 60669-2-1					
Clause	Requirement + Test	Result -	Remark	/erdict		

Cross-sectional area (mm2)	Diameter of bushing hole per table 4 (mm)	Height H per table 4 (mm)	Mass (kg)	Remarks
NETER WALTE WALL	Mur. Mur. Mr.	TEX - LIFET IN	TEX UNITER WHITEK	NALIER WALTER WAL
supplementary inform	nation:	ship in the	- A A	at the se

12.2.6	TABLE:	pull test (screw to	erminals)		20, 20,		P.
Marie all	rated current (A)			: 16A		ALTER MITE	with.
STEP ST			onal area per table 2	>1 Fand < 1 mm <sup>2</sup>		LEX LEX	TENT .
The The			(mm); torque 2/3 per	m	2.92 mm, 0.27 N	lm 🖟	(j
Cross-sec area (m		Number of conductors	Type of conductors (rigid solid / rigid stranded)		Pull per table 5 applied for 1 min (N)	Remar	ks
1.5		1	Rigid solid	40		No obvious removal	
4.0		WALL T WALL	Rigid solid 50 No obvious		No obvious re	removal	
supplementa	ary informa	tion:	TEX NITER MITE	- 1	Will AUG. 2	he in	3, 2
12.2.7	TABLE: tightening test (screw terminals)					P	
, 4, st	rated current (A) 16A			16A	10, 10		
ER WILLE			(mm); torque 2/3 per	J. F	2.92 mm, 0.27 N	mounties whit	Mille
Largest of sectional a table 2 (i	rea per	Permissible number of conductors	Type of conductors (rigid solid / rigid stranded)	*	Number of wires and nominal iameter of wires per table 6	Remar	ks Lifet
4.0		TEX TITEL	Rigid solid	1*2 25		No wire of the o	

12.3.10	TABLE: mechanical stresses occurring in normal use						
TEK	rated current (A)	LEK JEK	-164				
71/2 V	largest/smallest cross-s (mm²)				.E.₩ 11_		
conducto	of connection (after that r subjected to a pull of 30 1 min) / disconnection	Type of conductor (solid / rigid stranded / flexible	Cross-sectional area (mm²)	Remark	S		
24	- x x	LIEK NITER MITE	White Marin Whi	mr m	20		
- CLIER	WITE WILL WALL .	n n - n -	A 74 A	LIEF ALTER	أكاري		
20,	TABLE: test with app	TABLE: test with apparatus shown in figure 10		14. 14.	N		
THE O	rated current (A)		i: jt	TER JEER	17 E		



Reference No.: WTX21D03023971S Page 49 of 67

Land Music	an an an	EN 60669-1& EN 60669-2-1	nu.
Clause	Requirement + Test	Result - Remark	Verdict

type	of conductors	: rigid solid / rigid st	: rigid solid / rigid stranded		
smal (mm	lest/largest cross-section			y 764	TEX
num	per of conductors	,,	": " WILL MULL	m, m	7,
Cross-sectional area (mm²)	Diameter of bushing hole per table 4 (mm)	Height H per table 4 (mm)	Mass (kg)	Remai	rks
WITEL WALTER	wir wir - wir	z <sub>11</sub> '	t dt det	JER NIER	
W 3	, , , , , , , , , , , , , , , , , , ,	Like July Ruly	14 14 14 14 14	1, 2,	~

Screwless	s terminal number	or or V	oltage drop (r	nV)	Requ	uired voltage	e drop	
r. m.	41 4		, <del>€</del> .	Carried Carried	≤ 15 mV ≤ 15 mV			
	2	THE SECOND	- 171 - W	in .				
	3	7 M	z,		x et	≤ 15 mV	Jer Jiv	
72/1	4	4	- x€ x€	· Je .		≤ 15 mV	24	
4	_5 _5 _4	G JE	J. 400	24, 24,	,	≤ 15 mV	الحد له	
Test b)	Temperature cy	cles test) carrie	ed out on tern	ninals subject	ed to Test a):		Ñ	
	test current per	table 8 (A)			7/1, 7/2	-		
16th 15th	nominal cross-s	sectional area (	mm²)		3 / -	et it	3/2- 3	
11 211	allowed voltage	drop (mV)	10-10-10-10-10-10-10-10-10-10-10-10-10-1	:	≤ 22,5 mV of 24 <sup>th</sup> cycle va		71 - 21	
Screwless t	erminal number	1	2	3	4	5	Remarks	
voltage drop	o after 24 <sup>th</sup> cycle	* - 4	J <sup>Q</sup> J		U10.	7/1, 7/		
	o after 48 <sup>th</sup> cycle	,	211 211		L		et -16th	
	o after 72 <sup>th</sup> cycle		J+ J	, <u></u>	5 <sup>67</sup>	11 - W	20	
	p after 96 <sup>th</sup> cycle	J. 444	-11 THE	24 - 24	19,			
	o after 120 <sup>th</sup> cycle	44		, ( J	t 🚓 .	( = JE	, <u>"</u>	
voltage drop after 144 <sup>th</sup> cycle		./ <del>+</del> .∢	#5 <sup>(2)</sup>	all - nei	"125, 212	$\bar{\sigma}_{l_{j_{-}}}$	20, - 2	
	p after 168 <sup>th</sup> cycle	WILL - WILL	21,-		A	t et	10 to	
	p after 192 <sup>th</sup> cycle	,	<del>.</del>	CE CE	JUE WI	122	14.5 - 24.	

12.3.12	TABLE: deflection test (principle of test apparatus shown in figure 11a)								N
NACTE VI	Test carried out for 1 h connecting rigid solid conductors:								N.
	test current (A) (equal rated current)required voltage drop (mV)				464	TIEN.	N. C. C.	17 LTE	47 L
·					: ≤ 25 mV				, <del>(</del>
Type of conductor		Smallest		Largest			Remarks		
cross-secti	onal area per table 9 (mm²)	aite with Auth an		- m - m				7-1	
force per ta	able 10 (N)		,	+ .	* <	¢⁴ ≾	(* J	er out	- ar
screwless t	terminal number	1.0	2	3	1	2	3		-
starting point (X = deflection original point)		X	X+10°	X+20°	X	X+10°	X+20°	WALTER	MULTE
voltage dro	pp 1 <sup>st</sup> deflection (mV)	2115	21/2	40,		<u>-</u>	74	, j. k	- Let



