

TEST REPORT

Reference No	WTX22X10204492S
Applicant :	GlobTek, Inc.
Address	186 Veterans Dr. Northvale, NJ 07647 USA
Manufacturer :	GlobTek, Inc.
Address	186 Veterans Dr. Northvale, NJ 07647 USA
Product Name	ITE POWER SUPPLY
Model No	GT*96900P****, GT*961200P**** (See pages 4-5 for details)
Test specification	Safety of household and similar electrical appliances Part I: general requirements IEC 60335-1:2010+A1:2013+A2:2016

Date of Receipt sample	£1	2022-10-14
Date of Test	÷	2022-10-14 to 2022-11-11
Date of Issue	: 4	2022-11-15
Test Report Form No	: -	WTX_IEC60335_1_2010C
Test Result	17	Pass

Remarks:

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 approver.

Prepared By: Waltek Testing Group (Shenzhen) Co., Ltd. Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road, Block 70 Bao'an District, Shenzhen, Guangdong, China Tel:+86-755-33663308 Fax:+86-755-33663309 Email:sem@waltek.com.cn

Tested by:

Lan Sun

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Approved by:

Harvid Wei

Page 2 of 126



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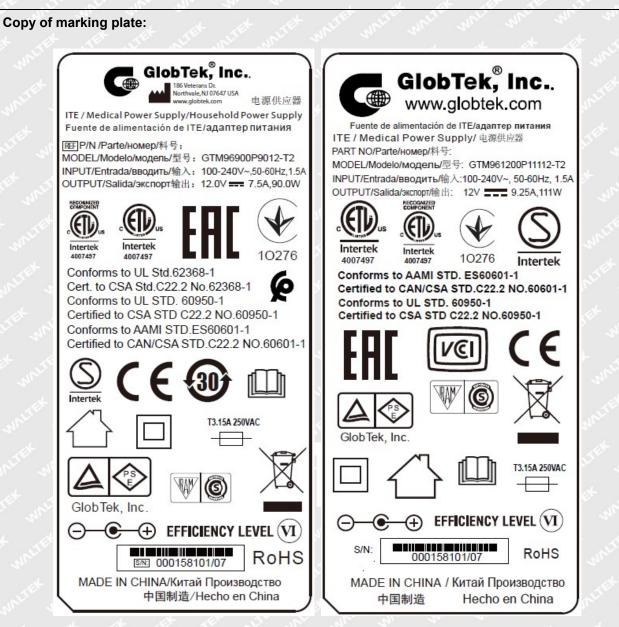
Test item description ITE POWER	SUPPLY
Trademark GlobT	ek, Inc.
Model and/or type reference GT*96900P*	***, GT*961200P**** (Refer to pages 4-5 for details)
Rating(s) Input: 100-24	0V~, 50-60Hz, 1.5A;
Output: Refe	r to pages 5 for details
Remark: Whether parts of tests for the product have been subc Yes No If Yes, list the related test items and lab information: Test items: Lab information:	ontracted to other labs:
Summary of testing:	to state select and a solid some solid solid solid solid
 Tests performed (name of test and test clause): IEC 60335-1:2010+A1:2013+A2:2016 The submitted samples were found to comply with the requirements of above specification. 	Testing location: Waltek Testing Group (Shenzhen) Co., Ltd. Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road, Block 70 Bao'an District, Shenzhen, Guangdong, China

Page 3 of 126



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Remark:

Above label for reference only, final label marking on product shall contain the information at least. Other models are with similar label as corresponding above models except different model name and output ratings.



Test item particulars:	
Classification of installation and use	Portable appliance and indoor used only
Supply Connection:	Appliance inlet
Class of equipment:	Class II
Possible test case verdicts:	which which which which which we want
- test case does not apply to the test object:	N/A (Not Applicable)
- test object does meet the requirement:	P (Pass)
- test object does not meet the requirement:	F (Fail)
Name and address of factory (ies):	1. GlobTek, Inc. 186 Veterans Dr. Northvale, NJ 07647 USA
	2. GlobTek (Suzhou) Co., Ltd Building 4, No. 76, Jin Ling East Rd., Suzhou Industrial Park, Suzhou,JiangSu 215021, China
General remarks: The test result presented in this report relate only to th This report shall not be reproduced, except in full, witho "(see Enclosure #)" refers to additional information app "(see appended table)" refers to a table appended to th Throughout this report a a comma / point is us	but the written approval of the Issuing testing laborator bended to the report. he report.
General product information:	STEL OF WAITER WAITER WAITER W
1. The appliance is intended for household and indoc	
Transformers used in all models are with same co	nstruction. The turns of secondary winding may be
	ge. Each standard rated output voltage designation
added or reduced according different output voltage corresponds to a transformer model. Each transfo including clearance and creepage except number	rmer model is identical in insulation construction

- 3. All the types are designed for continuous operation.
- 4. The product top enclosure is secured to bottom enclosure by ultra sonic welding.

Model similarity:

GT*96900P**** and GT*961200P****

The 1st "*" part can be 'M' or '-' or 'H' for market identification and not related to safety.

When model = GT*96900P****

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The 2nd "*" denotes the rated output wattage designation, which can be "01" to "90" with interval of 1.
The 3rd "*" denotes the standard rated output voltage designation, which can be "12" to "30" or "12.0" to "30.0"
in 0.1V increments.
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The 4th"*"=-T2 means desktop class II with C8 AC inlet

=-T2A means desktop class II with C18 AC inlet

The last * denote any six character = 0-9 or A-Z or ()[] or – or blank for marketing purposes.

When model = GT*961200P****

The 2nd "*" denotes the rated output wattage designation, which can be "01" to "120" with interval of 1. The 3rd "*" denotes the standard rated output voltage designation, which can be "12" to "24" or "12.0" to "24.0" in 0.1V increments.

The 4th "*" =- T2 means desktop class II with C8 AC inlet

=-T2A means desktop class II with C18 AC inlet

The last * denote any six character = 0-9 or A-Z or ()[] or – or blank for marketing purposes.



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Model	Output voltage	Max. output current	Max. output powe
GT*96900P****	12-24VDC	7.5A	90W
GT*961200P****	12-14.9VDC	9.25A	111W
GT*961200P****	15-30VDC	8A	120W

Page 6 of 126



Clause	Requirement – Test	Result – Remark	Verdict
5	GENERAL CONDITIONS FOR THE TESTS	white white white	Р
WALLER W	Tests performed according to Clause 5, e.g. nature of supply, sequence of testing, etc.	NUTER WHITE WALTER W	P N
6,1	CLASSIFICATION	a a at at a	
6.1	Protection against electric shock: Class 0, 0I, I, II, III:	Class II	Р
white	For a class III construction with a detachable power supply part the appliance is classified according to the detachable power supply part	white white white	N/A
6.2	Protection against harmful ingress of water	IPX0	N/A
7.5 ⁶⁷ .5	MARKING AND INSTRUCTIONS	at set set a	5" P
7.1	Rated voltage or voltage range (V)	See marking label	Р
an were	Symbol for nature of supply, or	See marking label	S Por
6 15	Rated frequency (Hz)	See marking label	F P J
man	Rated power input (W), or:	ALTER INTE WAT	N/A
đ.	Rated current (A):	See marking label	_∂P [↓]
with a	Manufacturer's or responsible vendor's name, trademark or identification mark	See page 1	Р
in m	Model or type reference:	See pages 4-5	1 P 1
et 1	Symbol IEC 60417-5172, for class II appliances	See marking label	← _ <i>⊘</i> + P
m	IP number, other than IPX0:	IPX0	N/A
WALTER	Symbol IEC 60417-5180, for class III appliances, unless	white maret would	N/A
st	the appliance is operated by batteries only, or	and the	N/A
un un	for appliances powered by rechargeable batteries recharged in the appliance	ALTE MALL MALL M	N/A
The work	Symbol IEC 60417-5018, for class II and class III appliances incorporating a functional earth	Tex watter watte wat	N/A
	Symbol IEC 60417-5036, for the enclosure of electrically-operated water valves in external hose-sets for connection of an appliance to the water mains, if the working voltage exceeds extra-low voltage	Antifet antifet antifet	N/A
7.2	Warning for stationary appliances for multiple supply	at let set	N/A
24	Warning placed in vicinity of terminal cover	in my me m	N/A
7.3	Range of rated values marked with the lower and upper limits separated by a hyphen	100-240V	P
WALTER	Different rated values marked with the values separated by an oblique stroke	with milet white	N/A

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Page 7 of 126



Clause	Requirement – Test	Result – Remark	Verdict
- ILLE	and and all the second second		
7.4	Appliances adjustable for different rated voltages or rated frequencies, the voltage or the frequency setting is clearly discernible	No adjustable device	N/A
inet work	Requirement met if frequent changes are not required and the rated voltage or rated frequency to which the appliance is to be adjusted is determined from a wiring diagram	and white white white	N/A
7.5	Appliances with more than one rated voltage or one or more rated voltage ranges, marked with rated input or rated current for each rated voltage or range, unless	A WALLER WALLER WALLE WALLE	P
NUTEX II	the power input or current are related to the arithmetic mean value of the rated voltage range	and the states whet	N/A
Set MALT	Relation between marking for upper and lower limits of rated power input or rated current and voltage is clear	Set maret warret warret out	P
7.6	Correct symbols used	and the state of the	5 P.K
un A	Symbol for nature of supply placed next to rated voltage	white white where white	°₽
untr s	Symbol for class II appliances placed unlikely to be confused with other marking	unite white white white	м ^р Р
NETE WAY	Units of physical quantities and their symbols according to international standardized system	et anite waite v	P
7.7	Connection diagram fixed to appliances to be connected to more than two supply conductors and appliances for multiple supply, unless	Single supply voltage range	N/A
where	correct mode of connection is obvious	with anter white white	N/A
7.8	Except for type Z attachment, terminals for connection to the supply mains indicated as follows:		
50	- marking of terminals exclusively for the neutral conductor (letter N)	at at the set	N/A
1 . Let	- marking of protective earthing terminals (symbol IEC 60417-5019)	at which which which we	N/A
whe	- marking of functional earthing terminals (symbol IEC 60417-5018)	white white white white	N/A
where a	- marking not placed on removable parts	stret outer south work	N/A
7.9	Marking or placing of switches which may cause a hazard	No switch used	N/A
7.10	Indications of switches on stationary appliances and controls on all appliances by use of figures, letters or other visual means	No switch used	N/A
Whitek	This applies also to switches which are part of a control	- State and and and	N/A

Page 8 of 126



Clause	Requirement – Test	Result – Remark	Verdic
white Let	If figures are used, the OFF position indicated by the figure 0	while while while a	N/A
we we	The figure 0 indicates only OFF position, unless no confusion with the OFF position	unite unit since of	N/A
7.11	Indication for direction of adjustment of controls	Jet wifet white white	N/A
7.12	Instructions for safe use provided	Refer to user manual	P
whit	Details concerning precautions during user maintenance	white white white	Р
white a	The instructions state that:	the street out of the	N ^D NP
NUTER AND	- the appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction	NUTER AND AND AND AND	P
t Jet	- children being supervised not to play with the appliance	with sub-	P
whitek w	For a part of class III construction supplied from a detachable power supply unit, the instructions state that the appliance is only to be used with the unit provided	white white white wh	N/A
LIFER WAI	Instructions for class III appliances state that it must only be supplied at SELV, unless	at white white	N/A
et white	it is a battery-operated appliance, the battery being charged outside the appliance	and the solution of the	N/A
MATER	For appliances for altitudes exceeding 2 000 m, the maximum altitude is stated	Tet what what	N/A
miret w	The instructions for appliances incorporating a functional earth states that the appliance incorporates an earth connection for functional purposes only	ANTER WALLEY WALLEY WAL	N/A
.12.1	Sufficient details for installation supplied	set whet miller while	N/A
* white	For an appliance intended to be permanently connected to the water mains and not connected by a hose-set, this is stated	+ white white white	N/A
WALTER W	If different rated voltages or different rated frequencies are marked, the instructions state what action to be taken to adjust the appliance	white white white a	N/A
7.12.2	Stationary appliances not fitted with means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under overvoltage category III, the instructions state that means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules	er worthet worthet worth	N/A

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Page 9 of 126



Clause	Requirement – Test	Result – Remark	Verdict
The state	white white white white white		- ull soll
7.12.3	Insulation of the fixed wiring in contact with parts exceeding 50 K during clause 11; instructions stating that the fixed wiring must be protected	work work wiret	N/A
7.12.4	Instructions for built-in appliances:	m. m. m	N/A
in m	- dimensions of space	ster where white whi	N/A
8 B	- dimensions and position of supporting and fixing		N/A
when	- minimum distances between parts and surrounding structure	white white white	N/A
white	- minimum dimensions of ventilating openings and arrangement	white white white	N/A
INLIER WI	- connection to supply mains and interconnection of separate components	NITES WALTES WALTES W	N/A
ret whit	- allow disconnection of the appliance after installation, by accessible plug or a switch in the fixed wiring, unless	set white white whi	N/A
NALT	a switch complying with 24.3	t the will and	N/A
7.12.5	Replacement cord instructions, type X attachment with a specially prepared cord	the set set	N/A
4 A	Replacement cord instructions, type Y attachment	sher when all a	N/A
No. Mar	Replacement cord instructions, type Z attachment	at the state	N/A
7.12.6	Caution in the instructions for appliances incorporating a non-self-resetting thermal cut-out that is reset by disconnection of the supply mains, if this cut-out is required to comply with the standard	while while while	N/A
7.12.7	Instructions for fixed appliances stating how the appliance is to be fixed	waiter waiter white	N/A
7.12.8	Instructions for appliances connected to the water m	ains:	N/A
4	- max. inlet water pressure (Pa)	w. m. w. a	N/A
ine mi	- min. inlet water pressure, if necessary (Pa):	Jet allet mile shi	N/A
et white	Instructions concerning new and old hose-sets for appliances connected to the water mains by detachable hose-sets	* white white white	N/A
7.12.9	Instructions specified in 7.12 and from 7.12.1 to 7.12.8 appear together before any other instructions supplied with the appliance	watter watter watter	WILL P
nere w	These instructions may be supplied with the appliance separately from any functional use booklet	NITER WALTER WALTER WA	P
Set whit	They may follow the description of the appliance that identifies parts, or follow the drawings/sketches	et intret whitet whit	P
whitek	In addition, instructions are also available in an alternative format such as on a website or on request from the user in a format such as a DVD	Mainet Monthet Monthet	Junit & Pre

Page 10 of 126



Clause	Requirement – Test	Result – Remark	Verdict
WELTER		the state of the	White white
	In addition, instructions are also available in an alternative format such as on a website or in a format such as a DVD	where where where	NICE NUMBER
7.13	Instructions and other texts in an official language	English	Р
7.14	Markings clearly legible and durable:	THE NUTER INTERIOR	N Pol
et mite	Signal words WARNING, CAUTION, DANGER in uppercase having a height as specified :	t set set and	N/A
Tet	Uppercase letter of the text explaining the signal word not smaller than 1.6 mm	when when the	N/A
nitet al	Moulded in, engraved, or stamped markings either raised above or have a depth below the surface of at least 0.25 mm, unless	which which which	N/A
at a	contrasting colours are used		, P.
in white	Markings checked by inspection, measurement and rubbing test as specified	set watter while whi	P
7.15	Marking on a main part	On body	P
NLTEK .	Marking clearly discernible from the outside, if necessary after removal of a cover	the set set	Pt-
Set .	For portable appliances, cover can be removed or opened without a tool	which which which is	N/A
et anti	For stationary appliances, name, trademark or identification mark and model or type reference visible after installation		N/A
WALTER	For fixed appliances, name, trademark or identification mark and model or type reference visible after installation according to the instructions	NUT WITH WAITER	N/A
WALTER W	Indications for switches and controls placed on or near the components. Marking not on parts which can be positioned or repositioned in such a way that the marking is misleading	MITTER WAITER WAITER W	N/A
4	The symbol IEC 60417-5018 placed next to the symbol IEC 60417-5172 or IEC 60417-5180	TE MALL MALL MAL	N/A
7.16	Marking of a possible replaceable thermal link or fuse link clearly visible with regard to replacing the link	WALLE WALL WALL	N/A
8	PROTECTION AGAINST ACCESS TO LIVE PARTS	white white white	P
8.1	Adequate protection against accidental contact with live parts	NITER MAITER MALIER WA	STATE NOT P
8.1.1	Requirement applies for all positions, detachable parts removed	et milet milet mil	AF JUL P
+ maret	Lamps behind a detachable cover not removed, if conditions met	- State State assist	N/A
. At	Insertion or removal of lamps, protection against contact with live parts of the lamp cap	when we we	N/A

Page 11 of 126



Clause	Requirement – Test	Result – Remark	Verdict
ALL THE	and and an an an	the set of the set	<u>16. 11.</u>
,it	Use of test probe B of IEC 61032, with a force not exceeding 1 N: no contact with live parts	white white white state	P
nr n	Use of test probe B of IEC 61032 through openings, with a force of 20N: no contact with live parts	Inite Matter Main Mark	Р
8.1.2	Use of test probe 13 of IEC 61032, with a force not exceeding 1 N, through openings in class 0 appliances and class II appliances/constructions: no contact with live parts	and white white white	P.V.
whitek.	Test probe 13 also applied through openings in earthed metal enclosures having a non-conductive coating: no contact with live parts	whitek whitek whitek whi	N/A
8.1.3	For appliances other than class II, use of test probe 41 of IEC 61032, with a force not exceeding 1 N: no contact with live parts of visible glowing heating elements		N/A
	For a single switching action obtained by a switching device, requirements as specified	whi whi wh	N/A
whitek a	For appliances with a supply cord and without a switching device, the single switching action may be obtained by the withdrawal of the plug from a socket-outlet	white white white white	N/A
8.1.4	Accessible part not considered live if:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	∕ [⊘] P
14 - 14 14 - 14	- safety extra-low a.c. voltage: peak value not exceeding 42.4 V	a function when	N/A
m	- safety extra-low d.c. voltage: not exceeding 42.4 V	Max. 30.23V d.c.	P
whitek	- or separated from live parts by protective impedance	and and mind and	P.C
Milet N	If protective impedance: d.c. current not exceeding 2 mA, and	The state strate out	N/A
	a.c. peak value not exceeding 0.7 mA	Max. 0.157mA	Р
The write	- for peak values over 42.4 V up to and including 450 V, capacitance not exceeding 0.1 μF	Set waiset waise waise	N/A
WALTE	- for peak values over 450 V up to and including 15 kV, discharge not exceeding 45 μC	A WALTER WALTER WALTER W	N/A
WALTER	- for peak values over 15kV, the energy in the discharge not exceeding 350 mJ	wifet whitet whitet whi	N/A
8.1.5	Live parts protected at least by basic insulation befor	re installation or assembly:	N/A
in m	- built-in appliances	refer while while whe	N/A
et s	- fixed appliances	t at at at	N/A
- m	- appliances delivered in separate units	mer une un u	N/A

10

Page 12 of 126



Clause	Requirement – Test	Result – Remark	Verdict
8.2	Class II appliances and constructions constructed so that there is adequate protection against accidental contact with basic insulation and metal parts separated from live parts by basic insulation only	antifet antifet antifet an	P
er yn K is	Only possible to touch parts separated from live parts by double or reinforced insulation	The write write write	Р
9 5	STARTING OF MOTOR-OPERATED APPLIANCES	et allet allet white	N/A
MUTER	Requirements and tests are specified in part 2 when necessary	The state what	N/A
10	POWER INPUT AND CURRENT	me me me	Р
10.1	Power input at normal operating temperature, rated voltage and normal operation not deviating from rated power input by more than shown in table 1	ALTER WALTER WALTER WAL	N/A
wintrex w	If the power input varies throughout the operating cycle and the maximum value of the power input exceeds, by a factor greater than two, the arithmetic mean value of the power input occurring during a representative period, the power input is the maximum value that is exceeded for more than 10 % of the representative period	water water water	N/A
NITEK WAS	Otherwise the power input is the arithmetic mean value	at white white	N/A
.et watte	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless	a surface writer surface	N/A
WALTER	the rated power input is related to the arithmetic mean value	whitek whitek whitek	N/A
10.2	Current at normal operating temperature, rated voltage and normal operation not deviating from rated current by more than shown in table 2	(see appended table)	P
EL WALTER	If the current varies throughout the operating cycle and the maximum value of the current exceeds, by a factor greater than two, the arithmetic mean value of the current occurring during a representative period, the current is the maximum value that is exceeded for more than 10 % of the representative period	and the second	N/A
mr.	Otherwise the current is the arithmetic mean value	mitter white white w	N/A
neret wo	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless	white white shutet whit	P N
see white	the rated current is related to the arithmetic mean value of the range	et while while while	N/A
11	HEATING	t at at at	.5 * .P.
11.1	No excessive temperatures in normal use	inter which which w	Р