Reference No.: WTX21D03023971S Page 50 of 67

		EI EI	N 60669	-1& EN	60669-	2-1				
Clause	Req	uirement + Test	Men	71/2	-3"	Result -	Remark	. C. E. V	Verdict	
-21/2 - 4		at at at	CE.	MITE	WILLE	MILL	Miller	2112	20, 20,	
voltage drop	2 <sup>nd</sup> def	lection (mV)		-	, J	, et	(4)t	The state of the s	MITER WILLER	
voltage drop	3 <sup>rd</sup> def	lection (mV)	JE - 10	Je" JI	· · ·	sh 1	, a			
voltage drop	4 <sup>th</sup> def	lection (mV)			e+	15 Et N	,	- ur	in which we	
voltage drop	5 <sup>th</sup> def	lection (mV)	W. L.	77/12	70,0			- ,	y z <del>y</del> zi	
voltage drop	6 <sup>th</sup> def	lection (mV)	C. P.		102	et of the	12-21-18	THE C	Mr Mr.	
voltage drop	7 <sup>th</sup> def	lection (mV)	m.	12,	7	,+	et	TEX	JEE - STEE	
voltage drop	8 <sup>th</sup> def	lection (mV)	15th	WILLER.	Wite.	Mr. 7.	211/2	11.	$a_0 = \overline{a}_0$ .	
voltage drop	9 <sup>th</sup> def	lection (mV)		` <u>_</u>	-EF	zet .	TEL.	JEE .	LIER NATER W	
voltage drop	10 <sup>th</sup> de	eflection (mV)	E 11	110 111	ر ا	11-5 111		_ ~	.t 2+ 2	
voltage drop	11 <sup>th</sup> d∈	eflection (mV)	,	£ - X	# <u>.</u>	5 Et - NO	(P) (N)	-1/V	in min	
voltage drop	12 <sup>th</sup> d∈	eflection (mV)	Naria.	210	-Th			//	· LEF JEF	
supplementa	ary info	rmation:	.6*	JEK	, LIFE	MITE	MALTE	MUL.	Mr. Mr.	
16.1	TAB	LE: insulation resistar	nce	20,	20,			٠,	et Pot	
item per tab	le 20	test voltage applied be		- J.	4	measured (MΩ)			required (MΩ)	
1	<b>.</b>	all poles connected too body, with the switch in			on	> 500			≥5	
each pole in turn and all connected to the body, we the "on" position		all other poles		> 500		¢ 200	≥2			
3 the terminals which are connected together whe the "on" position, the second "off" position		hen the switch is in		> 500		VIN.L.	22 × 10 × 10 × 10 × 10 × 10 × 10 × 10 ×			

TABLE: electric strength	BLE: electric strength		
rated voltage (V)	240	st st	
20 test voltage applied between:	test voltage applied between: test voltage (V)		
all poles connected together and the body, with the switch in the "on" position	2000	No whi	
each pole in turn and all other poles connected to the body, with the switch in the "on" position	2000	THE WOUNTER	
the terminals which are electrically connected together when the switch is in the "on" position, the switch being in the "off" position	1250	No	
live parts and metal knobs, push-buttons and the like	4000	No W	
	all poles connected together and the body, with the switch in the "on" position each pole in turn and all other poles connected to the body, with the switch in the "on" position  the terminals which are electrically connected together when the switch is in the "on" position, the switch being in the "off" position  live parts and metal knobs, push-buttons	rated voltage (V) : 240  20 test voltage applied between: test voltage (V)  all poles connected together and the body, with the switch in the "on" position each pole in turn and all other poles connected to the body, with the switch in the "on" position  the terminals which are electrically connected together when the switch is in the "on" position, the switch being in the "off" position  live parts and metal knobs, push-buttons  1250	



Reference No.: WTX21D03023971S Page 51 of 67

Land Music	an an an	EN 60669-1& EN 60669-2-1	nu.
Clause	Requirement + Test	Result - Remark	Verdict

17	TABLE: temperature rise measurements	WILL MULLE MULTE	An P
NITEK WA	cross-sectional area of conductor not less than 1,5 mm² (mm²) (table 15)	4.0mm2	mitek on itek ogsi
i <sup>EK</sup> WALTE	terminal screws: torque (Nm) (2/3 table 3 or appropriate figures 1, 2, 3,	0.27 Nm	TEX MALTE
- 164	type of load:	Resistive	t sit set
Miles	rated current (A) / rated load (W or VA)	Max.3840W Resistive	mi mi
All the	rated voltage (V)	100-240V	LEF LEFE
are a	test voltage between 0,9 and 1,1 Vn (V), whichever is the more unfavourable:	264V	unt un _ ul
parts of t	he electronic switch	Max. measured temperature rise (K)	permissible temperature rise (K)
Resistive	oad the life the life while while	MULT MILL MAN	7/1 21
Terminal I	and any any and any the	39.1	55
Terminal I	NATIONAL SECTION AND AND AND AND AND AND AND AND AND AN	30.6	55
MOV1		39.5	60
Relay K1		38.7	80
Relay K2	THE THE THE THE	31.9	80
C5 body	LIER WILL WILL WHILE MALE MAN AND	48.2	80
PCB near	D3	44.2	95
PCB near	U4 refer nett whit will will	38.9	95
PCB near U3		34.2	95
PCB near Q1		42.9	95
Plastic enclosure inside		33.9	Ref
	closure outside	22.3	70 150
Ambient		23.8	

19	TABLE: reduced electric strength after normal operation				
item per table 20	test voltage applied between:	test voltage (V)	flashover / breakdown (Yes/No)		
1	all poles connected together and the body, with the switch in the "on" position	1500	No		
2	each pole in turn and all other poles connected to the body, with the switch in the "on" position	1500	No No		



Reference No.: WTX21D03023971S Page 52 of 67

Tip Muri	Mury Angle Angle	EN 60669-1& EN 60669-2	I Mile Marie Wall was	All C
Clause	Requirement + Test	The Marie Marie of the	Result - Remark	Verdict

whit 3	the terminals which are electrically connected together when the switch is in the "on" position, the switch being in the "off" position	750 L		ALTE
TITE 8 NICE	live parts and metal knobs, push-buttons and the like	3000	No	1 1/2 1/4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
ie. antie	TABLE: temperature rise measurements after i	normal operation	iter mit	Р
· SLIER	cross-sectional area of conductor not less than 1,5 mm² (mm²) (table 15)	4.0 mm <sup>2</sup>		WITE.
The Co	terminal screws: torque (Nm) (2/3 table 3 or appropriate figures 1, 2, 3, 4)	0.27 Nm	THE THE	UEN.
11. 11.	type of load:	Resistive load;	21/2 21	
LTEX WALTE	rated current (A) / rated load (W or VA)	Resistive load: Max.3840	W;	21
IF STEE	rated voltage (V)	100-240V		, ct
Ville .	test voltage between 0,9 and 1,1 Vn (V), whichever is the more unfavourable	264V		1 Ex
parts of the	e electronic switch	Max. measured temperature rise (K)	permis temper rise (	ature
Resistive loa	ad fit it must suit	2 21	in n	4
Terminal L	with the state of	40.1	55	-dr
Terminal N		32.3	55	
MOV1	Will me me me	41.3	60	
Relay K1	A THE THE WITH WATER WATER WATER	40.2		
Relay K2	the write much many the transfer that	33.0		N. T.
C5 body	e se set tek stiek skiik mais	51.4 8		4
PCB near D	3 mi we we	44.8		
PCB near L	14 A A A A A A A A A A A A A A A A A A A	43.9	95	
PCB near L	13 12 112 112 112	33.7	95	dre
PCB near C	21 A A A THE WITE WALL OF	43.0	95	
Plastic encl	osure inside	33.6	Re	4
	osure outside	24.4 7		
Ambient	the military was to	25.5	- TIPE -	ar.
supplemen	tary information:	wer. Mer Mr.	20, 20,	

20.1	TABLE: impact	test	ALTER WALTER WALLE	wer we	Р
	nclosure tested 18 (A, B, C, D)	blows per part	height of fall (mm)	comme	nts
at the	A CO	The sure of the sure	100	No dama	age
supplemen	tary information:	A THE JE	NITER WITE WALLE	ir. Mur.	10 1

Waltek Testing Group Co., Ltd. http://www.waltek.com.cn



Reference No.: WTX21D03023971S Page 53 of 67

L,	The short	Mr. Mr. All	EN 60669-1& EN 60669-2	-1 WILL MILL MILL MILL	4112
<u> </u>	Clause	Requirement + Test	The Mark My the Mark	Result - Remark	Verdict

21.2	TABLE: ba	TABLE: ball pressure test of thermoplastic materials				
re in	allowed imp	pression diameter (mm):	≤ 2 mm	Will My -		
part unde	rtest	material designation / manufacturer	test temperature (°C)	impression diameter (mm)		
Terminal		thermoplastic	125	1.1		
РСВ	riek wriek	thermoplastic	125	0.7		
suppleme	entary information	1.4 ret ret outer militarie	The many	1/2 2/1		

			21.3 <b>TABLE</b>
CLIE 10th	≤ 2 mm	pression diameter (mm):	allowed
impression diameter (mm	test temperature (°C) (1)	material designation / manufacturer	part under test
0.7	70	thermoplastic	Enclosure
	70		Enclosure supplementary inform

22.1	TABLE: thread	led part torque t	est					-21,	Р
threaded pa	art identification	diameter of thread (mm)	colu num (I, II,		applied torque ( Nm )		nes (10)	no da	amage
Terminal	21/2 21/2	2.92	- 4	F 55 24	0.4	antile an	10	No dama	age
supplement	ary information:	MUTIL MUT	111	-3,	×+	A 1	t s	EF JU	10 m
23.1	TABLE: creepa	age distances, cl	earanc	es and dis	tances t	hrough sea	aling	- TEX	P
Mr.	rated voltage (V	")			: 240	MULT	The	M	211_
item per table 20	creepage distar cl and distance compound dtsc		9	required Cl (mm)	cl (mm)	required dcr (mm)	dcr (mm	required dtsc (mm)	dtsc (mm)
1, 6	Between live pa separated wher open(apply to to external wiring)	the contacts are	White	WAITEK.	NUTER O	≥3	3.1	STE WITE	inner
2, 7	Between live pa	irts of different	VILLE.	≥3 √	3.1	≥ 3	3.1	- LTEX	NITE P
3, 8	Between live pa surfaces of part material	orts and accessible s of insulating	e	≥ 3	3.2	≥ 3	3.2	(I) (I	)



Reference No.: WTX21D03023971S Page 54 of 67

	EN 60669-18	& EN 60669	-2-1				
Clause	Requirement + Test		Result - Remark				Verdict
3, 8	Between live parts and screws or devices for fixing bases, covers, or cover-plates	≥3	MUTITER MANTE	≥3	- AU 264 100	) j <sup>ej</sup> 3	With Th
supplement	tary information:	(EX	JEE	CLIFET INLI	White	21/2	- an

24.1.1	TABLE:	glow-wire test		LIE WHEN WE
part under to	est	material designation / manufacturer	test temperature (°C)	remarks
Terminal block		thermoplastic	850	No flame and glowing.
РСВ		thermoplastic	850	No flame and glowing.
Enclosure	24	thermoplastic	650	No flame and glowing.

24.2	TABLE:	TABLE: resistance to tracking		
7	number o	of drops	M. M.	- J
part under	test	material designation / manufacturer	Test voltage (V)	Flashover/ breakdown (Yes/No)
- 3 <sup>1</sup> ,		EX THE THE MUTH WHITE WALL	mr mr m	
suppleme	ntary informat	ion: 4"	TEN TEN STEE	WITE WALL

101.1.1.1	TABLE: fault conditions test	LEX TEX STEX STEEL	DE P
TEX TE	cross-sectional area of conductor not less than 1,5 mm² (mm²) (table 15)	4.0 mm <sup>2</sup>	JEK -
ek lik	terminal screws: torque (Nm) (2/3 table 3 or appropriate figures 1, 2, 3, 4):	0.27 Nm	
MUE	type of load:	Resistive load;	410
WITE OF	rated current (A) / rated load (W or VA):	Resistive load: Max.3840W;	1/11 1
20 1	rated voltage (V):	100-240V	
Will Mil	test voltage between 0,9 and 1,1 Vn (V), whichever is the more unfavourable:		Write - M
fault condi	tions simulated	remarks	verdict
D3 short circ	cuit	R5 open immediately, no hazards.	Р
C5 short circ	cuit with white the nites white	R5 open immediately, no hazards.	₩P
U1 Pin 1-2 s	hort circuit	Unit worked normally, No hazards.	WILL B.

Waltek Testing Group Co., Ltd. http://www.waltek.com.cn



Reference No.: WTX21D03023971S Page 55 of 67

3	EN 60669-1& EN 60669-2	-1 mr. mr.	211. 25.	
Clause	Requirement + Test	Result - Remark	LIER WILLER	Verdict
	THE THE THE STEEL WHITE WHITE	Mr. Mr. M.		
U1 Pin 3-4 short circuit		Unit worked norm hazards.	ally, No	In I P
U4 Pin 1-2	short circuit	Unit worked norm hazards.	ally, No	TEKP
U4 Pin 3-4	short circuit	Unit shutdown, No	hazards.	Р
U9 Pin1-6/7	7 short circuit	Unit shutdown, No	hazards.	Р
U6 Pin 4-5	short circuit	R5 open immedia hazards.	itely, no	P
Q2 Pin G-S	S short circuit	Unit worked norm hazards.	ally, No	Р
Q2 Pin G-I	O short circuit	Unit worked norm hazards.	ally, No	L P
Q2 Pin D-S	S short circuit	Unit shutdown, No	hazards.	Poli
Output sho	ort circuit	Relay opened, No h	nazards	Р
MILLE	TABLE: temperature rise measurements	L STEEL STEEL O	LIFE NALTE	William
	temperature measured after (min)	73 mins	4	7
parts of the	electronic switch	max. measured temperature rise (K)	permiss temperatu (K)	
Terminal L	THE STATE OF	45.4	11	0 50
Terminal N		37.6	11	0,4
MOV1	WI THE LIFE NATIONAL PROPERTY OF THE PARTY NATIONAL PROPERTY OF THE PARTY NATIONAL PROPERTY NATIONAL P	47.4	60	) apr
Relay K1	THE RELEASE WITH WHILE WAS AND TO THE	43.7	80	) JES
Relay K2	M M LE LE LEET NITER WITH	36.6	80	) 40,
C5 body	THE MITE WILL WILL AND TO THE TOP	56.4	- 80	
PCB near [	03 the the the still will a	50.5	120	
PCB near l	J4 with white with the state of	51.3	120	
PCB near l	J3 to the feet that write write man	38.6	12	0
PCB near (	21 rest west with what I go the	48.0	12	0
Plastic encl	osure inside	39.3	Re	ef
Plastic encl	osure outside	27.7	7!	5 metr.
Ambient	EX TEX LIEX SLIEX MULTINAL WALL .	23.6		
WELL AND	TABLE: additional temperature rise measuremen limited by a fuse	ts in case of temper	ature	N.W
LIE WALTE	current under the relevant fault conditions measured with the fuse short-circuited (A):	HALTER WALTER	whiteh whi	<u> </u>
y Jiek	type of fuse as specified by IEC 60127:	at alt	TEX ITE	CETER
20,	test duration corresponding to the maximum fusing time corresponding to the current measured (min):	MULL MUC. M.	20	10,