Page 13 of 126



Clause	Requirement – Test	Result – Remark	Verdict
- Life	which which which which which which which we want	t the the start is	Ser Sur
11.2	The appliance is held, placed or fixed in position as described:	Placed in the test corner as specified	P
11.3	Temperature rises, other than of windings, determined by thermocouples	By thermocouples	N ^{III} P
the sure	Temperature rises of windings determined by resistance method, unless	thet wanties wante water .	N/A
er white	the windings makes it difficult to make the necessary connections	at white white white on	P
11.4	Heating appliances operated under normal operation at 1.15 times rated power input (W):	wifet whifet whifet whi	N/A
11.5	Motor-operated appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage (V)	(see appended table)	P.
11.6	Combined appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage (V)	Set white white white o	N/A
11.7	Operation duration corresponding to the most unfavourable conditions of normal use	white white white	P
11.8	Temperature rises monitored continuously and not exceeding the values in Table 3	(see appended table)	JUN P
NUTER WAY	If the temperature rise of a motor winding exceeds the value of Table 3, or	et white white	N/A
ist white	if there is doubt with regard to classification of insulation,	2 ALT MARK WALFER AN	N/A
. A	tests of Annex C are carried out	N	N/A
me	Sealing compound does not flow out	white mile white whi	N/A
1t	Protective devices do not operate, except	and the second	P
We W	components in protective electronic circuits tested for the number of cycles specified in 24.1.4	MIT WIT WIT WIT	N/A
13	LEAKAGE CURRENT AND ELECTRIC STRENGTH TEMPERATURE	AT OPERATING	P
13.1	Leakage current not excessive and electric strength adequate	VINITE WALTER WALTER WA	P
whiter	Heating appliances operated at 1.15 times the rated power input (W)	WALTER WALTER WALTER WALT	N/A
NUTEK MA	Motor-operated appliances and combined appliances supplied at 1.06 times the rated voltage (V)	(see appended table)	Р
re while	Protective impedance and radio interference filters disconnected before carrying out the tests	et watter watter watter w	P
13.2	The leakage current is measured by means of the circuit described in Figure 4 of IEC 60990:1999	stret wiret waret way	P.C

15

Page 14 of 126



Clause	Requirement – Test	Result – Remark	Verdic
ALTER .	For class 0I appliances and class I appliances, except parts of class II construction, C may be replaced by a low impedance ammeter	which which which w	N/A
<u> </u>	Leakage current measurements	(see appended table)	P
13.3	The appliance is disconnected from the supply	Tet and alles and	P
t d	Electric strength tests according to Table 4	(see appended table)	Р
me	No breakdown during the tests	A NUTER INTERNATION	P
14 🖉	TRANSIENT OVERVOLTAGES	e a at	N/A
WILL Y	Appliances withstand the transient over-voltages to which they may be subjected	while while where w	N/A
10 ¹² - 101 2 ¹²⁴ - 21	Clearances having a value less than specified in table 16 subjected to an impulse voltage test, the test voltage specified in table 6 :	ALTE MALLE MALL MALL	N/A
-20.	No flashover during the test, unless	inter and an	N/A
* white	of functional insulation if the appliance complies with Clause 19 with the clearance short-circuited	white white white	N/A
15 🛷	MOISTURE RESISTANCE		J P
15.1	Enclosure provides the degree of moisture protection according to classification of the appliance	while while while whi	N/A
et white	Compliance checked as specified in 15.1.1, taking into account 15.1.2, followed by the electric strength test of 16.3	and white white white	N/A
WALTER	No trace of water on insulation which can result in a reduction of clearances and creepage distances below values specified in clause 29	white white white w	N/A
15.1.1	Appliances, other than IPX0, subjected to tests as specified in IEC 60529	IPX0	N/A
inet whi	Water valves containing live parts in external hoses for connection of an appliance to the water mains tested as specified for IPX7 appliances	Set white white white	N/A
15.1.2	Hand-held appliance turned continuously through the most unfavourable positions during the test	White white white	N/A
WALTER	Built-in appliances installed according to the instructions	whitek whitek whitek w	N/A
neret wi	Appliances placed or used on the floor or table placed on a horizontal unperforated support	with milet aniset and	N/A
Set which	Appliances normally fixed to a wall and appliances with pins for insertion into socket-outlets are mounted on a wooden board	et waiset waiset waiset	N/A
WALTER	For IPX3 appliances, the base of wall mounted appliances is placed at the same level as the pivot axis of the oscillating tube	watter waiter waiter	N/A

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Page 15 of 126



Clause	Requirement – Test	Result – Remark	Verdic
NULTER AN	For IPX4 appliances, the horizontal centre line of the appliance is aligned with the pivot axis of the oscillating tube, and	while while while	N/A
ister whi	for appliances normally used on the floor or table, the movement is limited to two times 90° for a period of 5 min, the support being placed at the level of the pivot axis of the oscillating tube	Let white white wh	N/A
which	Wall-mounted appliances, take into account the distance to the floor stated in the instructions	white white white	N/A
White.	Appliances normally fixed to a ceiling are mounted underneath a horizontal unperforated support, the pivot axis of the oscillating tube located at the level of the underside of the support, and	souther souther souther	N/A
ret whit	for IPX4 appliances, the movement of the tube is limited to two times 90° from the vertical for a period of 5 min	At white white whi	N/A
+ whitek	Appliances with type X attachment fitted with a flexible cord as described	t stret miret white	N/A
wifet .	Detachable parts subjected to the relevant treatment with the main part	ret ret wet	N/A
LIEK WA	However, if a part has to be removed for user maintenance and a tool is needed, this part is not removed	and some sources	N/A
15.2	Spillage of liquid does not affect the electrical insulation		N/A
	Spillage solution comprising water containing approximately 1 % NaCl and 0.6 % rinsing agent	at the set	N/A
. let	Appliances with type X attachment fitted with a flexible cord as described	which which will	N/A
in w Set uni	Appliances incorporating an appliance inlet tested with or without an connector, whichever is most unfavourable	MIT WALL WALL W	N/A
	Detachable parts removed	me in in	N/A
white	Overfilling test with additional amount of the solution, over a period of 1 min (I)	MULTER WALTER WALTE	N/A
watter	The appliance withstands the electric strength test of 16.3	whitek whitek philes	N/A
LIEX W	No trace of water on insulation that can result in a reduction of clearances and creepage distances below values specified in clause 29	stret wattet wattet wa	N/A
15.3	Appliances proof against humid conditions	et the state with	P.
- Jiet	Checked by test Cab: Damp heat steady state in IEC 60068-2-78	- ret ret ret	P
at .	Detachable parts removed and subjected, if necessary, to the humidity test with the main part	when when white	Р

Page 16 of 126



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Clause	Requirement – Test	Result – Remark	Verdic
WILTE	Humidity test for 48 h in a humidity cabinet	25°C, 93% R.H.	Р
15	Reassembly of those parts that may have been	20 0, 30 /0 1.11.	N/A
water w	removed	MUTER MALIER WALTER WALTE	N/A
Set 5	The appliance withstands the tests of clause 16	at at let let	_с ¢Р
16	LEAKAGE CURRENT AND ELECTRIC STRENGTH	it's white white and a	Р
16.1	Leakage current not excessive and electric strength adequate	A WHITEK WALTER WALTER WAS	Р
WALTER	Protective impedance disconnected from live parts before carrying out the tests	whet while while would	P
NUTEX N	Tests carried out at room temperature and not connected to the supply	Tet Tet whet whet	P
16.2	Single-phase appliances: test voltage 1.06 times rated voltage (V):	(see appended table)	Р
54	Three-phase appliances: test voltage 1.06 times rated voltage divided by $\sqrt{3}$ (V):	white white white and	N/A
m	Leakage current measurements:	(see appended table)	P
5%	Limit values doubled if:	at at let set	N/A
Sec. 1	- all controls have an off position in all poles, or	min min me m	N/A
NUTER OWN	- the appliance has no control other than a thermal cut-out, or	et aniret aniret a	N/A
ist white	- all thermostats, temperature limiters and energy regulators do not have an off position, or	and the south souther we	N/A
+ 14	- the appliance has radio interference filters	su a at a	N/A
	With the radio interference filters disconnected, the leakage current do not exceed limits specified:	watte watte water wat	N/A
16.3	Electric strength tests according to Table 7:	(see appended table)	N ^C P
inet whi	Test voltage applied between the supply cord and inlet bushing and cord guard and cord anchorage as specified:	Tet whitet whitet whitet w	N/A
et stel	No breakdown during the tests	t at at set is	P
17	OVERLOAD PROTECTION OF TRANSFORMERS AND ASSOCIATED CIRCUITS		Р
WALTE	No excessive temperatures in transformer or associated circuits in event of short-circuits likely to occur in normal use:	(see appended table)	Р
ner un	Appliance supplied with 1.06 or 0.94 times rated voltage under the most unfavourable short-circuit or overload likely to occur in normal use (V)	1.06x240V=254.4V	P S
2m	Basic insulation is not short-circuited	the most more with the	Р
white	Temperature rise of insulation of the conductors of safety extra-low voltage circuits not exceeding the relevant value specified in table 3 by more than 15 K	while while while while	P.S

Page 17 of 126



IEC 60335-1

Clause	Requirement – Test	Result – Remark	Verdic
WILLING CONTRACT	Temperature of the winding not exceeding the value specified in table 8,	while while while	Р
in a	However, limits do not apply to fail-safe transformers complying with sub-clause 15.5 of IEC 61558-1	UNITE WAIT WATE WA	N/A
18	ENDURANCE	LIEK MUTER AND STREAM	N/A
et intre	Requirements and tests are specified in part 2 when necessary	at what when when	N/A
19	ABNORMAL OPERATION	Mr. m. m.	Р
19.1	The risk of fire, mechanical damage or electric shock under abnormal or careless operation obviated	WALTER WALTER WALTER W	Р (/-
n n	Electronic circuits so designed and applied that a fault will not render the appliance unsafe	(see appended table)	Р
Sure Sure	Appliances incorporating heating elements subjected to the tests of 19.2 and 19.3, and	white white white	N/A
WALT .	if the appliance also has a control that limit the temperature during clause 11 it is subjected to the test of 19.4, and	white white white	N/A
n. s	if applicable, to the test of 19.5	unite main white white	N/A
LIEK WAY	Appliances incorporating PTC heating elements are also subjected to the test of 19.6	at mint white	N/A
et white	Appliances incorporating motors subjected to the tests of 19.7 to 19.10, as applicable	and the states	N/A
WALTER	Appliances incorporating electronic circuits subjected to the tests of 19.11 and 19.12, as applicable	white white white	NUT INT
WILLEX W	Appliances incorporating contactors or relays subjected to the test of 19.14, being carried out before the tests of 19.11	Martet servicet servicet servi	N/A
TER MUL	Appliances incorporating voltage selector switches subjected to the test of 19.15	Set while while while	N/A
* white	Unless otherwise specified, the tests are continued until a non-self-resetting thermal cut-out operates, or	* maret unifet whitet	N/A
đ.	until steady conditions are established	and the	Pot
UNE V	If a heating element or intentionally weak part becomes open-circuited, the relevant test is repeated on a second sample	white white white w	N/A
19.2	Test of appliances with heating elements with restricted heat dissipation; test voltage (V), power input of 0.85 times rated power input (W)	et whe whe whe	N/A
19.3	Test of 19.2 repeated; test voltage (V), power input of 1.24 times rated power input (W):	- not stat soft	N/A
19.4	Test conditions as in cl. 11, any control limiting the temperature during tests of cl. 11 short-circuited	when when we we	N/A

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Page 18 of 126

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Page 19 of 126



IEC 60335-1 Clause Reguirement – Test Result – Remark N			
Requirement – Test	Result – Remark	Verdic	
Winding temperatures not exceeding values as specified	(see appended table)	N/A	
Series motor operated at 1.3 times rated voltage for 1 min (V):	united world's world's world	N/A	
During the test, parts not being ejected from the appliance	ster wanter waite water w	N/A	
Electronic circuits, compliance checked by evaluation of the fault conditions specified in 19.11.2 for all circuits or parts of circuits, unless	* would would would would would	P.C	
they comply with the conditions specified in 19.11.1	white white white whi	N/A	
Appliances incorporating an electronic circuit that relies upon a programmable component to function correctly, subjected to the test of 19.11.4.8, unless	NITER WALTER WAITER WALTER	N/A	
restarting does not result in a hazard	at the set set of	N/A	
Appliances having a device with an off position obtained by electronic disconnection, or a device placing the appliance in a stand-by mode, subjected to the tests of 19.11.4	Martinet water water water	N/A	
If the safety of the appliance under any of the fault conditions depends on the operation of a miniature fuse-link complying with IEC 60127, the test of 19.12 is carried out	Whitek whitek whitek white	WNP Nifet N	
During and after each test the following is checked:		, P	
- the temperature of the windings do not exceed the values specified in table 8	white white white wh	P	
- the appliance complies with the conditions specified in 19.13	WALTER WALTER WALTER WALTE	Ρ	
- any current flowing through protective impedance not exceeding the limits specified in 8.1.4	ALTER MATER MAILER MAILER	N ^N ^C P	
		N/A	
- the base material of the printed circuit board withstands the test of Annex E	* WALTER SWALTER WALTER WAL	N/A	
- any loosened conductor does not reduce clearance or creepage distances between live parts and accessible metal parts below the values specified in clause 29	whitet whitet whitet white	N/A	
Fault conditions a) to g) in 19.11.2 are not applied to meeting both of the following conditions:	circuits or parts of circuits	N/A	
- the electronic circuit is a low-power circuit, that is, the maximum power at low-power points does not exceed 15 W according to the tests specified	white white white sh	N/A	
	 specified	Winding temperatures not exceeding values as specified	

Page 20 of 126



Clause	Requirement – Test	Result – Remark	Verdict
Clause	Requirement – Test	Result – Remark	veruici
WALTER W	- the protection against electric shock, fire hazard, mechanical hazard or dangerous malfunction in other parts of the appliance does not rely on the correct functioning of the electronic circuit	while while while while	N/A
19.11.2	Fault conditions applied one at a time, the appliance specified in cl. 11, but supplied at rated voltage, the d		LTEP N
et white	a) short circuit of functional insulation if clearances or creepage distances are less than the values specified in 29	A WALLEY WALLEY WALLEY WAL	Р
NUTE	b) open circuit at the terminals of any component	set set side with	Р
	c) short circuit of capacitors, unless	me me me	Р
mine an	they comply with IEC 60384-14	THE STATE MUTE MATTE	N/A
Jet Mill	d) short circuit of any two terminals of an electronic component, other than integrated circuits.	at the sate with a	JEL-P
t stet	This fault condition is not applied between the two circuits of an optocoupler	L at the star	+ P
24	e) failure of triacs in the diode mode	when whe whe we	N/A
S.S.C.	f) failure of an integrated circuit	at the state with	Р
	g) failure of an electronic power switching device	when all the start	Р
NUTE WAI	Each low power circuit is short-circuited by connecting the low-power point to the pole of the supply source from which the measurements were made	et and and white a	N/A
19.11.3	If the appliance incorporates a protective electronic circuit that operates to ensure compliance with clause 19, the appliance is tested as specified	Martin Martin Martin	P
19.11.4	Appliances having a device with an off position obtained by electronic disconnection, or	and when when where	N/A
de la	a device that can be placed in the stand-by mode	a the state	N/A
et unet	subjected to the tests of 19.11.4.1 to 19.11.4.7, the device being set in the off position or in the stand-by mode	A CALL AND	N/A
	Appliances incorporating a protective electronic circuit subjected to the tests of 19.11.4.1 to 19.11.4.7, the tests being carried out after the protective electronic circuit has operated, except that	while while while	N/A
ret mirt	appliances operated for 30 s or 5 min during the test of 19.7 are not subjected to the tests for electromagnetic phenomena	et the the set	N/A
, interest	Surge protective devices disconnected, unless	m. m. n	N/A
S.L.L.	They incorporate spark gaps	- 10 50 50 S	N/A

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15 5

Page 21 of 126



Clause	Requirement – Test	Result – Remark	Verdict
19.11.4.1	The appliance is subjected to electrostatic discharges in accordance with IEC 61000-4-2, test	while while while	N/A
19.11.4.2	Ievel 4 The appliance is subjected to radiated fields in accordance with IEC 61000-4-3, at frequency ranges specified	and and and and	N/A
19.11.4.3	The appliance is subjected to fast transient bursts in accordance with IEC 61000-4-4, test level 3 or 4 as specified	at white white white	N/A
19.11.4.4	The power supply terminals of the appliance subjected to voltage surges in accordance with IEC 61000-4-5, test level 3 or 4 as specified	WALLEY WALLEY WALLEY W	N/A
nes on	An open circuit test voltage of 2 kV is applicable for the line-to-line coupling mode	NITE MAITE MAIL MAL	N/A
Ter maine	An open circuit test voltage of 4 kV is applicable for the line-to-earth coupling	Set while while while	N/A
. WALTER	Earthed heating elements in class I appliances disconnected	white white white	N/A
19.11.4.5	The appliance is subjected to injected currents in accordance with IEC 61000-4-6, test level 3	stret autot mutat w	N/A
19.11.4.6	Appliances having a rated current not exceeding 16 A are subjected to the Class 3 voltage dips and interruptions in accordance with IEC 61000-4-11	at and surfice wat	N/A
et would	Appliances having a rated current exceeding 16 A are subjected to the Class 3 voltage dips and interruptions in accordance with IEC 61000-4-34	white white white	N/A
19.11.4.7	The appliance is subjected to mains signals in accordance with IEC 61000-4-13, test level class 2	white white white a	N/A
19.11.4.8	The appliance is supplied at rated voltage and operated under normal operation. After 60s the power supply is reduced to a level such that the appliance ceases to respond or parts controlled by the programmable component cease to operate	ANTER MATTER MATTER MA	N/A
the state	The appliance continues to operate normally, or	e at at set	N/A
-m	requires a manual operation to restart	mus mus mus	N/A
19.12	If the safety of the appliance for any of the fault conditions specified in 19.11.2 depends on the operation of a miniature fuse-link complying with IEC 60127, the test is repeated, measuring the current flowing through the fuse-link; measured current (A); rated current of the fuse-link (A)	anifet anifet anifet an	Ρ
19.13	During the tests the appliance does not emit flames, molten metal, poisonous or ignitable gas in hazardous amounts	et while while while	Р
-m	Temperature rises not exceeding the values shown in Table 9	(see appended table)	Р

Page 22 of 126



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Clause	Requirement – Test	Result – Remark	Verdic
55	white such a such and and the	1 10 10 5th 5th	and a second
- 54	Compliance with clause 8 not impaired	me me me m	P
	If the appliance can still be operated it complies with 20.2	MITEX MAILER WALLER WALLER	N/A
LIEK WAL	Insulation, other than of class III appliances or class contain live parts, withstands the electric strength tes specified in table 4:		LT ^E P
at intre	- basic insulation (V)	1000	P
	- supplementary insulation (V)	1750	Р
MALLE	- reinforced insulation (V):	3000	P
Intrest with	After operation or interruption of a control, clearances and creepage distances across the functional insulation withstand the electric strength test of 16.3, the test voltage being twice the working voltage	NUT VINITE WALTER WALTER	N/A
+	The appliance does not undergo a dangerous malfunction, and	with sub- sub- sub-	Р
SW Let	no failure of protective electronic circuits, if the appliance is still operable	whi whe she she	Р
mr 4	Appliances tested with an electronic switch in the off mode:	position, or in the stand-by	N/A
in me	- do not become operational, or	at and white	N/A
et white	- if they become operational, do not result in a dangerous malfunction during or after the tests of 19.11.4	and an and an and an	N/A
MALTER	If the appliance contains lids or doors that are contro one of the interlocks may be released provided that:	billed by one or more interlocks,	N/A
UNLIEK W	- the lid or door does not move automatically to an open position when the interlock is released, and	Tet with might shirt	N/A
Set inst	- the appliance does not start after the cycle in which the interlock was released	at lat sat what	N/A
19.14	Appliances operated under the conditions of clause 11, any contactor or relay contact operating under the conditions of clause 11 being short-circuited	t minet minet aminet and	N/A
NALIEX N	For a relay or contactor with more than one contact, all contacts are short-circuited at the same time	the state where with	N/A
NETEX WAY	A relay or contactor operating only to ensure the appliance is energized for normal use is not short-circuited	where while while while	N/A
SEX WALTE	If more than one relay or contactor operates in clause 11, they are short-circuited in turn	et auret muret united an	N/A
19.15	For appliances with a mains voltage selector switch, the switch is set to the lowest rated voltage position and the highest value of rated voltage is applied	white marter white white	N/A