Reference No.: WTX21D03023971S Page 56 of 67

L,	The short	Mr. Mr. All	EN 60669-1& EN 60669-2	-1 WILL MILL MILL MILL	4112
<u> </u>	Clause	Requirement + Test	The Mark My the Mark	Result - Remark	Verdict

parts of the electronic switch		max. measured temperature rise (K)	permissible temperature rise (K)	
- 4n	A A LEK TEK TEK MITE MI	in win - and a	- 44	- 0
EX OUTER	WILL MILL MALL WILL WILL WILL WILL WILL WILL WILL W	2- 78+ 518+ 35	Et NITE	ئے ماری
supplement	ary information:	Mus. Mus. M.	- T	
101.1.1.2	TABLE: temperature rise measurements during of	overload tests	. Willer	P
NIEK IN	cross-sectional area of conductor not less than 1,5 mm² (mm²) (table 15):	24.0mm <sup>2</sup>	CLITER 1	LTEE.
All All	terminal screws: torque (Nm) (2/3 table 3 or appropriate figures 1, 2, 3, 4):	0.27 Nm		 
	rated voltage (V):	100-240V	211	70,
WALTER	test voltage between 0,9 and 1,1 Vn (V), whichever is the more unfavourable	264V	K WILLE	MAET
parts of the	electronic switch	Max. measured temperature rise (K)	permis tempe rise	rature
Terminal L		54.1	110	
Terminal N		43.1		0
PCB near D3		61.1	12	0 🧀
Plastic enclosure outside		29.2	- <u>-</u> - 7!	5 J.J.
Ambient	t it fet tet nitet mite mit	24.3	10	40.
supplement	ary information:Overload: 19A*0.95=18A	it let let	OF ER	LIFE

102 T	ABLE: components	211 211	4 1	at let	TEF P. L.
object/part No.	manufacturer/ trademark	type/model	technical data	compliance to standard	mark(s) of conformity1)
Cover	CHI MEI CORPORATION	PC-110(+)	V-2, 105℃, Min. thickness: 1.5mm	UL 94	UL E56070
Enclosure(base)	CHI MEI CORPORATION	PC-110(+)	V-2, 105°C, Min. thickness:	UL 94	UL E56070
Terminal block	Degson Electronics Co. Ltd.	DG503-5.08	450V,20A, 0.2-2.5mm²,	EN 60998-1, EN 60998-2-1	VDE 40038293
Fuse resistor(R5)	SHENZHEN XIANYANG HUAXING MACHINERY & ELECTRONIC CO LTD	KNP/RX21-2W	47Ω, 6.3Α	EN/IEC 60065	UL E359244

Waltek Testing Group Co., Ltd. http://www.waltek.com.cn



Reference No.: WTX21D03023971S Page 57 of 67

Lite Mery	Mr. My All	EN 60669-1& EN 60669-2	-1 Mile White white whi	aller
Clause	Requirement + Test	The Mark Mark	Result - Remark	Verdict

Varistor (MV1)	BestBright Electronics Co. Ltd	471KD07	300VAC, V-0,105 ℃	IEC 61051-1, IEC 61051-1-2 IEC 61051-2-2	VDE 40050493
PCB	HUIZHOU HUAGAO ELECTRIC CIRCUIT CO LTD	HG-D	V-0, 130 C	UL 94	UL E483905
(alternative)	SHENZHEN SHAN XU ELECTRONIC CO LTD	SX-M1	130°C, V-0	UL 94	UL 360487
(alternative)	HUIZHOU HUAGAO ELECTRIC CIRCUIT CO LTD	HG-D	130°C, V-0	UL 94	UL 483905
(alternative)	Various	Various	130°C, V-0	UL 94	UL
Relay(K1, K2)	Omron Corp.	G6B-1174P-US	8A, 250VAC,5VDC, 85°C Max.	EN 61810-1	TUV R50158246
Antenna	DONG GUAN SHENG PAI ELECTRIC WIRE & CABLE CO LTD	3239	300VDC, 22AWG,150℃	UL 758	UL E347603



Reference No.: WTX21D03023971S Page 58 of 67

Land Music	Mrs. Aug. Aug.	N 60669-1 & EN 60669-2-1	an.
Clause	Requirement + Test	Result - Remark	Verdict

102.4.2	TABLE: temperature rise measurements after test devices which only decrease current to the elect		ive	N
ITEK WALT	cross-sectional area of conductor not less than 1,5 mm <sup>2</sup> (mm <sup>2</sup> ) (table 15):	TEK NITEK MITEK	NITEK WA	EFF-
ek mijek	terminal screws: torque (Nm) (2/3 table 3 or appropriate figures 1, 2, 3, 4)	- TEX TEX ST	IEK MITT	- INLI
	type of load	Mr. Mr. M.		
MALTE	rated current (A) / rated load (W or VA):	TEX LIFE WIFE	MITE	Mr.
4	rated voltage (V)	me m. m.		_≠_
NITE WA	test voltage between 0,9 and 1,1 Vn (V), whichever is the more unfavourable:	LIER WALTER WALTER	MULTER OF	
parts of the electronic switch		Max. measured temperature rise (K)	permis temper rise (	rature
- 10 cm	AND	MILIER MALIE MAL	1112 -	In.
supplement	tary information:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TEX.	CEE



Page 59 of 67 Reference No.: WTX21D03023971S

in Mil	Mr. Mr. Mr.	EN 60669-1 & EN 60669-2	1 Mile White white whi	Merci
Clause	Requirement + Test	in the same	Result - Remark	Verdict

### ATTACHMENT TO TEST REPORT IEC 60669-2-1 **EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES**

Switches for household and similar fixed-electrical installations

Part 2-1: Particular requirements - Electronic switches

EN 60669-2-1:2004 + A1: 2009 + A12:2010) (used in conjunction Differences according.....

with EN 60669-1:1999 + A1:2002 + A2:2008)

EU\_GD\_IEC60669\_2\_1F (to be used with Test Report Form No. Attachment Form No.....:

IEC60669\_2\_1F)

Attachment Form Originator..... IMQ S.p.A.

Master Attachment Form......: 2010-12

Copyright © 2010 IEC System for Conformity Testing and Certification of Electrical Equipment

(IECEE), Geneva, Switzerland. All rights reserved.

Clause Requirement + Test Result - Remark Verdict

	CENELEC COMMON MODIFICATIONS (EN)	
8 20	MARKING	F X
8.1 (Annex B)	Paragraph added at the end of this subclause:	We WN
White Ah	Flexible cable outlet switches: information of minimum and maximum sizes for which the anchorage is provided put on the switch and/or the packaging unit	WALTER WALN
8.3	First sentence of last paragraph before note 2 replaced by:	7() b2
iek waliek k liek	Marking is clearly visible with normal or corrected vision, without additional magnification, marked either on the front of the switch or on the inner part of its associated enclosure, or on the main part of the switch so that it is easy legible during installation	et unit uni
8.6	First sentence of the first paragraph replaced by:	An N
unitek unit	Switches of pattern numbers 2, 3, 03 and switches with Vn > 250 V and In > 16 A if marked to indicate the switch position: direction of movement of the actuating member to its different positions or the actual switch position, clearly indicated	STEEL STEEL
8.8	Note 2 changed into a requirement and its first sentence replaced by:	N
ek waliek	Special precautions necessary to take when installing the switch: details of these and clear information given in an instruction sheet which accompanies the switch	THE WALL
9.00	CHECKING OF DIMENSIONS	N
200	Paragraph added after the first paragraph:	N
NITEK WALT	Type of boxes in which switches are to be mounted: specified in the manufacturer's catalogue	NITE OF ITEN
10	PROTECTION AGAINST ELECTRIC SHOCK	N
10.1	Additional requirement (IEC 60669-1/A1) concerning switches designed to be fitted with pilot lights supplied at voltage other than ELV is deleted	I MI
10.3	First two line replaced by the following:	Р
7/1 //	Accessible parts of switches are made of insulating material	W P
Write au	"cover or cover plates" replaced by "cover, cover plates and other parts of the enclosure"	WILL WIN



Reference No.: WTX21D03023971S Page 60 of 67

EN 60669-1& EN 60669-2-1							
Clause	Requirement + Test	Result - Remark	Verdict				

	the set set state and which will all the set	
10.3.1	Replaced by:	N
iliek anli	Metal covers, cover plates or other parts of enclosure protected by supplementary insulation made by insulating linings or insulating barriers	TEXN
	Insulating linings or insulating barriers:	N
MULTER	- cannot be removed without being permanently damaged, or designed that	N
Whitek Whi	- cannot be replaced in an incorrect position; if they are omitted, accessories are rendered inoperable or manifestly incomplete; there is no risk of accidental contact between live parts and metal covers or cover plates; precautions are taken to prevent creepage distances or clearances becoming less than the values specified in clause 23	N. N. SALTER
10.3.2	Replaced by:	N
ek anliek	Earthing of metal covers, cover plates or other parts of enclosure: connection of low resistance	N
11	PROVISION FOR EARTHING	N
11.1	Notes 1 and 2 changed into requirements:	N
me, m	Requirement did not apply to the metal cover plates mentioned in 10.3.1	N
niter whi	Small screws and the like, isolated from live parts, for fixing bases, covers or cover plates, were not considered as accessible parts which can become live in the event of an insulation fault	N N
11.2	Second paragraph replaced by:	N
* WILLER	Earthing terminals have a capacity not less than that of the corresponding terminals for the supply conductors	N. S
12	TERMINALS	Р
12.2.4	Second paragraph replaced by:	P
urek unir	Terminals the body of which is made of materials as detailed in 22.5 considered as complying with the requirement	P
12.2.5	Paragraph before note 4 deleted	1
12.2.6	"in case where they exist in the relevant IEC standard" in the last paragraph replaced by "if any, according to HD 21.3	N
12.3.1	Present note numbered as note 1 and added new note 2:	N.
The same of	Tests of 12.3.12 carried out using rigid solid conductors only	N
13	CONSTRUCTIONAL REQUIREMENTS	N.V
13.16 (Annex B)	First paragraph replaced by:	↓ N
Y WHITEK	Flexible cable outlet switches: flexible cable (60245 IEC 66, 60227 IEC 52 or 60227 IEC 53, or as specified by the manufacturer) enter the switch through a suitable hole, groove or gland:	N EX
1	Last but one paragraph replaced:	N.
Mrtie M	An a.c. voltage of 2000 V applied for 1 min between the conductors and any metal clamp of the cord anchorage	un <sup>sci</sup> N s



Reference No.: WTX21D03023971S Page 61 of 67

EN 60669-1& EN 60669-2-1						
Clause	Requirement + Test	Result - Remark	Verdict			

	the state of the same of the s	
	During the test: insulation of flexible cable not damaged (no breakdown or flashover)	N
- 10, - 2), -	Subclause added at the end:	N
16 3	Flexible cable outlet switches:	N N
1. 21/2	- clear how relief from strain and prevention of	L 20,
	twisting is intended to be effected	N
Carried States	- cord anchorage, or at least part of it, integral with	ST STORY
	or permanently fixed to one of the component parts	N
L 54	of the switch	t set
200	- makeshift methods not used	N
	- cord anchorages suitable for different type of flexible cables	N
inury and	Rewirable switches with earthing connection are designed with ample space for slack of the earthing conductor	N
19	NORMAL OPERATION	P
19.102	Paragraph added after the first paragraph:	Р
	This is not applicable to dimmers for step-down converters as these accessories are tested	P
	according to 19.101	.4.
22	SCREWS, CURRENT-CARRYING PARTS AND CONNECTIONS	N
22.1	Second sentence of the second paragraph deleted	N
23	CREEPAGE DISTANCES, CLEARANCES AND DISTANCES THROUGH SEALING COMPOUND	P
23.3	Subclause added:	P
A 18	Ordinary surface-type switches do not have bare	P.
The Real Property of the Parket States	current-carrying strips at the back	
Table 20	Addition of the following NOTE:	N
Note 3	Items 101 and 102 apply to electronic RCS and TDS only	N N
24	RESISTANCE OF INSULATING MATERIAL TO ABNORMAL HEAT, TO FIRE AND TO TRACKING	TILN N
24.1.1	Item b) replaced by:	Ä
	Parts of insulating material not necessary to retain current-carrying parts and parts of the earthing circuit in position, even though they are in contact with them, and parts of insulating materials necessary to hold in position the earthing terminal in an enclosure, by the test made at a temperature of 650 °C	NATE NATE
26	EMC REQUIREMENTS	N
TET .	Electronic switches designed to operate correctly	- CIE
	under the conditions of electromagnetic environment in which they are intended to be used	N
26.1	Immunity	ν N
10.1	Electronic switches designed so that the switch	7 70
	state (ON or OFF) and/or the setting value are protected against interference	N N
10	Type of load	
NITER.	Test current: In (A) / Rated load (W or VA)	11/16
12.	Test voltage: Vn (V):	7
WALTER ON	Electronic switches tested, if applicable, in the following states (test parameters referred to table 104):	JULIA 3