Page 23 of 126



Clause	Requirement – Test	Result – Remark	Verdict
20	STABILITY AND MECHANICAL HAZARDS	WALLEY WALLEY WALLY	Р
20.1	Appliances having adequate stability	at let set a	Р
siret was	Tilting test through an angle of 10°, appliance placed on an inclined plane/horizontal support, not connected to the supply mains; appliance does not overturn	Tet white white white	P
white	Tilting test repeated on appliances with heating elements, angle of inclination increased to 15°	wintret white white.	N/A
white.	Possible heating test in overturned position; temperature rise does not exceed values shown in table 9	whitek whitek whitek w	N/A
20.2	Moving parts adequately arranged or enclosed as to provide protection against personal injury	No moving part	N/A
TE MAL	Protective enclosures, guards and similar parts are non-detachable, and	Set water anited antife	N/A
* JIE	have adequate mechanical strength	t at at set	N/A
. At	Enclosures that can be opened by overriding an interlock are considered to be detachable parts	with with with a	N/A
NITEX IN	Self-resetting thermal cut-outs and overcurrent protective devices not causing a hazard by unexpected closure	white white white wh	N/A
et .51	Not possible to touch dangerous moving parts with the test probe described		N/A
21	MECHANICAL STRENGTH	when when when	Р
21.1	Appliance has adequate mechanical strength and is constructed as to withstand rough handling	whitek whitek whitek w	P
NNITEK W	Checked by applying 3 blows to every point of the enclosure like to be weak, in accordance with test Ehb of IEC 60068-2-75, spring hammer test, with an impact energy of 0.5 J.	(see appended table)	Set P
et set	The appliance shows no damage impairing compliance with this standard, and	at which which which	Р
whit	compliance with 8.1, 15.1 and clause 29 not impaired	antife watte wait.	Р
white	If doubt, supplementary or reinforced insulation subjected to the electric strength test of 16.3	white white white w	N/A
NUTER M	If necessary, repetition of groups of three blows on a new sample	NITER MAILER MAILER MALE	N/A
21.2	Accessible parts of solid insulation having strength to prevent penetration by sharp implements	et milet milet waret	P
whitek	Test not applicable if the thickness of supplementary insulation is at least 1 mm and reinforced insulation at least 2 mm	white white white	N ¹ P

Page 24 of 126



Clause	Requirement – Test	Result – Remark	Verdic
AND THE	The insulation is tested as specified, and does withstand the electric strength test of 16.3	while while while	N/A
22	CONSTRUCTION	miter white white white	₩ P
22.1	Appliance marked with the first numeral of the IP system, relevant requirements of IEC 60529 are fulfilled	IPX0	N/A
22.2	Stationary appliance: means to ensure all-pole disco provided:	nnection from the supply being	N/A
SIL	- a supply cord fitted with a plug, or	Not stationary appliance	N/A
In 1	- a switch complying with 24.3, or	which when when when	N/A
NUTER W	- a statement in the instruction sheet that a disconnection incorporated in the fixed wiring is to be provided, or	MITER WAITER WAITER WAITER	N/A
in mer	- an appliance inlet	set outer white white wh	N/A
Whitek a	Singe-pole switches and single-pole protective devices for the disconnection of heating elements in single-phase, permanently connected class 0I and class I appliances, connected to the phase conductor	White white white	N/A
22.3	Appliance provided with pins: no undue strain on socket-outlets	at an inter	N/A
	Applied torque not exceeding 0.25 Nm	4	N/A
WALTER .	Pull force of 50 N to each pin after the appliance has being placed in the heating cabinet; when cooled to room temperature the pins are not displaced by more than 1 mm	white white white wh	N/A
J.I.Et .	Each pin subjected to a torque of 0.4 Nm; the pins are not rotating, unless	with your start with	N/A
at a	rotating does not impair compliance with this standard	and which which which	N/A
22.4	Appliance for heating liquids and appliance causing undue vibration not provided with pins for insertion into socket-outlets	the super street sector sol	N/A
22.5	No risk of electric shock when touching pins, for appliances having a capacitor with rated capacitance equal to or greater than 0.1μ F, the appliance being disconnected from the supply at the instant of voltage peak	white white white	P.C.
In.	Voltage not exceeding 34 V (V):	Max. 32V measured	Р
ret would	If compliance relies on the operation of an electronic circuit, the electromagnetic phenomena tests of 19.11.4.3 and 19.11.4.4 are applied	No such electronic circuit	N/A
with	The discharge test is then repeated three times, voltage not exceeding 34 V (V)	MALTE WALTE WALT WAL	N/A

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Page 25 of 126



Clause	Requirement – Test	Result – Remark	Verdict
22.6	Electrical insulation not affected by condensing water or leaking liquid	White white white white	N/A
wr w	Electrical insulation of Class II appliances not affected in case of a hose rupture or seal leak	white white while white	N/A
in whi	In case of doubt, test as described	ster where while while w	N/A
22.7	Adequate safeguards against the risk of excessive pressure in appliances provided with steam-producing devices		N/A
22.8	Electrical connections not subject to pulling during cleaning of compartments to which access can be gained without the aid of a tool, and that are likely to be cleaned in normal use	whitek whitek whitek white	N/A
22.9	Insulation, internal wiring, windings, commutators and slip rings not exposed to oil, grease or similar substances, unless	No oil, grease or similar substances	P
t st	the substance has adequate insulating properties	Sur Sur A	N/A
22.10	Not possible to reset voltage-maintained non-self resetting thermal cut-outs by the operation of an automatic switching device incorporated within the appliance, if:	No such device	N/A
NUTER MA	- a non-self-resetting thermal cut-out is required by the standard, and	at an other outer	N/A
et are	- a voltage maintained non-self-resetting thermal cut-out is used to meet it		N/A
- Let	Non-self-resetting thermal motor protectors have a trip-free action, unless	white white white white	N/A
m	they are voltage maintained	white white whe whe	N/A
WALTER W	Reset buttons of non-self-resetting controls so located or protected that accidental resetting is unlikely	milet waitet waitet waitet	N/A
22.11	Reliable fixing of non-detachable parts that provide the necessary degree of protection against electric shock, moisture or contact with moving parts	Tet white white white w	P
MAL	Obvious locked position of snap-in devices used for fixing such parts	water water water water	N/A
sunt v	No deterioration of the fixing properties of snap-in devices used in parts that are likely to be removed during installation or servicing	watter waite waite wait	N/A
the su	Tests as described	50N, 10s applied on enclosure	Р
22.12	Handles, knobs etc. fixed in a reliable manner, if loosening result in a hazard	et united anited anited an	N/A
WALTER	Removing or fixing in wrong position of handles, knobs etc. indicating position of switches or similar components not possible, if resulting in a hazard	AND THE MALTER MADER WALT	N/A

Page 26 of 126



Clause	Requirement – Test	Result – Remark	Verdict
No.	A choking hazard does not apply to appliances for commercial use	sonthe sone sone role	N/A
nn - n st	Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied	untile white white white	N/A
ine whi	Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied	cret water water water	N/A
er would	If the part is removed and can be contained within the small parts cylinder, it is considered to be a choking hazard	at annulet anulet anules an	N/A
22.13	Unlikely that handles, when gripped as in normal use, make the operators hand touch parts having a temperature rise exceeding the value specified for handles which are held for short periods only	and the antice and the and	N/A
22.14	No ragged or sharp edges creating a hazard for the user in normal use, or during user maintenance	No ragged or sharp edges	N THE P
t whitek	No exposed pointed ends of self tapping screws etc., liable to be touched by the user in normal use or during user maintenance	white white white wh	P P
22.15	Storage hooks and the like for flexible cords smooth and well rounded	auter mater white white	N/A
22.16	Automatic cord reels cause no undue abrasion or damage to the sheath of the flexible cord, no breakage of conductors strands, no undue wear of contacts	at a surviver waited	N/A
m	Cord reel tested with 6000 operations, as specified	and white white white w	N/A
WALTER	Electric strength test of 16.3, voltage of 1000 V applied	state with white whi	N/A
22.17	Spacers not removable from the outside by hand or by means of a screwdriver or a spanner	AND STATE STATE STATE	N/A
22.18	Current-carrying parts and other metal parts resistant to corrosion	at when we state	P
22.19	Driving belts not relied upon to provide the required level of insulation, unless	at which which which a	N/A
	constructed to prevent inappropriate replacement	and the working which we	N/A
22.20	Direct contact between live parts and thermal insulation effectively prevented, unless	what which while whi	P
Lifet .N	material used is non-corrosive, non-hygroscopic and non-combustible	at the week with	P
22.21	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless	No such materials used as insulation	P
14	impregnated	sure sure sur s	N/A
WALTE	This requirement does not apply to magnesium oxide and mineral ceramic fibres used for the electrical insulation of heating elements	MALTER MALTER MALTER MA	N/A

Page 27 of 126



Clause	Requirement – Test	Result – Remark	Verdict
- Inter	and which all all and	t the state of the state	LIE NUT
22.22	Appliances not containing asbestos	Not containing asbestos	P
22.23	Oils containing polychlorinated biphenyl (PCB) not used	Not such parts	Р
22.24	Bare heating elements, except in class III appliances or class III constructions that do not contain live parts, adequately supported	Lifet whitet whitet white	N/A
	In case of rupture, the heating conductor is unlikely to come in contact with accessible metal parts	at white white white a	N/A
22.25	Sagging heating conductors, except in class III appliances or class III constructions that do not contain live parts, cannot come into contact with accessible metal parts	whilet whilet whilet wh	N/A
22.26	For class III constructions the insulation between parts operating at safety extra-low voltage and other live parts complies with the requirements for double or reinforced insulation	Net white white white	W THE W
22.27	Parts connected by protective impedance separated by double or reinforced insulation	MALTER WALTER WALTER W	P
22.28	Metal parts of Class II appliances conductively connected to gas pipes or in contact with water: separated from live parts by double or reinforced insulation	whitek whitek whitek white	N/A
22.29	Class II appliances permanently connected to fixed wiring so constructed that the required degree of access to live parts is maintained after installation	and the substantist	N/A
22.30	Parts serving as supplementary or reinforced insulation fixed so that they cannot be removed without being seriously damaged, or	No parts can be omitted	LIF JUNLIN
unitek wi	so constructed that they cannot be replaced in an incorrect position, and so that if they are omitted, the appliance is rendered inoperable or manifestly incomplete	ALTER MALTER MALTER MALT	Р
22.31	Neither clearances nor creepage distances over supplementary and reinforced insulation reduced below values specified in clause 29 as a result of wear	A MALIER WALLER WALLER	P
WALTER W	Neither clearances nor creepage distances between live parts and accessible parts reduced below values for supplementary insulation if wires, screws etc. become loose		P P
22.32	Supplementary and reinforced insulation constructed or protected against pollution so that clearances or creepage distances are not reduced below the values in clause 29	et mutet antiet antiet	Р

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Page 28 of 126

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Clause	Requirement – Test	Result – Remark	Verdict
WALLEX W	Supplementary insulation of natural or synthetic rubber resistant to ageing, or arranged and dimensioned so that creepage distances are not reduced below values specified in 29.2	whilet while while y	N/A
LIFE WAY	Ceramic material not tightly sintered, similar material or beads alone not used as supplementary or reinforced insulation	stet anifet aniset and	N/A
white	Ceramic and similar porous material in which heating conductors are embedded is considered to be basic insulation, not reinforced insulation	White white white	N/A
WAT .	Oxygen bomb test at 70°C for 96 h and 16 h at room temperature	white white white	N/A
22.33	Conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts are not in direct contact with live parts, or		N/A
* white	unearthed metal parts separated from live parts by basic insulation only	t wet write wires	N/A
de la	Electrodes not used for heating liquids	m. m.	N/A
NUNC V	For class II constructions, conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts, not in direct contact with basic or reinforced insulation, unless	and and and and and an	N/A
IET NALL	the reinforced insulation consists of at least 3 layers	and the state with	N/A
whitek	For class II constructions, conductive liquids which are in contact with live parts, not in direct contact with reinforced insulation, unless	White white white	N/A
. let	the reinforced insulation consists of at least 3 layers	a at at	N/Ă
un un Litet uni	An air layer not used as basic or supplementary insulation in a double insulation system if likely to be bridged by leaking liquid		N/A
22.34	Shafts of operating knobs, handles, levers etc. not live, unless	t not not an	N/A
	the shaft is not accessible when the part is removed	sur sur sur	N/A
22.35	For other than class III constructions, handles, levers and knobs, held or actuated in normal use, not becoming live in the event of a failure of basic insulation	WALTER WALTER WALTER	N/A
Tex white	Such parts being of metal, and their shafts or fixings are likely to become live in the event of an insulation fault, they are either adequately covered by insulation material, or their accessible parts are separated from their shafts or fixings by supplementary insulation		N/A

Page 29 of 126

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2.54	60335-1
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Clause	Requirement – Test	Result – Remark	Verdict
Clause	Requirement – Test	Result – Remark	verdici
antifet an	This requirement does not apply to handles, levers and knobs on stationary appliances other than those of electrical components, provided they are either reliably connected to an earthing terminal or earthing contact, or separated from live parts by earthed metal	let set set at	N/A
et white	Insulating material covering metal handles, levers and knobs withstand the electric strength test of 16.3 for supplementary insulation	at instret writet writet	N/A
22.36	For appliances other than class III, handles continuously held in the hand in normal use so constructed that when gripped as in normal use, the operators hand is not likely to touch metal parts, unless	Whitek whitek whitek wh	N/A
TEK INT	they are separated from live parts by double or reinforced insulation	et tet stet with	N/A
22.37	Capacitors in Class II appliances not connected to accessible metal parts and their casings, if of metal, separated from accessible metal parts by supplementary insulation, unless	No such capacitor	N/A
white a	the capacitors comply with 22.42	tet stret mine wi	N/A
22.38	Capacitors not connected between the contacts of a thermal cut-out	at the state	N/A
22.39	Lamp holders used only for the connection of lamps	No lamp holder	N/A
22.40	Motor-operated appliances and combined appliances intended to be moved while in operation, or having accessible moving parts, fitted with a switch to control the motor. The actuating member of the switch being easily visible and accessible	water water water	N/A
aniter an tret anit	If the appliance cannot operate continuously, automatically or remotely without giving rise to a hazard, appliances for remote operation being fitted with a switch for stopping the operation. The actuating member of the switch being easily visible and accessible	Auret and set and set and	N/A
22.41	No components, other than lamps, containing mercury	MALTER WALTER WALTER	P
22.42	Protective impedance consisting of at least two separate components	Two Y capacitors used	ST NP
niter with	Values specified in 8.1.4 not exceeded if any one of the components are short-circuited or open-circuited		P
SEX WALT	Resistors checked by the test of 14.1 a) in IEC 60065	et anet wret milet	N/A
t set	Capacitors checked by the tests for class Y capacitors in IEC 60384-14	Approved Y capacitors	S P P

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Page 30 of 126



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Clause	Requirement – Test	Result – Remark	Verdic
- util	and	- the set star star	and a second
22.43	Appliances adjustable for different voltages, accidental changing of the setting of the voltage unlikely to occur	No adjustable device	N/A
22.44	Appliances not having an enclosure that is shaped or decorated like a toy	The appliance is not likely to be treated as a toy	P
22.45	When air is used as reinforced insulation, clearances not reduced below the values specified in 29.1.3 due to deformation as a result of an external force applied to the enclosure	and and an an a	Ρ
22.46	For programmable protective electronic circuits used to ensure compliance with the standard, the software contains measures to control the fault/error conditions in table R.1	Whitek whitek whitek white	N/A
JEX MALT	Software that contains measures to control the fault/error conditions specified in table R.2 is to be specified in parts 2 for particular constructions or to address specific hazards	set while while while w	N/A
white	These requirements are not applicable to software used for functional purpose or compliance with clause 11	White white white whi	N/A
22.47	Appliances connected to the water mains withstand the water pressure expected in normal use.	until unit unt unt	N/A
ne un	No leakage from any part, including any inlet water hose	and white sures a	N/A
22.48	Appliances connected to the water mains constructed to prevent backsiphonage of non potable water	white white white wh	N/A
22.49	For remote operation, the duration of operation is to be set before the appliance can be started, unless	white white white white	N/A
unin ul	the appliance switches off automatically or can operate continuously without hazard	MITER WALTER WAITE WALTE	N/A
22.50	Controls incorporated in the appliance take priority over controls actuated by remote operation	Tet water water water of	N/A
22.51	There is a control on the appliance manually adjusted to the setting for remote operation before the appliance can be operated in this mode	t watter watter watter wat	N/A
white s	There is a visual indication showing that the appliance is adjusted for remote operation	WALTER WALTER WALTER WALTER	N/A
NUTER WIN	These requirements not necessary on appliances tha giving rise to a hazard:	t can operate as follows, without	N/A
et 5	- continuously, or	the state	N/A
2hr	- automatically, or	with more and an	N/A
- 10-	- remotely	a the state of	N/A

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Page 31 of 126



Clause	Requirement – Test	Result – Remark	Verdict
	and		and and the
22.52	Socket-outlets on appliances accessible to the user in accordance with the socket-outlet system used in the country in which the appliance is sold	white white white	N/A
22.53	Class II appliances and class III appliances that incorporate functionally earthed parts have at least double insulation or reinforced insulation between live parts and the functionally earthed parts	and white white wh	N/A
22.54	Button cells and batteries designated R1 not accessible without the aid of a tool, unless	A WALTER WALTER WALT	N/A
WALTER	the cover of their compartment can only be opened after at least two independent movements have been applied simultaneously	antifet antifet antifet	N/A
22.55	Devices operated to stop the intended function of the appliance, if any, are be distinguished from other manual devices by means of shape, size, surface texture or position	ALTER WATER WATER W	N/A
* white	The requirement concerning position does not preclude use of a push on push off switch	t stat what made	N/A
	An indication when the device has been operated is given by:		N/A
sures s	 tactile feedback from the actuator or from the appliance, or 	WALTER WALTER WALTE	N/A
	- reduction in heat output; or	the street of	N/A
1. 10	– audible and visible feedback		N/A
22.56	Detachable power supply part provided with the part of class III construction	Month Worth Worth	N/A
22.57	The properties of non-metallic materials do not degrade from exposure to UV-C radiation, as specified in Annex T	watter watter watter	N/A
write wi	This requirement does not apply to glass, ceramics or similar materials	INTER MUTE MUTE W	N/A
23	INTERNAL WIRING	ret are inter and	P
23.1	Wireways smooth and free from sharp edges	when we are	L P
when	Wires protected against contact with burrs, cooling fins etc.	white white white	P
WALTE	Wire holes in metal well rounded or provided with bushings	watter watter watter	N/A
NUTER WIN	Wiring effectively prevented from coming into contact with moving parts	No moving parts	N/A
23.2	Beads etc. on live wires cannot change their position, and are not resting on sharp edges	et milet milet and	N/A
t stet	Beads inside flexible metal conduits contained within an insulating sleeve	- it it it	N/A

Page 32 of 126



IEC 60335-1

Clause	Requirement – Test	Result – Remark	Verdict
- 5 ⁵	antit we way we want we	the states	all all
23.3	Electrical connections and internal conductors movable relatively to each other not exposed to undue stress	No movable conductors	N/A
LER M	Flexible metallic tubes not causing damage to insulation of conductors	and and the state	N/A
	Open-coil springs not used	a mar ma m	N/A
WALLE	Adequate insulating lining provided inside a coiled spring, the turns of which touch one another	at writer writer writer	N/A
WALTER	No damage after 10 000 flexings for conductors flexed during normal use or	minet united another un	N/A
NUTEX M	100 flexings for conductors flexed during user maintenance	Tet stet super white	N/A
Alex Martin	Electric strength test of 16.3, 1000 V between live parts and accessible metal parts	et tet set stat	N/A
+	Not more than 10% of the strands of any conductor broken, and	whe whe we	N/A
- sur-	not more than 30% for wiring supplying circuits that consume no more than 15W	winist since wine of	N/A
23.4	Bare internal wiring sufficiently rigid and fixed	intret white white whi	N/A
23.5	The insulation of internal wiring subjected to the supply mains voltage withstanding the electrical stress likely to occur in normal use	tet and antifet antife	VALTEP W
et white	Basic insulation electrically equivalent to the basic insulation of cords complying with IEC 60227 or IEC 60245, or	white white white	N/A
white .	no breakdown when a voltage of 2 000 V is applied for 15 min between the conductor and metal foil wrapped around the insulation	2000V, 15min No Breakdown	N P
in an	For class II construction, the requirements for supplementary insulation and reinforced insulation apply, except	the state whet when	N/A
at miret	that the sheath of a cord complying with IEC 60227 or IEC 60245 may provide supplementary insulation	t ret ret with	N/A
STEX.	A single layer of internal wiring insulation does not provide reinforced insulation	when when when we	N/A
23.6	Sleeving used as supplementary insulation on internal wiring retained in position by clamping at both ends, or	which which when we	N/A
ret air	be such that it can only be removed by breaking or cutting	at let let set	N/A
23.7	The colour combination green/yellow used only for earthing conductors	Class II	N/A
23.8	Aluminium wires not used for internal wiring	Not used	Р