Reference No.: WTX21D03023971S Page 62 of 67

Land Music	an an an	EN 60669-1& EN 60669-2-1	nu.
Clause	Requirement + Test	Result - Remark	Verdict

10	a) in the ON state	≤N
Mrs. Mrs.	For electronic switches where the setting can alter (e.g. dimming devices) the electronic switch is set at a firing angle of approx. 90° which results in an output power Po (r.m.s.).	IEKN N
	A variation of <i>P</i> o less than ??10 % is not considered to be a change of the setting.	N
20	b) in the OFF state	N
WALTER.	For the tests with operation, the electronic switch shall be switched ON/OFF with an operation rate of 1 operation/second or less, or the setting value shall be changed e.g. from minimum to maximum	N N
iner whir	For electronic switches whose cycle of operation is limited by their application (for example, passive infrared, time delay electronic switches, etc.), the rate of operation during the tests shall be specified by the manufacturer.	
26.1.1	Voltage dips and short interruptions	N
AND	Electronic switch tested using the equipment specified in IEC 61000-4-11 in accordance with table 105: sequence: 3 dips/interruptions (duration: 10 cycles at rated frequency) with interval of 10 s minimum between each test event:	N N
"12" 2	Test level: 0 % U <sub>T</sub>	√ N ⊲
	Test level: 40 % U <sub>T</sub>	N
ALE TO	Test level: 70 % U <sub>T</sub>	N
We all	The test shall be done on the power supply lines of the electronic switch.	N
TER MALTE	During the test, the electronic switch is not operated.	N
* LIEX	During the test, the state and setting of the electronic switch may alter, flickering is neglected	N
NI NI NI	After the test, the electronic switch shall be in the original state and setting and shall operate as intended	N
ur v	After the test, the general purpose electronic switch with included automatic functions shall operate as intended	EK-N
26.1.2	Surge immunity test for 1,2/50 μs wave impulses	N
WALTER	Test carried out according to IEC 61000-4-5 applying two positive discharges and two negative discharges at each of the following angles $0^{\circ}$ , $90^{\circ}$ , $270^{\circ}$ , at a repetition rate of $(60 \pm 5)$ s, with an open-circuit test voltage according to Table 106	JN N
MULTE	During the test, the electronic switch is not operated.	N
ALTEK IN	During the test, the state and setting of the electronic switch may alter, flickering is neglected	TEN T
n v	After the test, the electronic switch shall be in the original state and setting and shall operate as intended	× N
y unliek	After the test, the general purpose electronic switch with included automatic functions shall operate as intended	Nex
26.1.3	Electrical fast transient/burst test	N
20.1.0	Test carried out according to IEC 61000-4-4 in accordance with table 107	N



Reference No.: WTX21D03023971S Page 63 of 67

EN 60669-1& EN 60669-2-1					
Clause	Requirement + Test	in the same	Result - Remark	Verdict	

WALTER	During the test, the electronic switch is not operated.	THE WALTER JOLIN
TIEK MU	During the test, the state and setting of the electronic switch may alter, flickering caused by the electronic switch is allowed	A MULTER WY TER N
ex walte	After the test, the electronic switch shall be in the original state and setting and shall operate as intended	MALTER WALLE
WALTER	After the test, the general purpose electronic switch with included automatic functions shall operate as intended.	NITER WHITER WINNE
26.1.4	Electrostatic discharge test	at at an
ilek muri	Electronic switch not intended to operate incandescent lamp: test carried out with only one load of the loads specified within the manufacturer's instructions	untit un de N
y whiteh	Test carried out according to EN 61000-4-2 applying 10 positive and 10 negative discharge:	UNLIEF WALTE WAY
MITEL	- contact discharge to the conductive surface and to coupling planes (test voltage: 4 kV)	THE WITH WIN
TEX .	- air discharge at insulating surfaces (test voltage: 8 kV)	t THE
21 2n	During the test, the electronic switch is not operated.	Mr. M. N.
	During the test, the state and setting of the electronic switch may alter, flickering is neglected	White Mail M
MALTER	After the test, the electronic switch shall be in the original state and setting and shall operate as intended.	NITER WALTER WAN
WALTER ON	After the test, the general purpose electronic switch with included automatic functions shall operate as intended	SEX WALLEY WITN
26.1.5	Radiated electromagnetic field test	L N
	Test applicable only to electronic switches containing infra-red (IR) receivers, radio frequency receivers, passive infra-red (PIR) devices, devices containing microprocessors or similar	N.
Whitek w	Test is carried out according to EN 61000-4-3 by applying a field strength of 3 V/m in the frequency range 80 MHz to 1 000 MHz and 1 400 Mhz to 2000 MHz with the exception of the exclusion band as defined in the relevant product standard for transmitters, receivers and duplex transceivers	LIFEK WILLER WILLER
	During the test, the electronic switch is operated, if it contains automatic functions or can be remotely controlled	WALLEY WALL ST W.
L NUTER	During and after the test, the electronic switch shall operate as intended, flickering is not allowed	ITEL NITE IN
MULTER	Flickering of lamps or irregular running of motors due to switching transients cased by frequency changes of the test equipment during the test procedure is neglected	TER WILLER



Reference No.: WTX21D03023971S Page 64 of 67

Land Music	EN 60669-1& EN 60669-2-1						
Clause	Requirement + Test	Result - Remark	Verdict				

WALLER W	After the test, the general purpose electronic switch with included automatic functions shall operate as intended	N N
26.1.6	Radio-frequency voltage test	N.
	Test applicable only to electronic switches containing infra-red (IR) receivers, radio frequency receivers, passive infra-red (PIR) devices, devices containing microprocessors or similar	N
-NALTER	Test carried out according to IEC 61000-4-6 applying a conducted radio-frequency voltage of 3 V r.m.s. on supply lines and control lines:	N N
INLIEK W	During the test, the electronic switch is operated, if it contains automatic functions or can be remotely controlled.	N.C. N
16th . I	During and after the test, the electronic switch shall operate as intended, flickering is not allowed	N
y whitek	Flickering of lamps or irregular running of motors due to switching transients cased by frequencey changes of the test equipment during the test procedure is neglected	N
MALTER V	After the test, the general purpose electronic switch with included automatic functions shall operate as intended	N N
26.1.7	Power-frequency magnetic field test	N
	Test applicable only to electronic switches containing devices susceptible to magnetic fields, for example, Hall elements, electro dynamic microphones, etc.	at N
LOUTER	Test carried out according to IEC 61000-4-8 applying a magnetic field of 3 A/m, 50 Hz:	N
indies in	During the test, the electronic switch is operated, if it contains automatic functions or can be remotely controlled	N
	During and after the test, the electronic switch shall operate as intended, flickering is not allowed.	N
ex writex	Flickering of lamps or irregular running of motors due to switching transients cased by frequencey changes of the test equipment during the test procedure is neglected	N
MALTER	After the test, the general purpose electronic switch with included automatic functions shall operate as intended	MIL N.
26.2	Emission	N
26.2.1	Low-frequency emission	√N
L 70	Electronic switches designed that they do not cause excessive disturbances in the network	N
TE WALTE	Electronic switch complies with IEC 61000-3-2 and IEC 61000-3-3	N
	Electronic switches with electromechanically operated contact mechanism (for example, a relay) are deemed to meet the requirements of IEC 61000-3-2 without need for testing. Therefore only the mains supply terminal/terminations of those products shall be tested	white N



Reference No.: WTX21D03023971S Page 65 of 67

	EN 60669-1& EN 60669-2	1 mil with with	
Clause	Requirement + Test	Result - Remark	Verdict
(4)	THE TEXT SET STEEL SHALLE SHALLE	mr. mr. m.	N. 1,
26.2.2	Radio-frequency emission		A SN
	Electronic switches designed that they do not cause excessive radio interference	Hill Music Music M	N
est lest	a) Electronic switch complies with the requirements of EN 55014: 2006 (sub clause 8.1.4.1) at the mains terminals	TEL WHITE WHITE WHI	N N
. WILL	b) Electronic switch complies with the requirements of EN 55015: 2006 (sub clause 8.1.4.2) at the load and/or control terminals	White white whi	an N
" 12 P	IC IN IN THE THE	TEL STIP MILL	mr. mr.
101	ABNORMAL CONDITIONS	14. 14. 1	N
101.1.1.2	Addition of the following NOTE:		√ JN
Muliter Muliter	The tripping current of the protective devices (e.g. fuses, automatic protective devices, etc.) to be used for the verification of electronic switches without incorporated temperature-limiting devices and without incorporated fuses is in accordance with the rated current of the protective device, specified by the manufacturer, intended to protect the electronic switch	antifet whitet white	Multiple Multiple
	Information regarding the protective device which is intended to protect the electronic switch are specified by the manufacturers in the instruction sheets provided with the products	White white white w	N N
102	COMPONENTS	" The m	N,
102.4.1.2	Note replaced by the following test requirement:		L A N
t int	For cut-outs in electronic switches for fluorescent lamps, the tests are carried out in the same way as for electronic switches for incandescent lamps	White white white	N

ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS	N
7.1.7	BELGIUM, CZECH REPUBLIC, FINLAND, GERMANY, NETHERLANDS, NORWAY, SWEDEN: design B not used due to installation practice	INLY N
8.1	DENMARK: symbol for earth for any space provided for an earthing terminal	N
7111-	UNITED KINGDOM: marking of type reference not used	N
8.3	UNITED KINGDOM: marking of type reference not used	JUN N
10.2	DENMARK, NORWAY: accessories requiring earth connection cannot normally be used due to the lack of an earthing conductor in many existing old buildings	UTEN UK
10.3	DENMARK: enclosures, including covers and cover plates, may be made of metal:	N
10.	- for ordinary switches which comply with 10.3.1	N
* WITE	- for switches with IP>X0 which fulfil with 10.3.1 or 10.3.2	- N



Reference No.: WTX21D03023971S Page 66 of 67

	EN 60669-1& EN 60669-2	2-1 and and and	
Clause	Requirement + Test	Result - Remark	Verdict
70,	A SE SEE THE STEEL MISTER MISTER	mer me me	10, 10
10.3.2	DENMARK, NORWAY: accessories requiring earth connection cannot normally be used due to the lack of an earthing conductor in many existing old buildings	NUTER WHITE WILLIAM	NITE OF N
10.5 W	DENMARK, NORWAY: accessories requiring earth connection cannot normally be used due to the lack of an earthing conductor in many existing old buildings	or and antier antie	Marie Marie
12.2.5	DENMARK, FINLAND, NORWAY, SWEDEN: - additional test with rigid solid conductors (if exist in relevant IEC standard), if the first test has been made with rigid stranded conductors	MULTER MULTER MULTER	antitle Mit
	- in the case rigid stranded conductors do not exist, the test may be made with rigid solid conductors only	THE MITTER MILITER WI	err open N W
12.2.6	DENMARK, FINLAND, NORWAY, SWEDEN: additional test with one rigid solid conductor and one rigid stranded conductor with same cross- sectional areas connected at same time is required for terminals allowing the connection of two conductors	Whitek whitek whitek	MILE MILES
13.15.2	DENMARK, FINLAND, NORWAY, SWEDEN, SWITZERLAND: sub-clause mandatory	MITER WALTER WALTER OF	In In N
13.103	DENMARK, FINLAND, NORWAY, SWEDEN, SWITZERLAND, UNITED KINGDOM: Flexible cables complying with electrical strength test only are not allowed for external use	Et militet mi	THE WAY
101.1.1.2	BELGIUM, FRANCE, SPAIN, SWITZERLAND: Electronic switches designed without an associated incorporated protection are loaded for one hour with the conventional tripping current of the associated protection of the lighting circuit (10 A for fuses and 16 A for CB's)	SLITER MITTER MILITER	Whites whites
102.1	UNITED KINGDOM: Fuses according to BS 646 and BS 1362 are deemed to satisfy this requirement	LITE MILLE WHILE W	et et



Reference No.: WTX21D03023971S Page 67 of 67

View Murit	EN 60669-1& EN 60669-2-1					
Clause	Requirement + Test	The Mark Mark Mark	Result - Remark	Verdict		

zc	ANNEX ZC, A-DEVIATIONS	√N
11.2	BELGIUM: earthing terminals have a capacity not less than that of corresponding terminals for the supply conductors except that any additional external earthing terminal shall be of a size suitable for conductors of at least 4 mm <sup>2</sup>	N
13.103	DENMARK (Stærkstømbekendtgørelsen- Elektriske Installationer 2001, § 521.7.4)	N
	The insulation of external flexible cable complies with or is at least electrically and mechanically equivalent to that of flexible cables according to HD 21 or HD 22	N NALTE
13.103	FINLAND (Electrical Safety Act 410/1996, Degree of Ministry of Trade and Industry No. 1193/99, paragraph 4 Publication S10-2002 of the Finnish Safety Technology Authority, Finnish wiring rules SFS 6000-5-52 (HD 384.5.52), Clause 521, Table 52F)	T N
* WALLEY	The insulation of external flexible cable complies with or is at least electrically and mechanically equivalent to that of flexible cables according to HD 21 or HD 22	N whi
13.103	NORWAY (DSB: FEL 1998 §28 and §10, NEK 400:2002 Clauses 520.1 and 521.1 and Table 52A)	N
	Cables with basic insulation are not accepted as wiring external to the switch. The insulation of external flexible cable complies with or is at least electrically and mechanical equivalent to that of flexible cables according to HD 21 or HD 22	N
JINL WITEH	Cables complying with the electric strength test only are regarded as internal cables and are accepted to be installed in enclosures, conduits, ducting and trunking systems and the like	N Joli
13.103	SWEDEN (ELSÄK-FS: 1999:5, Clauses 520.1 and 521.1 and Table 52-1)	N
	Cables with basic insulation are not accepted as wiring external to the switch. The insulation of external flexible cable complies with or is at least electrically and mechanical equivalent to that of flexible cables according to HD 21 or HD 22	
ex unitex	Cables complying with the electric strength test only are regarded as internal cables and are accepted to be installed in enclosures, conduits, ducting and trunking systems and the like	N N