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Page 33 of 126



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Clause	Requirement – Test	Result – Remark	Verdict
23.9	Stranded conductors not consolidated by soldering where they are subjected to contact pressure, unless	Not subject to contact pressure	P
	the contact pressure is provided by spring terminals	no m m	N/A
23.10	The insulation and sheath of internal wiring, incorporated in external hoses for the connection of an appliance to the water mains, at least equivalent to that of light polyvinyl chloride sheathed flexible cord (60227 IEC 52)	A WALLEY WALLEY WALLEY WALLEY WALLEY	N/A
24	COMPONENTS	Tet wet whet while	Ρ
24.1	Components comply with safety requirements in relevant IEC standards	and the the the	P.
n	List of components	(see appended table)	Р
ret whit	Motors not required to comply with IEC 60034-1, they are tested as part of the appliance	ist while while while w	N/A
t 50t	Relays tested as part of the appliance, or	L at 10 10 5	N/A
Nº LET	alternatively acc. to IEC 60730-1, and meeting the additional requirements in IEC 60335-1	which which which which	N/A
survey a	The requirements of Clause 29 apply between live parts of components and accessible parts of the appliance	unite sente unit sent	P
et white	Components can comply with the requirements for clearances and creepage distances for functional insulation in the relevant component standard	a with white white way	P
whitek	30.2 of this standard apply to parts of non-metallic material in components including parts of non metallic material supporting current-carrying connections	white white white white	P. E.
unt wi	Components that have not been previously tested to comply with the IEC standard for the relevant component are tested according to the requirements of 30.2	1. 20 m	P Link
at whitek	Components that have been previously tested to comply with the resistance to fire requirements in the IEC standard for the relevant component need not be retested provided the specified conditions are met	Stat street marter water	P P
NUTEX NY	If these conditions are not satisfied, the component is tested as part of the appliance.	and the state state	NULL P
Tet white	Power electronic converter circuits not required to comply with IEC 62477-1, they are tested as part of the appliance	et minet minet anitet and	N/A
	If components have not been tested and found to comply with relevant IEC standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9	white white white white	P P

Page 34 of 126

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0	Deminent Test	5	Deault Demant	Maril
Clause	Requirement – Test	te an	Result – Remark	Verdic
MILTER N	For components mentioned in 24.1.1 to 24 additional tests specified in the relevant co standard are necessary other than those s 24.1.1 to 24.1.9	omponent	SALLER MALLER MALLER	Ρ
er and	Components not tested and found to com relevant IEC standard and components no or not used in accordance with its marking under the conditions occurring in the appli	ot marked g, tested	the wanter wanter wanter a	ST P
WALTER W	Lampholders and starterholders that have tested and found to comply with the releva standard, tested as a part of the appliance additionally according to the gauging and interchangeability requirements of the relevant standard	ant IEC e and	while while white the	N/A
ret whit	No additional tests specified for nationally standardized plugs such as those detailed 60083 or connectors complying with the st sheets of IEC 60320-1 and IEC 60309	in IEC/TR	Set while while while w	P
24.1.1	Capacitors likely to be permanently subject supply voltage and used for radio interferent suppression or for voltage dividing, comply IEC 60384-14	ence	Approved	P
LIEK WA	If the capacitors have to be tested, they ar according to Annex F	re tested	et inter white	N/A
24.1.2	Transformers in associated switch mode p supplies comply with Annex BB of IEC 61		and the state of	N/A
54	Safety isolating transformers complying w 61558-2-6	ith IEC	white white white sine	N/A
white	If they have to be tested, they are tested ac Annex G	cording to	white white white white	P
24.1.3	Switches complying with IEC 61058-1, the of cycles of operation being at least 10 00		MITE WATE WALL WALL	N/A
ar me	If they have to be tested, they are tested according to Annex H		N/A	
er where	If the switch operates a relay or contactor, the complete switching system is subjected to the test		N/A	
WALTER S	If the switch only operates a motor staring relay complying with IEC 60730-2-10 with the number of cycles of a least 10 000 as specified, the complete switching system need not be tested		N/A	
24.1.4	Automatic controls comply with IEC 60730-1 with the relevant part 2. The number of cycles of operation being at least:			N/A
me	- thermostats:	10 000	the watthe watthe water water	N/A
- 5 th	- temperature limiters:	1 000	. A A A 5	N/A
20.	- self-resetting thermal cut-outs:	300	me me in	N/A

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Page 35 of 126



IEC 60335-1

Clause	Requirement – Test	- m	Result – Remark	Verdict
WILTE	- voltage-maintained non-self-resetting	1 000	White white white	N/A
at .	thermal cut-outs	- 20	the state	Set Set
m. n	- other non-self-resetting thermal cut-outs	30	mere white white a	N/A
	- timers:	3 000	the state	N/A
	- energy regulators:	10 000	in which which which	N/A
at white	The number of cycles for controls operating during clause 11 need not be declared, if the appliance meets the requirements of this standard when they are short-circuited		t would would would	N/A
NITEX ON	Thermal motor protectors are tested in com with their motor under the conditions specifi Annex D.		while white white	N/A
ret would	For water valves containing live parts and the incorporated in external hoses for connection appliance to the water mains, the degree of protection provided by enclosures against he ingress of water declared for subclause 6.5. 60730-2-8 shall be IPX7	on of an armful	set while while whi	N/A
ountinest w	Thermal cut-outs of the capillary type comp the requirements for type 2.K controls in IEC 60730-2-9		SINJER WILLER WALLER	N/A
24.1.5	Appliance couplers complying with IEC 60320-1		Approved	P.S
et white	However, for class II appliances classified h than IPX0, the appliance couplers comply w 60320-2-3		e aret and whit	N/A
WALTER	Interconnection couplers complying with IEC 60320-2-2) +	which marge assured	N/A
24.1.6	Small lamp holders similar to E10 lampholders complying with IEC 60238, the requirements for E10 lampholders being applicable		No lampholders	N/A
24.1.7	If the remote operation of the appliance is via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is IEC 62151		and white white whi	N/A
24.1.8	The relevant standard for thermal links is IE	C 60691	mer mer m	N/A
WALTE V	Thermal links not complying with IEC 60691 considered to be an intentionally weak part purposes of Clause 19		WALTER WALTER WALTER	N/A
24.1.9	Contactors and relays, other than motor starting relays, tested as part of the appliance		street write write wr	N/A
	They are also tested in accordance with Clause 17 of IEC 60730-1, the number of cycles of operations in 24.1.4 selected according to the contactor or relay function in the appliance		et white white whi	N/A
24.2	Appliances not fitted with:	ma	m. m. n.	Р

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Page 36 of 126



Clause	Requirement – Test	Result – Remark	Verdict
		Result Remark	Verdice
AN Y	- switches, automatic controls or power supplies in flexible cords	while while who	Р
sure au	- devices causing the protective device in the fixed wiring to operate in the event of a fault in the appliance	mile while while w	P
17 J.	- thermal cut-outs that can be reset by soldering, unless	in which which which	+ P
m	the solder has a melding point of at least 230 °C	white white where	N/A
24.3	Switches intended for all-pole disconnection of stationary appliances are directly connected to the supply terminals and having a contact separation in all poles, providing full disconnection under overvoltage category III conditions	while while while	N/A
24.4	Plugs and socket-outlets for extra-low voltage circuits and heating elements, not interchangeable with plugs and socket-outlets listed in IEC/TR 60083 or IEC 60906-1 or with connectors and appliance inlets complying with the standard sheets of IEC 60320-1	The world would would	N/A
24.5	Capacitors in auxiliary windings of motors marked with their rated voltage and capacitance and used accordingly	untile while while	N/A
ner white	Voltage across capacitors in series with a motor winding does not exceed 1.1 times rated voltage, when the appliance is supplied at 1.1 times rated voltage under minimum load	and a second water	N/A
24.6	Working voltage of motors connected to the supply mains and having basic insulation that is inadequate for the rated voltage of the appliance, not exceeding 42V		N/A
he say	In addition, the motors are complying with the requirements of Annex I	NUTE WHITE WALL W	N/A
24.7	Detachable hose-sets for connection of appliances to the water mains comply with IEC 61770	JET WALTER WALTE WAL	N/A
an antie	They are supplied with the appliance	t let ster wie	N/A
WALTER	Appliances intended to be permanently connected to the water mains not connected by a detachable hose-set	whet while while	N/A
24.8	Motor running capacitors in appliances for which 30.2.3 is applicable and that are permanently connected in series with a motor winding, not causing a hazard in event of a failure	whet white white wh	N/A
m	One or more of the following conditions are to be me	et: mil mil mi	N/A
+ NALIEY	- the capacitors are of class S2 or S3 according to IEC 60252-1;	- itel strek mirek	N/A

Page 37 of 126



Clause	Requirement – Test	Result – Remark	Verdict
Clause	Requirement – Test	Result – Remark	verdici
and the	- the capacitors are housed within a metallic or ceramic enclosure	WALL WALL WALL	N/A
mr m	- the distance of separation of the outer surface to adjacent non-metallic parts exceeds 50 mm	white white white whe	N/A
ine was	- adjacent non-metallic parts within 50 mm withstand the needle-flame test of Annex E	Liet waiter waite waite w	N/A
er white	- adjacent non-metallic parts within 50 mm classified as at least V-1 according to IEC 60695-11-10	at something and the analysis and	N/A
25	SUPPLY CONNECTION AND EXTERNAL FLEXIBL	E CORDS	Р
25.1	Appliance not intended for permanent connection to connection to the supply:	fixed wiring, means for	Р
172 - 181 2724 - 1812	- supply cord fitted with a plug, the current rating and voltage rating of the plug being not less than the corresponding ratings of its associated appliance;	et ret ret out	N/A
	- an appliance inlet having at least the same degree of protection against moisture as required for the appliance, or	t white white white white	P
đ	- pins for insertion into socket-outlets	the state of the	N/A
25.2	Appliance not provided with more than one means of connection to the supply mains	white white white white	w ^р Р
	Stationary appliance for multiple supply may be provided with more than one means of connection, provided electric strength test of 1250 V for 1 min between each means of connection causes no breakdown	antite suntite suntite sun	N/A
25.3	Appliance intended to be permanently connected to fixed wiring provided with one of the following means for connection to the supply mains:		N/A
Whitek W	- a set of terminals allowing the connection of a flexible cord	NTER INTER INTER INNEED	N/A
10 5	- a fitted supply cord	and the state	
er when	- a set of supply leads accommodated in a suitable compartment	TEL WALT WALT WALT AN	N/A
	- a set of terminals for the connection of cables of fixed wiring, cross-sectional areas specified in 26.6, and the appliance allows the connection of the supply conductors after the appliance has been fixed to its support	WALTER WALTER WALTER WALTER	N/A
NUTE WALT	- a set of terminals and cable entries, conduit entries, knock-outs or glands, allowing connection of appropriate types of cable or conduit, and the appliance allows the connection of the supply conductors after the appliance has been fixed to its support	aret warret warret warret	N/A

Page 38 of 126



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87	IEC	60335-1

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Clause	Requirement – Test Re	esult – Remark	Verdict
antifet av	For a fixed appliance constructed so that parts can be removed to facilitate easy installation, this requirement is met if it is possible to connect the fixed wiring without difficulty after a part of the appliance has been fixed to its support	NALIST NALIST NALIST NALIST	N/A
25.4	Cable and conduit entries, rated current of appliance not exceeding 16 A, dimension according to Table 10 (mm):	white white white we	N/A
Whitek	Introduction of conduit or cable does not reduce clearances or creepage distances below values specified in Clause 29	white white white	N/A
25.5	Method for assemble supply cord with the appliance:	the second second	N/A
we w	- type X attachment	The Multer Wall Wall .	N/A
1 3	- type Y attachment	A de de	ØN/A
-m	- type Z attachment, if allowed in part 2	white white white wh	N/A
* white	Type X attachment, other than those with a specially prepared cord, not used for flat twin tinsel cords	wiret whilet whilet while	N/A
	For multi-phase appliances supplied with a supply cord and that are intended to be permanently connected to fixed wiring, the supply cord is assembled to the appliance by type Y attachment	LIEX WALLEY WALLEY WALLEY	N/A
25.6	Plugs fitted with only one flexible cord	a contrart on	N/A
25.7	Supply cords, other than for class III appliances, being	one of the following types:	N/A
in.	- rubber sheathed (at least 60245 IEC 53)	water water war war	N/A
NUTER	- polychloroprene sheathed (at least 60245 IEC 57)	let set set with	N/A
Jet .	- polyvinyl chloride sheathed. Not used if they are likely temperature rise exceeding 75 K during the test of clau		N/A
NET O	light polyvinyl chloride sheathed cord (60227 IEC 52), for appliances not exceeding 3 kg	in which which which is	N/A
the sheet	ordinary polyvinyl chloride sheathed cord (60227 IEC 53), for other appliances	water water water	N/A
which	- heat resistant polyvinyl chloride sheathed. Not used for specially prepared cords	type X attachment other than	N/A
WALTE Y	 heat-resistant light polyvinyl chloride sheathed cord (60227 IEC 56), for appliances not exceeding 3 kg 	NUTER WALTER WALTER	N/A
nt Jul	heat-resistant polyvinyl chloride sheathed cord (60227 IEC 57), for other appliances	A ANTIC MALL MALL	N/A
in which	- halogen-free, low smoke, thermoplastic insulated and s	sheathed	N/A
whitek	Light duty halogen-free low smoke flexible cable (62821 IEC 101) for circular cable and (62821 IEC 101f) for flat cable	white white white white	N/A

Page 39 of 126



Clause	Requirement – Test	Result – Remark	Verdict
WILLIER AN	Ordinary duty halogen-free low smoke flexible cable (62821 IEC 102) for circular cable and (62821 IEC 102f) for flat cable	which which which	N/A
Set	Supply cords for class III appliances adequately insulated	at the set of	N/A
et de	Test with 500 V for 2 min for supply cords of class III appliances that contain live parts	a state	N/A
25.8	Nominal cross-sectional area of supply cords not less than table 11; rated current (A); cross-sectional area (mm ²) :	white white white	N/A
25.9	Supply cord not in contact with sharp points or edges	me me m	N/A
25.10	Supply cord of class I appliances have a green/yellow core for earthing	NUTER WALTER WAITE WA	N/A
TER WALT	In multi-phase appliances, the colour of the neutral conductor of the supply cord is blue.	set waited waited wait	N/A
4	Where additional neutral conductors are provided in	the supply cord:	N/A
N. Lit	 other colours may be used for these additional neutral conductors; 	with with with	N/A
	 – all of the neutral conductors and line conductors are identified by marking using the alpha numeric notation specified in IEC 60445 	white white white w	N/A
	- the supply cord is fitted to the appliance		N/A
25.11	Conductors of supply cords not consolidated by lead-tin soldering where they are subject to contact pressure, unless	watter watter watte	N/A
when	the contact pressure is provided by spring terminals	mite white white	√ [™] №/А
25.12	Insulation of the supply cord not damaged when moulding the cord to part of the enclosure	with might antick and	N/A
25.13	Inlet opening so shaped as to prevent damage to the supply cord	at at and and	N/A
	If it is not evident that the supply cord can be introduced without risk of damage, a non-detachable lining or bushing complying with 29.3 for supplementary insulation provided	MALTER WALTER WALTER	N/A
WALTE	If unsheathed supply cord, a similar additional bushing or lining is required, unless the appliance is	MALTER WALTER WALTER	N/A
NUTER IN	class 0, or	ret ret ster a	N/A
	a class III appliance not containing live parts	in me me m	N/A
25.14	Supply cords moved while in operation adequately protected against excessive flexing	et while while while	N/A
NUE	Flexing test, as described:	t at set set	N/A
20	- applied force (N):	mer mer m	N/A

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Page 40 of 126



IEC 60335-1

Clause	Requirement – Test	Result – Remark	Verdict
NILLE STREET	number of flovings	and the shift	N/A
	- number of flexings:	the second second	N/A
n ¹²⁻¹¹	The test does not result in:	NETER INTERNETER W	N/A
de la	- short-circuit between the conductors, such that the current exceeds a value of twice the rated current		N/A
et el	- breakage of more than 10% of the strands of any conductor	ist which which which	N/A
with	- separation of the conductor from its terminal	et unifer unife unif	N/A
Set	- loosening of any cord guard	the state	N/A
-m-	- damage to the cord or the cord guard	white white white y	N/A
INLIEK W	- broken strands piercing the insulation and becoming accessible	ALTER MUTER MAILTER WA	N/A
25.15	For appliances with supply cord and appliances to be permanently connected to fixed wiring by a flexible cord, conductors of the supply cord relieved from strain, twisting and abrasion by use of cord anchorage	ret whitet whitet white	N/A
	The cord cannot be pushed into the appliance to such an extent that the cord or internal parts of the appliance can be damaged	white white white w	N/A
Set S	Pull and torque test of supply cord:	the second second	N/A
17 - 14 17 - 14	- fixed appliances: pull 100 N; torque (not on automatic cord reel) (Nm):	a por an	N/A
whitek	- other appliances: values shown in Table 12: mass (kg); pull (N); torque (not on automatic cord reel) (Nm)	white white white	N/A
. let	Cord not damaged and max. 2 mm displacement of the cord	when when when it	N/A
25.16	Cord anchorages for type X attachments constructed and located so that:		N/A
Set al	- replacement of the cord is easily possible	A 14 14 5	N/A
er 5.08	- it is clear how the relief from strain and the prevention of twisting are obtained	yunt with with	N/A
m	- they are suitable for different types of supply cord;	MALT WALL WAL	N/A
WALTER	- cord cannot touch the clamping screws of cord anchorage if these screws are accessible, unless	wiret wiret whitet	N/A
NUTER M	they are separated from accessible metal parts by supplementary insulation	thet thet milet and	N/A
Set and	- the cord is not clamped by a metal screw which bears directly on the cord	at the the the	N/A
t set	- at least one part of the cord anchorage securely fixed to the appliance, unless	which which we want the	N/A
211-	it is part of a specially prepared cord	white white white	N/A

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Page 41 of 126



Clause	Requirement – Test	Result – Remark	Verdict
White .	- screws which have to be operated when replacing	while while while w	N/A
at a	the cord do not fix any other component, if applicable	1 1 1 1	at the
an an	the appliance becomes inoperative or incomplete or the parts cannot be removed without a tool	mer and and an	N/A
the way	- if labyrinths can be bypassed the test of 25.15 is nevertheless withstood	TEX WALTER MALTER MALTE	N/A
	- for Class 0, 0I and I appliances: they are of insulating material or are provided with an insulating lining, unless	at whitet whitet whitet	N/A
with	failure of the insulation of the cord does not make accessible metal parts live	White white white wh	N/A
INLIE ON	- for Class II appliances: they are of insulating material, or	MITER WALTER WALTER WALT	N/A
ret whit	if of metal, they are insulated from accessible metal parts by supplementary insulation	set unifet whitet whitet	N/A
* wonister	After the test of 25.15, under the conditions specified, the conductors have not moved by more than 1 mm in the terminals	white white white w	N/A
25.17	Adequate cord anchorages for type Y and Z attachment, test with the cord supplied with the appliance	united writed writed write	N/A
25.18	Cord anchorages only accessible with the aid of a tool, or	and write write	N/A
white	so constructed that the cord can only be fitted with the aid of a tool	VINTE WALKE WALTE	N/A
25.19	Type X attachment, glands not used as cord anchorage in portable appliances	whitet whites whitet an	N/A
unitek ou	Tying the cord into a knot or tying the cord with string not used	whet maret white white	N/A
25.20	The conductors of the supply cord for type Y and Z attachment insulated from accessible metal parts	tet stet with with	N/A
25.21	Space for supply cord for type X attachment or for co constructed:	onnection of fixed wiring	N/A
MALTER V	- to permit checking of conductors with respect to correct positioning and connection before fitting any cover	some some some	N/A
	- so there is no risk of damage to the conductors or their insulation when fitting the cover	ret ret wret mar	N/A
Set WALTS	- for portable appliances, so that the uninsulated end of a conductor, if it becomes free from the terminal, prevented from contact with accessible metal parts	et might unight unight	N/A
+ whitek	2 N test to the conductor for portable appliances; no contact with accessible metal parts	- stat what what	N/A
25.22	Appliance inlet:	me n n n	Р

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Page 42 of 126



Clause	Requirement – Test	Result – Remark	Verdict
NI LIV	- live parts not accessible during insertion or removal	Land might white	N/A
15	Requirement not applicable to appliance inlets	M m st	P
in in	complying with IEC 60320-1	INTER MUTE MUTE A	WILL WULL
Alt is	- connector can be inserted without difficulty	+ + A - A	,d⁺ _d ^d P _
e an	- the appliance is not supported by the connector	the white white white	P
ex white	- is not for cold conditions if temp. rise of external metal parts exceeds 75 K, unless	at white white white	N/A
Set	the supply cord is not likely to touch such metal parts	to the state	N/A
25.23	Interconnection cords comply with the requirements for the supply cord, except that:	Output cord	P
1112 - 111 1124 - 111	- the cross-sectional area of the conductors is determined on the basis of the maximum current during clause 11	ALTER WAITE WAIT W	P
24	- the thickness of the insulation may be reduced	in me me me	Р
whitek .	- for class I or class II appliance with class III construction, the cross sectional areas of the conductors need not comply with 25.8 if specified conditions are met	white white white	P.
	If necessary, electric strength test of 16.3	when any and a	N/A
25.24	Interconnection cords not detachable without the aid of a tool if compliance with the standard is impaired when they are disconnected	et ante w	N/A
25.25	Dimensions of pins that are inserted into socket-outlets compatible with the dimensions of the relevant socket-outlet.	white white white	N/A
Whitek W	Dimensions of pins and engagement face in accordance with the dimensions of the relevant plug in IEC/TR 60083	which which which and	N/A
26	TERMINALS FOR EXTERNAL CONDUCTORS	in the second	N/A
26.1	Appliances provided with terminals or equally effective devices for connection of external conductors	A CALL AND AND AND	N/A
. Tek	Terminals only accessible after removal of a non-detachable cover, except	with with with	N/A
m a	for class III appliances that do not contain live parts	WALTE WALL WALL	N/A
nutet win	Earthing terminals may be accessible if a tool is required to make the connections and means are provided to clamp the wire independently from its connection	street and the sector of	N/A
26.2	Appliances with type X attachment and appliances for connection to fixed wiring provided with terminals in which connections are made by means of screws, nuts or similar devices, unless		N/A