Reference No.: WTX21D03023971S

Model: SR-ZV9101SAC-HP-Switch-B



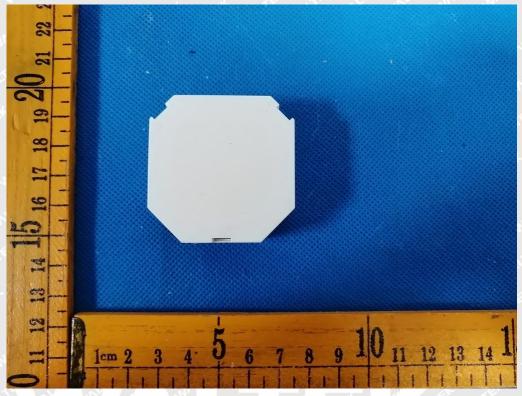


Photo 1 External view of the specimen

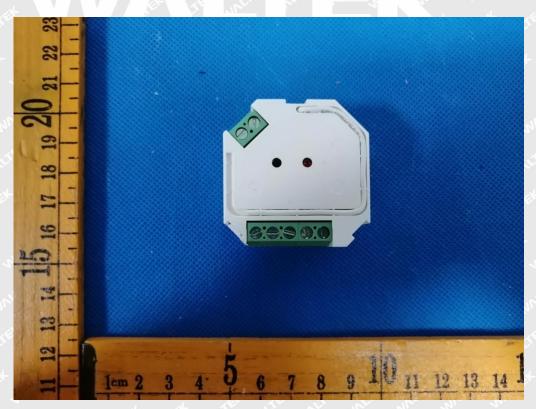


Photo 2 External view of the specimen

Waltek Services (Shenzhen) Co., Ltd. http://www.waltek.com.cn







Photo 3 External view of the specimen



Photo 4 External view of the specimen





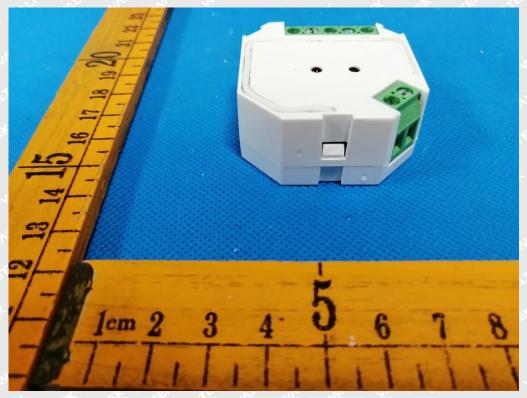


Photo 5 Internal view of the specimen



Photo 6 Internal view of the specimen





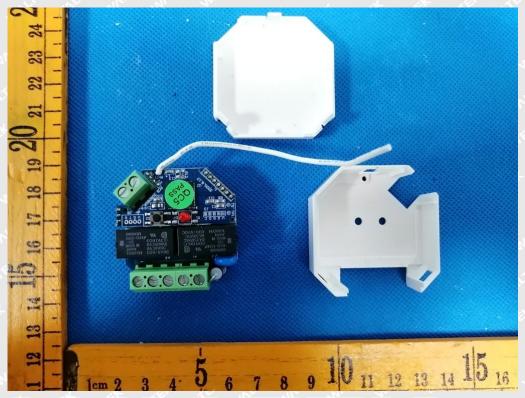


Photo 7 Internal view of the specimen

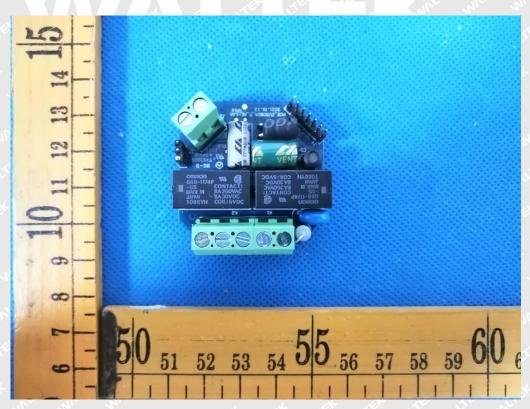
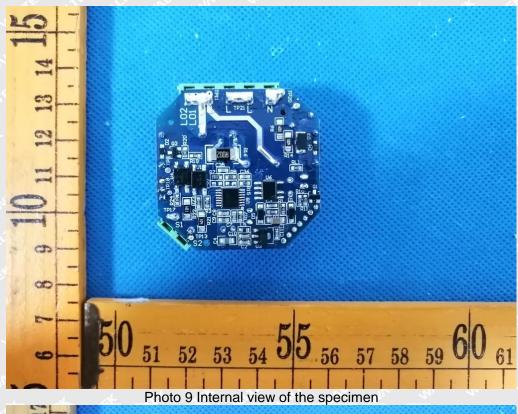
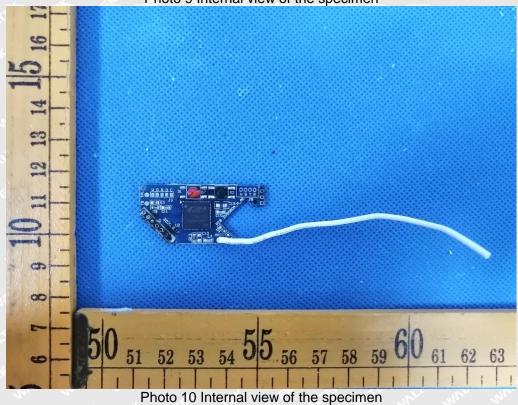


Photo 8 Internal view of the specimen





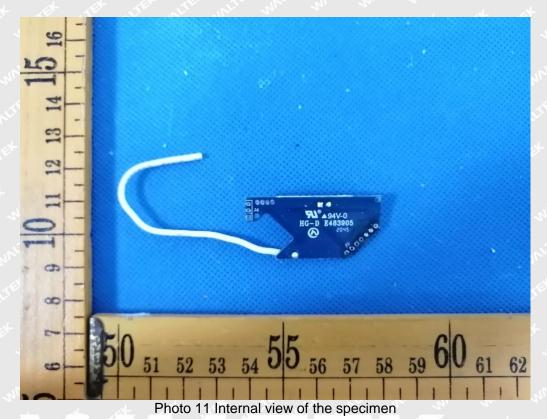






Reference No.: WTX21D03023971S





===== End of Report =====