Page 43 of 126



Clause	Requirement – Test	Result – Remark	Verdict
NUTTE	Shi was a set of the set		NUL MULT
	the connections are soldered	me m m v	N/A
WALTER W	Screws and nuts serve only to clamp supply conductors, except	MUTER MALTER WALTER WA	N/A
aret was	internal conductors, if so arranged that they are unlikely to be displaced when fitting the supply conductors	Tet white white white	N/A
	If soldered connections used, the conductor so positioned or fixed that reliance is not placed on soldering alone, unless	A SWITCH SWITCH SWITCH	N/A
whitek w	barriers provided so that neither clearances nor creepage distances between live parts and other metal parts reduced below the values for supplementary insulation if the conductor becomes free at the soldered joint	ALTER WALTER WALTER WAL	N/A
26.3	Terminals for type X attachment and for connection to fixed wiring so constructed that the conductor is clamped between metal surfaces with sufficient contact pressure and without damaging the conductor	whitek whitek whitek	N/A
Siller .	Terminals fixed so that when the clamping means is	tightened or loosened:	N/A
	- the terminal does not become loosen	Here me m in	N/A
No. M	- internal wiring is not subjected to stress	at a star with	N/A
et all	- neither clearances nor creepage distances are reduced below the values in Clause 29		N/A
whitek	Compliance checked by inspection and by the test of subclause 9.6 of IEC 60999-1, the torque applied being equal to two-thirds of the torque specified (Nm)	whitek whitek whitek w	N/A
INTER N	No deep or sharp indentations of the conductors	let set set of	N/A
26.4	Terminals for type X attachment, except those having a specially prepared cord and those for the connection of cables of fixed wiring, no special preparation of conductors such as by soldering, use of cable lugs, eyelets or similar, and	Tet would would would	N/A
WALTER	so constructed or placed that conductors prevented from slipping out when clamping screws or nuts are tightened		N/A
26.5	Terminals for type X attachment so located or shielded that if a wire of a stranded conductor escapes, no risk of accidental connection to other parts that result in a hazard	LIEK WALLEY WALLEY WALL	N/A
me	Stranded conductor test, 8 mm insulation removed	et intre antre antre	N/A
+ miret	No contact between live parts and accessible metal parts and,	- let set set	N/A

Page 44 of 126



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Clause	Requirement – Test	Result – Remark	Verdict
Clause	Requirement – rest	Result – Remark	Verdici
WILL N	for class II constructions, between live parts and metal parts separated from accessible metal parts by supplementary insulation only	while while while	N/A
26.6	Terminals for type X attachment and for connection of cables of fixed wiring suitable for connection of conductors with cross-sectional area according to Table 13; rated current (A); nominal cross-sectional area (mm ²)	and white white whi	N/A
	If a specially prepared cord is used, terminals need only be suitable for that cord	wat wat set	N/A
26.7	Terminals for type X attachment, except in class III appliances not containing live parts, accessible after removal of a cover or part of the enclosure	and the set alles	N/A
26.8	Terminals for the connection to fixed wiring, including the earthing terminal, located close to each other	he with an in	N/A
26.9	Terminals of the pillar type constructed and located as specified	t set soft and	N/A
26.10	Terminals with screw clamping and screwless terminals not used for flat twin tinsel cords, unless	it set set	N/A
Set .	conductors ends fitted with a device suitable for screw terminals	unt and an i	N/A
in the	Pull test of 5 N to the connection	and and all	N/A
26.11	For type Y and Z attachment: soldered, welded, crimped and similar connections may be used	en antite antitet antit	N/A
WALTER	For Class II appliances: the conductor so positioned or fixed that reliance is not placed on soldering, welding or crimping alone	surface surface surface	N/A
net mi	If soldering, welding or crimping alone used, barriers provided so that clearances and creepage distances between live parts and other metal parts are not reduced below the values for supplementary insulation if the conductor becomes free		N/A
27	PROVISION FOR EARTHING	s at at a	N/A
27.1	Accessible metal parts of Class 0I and I appliances permanently and reliably connected to an earthing terminal or earthing contact of the appliance inlet	MALL MALL MALL	N/A
alitet an	Earthing terminals and earthing contacts not connected to the neutral terminal	all an inter	N/A
the st	Class 0, II and III appliances have no provision for earthing	Class II	Р
t set	Class II appliances and class III appliances can incorporate an earth for functional purposes	white white white	N/A
mer	Safety extra-low voltage circuits not earthed, unless	multi white white	N/A
	protective extra-low voltage circuits		N/Å

Page 45 of 126



Clause	Requirement – Test	Result – Remark	Verdict
27.2	Clamping means adequately secured against	and interview	N/A
	accidental loosening	sh so at	
white we want	Terminals used for the connection of external equipotential bonding conductors allow connection of conductors of 2.5 to 6 mm ² , and	NUTE AND AND AND AN	N/A
et 50	do not provide earthing continuity between ifferent parts of the appliance, and	a set set set	N/A
where	conductors cannot be loosened without the aid of tool	white white white	N/A
white .	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes	white white white	N/A
27.3	For a detachable part having an earth connection and being plugged into another part of the appliance, the earth connection is made before and separated after current-carrying connections when removing the part	ALL WALLEY WALLEY WALL	N/A
whitek .	For appliances with supply cord, current-carrying conductors become taut before earthing conductor, if the cord slips out of the cord anchorage	white white white	N/A
NUTER AND	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes	and serve and a	N/A
27.4	No risk of corrosion resulting from contact between parts of the earthing terminal and the copper of the earthing conductor or other metal	and the works work to	N/A
Whiter	Parts providing earthing continuity, other than parts of a metal frame or enclosure, have adequate resistance to corrosion	water water water.	N/A
unit w	If of steel, these parts provided with an electroplated coating with a thickness at least 5 µm	Milet Milet Mile M	N/A
ret whi x	Adequate protection against rusting of parts of coated or uncoated steel, only intended to provide or transmit contact pressure	Tet white white whit	N/A
when	In the body of the earthing terminal is a part of a frame or enclosure of aluminium or aluminium alloys, precautions taken to avoid risk of corrosion	and the ret	N/A
NUTEX MI	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes	which which which we	N/A
27.5	Low resistance of connection between earthing terminal and earthed metal parts	of the first of	N/A
whilet	This requirement does not apply to connections providing earthing continuity in the protective extra-low voltage circuit, provided that clearances of basic insulation are based on the rated voltage of the appliance		N/A

Page 46 of 126



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Clause	Requirement – Test	Result – Remark	Verdict
in the second	white white white white white	the set state state	No.
Whitek M	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes	water water water water	N/A
Set of	Resistance not exceeding 0.1 Ω at the specified low-resistance test ($\Omega)$	at not not that	N/A
27.6	The printed conductors of printed circuit boards not used to provide earthing continuity in hand held appliances.	the south supply souther south	N/A
whitek.	They may be used to provide earthing continuity in other appliances if at least two tracks are used with independent soldering points and the appliance complies with 27.5 for each circuit	whitet whitet whitet white	N/A
10 ¹² - 101 5124 - 225	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes	ALTER WALTE WALT WALT	N/A
28	SCREWS AND CONNECTIONS	to me we we m	Р
28.1	Fixings, electrical connections and connections providing earthing continuity withstand mechanical stresses	White white white whi	Ρ
white s	Screws not of soft metal liable to creep, such as zinc or aluminium	uniter antifer waite and	"́Р
NUTER MAY	Diameter of screws of insulating material min. 3 mm	set and white white	N/A
ist which	Screws of insulating material not used for any electrical connection or connections providing earthing continuity	and the survey survey and	N/A
Whitek	Screws used for electrical connections or connections providing earthing continuity screw into metal	white white white write	N/A
WALTER W	Screws not of insulating material if their replacement by a metal screw can impair supplementary or reinforced insulation	milet white white white	N/A
ex white	For type X attachment, screws to be removed for replacement of supply cord or for user maintenance, not of insulating material if their replacement by a metal screw impairs basic insulation	Feet white white white white	N/A
	For screws and nuts; torque-test as specified in Table 14:	inter miner miner miner	N/A
28.2	Electrical connections and connections providing earthing continuity constructed so that contact pressure is not transmitted through non-ceramic insulating material liable to shrink or distort, unless	where white white	N/A
t unit	there is resiliency in the metallic parts to compensate for shrinkage or distortion of the insulating material	et watte watte watte	N/A
- m	This requirement does not apply to electrical connect which:	tions in circuits of appliances for	N/A

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Page 47 of 126



Clause	Requirement – Test Result – Remark	Verdict
ALL LE	and and and and and and and and	the shift white
jet.	30.2.2 is applicable and that carry a current not exceeding 0.5 A	N/A
nr n	30.2.3 is applicable and that carry a current not exceeding 0.2 A	N/A
28.3	Space-threaded (sheet metal) screws only used for electrical connections if they clamp the parts together	N/A
whitek.	Thread-cutting (self-tapping) screws and thread rolling screws only used for electrical connections if they generate a full form standard machine screw thread	N/A
MUTER W	Thread-cutting (self-tapping) screws not used if they are likely to be operated by the user or installer	N/A
Tex whit	Thread-cutting, thread rolling and space threaded screws may be used in connections providing earthing continuity provided it is not necessary to dist connection:	urb the
A NULLEY	- in normal use,	N/A
	- during user maintenance,	N/A
white a	- when replacing a supply cord having a type X attachment, or	N/A
LIER IN	- during installation	N/A
er .54	At least two screws being used for each connection providing earthing continuity, unless	N/A
- Let	the screw forms a thread having a length of at least half the diameter of the screw	N/A
28.4	Screws and nuts that make mechanical connection secured against loosening if they also make electrical connections or connections providing earthing continuity	N/A
itek whi	This requirement does not apply to screws in the earthing circuit if at least two screws are used, or	N/A
* 1	if an alternative earthing circuit is provided	N/A
-white 	Rivets for electrical connections or connections providing earthing continuity secured against loosening if the connections are subjected to torsion	N/A
29	CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION	Р
NUTER WA	Clearances, creepage distances and solid insulation withstand electrical stress	unite mite
Set mer	For coatings used on printed circuits boards to protect the microenvironment (type 1) or to provide basic insulation (type 2), Annex J applies	N/A
WALTE	The microenvironment is pollution degree 1 under type 1 protection	N/A

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Page 48 of 126



Clause	Requirement – Test	Result – Remark	Verdict
WALTER W	For type 2 protection, the spacing between the conductors before the protection is applied is not less than the values specified in Table 1 of IEC 60664-3	while while while w	N/A
with whi	These values apply to functional, basic, supplementary and reinforced insulation:	List milet spiret while	N/A
29.1	Clearances not less than the values specified in Table 16, taking into account the rated impulse voltage for the overvoltage categories of Table 15, unless	(see appended table)	UNI CA PUT
Mr .	for basic insulation and functional insulation they comply with the impulse voltage test of Clause 14	which which when we	N/A
Inter white	However, if the distances are affected by wear, distortion, movement of the parts or during assembly, the clearances for rated impulse voltages of 1 500 V and above are increased by 0.5 mm and the impulse voltage test is not applicable	PLICE WILL'E WALLEY WALLEY	P
whitek w	For appliances intended for use at altitudes exceeding 2 000 m, the clearances in Table 16 is increased according to the relevant multiplier values in Table A.2 of IEC 60664-1	White white white	N/A
st	Impulse voltage test is not applicable:	Mr. 3h. A.	N/A
ner un	- when the microenvironment is pollution degree 3, or	at sunth sunth	N/A
Er white	- for basic insulation of class 0 and class 0 appliances, or	watter watter watter	N/A
WALTER	- to appliances intended for use at altitudes exceeding 2 000 m	MITER MITER MAILER W	N/A
Jet .	Appliances are in overvoltage category II	A A At .	⊘rP
n n	A force of 2 N is applied to bare conductors, other than heating elements	Mit whi wh wh	Р
in me	A force of 30 N is applied to accessible surfaces	THE WALTER WALT WALT	3 P4
29.1.1	Clearances of basic insulation withstand the overvoltages, taking into account the rated impulse voltage	t wattet wattet wattet	and of Pri
WALTER	The values of Table 16 or the impulse voltage test of Clause 14 are applicable:	(see appended table)	P
nifet w	Clearance at the terminals of tubular sheathed heating elements may be reduced to 1.0 mm if the microenvironment is pollution degree 1	stret watter watter sait	N/A
LE WALT	Lacquered conductors of windings considered to be bare conductors	et waitet waitet waite	ST Pro
29.1.2	Clearances of supplementary insulation not less than those specified for basic insulation in Table 16	(see appended table)	IN NP

Page 49 of 126



Clause	Requirement – Test	Result – Remark	Verdic
29.1.3	Clearances of reinforced insulation not less than those specified for basic insulation in Table 16, using the next higher step for rated impulse voltage	(see appended table)	P
er weite	For double insulation, with no intermediate conductive part between basic and supplementary insulation, clearances are measured between live parts and the accessible surface, and the insulation system is treated as reinforced insulation	Tet whitet whitet whitet	EX WAL
29.1.4	Clearances for functional insulation are the largest va	alues determined from:	Р
m.	- Table 16 based on the rated impulse voltage:	(see appended table)	P
INLIEK WI	- Table F.7a in IEC 60664-1, frequency not exceeding 30 kHz;	NJEK WITEK WAITEK WAITEK	N/A
JEK WALT	- Clause 4 of IEC 60664-4, frequency exceeding 30 kHz	set what while while we	LICK P
*	If values of Table 16 are largest, the impulse voltage test of Clause 14 may be applied instead, unless	t set set with and	P
	the microenvironment is pollution degree 3, or	when when we we	N/A
white v	the distances can be affected by wear, distortion, movement of the parts or during assembly	united white white white	N/A
NITER WAY	However, clearances are not specified if the appliance complies with Clause 19 with the functional insulation short-circuited	The components and circuits after current fuse	Ρ
white	Lacquered conductors of windings considered to be bare conductors	white white white wh	Р
white	However, clearances at crossover points are not measured	white white white white	P
WALLEK W	Clearance between surfaces of PTC heating elements may be reduced to 1mm	NUTER MALTER MALTER	N/A
29.1.5	Appliances having higher working voltages than rate insulation are the largest values determined from:	d voltage, clearances for basic	LTEKP
* .0	- Table 16 based on the rated impulse voltage:	AN A A	P
white we	- Table F.7a in IEC 60664-1, frequency not exceeding 30 kHz;	MALTER MALTE MALL MAR	N/A
watte	- Clause 4 of IEC 60664-4, frequency exceeding 30 kHz	WAITER WAITER WAITER WAITE	, n° P
nister aut	If clearances for basic insulation are selected from Table F.7a of IEC 60664-1 or Clause 4 of IEC 60664-4, the clearances of supplementary insulation are not less than those specified for basic insulation	stret whitet whitet whitet	INT P

Page 50 of 126



Clause	Requirement – Test	Result – Remark	Verdict
sontret w	If clearances for basic insulation are selected from Table F.7a of IEC 60664-1, the clearances of reinforced insulation dimensioned as specified in Table F.7a are to withstand 160 % of the withstand voltage required for basic insulation	whilet whilet whilet wh	N/A
et white	If clearances for basic insulation are selected from Clause 4 of IEC 60664-4, the clearances of reinforced insulation are twice the value required for basic insulation	A MALTER MALTER MALTER	V PV
WALTER W	If the secondary winding of a step-down transformer is earthed, or if there is an earthed screen between the primary and secondary windings, clearances of basic insulation on the secondary side not less than those specified in Table 16, but using the next lower step for rated impulse voltage	WALTER WALTER WALTER WAL	N/A
Ter white	Circuits supplied with a voltage lower than rated voltage, clearances of functional insulation are based on the working voltage used as the rated voltage in Table 15	Set while while while	N/A
29.2	Creepage distances not less than those appropriate for the working voltage, taking into account the material group and the pollution degree	(see appended table)	Ter Miller
dt .	Pollution degree 2 applies, unless		P
at all	- precautions taken to protect the insulation; pollution degree 1;	a function sunt	N/A
whit	- insulation subjected to conductive pollution; pollution degree 3	WALTE WALTER WALTE	N/A
white	A force of 2 N is applied to bare conductors, other than heating elements	watter watter watter w	N ^P
NITET	A force of 30 N is applied to accessible surfaces	10 10 50 0	P
inet whi	In a double insulation system, the working voltage for both the basic and supplementary insulation is taken as the working voltage across the complete double insulation system	and water water water	P
29.2.1	Creepage distances of basic insulation not less than specified in Table 17	(see appended table)	WE PUT
Multer W	However, if the working voltage is periodic and has a frequency exceeding 30 kHz, the creepage distances are also determined from Table 2 of IEC 60664-4, these values being used if exceeding the values in Table 17	sentifiet sonifiet sonifiet son	N/A
Net would	Except for pollution degree 1, corresponding creepage distance not less than the minimum specified for the clearance in Table 16, if the clearance has been checked according to the test of Clause 14	et white white white	N/A

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Page 51 of 126



Clause	Requirement – Test	Result – Remark	Verdict
29.2.2	Creepage distances of supplementary insulation at least those specified for basic insulation in Table 17, or	(see appended table)	Р
<u></u>	Table 2 of IEC 60664-4, as applicable	nor me me in	N/A
29.2.3	Creepage distances of reinforced insulation at least double those specified for basic insulation in Table 17, or	(see appended table)	y ^{DD} Pol
- nor	Table 2 of IEC 60664-4, as applicable	while while while	N/A
29.2.4	Creepage distances of functional insulation not less than specified in Table 18	(see appended table)	NUT NO PER
neitek wi	However, if the working voltage is periodic and has a frequency exceeding 30 kHz, the creepage distances are also determined from Table 2 of IEC 60664-4, these values being used if exceeding the values in Table 18	NUTER WALTER WALTER WALTER	N/A
t wintret	Creepage distances may be reduced if the appliance complies with Clause 19 with the functional insulation short-circuited	t white white white	P P
29.3	Supplementary and reinforced insulation have adequate thickness, or a sufficient number of layers, to withstand the electrical stresses	united writed writed wr	Р
and and	Compliance checked:	at and and	P.N
1. 1	- by measurement, in accordance with 29.3.1, or		Р
whit	- by an electric strength test in accordance with 29.3.2, or	WALTER WALTER MALL	P
WALTER W	- for insulation, other than single layer internal wiring insulation, by an assessment of the thermal quality of the material combined with an electric strength test, in accordance with 29.3.3, and	white white white w	N/A
aret whit	for accessible parts of reinforced insulation consisting of a single layer, by measurement in accordance with 29.3.4, or	Tet white waited waite	N/A
Montek .	- by an assessment of the thermal quality of the material according to 29.3.3 combined with an electric strength test in accordance with 23.5, for each single layer internal wiring insulation touching each other, or	* wontret wontret wontret	N/A
NUTEX WA	- as specified in Subclause 6.3 of IEC 60664-4 for insulation that is subjected to any periodic voltage having a frequency exceeding 30 kHz	whet wanted watter watt	N/A
29.3.1	Supplementary insulation have a thickness of at least 1 mm	et minet aniset aniset	P P
	Reinforced insulation have a thickness of at least 2 mm	- to the set	P

Page 52 of 126



Clause	Requirement – Test	Result – Remark	Verdic
NILLE STREET	and and an and an	t the set of the	ILLE MULT
29.3.2	Each layer of material withstand the electric strength test of 16.3 for supplementary insulation	white white white w	P
in m	Supplementary insulation consist of at least 2 layers	intife month month was	P
de s	Reinforced insulation consist of at least 3 layers	1 1 1 1 1	⊱^/Р
29.3.3	The insulation is subjected to the dry heat test Bb of IEC 60068-2-2, followed by	at whit whit whit	N/A
me	the electric strength test of 16.3	antifer white white	N/A
WALTER	If the temperature rise during the tests of Clause 19 does not exceed the value specified in Table 3, the test of IEC 60068-2-2 is not carried out	whitek whitek whitek w	P
29.3.4	Thickness of accessible parts of reinforced insulation consisting of a single layer not less than specified in Table 19	PLIER WALLER WALLER WALL	N/A
30 🐠	RESISTANCE TO HEAT AND FIRE	ret intre- intre main	_0 P. ⁰
30.1 🦽	External parts of non-metallic material,	i s s st	P .
m	parts supporting live parts, and	white white white	Р
WALTER V	thermoplastic material providing supplementary or reinforced insulation,	wiret miret whitek wh	LIEK WILP'S
dr.	sufficiently resistant to heat		, P
in m	Ball-pressure test according to IEC 60695-10-2	and white	P
ret woure	External parts tested at 40 °C plus the maximum temperature rise determined during the test of Clause 11, or at 75 °C, whichever is the higher; temperature (°C)	(see appended table)	
MALIEK W	Parts supporting live parts tested at 40 °C plus the maximum temperature rise determined during the test of Clause 11, or at 125 °C, whichever is the higher; temperature (°C):	(see appended table)	P
er warrer	Parts of thermoplastic material providing supplementary or reinforced insulation tested at 25 °C plus the maximum temperature rise determined during Clause 19, if higher; temperature (°C)	And white white white	N/A
30.2	Parts of non-metallic material resistant to ignition and spread of fire	WALTER WALTER WALTER W	UTE UN P
Set .	This requirement does not apply to:	a de let s	¢YP
TEK MALT	parts having a mass not exceeding 0.5 g, provided the cumulative effect is unlikely to propagate flames that originate inside the appliance by propagating flames from one part to another, or	et white white white	P
white	decorative trims, knobs and other parts unlikely to be ignited or to propagate flames that originate inside the appliance	whitet whitet whitet	N/A

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Page 53 of 126



Clause	Requirement – Test	Result – Remark	Verdict
NII COM	Compliance checked by the test of 30.2.1, and in addition:	white white white w	P
mr n	- for attended appliances, 30.2.2 applies	million while while white	N/A
1 3	- for unattended appliances, 30.2.3 applies	a at at at	Р
- m	For appliances for remote operation, 30.2.3 applies	the write write write	N/A
et white	For base material of printed circuit boards, 30.2.4 applies	at white white white w	P.S
30.2.1	Parts of non-metallic material subjected to the glow-wire test of IEC 60695-2-11 at 550 °C	(see appended table)	SE PER
NUTER M	However, test not carried out if the material is classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least 550 °C, or	NUTER ANTIFE ANTIFE ANTIFE	N/A
ret whit	the material is classified at least HB40 according to IEC 60695-11-10	set must white white	N/A
whitek	Parts for which the glow-wire test cannot be carried out need to meet the requirements in ISO 9772 for material classified HBF	whitet whitet whitet all	N/A
30.2.2	Appliances operated while attended, parts of non-metallic material supporting current-carrying connections, and	whitek whitek whitek white	N/A
in m	parts of non-metallic material within a distance of 3mm of such connections,	and white white	N/A
er white	subjected to the glow-wire test of IEC 60695-2-11 with appropriate severity level:	AND A MALINE MALINE MALINE A	N/A
WALTER	- 750 °C, for connections carrying a current exceeding 0.5 A during normal operation	white white white an	N/A
. fet	- 650 °C, for other connections	* # # 5	N/A
n su At A	Glow-wire applied to an interposed shielding material, if relevant	NUT WALL WALL WITH	N/A
1	The glow-wire test is not carried out on parts of mate glow-wire flammability index according to IEC 60695		N/A
winter	- 750 °C, for connections carrying a current exceeding 0.5 A during normal operation	MALIER WALLER WALLE W	N/A
UNLITE .	- 650 °C, for other connections	ster ster where we	N/A
d.	The glow-wire test is also not carried out on small pa	arts. These parts are to:	N/A
un un	- comprise material having a glow-wire flammability index of at least 750 °C, or 650 °C as appropriate, or	street white white white	N/A
En NALTY	- comply with the needle-flame test of Annex E, or	et the the milet	N/A
	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10	with the state	N/A
- 24	Glow-wire test not applicable to conditions as	when we we we	N/A

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Page 54 of 126



Clause	Requirement – Test	Result – Remark	Verdict
in the second	mill whit whit white we	the set state state	- and -
30.2.3	Appliances operated while unattended, tested as specified in 30.2.3.1 and 30.2.3.2	white white white white	Р
	Test not applicable to conditions as specified	mile while while while	N/A
30.2.3.1	Parts of non-metallic material supporting connections carrying a current exceeding 0.2 A during normal operation, and	Liet wonthet wonthet wonthet a	LT ^{OP} N
MALTE	parts of non-metallic material, other than small parts, within a distance of 3 mm,	at white white white whi	, P. 5
WALTER	subjected to the glow-wire test of IEC 60695-2-11 with a test severity of 850 °C	(see appended table)	P
millet wh	Glow-wire applied to an interposed shielding material, if relevant	The suffet multiple sources	N/A
itet somit	The glow-wire test is not carried out on parts of material classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least 850 °C	Set whilet whilet whilet w	N/A
30.2.3.2	Parts of non-metallic material supporting connections, and	WINTER WRITE WINTER WAL	P
white w	parts of non-metallic material within a distance of 3 mm,	White white white white	, P
NUTER WAL	subjected to the glow-wire test of IEC 60695-2-11 with appropriate severity level:	(see appended table)	, с ^{ке} Р
Et white	- 750 °C, for connections carrying a current exceeding 0.2 A during normal operation,	a sint wint white was	P
- 15	- 650 °C, for other connections		N/A
sures .	Glow-wire applied to an interposed shielding material, if relevant	white white white whe	N/A
unite un	However, the glow-wire test of 750 °C or 650 °C as a parts of material fulfilling both or either of the followir		N/A
LIER WALT	- a glow-wire ignition temperature according to IEC 60695-2-13 of at least:	Tet white white white w	N/A
et whitet	• 775 °C, for connections carrying a current exceeding 0.2 A during normal operation,	A MATER MATER MATER MAT	N/A
dt.	675 °C, for other connections	1 A A B	N/A
me n	- a glow-wire flammability index according to IEC 60695-2-12 of at least:	white white white white	N/A
ner mi	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation,	NITE WATE MAIL WALL	N/A
I'm NALTO	- 650 °C, for other connections	et the the with the	N/A
L At	The glow-wire test is also not carried out on small pa	arts. These parts are to:	N/A
WALTER.	- comprise material having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or	water water water water	N/A

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Page 55 of 126



Clause	Requirement – Test	Result – Remark	Verdict
Clause	Requirement – Test	Result – Remark	verdici
ANT CONTRACT	- comprise material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or	while while while while	N/A
n m	- comply with the needle-flame test of Annex E, or	marte what while whit	N/A
inex whi	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10	Tex with miles white a	N/A
ex waited	The consequential needle-flame test of Annex E app encroach within the vertical cylinder placed above the and on top of the non-metallic parts supporting curre parts of non-metallic material within a distance of 3 m parts are those:	e centre of the connection zone int-carrying connections, and	N/A
ninet w	- parts that withstood the glow-wire test of IEC 60695-2-11 of 750 °C or 650 °C as appropriate, but produce a flame that persist longer than 2 s, or	and an inter anited anited	N/A
Tex would	- parts that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or	set while while while w	N/A
white	- small parts, that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or	white white white whi	N/A
on and	- small parts for which the needle-flame test of Annex E was applied, or	white white white white	N/A
in ma	- small parts for which a material classification of V-0 or V-1 was applied	and white white v	N/A
Er white	However, the consequential needle-flame test is not parts, including small parts, within the cylinder that a		N/A
Whitek	- parts having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or	white white white white	N/A
UNLITEK W	- parts comprising material classified as V-0 or V-1 according to IEC 60695-11-10, or	and write white wanted	N/A
aret whi	- parts shielded by a flame barrier that meets the needle-flame test of Annex E or that comprises material classified as V-0 or V-1 according to IEC 60695-11-10	Tet wantet wantet wantet of	N/A
30.2.4	Base material of printed circuit boards subjected to the needle-flame test of Annex E	and white white white white	N/A
MALTE	Test not applicable to conditions as specified:	PCB: V-0	J. P
31	RESISTANCE TO RUSTING	m m t t	Р
ner me	Relevant ferrous parts adequately protected against rusting	stret water wait water	∿ [™] P √
SE WALT	Tests specified in part 2 when necessary	et the week outer of	N/A
32	RADIATION, TOXICITY AND SIMILAR HAZARDS	24. 20. 20. 20.	P
WALL	Appliance does not emit harmful radiation or present a toxic or similar hazard due to their operation in normal use	WALTER WALTER WALTER WALT	P

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Page 56 of 126



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Clause	Requirement – Test	Result – Remark	Verdict
A LIE	and and all all all all	t det det after	
	Compliance is checked by the limits or tests specified in part 2, if relevant	when when we	N/A
A	ANNEX A (INFORMATIVE) ROUTINE TESTS		N/A
in wh	Description of routine tests to be carried out by the manufacturer	LIER WALTER WALTER WAY	N/A
B	ANNEX B (NORMATIVE) APPLIANCES POWERED BY RECHARGEABLE BA	ATTERIES	N/A
WALTER	The following modifications to this standard are applicable for appliances powered by batteries that are recharged in the appliance	whilet whilet whilet	N/A
no an	Three forms of construction covered:	The shirt while all	un - v
ister whis	a) Appliance supplied directly from the supply mains or a renewable energy source, the battery charging circuitry and other supply unit circuitry incorporated within the appliance	Set and and and	N/A
whitek w	b) The part of the appliance incorporating the battery is supplied from the supply mains or a renewable energy source, via a detachable supply unit. The battery charging circuitry is incorporated within the part of the appliance containing the battery	WALTER WALTER WALTER	N/A
nere white	c) The part of the appliance incorporating the battery is supplied from the supply mains or a renewable energy source, via a detachable supply unit. The battery charging circuitry is incorporated within the detachable supply unit	and a summer with any	N/A
3.1.9	Appliance operated under the following conditions:	- let set site	WILL WE WELL
Just .	- the appliance, supplied by its fully charged battery, operated as specified in relevant part 2;	when when we want	N/A
in su	- the battery is charged, the battery being initially discharged to such an extent that the appliance cannot operate;	ALL MAL MAL MAL	N/A
et white	- if possible, the appliance is supplied from the supply mains through its battery charger, the battery being initially discharged to such an extent that the appliance cannot operate. The appliance is operated as specified in relevant part 2;	mill white white	N/A
Niret W	- if the appliance incorporates inductive coupling between two parts that are detachable from each other, the appliance is supplied from the supply mains with the detachable part removed	where where where	N/A
3.6.2	Part to be removed in order to discard the battery is not considered to be detachable	et white white whi	N/A
5.B.101	Appliances supplied from the supply mains tested as specified for motor-operated appliances	wind mind mind	N/A

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Page 57 of 126



Clause	Requirement – Test	Result – Remark	Verdict
7.1	Battery compartment for batteries intended to be replaced by the user, marked with battery voltage V (V) and polarity of the terminals	while while while while	N/A
strek whit	The positive terminal indicated by symbol IEC 60417-5005 and the negative terminal by symbol IEC 60417-5006	and white white white a	N/A
et would	Appliances intending to be supplied from a detachable supply unit marked with symbol IEC 60417-6181 and its type reference along with symbol ISO 7000-0790 (2004-01), or	A WALLER WALLER WALLER WAL	N/A
-m	use only with <model designation=""> supply unit</model>	white white white where	N/A
7.6	Additional symbols	at at at set	N/A
7.12	The instructions give information regarding charging	he we we we	N/A
ren warr	Instructions for appliances incorporating batteries intended to be replaced by the user include required information	Set white white white w	N/A
white	Details about how to remove batteries containing materials hazardous to the environment given	white white white wh	N/A
WALLE V	Instructions for appliances containing non-user-repla substance of the following:	ceable batteries state the	whi <u>r</u>
NUTER WAY	This appliance contains batteries that are only replaceable by skilled persons	the waiter waiter	N/A
EX WALTE	Instructions for appliances containing non-replaceab substance of the following:	le batteries shall state the	sex
MUTER	This appliance contains batteries that are non-replaceable	and the state winds white	N/A
	For appliances intending to be supplied from a detact purposes of recharging the battery, the type reference stated along with the following:		WALLER
inet whi	WARNING: For the purposes of recharging the battery, only use the detachable supply unit provided with this appliance	The waited waited waited at	N/A
er white	If the symbol for detachable supply unit is used, its meaning is explained	A MATER WALLER WALLER WAL	N/A
7.15	Markings placed on the part of the appliance connected to the supply mains	whet minet assiret assire	N/A
NUTEX MA	The type reference of the detachable supply unit is placed in close proximity to the symbol	and and alles wanted	N/A
8.2	Appliances having batteries that according to the instruction may be replaced by the user need only have basic insulation between live parts and the inner surface of the battery compartment	et would would would so	N/A
MULT	If the appliance can be operated without batteries, double or reinforced insulation required	white white white white	N/A

15

Page 58 of 126



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Clause	Requirement – Test	Result – Remark	Verdict
· · · · · · · · ·		t wet wet with with	N1/A
11.7	The battery is charged for the period stated in the instructions or 24 h	where we we we	N/A
11.8	Temperature rise of the battery surface does not exceed the limit in the battery manufacturer's specification; measured (K); limit (K)	antite antite antite and	N/A
	If no limit specified, the temperature rise does not exceed 20 K; measured (K)	and when when a	N/A
19.1	Appliances subjected to tests of 19.B101, 19.B102 and 19.B103	while while whe wh	N/A
19.10	Not applicable	white white white white	.Ä/A
19.B.101	Appliances supplied at rated voltage for 168 h, the battery being continually charged	Tet allet milet wiret.	N/A
19.B.102	For appliances having batteries that can be removed without the aid of a tool, short-circuit of the terminals of the battery, the battery being fully charged,		N/A
19.B.103	Appliances having batteries replaceable by the user supplied at rated voltage under normal operation with the battery removed or in any position allowed by the construction	white white white whi	N/A
19.13	The battery does not rupture or ignite	white white white white	N/A
21.B.101	Appliances having pins for insertion into socket-outlets have adequate mechanical strength	et united united v	N/A
iet white	Part of the appliance incorporating the pins subjected of IEC 60068-2-31, the number of falls being:	to the free fall test, procedure 2,	ret
- 10-	- 100, the mass of part does not exceed 250 g	SW ST A	N/A
- sure -	- 50, the mass of part exceeds 250 g	mile unit while white	N/A
UNLIEK UN	After the test, the requirements of 8.1, 15.1.1, 16.3 and clause 29 are met	The work with south	N/A
22.3	Appliances having pins for insertion into socket-outlets tested as fully assembled as possible	and and a state what	N/A
25.13	An additional lining or bushing not required for interconnection cords in class III appliances or class III constructions operating at safety extra-low voltage not containing live parts	A MALER MALINE MALINE MAL	N/A
30.2	For parts of the appliance connected to the supply mains during the charging period, 30.2.3 applies	watter watter watter watter	N/A
STER IN	For other parts, 30.2.2 applies	it it st st	N/A
C	ANNEX C (NORMATIVE) AGEING TEST ON MOTORS	at at at the	N/A
- Mutet	Tests, as described, carried out when doubt with regard to the temperature classification of the insulation of a motor winding	- inter since where where	N/A
	Test conditions as specified	m. m. m.	N/A

Page 59 of 126



Verdict

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Clause	Requirement – Test	Result – Remark	

D	ANNEX D (NORMATIVE) THERMAL MOTOR PROTECTORS	N/A
when when	Applicable to appliances having motors that incorporate thermal motor protectors necessary for compliance with the standard	N/A
	Test conditions as specified	N/A
E mir	ANNEX E (NORMATIVE) NEEDLE-FLAME TEST	N/A
whiter	Needle-flame test carried out in accordance with IEC 60695-11-5, with the following modifications:	JUNITE
7 🦽	Severities	54
n n	The duration of application of the test flame is 30 s ± 1 s	N/A
9	Test procedure	-11
9.1	The specimen so arranged that the flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1	N/A
9.2	The first paragraph does not apply	N/A
Set of	If possible, the flame is applied at least 10 mm from a corner	N/A
9.3	The test is carried out on one specimen	N/A
ret white	If the specimen does not withstand the test, the test may be repeated on two further specimens, both withstanding the test	N/A
11	Evaluation of test results	m
1ª	The duration of burning not exceeding 30 s	N/A
nr n	However, for printed circuit boards, the duration of burning not exceeding 15 s	N/A
F wh	ANNEX F (NORMATIVE) CAPACITORS	N/A
WALT	Capacitors likely to be permanently subjected to the supply voltage, and used for radio interference suppression or voltage dividing, comply with the following clauses of IEC 60384-14, with the following modifications:	574 574
1.5	Terms and definitions	m.
1.5.3	Class X capacitors tested according to subclass X2	N/A
1.5.4	This subclause is applicable	N/A
1.6 5	Marking	5 ⁶⁰ - 5
	Items a) and b) are applicable	N/A
3.4	Approval testing	100
3.4.3.2	Table II is applicable as described	N/A

Page 60 of 126



Clause	Requirement – Test	Result – Remark	Verdict
4.1	Visual examination and check of dimensions	+ minet minet white where	
	This subclause is applicable	a at at a	N/A
4.2	Electrical tests	NALLEY MAIL WILL WILL	N/A
4.2.1	This subclause is applicable	at at at 5th	N/A
4.2.5	This subclause is applicable	122 Martin Martin Martin	N/A
4.2.5.2	Only table IX is applicable	at the set with	N/A
	Values for test A apply	Mart War all 3	N/A
where	However, for capacitors in heating appliances the values for test B or C apply	white white white wh	N/A
4.12	Damp heat, steady state	the the state with	
	This subclause is applicable	sport starting the start	N/A
	Only insulation resistance and voltage proof are checked	and white white white	N/A
4.13	Impulse voltage	et allet allet while an	NI WALL
di-	This subclause is applicable	m m t	N/A-
4.14	Endurance	NUTER INTERNATION	mr-
lifet and	Subclauses 4.14.1, 4.14.3, 4.14.4 and 4.14.7 applicable	at wire wire	N/A
4.14.7	Only insulation resistance and voltage proof are checked		N/A
	Visual examination, no visible damage	me me m	N/A
4.17	Passive flammability test	t wet whet whet w	LIC WILL
de la	This subclause is applicable	m. m. a.	N/A
1.18 📣	Active flammability test	wifet miles while while	ant
de la	This subclause is applicable	. I A A	N/A
3	ANNEX G (NORMATIVE) SAFETY ISOLATING TRANSFORMERS	the work work work	Р
when	The following modifications to this standard are app transformers:	licable for safety isolating	n tu
Contra S	Marking and instructions	- stat astrat mittan and	P
7.1	Transformers for specific use marked with:	Mr. M. M.	Р
ne ne	- name, trademark or identification mark of the manufacturer or responsible vendor	(see appended table)	P
E. MALT	- model or type reference:	(see appended table)	IN PO
17	Overload protection of transformers and associated	circuits	Р
where	Fail-safe transformers comply with subclause 15.5 of IEC 61558-1	WALTER WALTER WALTER W	N/A

Page 61 of 126



IEC 60335-1

	Requirement – Test	Result – Remark	Verdic
22	Construction	Land and Martin	Р
IN LIFE M	Subclauses 19.1 and 19.1.2 of IEC 61558-2-6 are applicable	The state with all	STOR STOP
29	Clearances, creepage distances and solid insulation	her de su se	P
29.1, 29.2 and 29.3	The distances specified in items 2a, 2c and 3 in table 13 of IEC 61558-1 apply	10 - 10 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -	Р
whitek	For insulated winding wires complying with subclause 19.12.3 of IEC 61558-1 there are no requirements for clearances or creepage distances	at white white white	P
niset was	For windings providing reinforced insulation, the distance specified in item 2c of table 13 of IEC 61558-1 is not assessed	white white white a	P
vontrek	For safety isolating transformers subjected to periodic voltages with a frequency exceeding 30 kHz, the clearances, creepage distances and solid insulation values specified in IEC 60664-4 are applicable, if greater than the values specified in items 2a, 2c and 3 in table 13 of IEC 61558-1	set whitet whitet white	SALE SALES
H NITER M	ANNEX H (NORMATIVE) SWITCHES	martet aniret antiret an	N/A
St. 5	Switches comply with the following clauses of IEC 61	1058-1, as modified:	et 50 <u>+</u>
et all	The tests of IEC 61058-1 carried out under the conditions occurring in the appliance	and white and	N/A
whit	Before being tested, switches are operated 20 times without load	WALTE WALT WALT	N/A
8	Marking and documentation		min main
at -	Switches are not required to be marked	m n i	N/A
int in ret in	However, switches that can be tested separately from the appliance marked with the manufacturer's name or trade mark and the type reference	mile while while wh	N/A
13	Mechanism	the water when when	
* NUTER	The tests may be carried out on a separate sample	+ let set set	N/A
15	Insulation resistance and dielectric strength	me me m	
15.1	Not applicable	und whet whet	N/A
15.2	Not applicable	m. m. m.	N/A
15.3	Applicable for full disconnection and micro-disconnection	street white white whi	N/A
17	Endurance	et the the state	In the Jul
- Jiet	Compliance is checked on three separate appliances or switches	with with the	N/A
20.	For 17.2.4.4, the number of cycles declared	we we with	N/A

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Page 62 of 126



Clause	Requirement – Test	Result – Remark	Verdict
AND THE	otherwise specified in 24.1.3 of the relevant part 2 of EN 60335	white white white white	N/A
nr n	Switches for operation under no load and which can be operated only by a tool and	white white white white	N/A
ine mi	switches operated by hand that are interlocked so that they cannot be operated under load,	STER WALTER WALTER WALTER W	N/A
at intre	are not subjected to the tests	t tet set when we	N/A
WALTER	However, switches without this interlock are subjected to the test of 17.2.4.4 for 100 cycles of operation	MALEY MUSEY MULEY MALE	N/A
At	Sub-clauses 17.2.2 and 17.2.5.2 not applicable	a at the lit	N/A
Inter and	The ambient temperature during the test is that occurring in the appliance during the test of Clause 11 in EN 60335-1	performance which which when	N/A
+ white	Temperature rise of the terminals not more than 30 K above the temperature rise measured in clause 11 of EN 60335-1 (K)	t suffet instret innifet white	N/A
20	Clearances, creepage distances, solid insulation and assemblies	l coatings of rigid printed board	MALTER
Ster	Clause 20 is applicable to clearances across full disconnection and micro-disconnection	at the state	N/A
et white	It is also applicable to creepage distances for functional insulation, across full disconnection and micro-disconnection, as stated in Table 24	a state which white way	N/A
WALTER	ANNEX I (NORMATIVE) MOTORS HAVING BASIC INSULATION THAT IS IN VOLTAGE OF THE APPLIANCE	ADEQUATE FOR THE RATED	N/A
WALTER W	The following modifications to this standard are appli insulation that is inadequate for the rated voltage of t		on ister
8,05	Protection against access to live parts	to the the the	
8.1	Metal parts of the motor are considered to be bare live parts	and which which which we	N/A
11.00	Heating	A WALLEY WALLE WALL WAL	- m
11.3	Temperature rise of the body of the motor is determined instead of the temperature rise of the windings	white white white white	N/A
11.8	Temperature rise of the body of the motor, where in contact with insulating material, not exceeding values in table 3 for the relevant insulating material	NITER WALTER WALTER WALTER	N/A
16	Leakage current and electric strength	ret intret white white wh	
16.3	Insulation between live parts of the motor and its other metal parts not subjected to the test	the street surfer source	N/A
19	Abnormal operation	The second second	

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Page 63 of 126



Clause	Requirement – Test	Result – Remark	Verdic
154	white white where white white it is	the set star with	
19.1	The tests of 19.7 to 19.9 not carried out	when when when we	N/A
19.1.101	Appliance operated at rated voltage with each of the	following fault conditions:	N/A
ster st	- short circuit of the terminals of the motor, including any capacitor incorporated in the motor circuit	and want want with	N/A
20	- short circuit of each diode of the rectifier	the write write write a	N/A
et alle	- open circuit of the supply to the motor	t at at and and	N/A
	- open circuit of any parallel resistor, the motor being in operation	whit whit we want	N/A
where a	Only one fault simulated at a time, the tests carried out consecutively	white white white white	N/A
22	Construction	NUTER INTERIORATION	n - 1
22.1.101	For class I appliances incorporating a motor supplied by a rectifier circuit, the d.c. circuit being insulated from accessible parts of the appliance by double or reinforced insulation	SEX WALTER WALTER WALTER W	N/A
when	Compliance checked by the tests specified for double and reinforced insulation	white white white white	N/A
Jun 4	ANNEX J (NORMATIVE) COATED PRINTED CIRCUIT BOARDS	WALTER WALTER WALTE WALTE	N/A
NETE WAY	Testing of protective coatings of printed circuit board IEC 60664-3 with the following modifications:	s carried out in accordance with	
5.7 5	Climatic sequence	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6 - <u></u> 2
. Jet	When production samples are used, three samples of the printed circuit board are tested	when when the state	N/A
5.7.1	Cold	main which when when	N/A
STEEL IS	The test is carried out at -25°C	at let set set	N/A
5.7.3	Rapid change of temperature	up me me m	N/A
are whit	Severity 1 is specified	let get stat attand	N/A
5.9	Additional tests	the second second	
when	This subclause is not applicable	t what while while whi	N/A
K	ANNEX K (NORMATIVE) OVERVOLTAGE CATEGORIES		Pot
Silet 10	The information on overvoltage categories is extracted from IEC 60664-1	at the set set	P
et 5	Overvoltage category is a numeral defining a transient overvoltage condition	and with any set	Р
sur-	Equipment of overvoltage category IV is for use at the origin of the installation	white white white with	N/A

Page 64 of 126



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Clause	Requirement – Test	Result – Remark	Verdic
MILITER W	Equipment of overvoltage category III is equipment in fixed installations and for cases where the reliability and the availability of the equipment is subject to special requirements	where while while an	N/A
LIFE WAY	Equipment of overvoltage category II is energy consuming equipment to be supplied from the fixed installation	Category II	P
WALL	If such equipment is subjected to special requirements with regard to reliability and availability, overvoltage category III applies	A AND AND AND A	N/A
where where	Equipment of overvoltage category I is equipment for connection to circuits in which measures are taken to limit transient overvoltages to an appropriate low level	WITTER WALFER WALFER	N/A
FEX WALT	ANNEX L (INFORMATIVE) GUIDANCE FOR THE MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES		SUL SUL SUL
winth	Sequences for the determination of clearances and creepage distances	WAITER WAITE WAITE W	Р
NUTLE V	ANNEX M (NORMATIVE) POLLUTION DEGREE	united whited whited whit	P
inex ani	The information on pollution degrees is extracted from IEC 60664-1	and another survey	, ST P
t 1	Pollution		J
Whitek	The microenvironment determines the effect of pollution on the insulation, taking into account the microenvironment	white white where a	
Jet .	Means may be provided to reduce pollution at the insulation by effective enclosures or similar	when with any set	P
at a	Minimum clearances specified where pollution may be present in the microenvironment	ALL WALL WALL	Р
w.	Degrees of pollution in the microenvironment	ister which which which	n -n
* White	For evaluating creepage distances, the following deg microenvironment are established:	grees of pollution in the	ni et wini
WALTER V	- pollution degree 1: no pollution or only dry, non-conductive pollution occurs. The pollution has no influence	WALTER WALTER WALTER WAL	N/A
iller wir er wir	- pollution degree 2: only non-conductive pollution occurs, except that occasionally a temporary conductivity caused by condensation is to be expected	Pollution degree 2	Р
NUTEX	- pollution degree 3: conductive pollution occurs or dry non-conductive pollution occurs that becomes conductive due to condensation that is to be	when when when we wanted an	N/A

Page 65 of 126



Clause	Requirement – Test Result – Remark	Verdic
White Malet	- pollution degree 4: the pollution generates persistent conductivity caused by conductive dust or by rain or snow	N/A
N	ANNEX N (NORMATIVE) PROOF TRACKING TEST	N/A
et _6	The proof tracking test is carried out in accordance with IEC 60112 with the following modifications:	
7 👋	Test apparatus	<u> 1</u>
7.3	Test solutions	S. S
5 N 1	Test solution A is used	N/A
10	Determination of proof tracking index (PTI)	men- 1
10.1	Procedure	A
in me	The proof voltage is 100V, 175V, 400V or 600V :	N/A
6 1	The test is carried out on five specimens	N/A
WAL	In case of doubt, additional test with proof voltage reduced by 25V, the number of drops increased to 100	N/A
10.2	Report	S
ITER WU	The report stating if the PTI value was based on a test using 100 drops with a test voltage of (PTI-25) V	N/A
of spick	ANNEX O (INFORMATIVE) SELECTION AND SEQUENCE OF THE TESTS OF CLAUSE 30	
MALTER	Description of tests for determination of resistance to heat and fire	P
P N	ANNEX P (INFORMATIVE) GUIDANCE FOR THE APPLICATION OF THIS STANDARD TO APPLIANCES USED IN WARM DAMP EQUABLE CLIMATES	N/A
aret whi	Modifications applicable for class 0 and 01 appliances having a rated voltage exceeding 150V, intended to be used in countries having a tropical climate and that are marked with symbol IEC 60417-6332	1.555 <u>-</u> WI
	Modifications may also be applied to class 1 appliances having a rated voltage exceeding 150V, intended to be used in countries having a tropical climate and that are marked with symbol IEC 60417-6332, if liable to be connected to a supply mains that excludes the protective earthing conductor	VILLEK MULTEK
5.7	The ambient temperature for the tests of clauses 11 and 13 is 40 +3/0 °C	N/A
7.1	The appliance marked with symbol IEC 60417-6332	N/A
7.12	The instructions state that the appliance is to be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA	N/A

Page 66 of 126



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Clause	Requirement – Test Result – Re	mark Verdict
The second second	with white white white white white	the star star star
Whitek W	The instructions state that the appliance is considered to be suitable for use in countries having a warm damp equable climate, but may also be used in other countries	N/A
iret whi	If symbol IEC 60417-6332 is used, its meaning is explained	N/A
11.8 🧹	The values of Table 3 are reduced by 15 K	N/A
13.2	The leakage current for class I appliances not exceeding 0.5 mA (mA)	N/A
15.3	The value of t is 37 °C	N/A
16.2	The leakage current for class I appliances not exceeding 0.5 mA (mA)	N/A
19.13	The leakage current test of 16.2 is applied in addition to the electric strength test of 16.3	N/A
Q	ANNEX Q (INFORMATIVE) SEQUENCE OF TESTS FOR THE EVALUATION OF ELECTRON	NIC CIRCUITS
24	Description of tests for appliances incorporating electronic circuits	s P
R LIEF V	ANNEX R (NORMATIVE) SOFTWARE EVALUATION	
NIFEK WAN	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2 validated in accordance with the requirements of this annex	N/A
R.1	Programmable electronic circuits using software	Nu nu m
white w	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2 constructed so that the software does not impair compliance with the requirements of this standard	N/A
R.2	Requirements for the architecture	at the set-
A WALLEY	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2 use measures to control and avoid software-related faults/errors in safety-related data and safety-related segments of the software	N/A
R.2.1.1	Programmable electronic circuits requiring software incorporating control the fault/error conditions specified in table R.2 have one o structures:	
iet white	- single channel with periodic self-test and monitoring	N/A
, st	- dual channel (homogenous) with comparison	N/A
	- dual channel (diverse) with comparison	N/A

Page 67 of 126



Clause	Requirement – Test	Result – Remark	Verdict
The second	and a series of the series of	h the start is	See Ser
Whitek W	Programmable electronic circuits requiring software control the fault/error conditions specified in table R. structures:		* white
	- single channel with functional test	in sur sur s	N/A
ine whi	- single channel with periodic self-test	Tet allet mile while	N/A
	- dual channel without comparison	w w w	N/A
R.2.2	Measures to control faults/errors	et intre-intre-inner w	
R.2.2.1	When redundant memory with comparison is provided on two areas of the same component, the data in one area is stored in a different format from that in the other area	whitek whitek whitek white	N/A
R.2.2.2	Programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.2 and that use dual channel structures with comparison, have additional fault/error detection means for any fault/errors not detected by the comparison	Set while while while	N/A
R.2.2.3	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, means are provided for the recognition and control of errors in transmissions to external safety-related data paths	white white white white	N/A
R.2.2.4	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, the programmable electronic circuits incorporate measures to address the fault/errors in safety-related segments and data indicated in table R.1 and R.2 as appropriate	white white white white	N/A
R.2.2.5	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, detection of a fault/error occur before compliance with clause 19 is impaired	Tet white white white	N/A
R.2.2.6	The software is referenced to relevant parts of the operating sequence and the associated hardware functions	MALTER WALTER WALTER WA	N/A
R.2.2.7	Labels used for memory locations are unique	white white white white	N/A
R.2.2.8	The software is protected from user alteration of safety-related segments and data	and super sources sources	N/A
R.2.2.9	Software and safety-related hardware under its control is initialized and terminates before compliance with clause 19 is impaired	et white white white w	N/A
R.3	Measures to avoid errors	t at at at a	Star Jacob
R.3.1	General	when when any me	

Page 68 of 126



Clause	Requirement – Test	Result – Remark	Verdic
White M	For programmable electronic circuits with functions r measures to control the fault/error conditions specific following measures to avoid systematic fault in the so	ed in table R.1 or R.2, the	Whitek
Lifet which	Software that incorporates measures used to control the fault/error conditions specified in table R.2 is inherently acceptable for software required to control the fault/error conditions specified in table R.1	Tet whitek whitek whitek w	N/A
R.3.2	Specification	et autet wiret white whi	. Arr
R.3.2.1	Software safety requirements:		N/A
white a	The specification of the software safety requirements includes the descriptions listed	watter waite waite wat	N/A
R.3.2.2	Software architecture	THE STAR NUMBER WITE	man - s
R.3.2.2.1	The specification of the software architecture includes the aspects listed	at left the state	N/A
	- techniques and measures to control software faults/errors (refer to R.2.2);	and white white where we	
	- interactions between hardware and software;	white white white whe	
	- partitioning into modules and their allocation to the specified safety functions;	atter maret instate and	
	- hierarchy and call structure of the modules (control flow);	at an anter suret	
	- interrupt handling;		
	- data flow and restrictions on data access;	er the start muter wh	
	- architecture and storage of data;	when the second	
MALTEN	- time-based dependencies of sequences and data	LIEK SLIEK MITER MAIL	white
R.3.2.2.2	The architecture specification is validated against the specification of the software safety requirements by static analysis	NUTER WALTER WALTER WALTER	N/A
R.3.2.3	Module design and coding	t at at at	
R.3.2.3.1	Based on the architecture design, software is suitably refined into modules	is whit whit whit w	N/A
when when	Software module design and coding is implemented in a way that is traceable to the software architecture and requirements	white white white white	N/A
R.3.2.3.2	Software code is structured	men me me me	N/A
R.3.2.3.3	Coded software is validated against the module specification by static analysis	stret waitet waitet waiter	N/A
sex while	The module specification is validated against the architecture specification by static analysis	et wiret wiret whitet wh	N/A
R.3.3.3	Software validation	the state of the	* -2
when .	The software is validated with reference to the requirements of the software safety requirements specification	WALTE WALT WALL WAL	N/A

Page 69 of 126



Clause	Requirement – Test	Result – Remark	Verdict
Anto	Compliance is checked by simulation of:	TEX WALTER WALTER WAITE	N/A
Str.	- input signals present during normal operation	t at at at	N/A
6	- anticipated occurrences	me me me m	N/A
in the	- undesired conditions requiring system action	10 10 50 5	N/A

		ABLE R.1 ° – GENERAL FAULT	-		14 Mar 14	
Component ^a	Fault/error	Acceptable measures ^{b, c}	Definitions	Document reference for applied measure	Document reference for applied test	Verdict
1 CPU 1.1 Registers	Stuck at	Functional test, or periodic self-test using either: - static memory test, or - word protection with	H.2.16.5 H.2.16.6 H.2.19.6 H.2.19.8.2	WILTER WALLER	et whitet whi	N/A
20. 20	-	single bit redundancy	WALTE WALT	white a	the state	20
1.2 VOID	er str	inter which where we	1. 10	d.	to the	N/A
1.3 Programme counter	Stuck at	Functional test, or Periodic self-test, or Independent time-slot monitoring, or Logical monitoring of the programme sequence	H.2.16.5 H.2.16.6 H.2.18.10. 4 H.2.18.10. 2	sunti unite sta unite	SUNTER SU	N/A
2 Interrupt handling and execution	No interrupt or too frequent interrupt	Functional test, or time-slot monitoring	H.2.16.5 H.2.18.10. 4	water w	et would be	N/A
3 Clock	Wrong frequency (for quartz synchroniz ed clock: harmonics/ sub-harmo nics only)	Frequency monitoring, or time slot monitoring	H.2.18.10. 1 H.2.18.10. 4	et waitet	white white	N/A
4. Memory	me m	w A A	et set	Ster St	IN THE N	N/A
4.1 Invariable memory	All single bit faults	Periodic modified checksum, or multiple checksum, or word protection with single bit redundancy	H.2.19.3.1 H.2.19.3.2 H.2.19.8.2	Tet white	whitek whi	

Page 70 of 126



Verdict

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IEC 60335-1

Clause Requirement – Test

Result – Remark

Component ^a	Fault/error	Acceptable measures ^{b, c}	Definitions	Document reference for applied measure	Document reference for applied test	Verdict
4.2	DC fault	Periodic static memory test, or	H.2.19.6	No way	m. m	N/A
Variable memory	MUTER WALT	word protection with single bit redundancy	H.2.19.8.2	et writet	WALLEY WALL	
4.3 Addressing (relevant to variable and invariable memory)	Stuck at	Word protection with single bit redundancy including the address	H.2.19.8.2	white whi	et vinitet v	N/A
5 Internal data path	Stuck at	Word protection with single bit redundancy	H.2.19.8.2	et set	who who	N/A
5.1 VOID	s st	set set set mar	white white	241- 2	4	N/A
5.2 Addressing	Wrong address	Word protection with single bit redundancy including the address	H.2.19.8.2	whitek wh	Tek white	N/A
6 External	Hamming distance 3	Word protection with multi-bit redundancy, or	H.2.19.8.1	White	white w	N/A
communicat ion	-10 St.	CRC – single work, or	H.2.19.4.1		1 3	
		Transfer redundancy, or	H.2.18.2.2	in with	and me	
t st	Jet Jet	Protocol test	H.2.18.14	L .A	10 10	500
6.1 VOID	20	a stander offer	STR. MI	white w	er mer	∽ ⁰ N/A
6.2 VOID	t set	with mile white with	the second		t st	N/A
6.3 Timing	Wrong point in time	Time-slot monitoring, or scheduled transmission	H.2.18.10. 4 H.2.18.18	white whi	white a	N/A
	n. n.	Time-slot and logical monitoring, or	H.2.18.10.	STE WALL	me m	
et suntret sons suntret sons suntret sonste set sonste	NUTEX WALTER	comparison of redundant communication channels by either: - reciprocal comparison	3	et would .	united sunite	
	t minet w	- independent hardware comparator	H.2.18.15	white wh	A SEX	
	Wrong sequence	Logical monitoring, or	H.2.18.3	men me	m m	
		time-slot monitoring, or Scheduled transmission	H.2.18.10. 2	JEK WALTER	whitek whi	
	LIER WALTER	white whe whe whe	H.2.18.10. 4 H.2.18.18	* WALTER W	NUTER WALTE	

Page 71 of 126



Verdict

IEC 60335-1

Clause Requirement – Test

Result – Remark

TABLE R.1 ° – GENERAL FAULT/ERROR CONDITIONS						
Component ^a	Fault/error	Acceptable measures ^{b, c}	Definitions	Document reference for applied measure	Document reference for applied test	Verdict
7 Input/output periphery	Fault conditions specified in 19.11.2	Plausibility check	H.2.18.13	ist muret	where where	N/A
7.1 VOID	Set Ste	inter white white we		. At	it it	N/A
7.2 Analog I/O	t jet	Tet wret miret would	White white	mer on	r wh	N/A
7.2.1 A/D and D/A-convert er	Fault conditions specified in 19.11.2	Plausibility check	H.2.18.13	united whit	white w	
7.2.2 Analog multiplexer	Wrong addressing	Plausibility check	H.2.18.13	et aniret	MITER WALTE	N/A
8 VOID	\$ 5°	when when when when	m. w.	4	1 11	N/A
9 Custom chips ^d e.g. ASIC, GAL, gate array	Any output outside the static and dynamic functional specificatio n	Periodic self-test	H.2.16.6	winter win	AND	N/A

NOTE A Stuck-at fault model denotes a fault model representing an open circuit or a non-varying signal level. A DC fault model denotes a stuck-at fault model incorporating short circuit between signal lines.

^{a)} For fault/error assessment, some components are divided into their sub-functions.

^{b)} For each sub-function in the table, the Table R.2 measure will cover the software fault/error.

^{c)} Where more than one measure is given for a sub-function, these are alternatives.

^{d)} To be divided as necessary by the manufacturer into sub-functions.

e) Table R.1 is applied according to the requirements of R.1 to R.2.2.9 inclusive.

S. S.	ANNEX S (NORMATIVE) BATTERY OPERATED APPLIANCES POWERED BY BATTERIES THAT ARE NON-RECHARGEABLE OR NOT RECHARGED IN THE APPLIANCE		
- white	The following modifications to this standard are applicable for battery-operated appliances where the batteries are either non-rechargeable (primary batteries), or	N/A	
let .	rechargeable batteries (secondary batteries) that are not recharged in the appliance	N/A	
5.8.1	If the supply terminals for the connection of the battery have no indication of polarity, the more unfavourable polarity is applied	N/A	

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Page 72 of 126



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Clause	Requirement – Test	Result – Remark	Verdic		
5.S.101	Appliances intended for use with a battery box are	I MIT MALEY MALEY			
	tested with the battery box supplied with the appliance or with the battery box recommended in the instructions	overet anotet antiret and	set whitet		
5.S.102	Appliances are tested as motor-operated appliances.	Jet white white white	N/A		
7.1	Appliances marked with the battery voltage (V) and the polarity of the terminals, unless	at what maret where	N/A		
. St	the polarity is irrelevant	St St At	N/A		
white .	Appliances also marked with:	WILLIE MALIE MALIE W	the maint		
INLIEX WI	 – name, trade mark or identification mark of the manufacturer or responsible vendor 	Tet with with and	N/A		
at a	- model or type reference:	n we we a	N/A		
The works	 – IP number according to degree of protection against ingress of water, other than IPX0 	set watter antifer waite	N/A		
A NULLE	- type reference of battery or batteries:	t the state when	N/A		
suntret s	If relevant, the positive terminal is indicated by the symbol IEC 60417-5005 and the negative terminal by the symbol IEC 60417-5006	when we we when	N/A		
nitet and	If appliances use more than one battery, they are marked to indicate correct polarity connection of the batteries	et anitet anti	N/A		
7.6	Additional symbols		N/A		
7.12	The instructions contain the following, as applicable:				
MALTE	- the types of batteries that may be used	Set stet with a	N/A		
	- how to remove and insert the batteries	some some som a	N/A		
mer m	 non-rechargeable batteries are not to be recharged 	ALTER WATER WALTE WAT	N/A		
iner whi	 rechargeable batteries are to be removed from the appliance before being charged 	Tet waitet wantet sante	N/A		
et white	 different types of batteries or new and used batteries are not to be mixed 	t maret whitet whatet	N/A		
dt.	- batteries are to be inserted with the correct polarity	s at at	N/A		
when y	 – exhausted batteries are to be removed from the appliance and safely disposed of 	MULTE WALT MALL WA	N/A		
nere we	 if the appliance is to be stored unused for a long period, the batteries are removed 	NITE WAITE MAILE WAIT	N/A		
Ser White	- the supply terminals are not to be short-circuited	at set set all	N/A		
11.5	Appliances are supplied with the most unfavourable	supply voltage between	· ,		
WALTE	 – 0.55 and 1,0 times the battery voltage, if the appliance can be used with non-rechargeable batteries 	watter watter watter w	N/A		

Page 73 of 126



IEC 60335-1

Clause	Requirement – Test	Result – Remark	Verdict
WILL WILL	 – 0.75 and 1,0 times battery voltage, if the appliance is designed for use with rechargeable batteries only 	which which which	N/A
341 - 341 1584 - 345	The values specified in Table S.101 for the internal resistance per cell of the battery is taken into account	white white white w	N/A
19.1	The tests are carried out with the battery fully charged unless otherwise specified	when when when	N/A
19.13	The battery does not rupture or ignite	white white white	N/A
19.S.101	Appliances are supplied with the voltage specified in 11.5. The supply terminals having an indication of polarity are connected to the opposite polarity, unless	whilet whilet whilet	N/A
n si	such a connection is unlikely to occur due to the construction of the appliance	net whe whe w	N/A
19.S.102	For appliances with provision for multiple batteries, one or more of the batteries are reversed and the appliance is operated, if reversal of batteries is allowed by the construction	watter water water	N/A
25.5	The flexible leads or flexible cord used to connect an external battery or battery box in is connected to the appliance by a type X attachment		N/A
25.13	This requirement is not applicable to the flexible leads or flexible cord connecting external batteries or a battery box with an appliance	at a functed and	N/A
25.S.101	Appliances have suitable means for connection of the battery. If the type of battery is marked on the appliance, the means of connection is suitable for this type of battery	white white white	N/A
26.5	Terminal devices in an appliance for the connection of the flexible leads or flexible cord connecting an external battery or battery box are so located or shielded that there is no risk of accidental connection between supply terminals	nitet weitet weitet w	N/A
30.2.3.2	There is no battery in the area of the vertical cylinder used for the consequential needle flame test, unless		N/A
. Lifet	the battery is shielded by a barrier that meets the needle flame test of Annex E, or	when when we	N/A
son s	that comprises material classified as V-0 or V-1 according to IEC 60695-11-10	MALL WALL MALL	N/A
r vr	ANNEX T (NORMATIVE) UV-C RADIATION EFFECT ON NON-METALLIC M	ATERIALS	N/A
yunti untiet	Requirements for non-metallic materials subject to direct or reflected UV-C radiation exposure and whose mechanical and electrical properties are relied upon for compliance with the	et white white white	N/A

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Page 74 of 126



IEC 60335-1

Clause	Requirement – Test Result – Remark	Verdict
WILL NILL	Does not apply to glass, ceramic and similar materials	N/A
me n	Tested as specified in ISO 4892-1 and ISO 4892-2, with the following modifications:	un
de la	Modifications to ISO 4892-1:	<u></u>
5.1	Light source	
5.1.6	The UV-C emitter is a low pressure mercury lamp with a quartz envelope having a continuous spectral irradiance of 10 W/m2 at 254 nm	N/A
MALTE	Subclause 5.1.6.1 and Table 1 are not applicable	N/A
5.2	Temperature	
5.2.4	The black-panel temperature shall be 63 °C ± 3 °C	N/As
5.3	Humidity and wetting	
5.3.1	Humidification of the chamber air is specified in part 2 when necessary	N/A
9 🔊	Test report	20
.et	This clause is not applicable	N/A
mer a	Modifications to ISO 4892-2:	200
750 5	Procedure	
7.1	General	
Et NLI	At least three test specimens are tested	N/A
5	Ten samples of internal wiring is tested	N/A
7.2	Mounting the test specimens	
	The specimens are attached to the specimen holders such that they are not subject to any stress	N/A
7.3	Exposure	
Tet out	Apparatus prepared as specified	N/A
et white	The test specimens and, if used, the irradiance-measuring instrument are exposed for 1 000 h	N/A
7.4	Measurement of radiant exposure	
where w	If used, a radiometer is mounted and calibrated such that it measures the irradiance at the exposed surface of the test specimen	N/A
7.5	Determination of changes in properties after exposure	
Tet WALT	Material properties and test methods for parts providing mechanical support or impact resistance as specified in Table T.1	N/A
me	Material properties and test method for electrical insulation of internal wiring as specified in Table T.2	N/A

Referenc	e No.: WTX22X10204492S Page	75 of 126	
Jet Jul	IEC 60	0335-1	et until whit
Clause	Requirement – Test	Result – Remark	Verdict
8	Exposure report	it's white white white	Mr. M.
Set	This clause is not applicable	t at at at	N/A



10.1	TABLE: Power input deviation							
Input devi	iation of/at:	P rated (W)	P measured (W)	ΔP (%)	Required ΔP (%)	Remark		
- 55	NUT WALL I	un min m		+ - +	10 - 50 s	16 16		

10.2	TABLE: Curre	nt deviation				Р
Current de	viation of/at:	I rated (A)	I measured (A)	ΔI (%)	Required ΔI (%)	Remark
100V/50Hz 100V/60Hz 240V/50Hz		1.5	1.023	-0.32	+20	Tested with
		1.5	1.024	-0.32	+20	model GTM96900P90
		1.5	0.438	-0.71	+20	12-T2
240V/60Hz	* MALTER MALTE	1.5	0.438	-0.71	+20	Output: 12VDC, 7.5A
100V/50Hz	t st		1.020	-0.32	+20	Tested with
100V/60Hz		1.5	1.022	-0.32	+20	model GTM96900P90
240V/50Hz	A A	1.5	0.430	-0.71	+20	15-T2
240V/60Hz	w me w	1.5	0.431	-0.71	+20	Output: 15VDC, 6.0A
100V/50Hz	S NY NY	1.5	0.992	-0.34	+20	Tested with
100V/60Hz		1.5	0.993	-0.34	+20	model GTM96900P90
240V/50Hz	-un -un	1.5	0.426	-0.72	+20	30-T2
240V/60Hz	white mitter	1.5	0.428	-0.71	+20	Output: 30VDC, 3.0A
100V/50Hz		1.5	1.272	-0.15	+20	Tested with
100V/60Hz	ite white wh	1.5	1.272	-0.15	+20	model GTM961200P ²
240V/50Hz	1 A A	1.5	0.542	-0.64	+20	1112-T2
240V/60Hz	white white	1.5	0.543	-0.64	+20	Output: 12VDC, 9.25A
100V/50Hz	MUTER MUTE	1.5	1.384	-0.08	+20	Tested with
100V/60Hz	1 A	1.5	1.386	-0.08	+20	model GTM961200P ²
240V/50Hz	NUTE INNUT IN	1.5	0.580	-0.61	+20	2015-T2
240V/60Hz	set what we	1.5	0.581	-0.61	+20	Output: 15VDC, 8.0A
100V/50Hz	10 T	1.5	1.363	-0.09	+20	Tested with
100V/60Hz	NUTER MUTE	1.5	1.363	-0.09	+20	model GTM961200P ²
240V/50Hz	and the	1.5	0.580	-0.61	+20	2024-T2
240V/60Hz	MULTER MULTER	1.5	0.580	-0.61	+20	Output: 24VDC, 5.0A

1



11.8	TABLE: Heating test, t	hermocouples	5 A	1. 1	t set	NUTER NUTE	Р
and the second	Test voltage (V)		Se	e below	m. v	10 - 50 - A	-
W. The	Ambient (°C)		Se	e below	STER ON	Jean White	Win .
Thermoc	ouple locations	Max. temp	perature	rise measure	ed, ΔT (K)	Max. temp	
		94V/6	60Hz 🏑	254.4	//50Hz	rise limit,	ΔΤ (Κ)
at writer writer writer writer		Label up	Label down	Label up	Label down		
Pin of app	liance inlet	18.9	19.6	18.0	15.6	T70-25	=45
MOV1 boo	y	26.9	26.1	22.2	20.9	T85-25	=60
LF1 windir	ng t	39.8	38.6	32.8	31.8	T130-25	=105
CX1 body		41.5	40.1	33.5	32.4	T100-25	=75
LF2 windir	ng	47.2	45.2	36.3	35.2	T130-25	=105
PCB near	BD1	45.1	41.2	34.4	34.2	T130-25	=105
L1 winding	gunin uni uni u	53.7	51.6	40.9	40.0	T130-25	=105
L2 winding		54.6	52.6	42.7	41.8	T130-25	=105
PCB near	Q1	47.0	44.8	38.7	38.1	T130-25	=105
PCB near	Q3	46.8	44.9	39.2	38.5	T130-25	=105
C4 body		54.0	51.9	46.1	45.3	T105-25	=80
T1 winding	g	68.8	67.2	63.2	62.2	85, Class	130
T1 bobbin	- m - m - m	59.7	57.9	52.8	52.0	For cl.3	0.1
L3 winding	Julie with white	60.5	58.3	53.5	53.3	T130-25	=105
CY1 body	a state of	47.2	44.0	41.0	40.8	T125-25	=100
CY2 body	white white white white	54.7	50.6	49.0	48.9	T125-25	=100
U2 body	A & A A A	61.0	59.2	55.5	54.8	T100-25	=75
L4 winding	g and an an	55.5	52.3	50.7	50.5	T130-25	=105
C41 body	the set set	60.9	59.4	56.0	55.1	T105-25	=80
PCB near	D53	62.6	61.0	58.0	57.3	T130-25	=105
Output lea	ad wire	40.4	38.7	37.5	36.4	T80-25	=55
Plastic en	closure inside near T1,	46.0	43.1	37.6	37.2	For cl.3	0.1
Plastic en	closure outside near T1	33.8	31.3	28.0	27.3	d _d 74	Jet
Test floor	i s s st	18.9	19.6	18.0	15.6	65	
Ambient	multi unit wat	24.3°C	24.6°C	24.1°C	_24.3°C	<u></u>	1 . S

11.8

TABLE: Heating test, thermocouples

Ρ



L A	Test voltage (V)		See	e below				
white w	Ambient (°C)	See below						
Thermocouple locations		Max. temp	perature ri	ed, ΔT (K)	Max. temperature			
		94V/6	94V/60Hz		//50Hz	rise limit, ΔT (K)		
		Label up	Label down	Label up	Label down			
Pin of applia	nce inlet	29.5	29.7	27.5	26.6	T70-25=45		
MOV1 body	the strength	32.8	33.1	25.9	25.7	T85-25=60		
LF1 winding	LIEK MUTER MUTER M	44.5	45.2	35.7	35.5	T130-25=105		
CX1 body	· · ·	44.4	45.5	33.9	33.9	T100-25=75		
LF2 winding	et unite white white	50.8	51.2	37.1	36.9	T130-25=105		
PCB near Bl	D1 1 1 1	41.8	43.2	42.8	40.9	T130-25=105		
L1 winding	when whe whe	60.2	61.2	33.8	43.0	T130-25=105		
L2 winding	at let bet	48.1	48.9	36.3	36.6	T130-25=105		
PCB near Q	1° m ^r m ^r ¹	41.7	42.2	33.1	33.5	T130-25=105		
PCB near Q	3 t set set in	41.9	42.2	33.7	33.8	T130-25=105		
C4 body	m. m. n.	47.7	49.0	40.3	39.4	T105-25=80		
T1 winding	.	61.7	63.2	55.8	55.8	85, Class 130		
T1 bobbin		49.5	51.1	41.7	42.0	For cl.30.1		
L3 winding		50.2	52.2	42.8	43.5	T130-25=105		
CY1 body	a a at	36.9	40.4	30.4	32.1	T125-25=100		
CY2 body	the work with a	53.1	58.8	46.8	50.1	T125-25=100		
U2 body	at let let it	53.4	55.2	47.2	47.9	T100-25=75		
L4 winding	me me m	44.7	47.7	39.8	41.8	T130-25=105		
C41 body	. Set Ster Ster	52.1	53.4	46.8	47.1	T105-25=80		
PCB near D	53	53.8	55.1	48.6	49.0	T130-25=105		
Output lead	wire	29.5	31.8	25.6	27.8	T80-25=55		
Plastic enclo	osure inside near T1,	38.9	39.5	30.0	31.0	For cl.30.1		
Plastic enclo	osure outside near T1	32.9	34.5	26.6	28.1	74		
Test floor	s at at a	31.5	29.7	23.6	26.3	65		
Ambient	unit white white	24.4°C	24.5°C	24.5°C	24.2°C	1 . 1 1 ·		

11.8	TABLE: Heating test, thermocouples Test voltage (V)		Р
in man w	Test voltage (V)	See below	11-22
dt .	Ambient (°C)	See below	, d

Page 79 of 126



Thermocouple locations	Max. temp	perature r	Max. temperature			
	94V/6	60Hz	254.4	//50Hz	rise limit, ΔT (K)	
	Label up	Label down	Label up	Label down		
Pin of appliance inlet	24.9	26.3	15.2	18.5	T70-25=45	
MOV1 body	31.7	29.6	19.7	20.6	T85-25=60	
LF1 winding	37.1	35.2	23.7	25.5	T130-25=105	
CX1 body	43.5	41.9	27.2	29.6	T100-25=75	
LF2 winding	49.0	47.3	27.5	30.0	T130-25=105	
PCB near BD1	48.7	45.6	29.8	31.9	T130-25=105	
L1 winding	53.2	51.5	31.6	34.5	T130-25=105	
L2 winding	50.1	48.7	33.2	36.0	T130-25=105	
PCB near Q1	43.1	41.3	29.1	32.1	T130-25=105	
PCB near Q3	41.4	38.4	29.0	31.6	T130-25=105	
C4 body	47.7	46.3	34.6	37.6	T105-25=80	
T1 winding	55.3	53.8	43.7	46.6	85, Class 130	
T1 bobbin	47.8	46.3	35.9	38.8	For cl.30.1	
L3 winding	43.0	49.3	18.4	18.0	T130-25=105	
CY1 body	36.7	32.1	27.2	28.9	T125-25=100	
CY2 body	47.3	42.6	38.8	39.8	T125-25=100	
U2 body	50.0	48.8	40.7	43.2	T100-25=75	
L4 winding	41.5	38.0	33.9	36.0	T130-25=105	
C41 body	58.1	56.9	48.4	51.5	T105-25=80	
PCB near D53	50.1	49.2	41.8	43.8	T130-25=105	
Output lead wire	26.4	22.4	20.4	22.5	T80-25=55	
Plastic enclosure inside near T1,	40.4	38.2	27.7	30.1	For cl.30.1	
Plastic enclosure outside near T1	25.2	26.6	16.8	21.9	74	
Test floor	21.2	28.1	13.7	20.7	65	
Ambient	24.7°C	24.4°C	24.5°C	24.5°C	10 .5ª	

11.8	TABLE: Heating tes	t, thermocouples			24. 2	Р
State and	Test voltage (V)		See below			Les Three
	Ambient (°C)		See b	elow	20 2	
Thermocouple locations		Max. temperatu	re rise	e measured, ΔT (K)	Max. temp	
		94V/60Hz	m	254.4V/50Hz	rise limit,	ΔΤ (Κ)

Page 80 of 126



	Label up	Label down	Label up	Label down	
Pin of appliance inlet	29.9	29.6	24.8	23.6	T70-25=45
MOV1 body	31.8	34.6	24.4	24.8	T85-25=60
LF1 winding	43.4	45.4	34.0	34.1	T130-25=105
CX1 body	44.1	45.6	33.1	32.3	T100-25=75
LF2 winding	51.1	52.3	36.2	35.3	T130-25=105
PCB near BD1	48.2	51.5	35.0	35.4	T130-25=105
L1 winding	60.4	61.1	43.8	42.4	T130-25=105
L2 winding	57.3	58.0	48.2	47.3	T130-25=105
PCB near Q1	54.3	54.8	42.4	41.1	T130-25=105
PCB near Q3	54.0	54.2	43.3	42.1	T130-25=105
C4 body	56.2	56.9	45.7	<u></u> 44.4	T105-25=80
T1 winding	68.6	68.8	65.3	64.0	85, Class 130
T1 bobbin	69.2	69.6	55.8	54.5	For cl.30.1
L3 winding	67.6	68.0	59.3	58.5	T130-25=105
CY1 body	50.6	51.5	43.1	42.8	T125-25=100
CY2 body	54.7	56.7	49.5	50.5	T125-25=100
U2 body	59.5	60.0	57.3	56.7	T100-25=75
L4 winding	55.6	56.7	51.5	51.7	T130-25=105
C41 body	64.0	63.5	59.1	58.0	T105-25=80
PCB near D53	65.9	67.0	60.3	60.8	T130-25=105
Output lead wire	40.7	39.6	37.8	36.5	T80-25=55
Plastic enclosure inside near T1,	56.3	44.3	36.6	35.9	For cl.30.1
Plastic enclosure outside near T1	39.8	38.5	32.5	34.2	74
Test floor	35.4	34.1	30.6	31.3	65
Ambient	24.4°C	24.3°C	24.4°C	24.5°C	at the

11.8	TABLE: Heating tes	st, thermocouples		Р				
Set .	Test voltage (V)			See below				
h h	Ambient (°C)	de selection de la construcción de	See	e below	in m	Sec. 2		
Thermocouple locations		Max. temp	erature r	ise measure	d, ΔT (K)	Max. temp		
		94V/6	0Hz	254.4V	/50Hz	rise limit,	ΔT (K)	
		Label up	Label down	Label up	Label down			

Page 81 of 126



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Pin of appliance inlet	28.8	28.7	24.1	24.5	T70-25=45
MOV1 body	32.9	34.5	22.1	23.3	T85-25=60
LF1 winding	44.7	46.0	30.9	31.6	T130-25=105
CX1 body	46.1	47.3	31.5	31.8	T100-25=75
LF2 winding	54.2	55.4	35.6	35.6	T130-25=105
PCB near BD1	50.5	52.0	33.1	34.1	T130-25=105
L1 winding	56.7	57.8	39.6	39.7	T130-25=105
L2 winding	56.2	57.5	42.4	42.7	T130-25=105
PCB near Q1	56.9	58.0	41.8	41.8	T130-25=105
PCB near Q3	54.7	55.7	41.1	41.2	T130-25=105
C4 body	58.7	59.9	44.6	44.9	T105-25=80
T1 winding	67.3	66.6	61.2	61.3	85, Class 130
T1 bobbin	64.1	63.9	60.3	60.2	For cl.30.1
L3 winding	68.8	68.9	58.7	59.4	T130-25=105
CY1 body	50.1	52.2	39.5	41.1	T125-25=100
CY2 body	57.8	60.2	46.7	50.2	T125-25=100
U2 body	57.8	58.3	52.2	52.9	T100-25=75
L4 winding	58.0	59.9	49.0	51.3	T130-25=105
C41 body	63.2	64.1	56.2	56.5	T105-25=80
PCB near D53	67.9	69.8	58.6	59.7	T130-25=105
Output lead wire	35.9	36.4	30.3	31.2	T80-25=55
Plastic enclosure inside near T1,	50.9	52.1	37.6	38.0	For cl.30.1
Plastic enclosure outside near T1	38.6	38.3	28.3	27.9	74
Test floor	34.2	33.9	25.4	25.1	65
Ambient	24.3°C	24.2°C	24.2°C	24.4°C	t set - set
Supplementary information: Tested w	ith model GT	M961200P	12015-T2	er me	20. 20 a
	and the second se				

11.8	TABLE: Heating tes	st, thermocouples	S MUTE			m. m	Р
NITE.	Test voltage (V)		s	See below	Set .	JEK NJER	Marter.
	Ambient (°C)		s	See below	m. n		Æ
Thermo	couple locations	Max. temp	erature	e rise measure	d, ΔT (K)	Max. temp	
		94V/6	60Hz	254.4V	/50Hz	rise limit,	ΔΤ (Κ)
		Label up	Labe dowr		Label down		
Pin of ap	pliance inlet	26.9	27.3		19.1	T70-25	=45
MOV1 b	ody at at at	47.0	48.6	25.9	26.1	T85-25	=60

Page 82 of 126



1

LF1 winding	49.6	51.3	34.4	34.9	T130-25=105
CX1 body	26.9	28.3	38.0	38.6	T100-25=75
LF2 winding	63.7	65.5	40.2	40.8	T130-25=105
PCB near BD1	59.1	60.9	42.7	43.4	T130-25=105
L1 winding	66.8	68.6	44.3	45.1	T130-25=105
L2 winding	57.7	59.5	44.9	45.7	T130-25=105
PCB near Q1	58.6	60.4	44.6	45.4	T130-25=105
PCB near Q3	56.5	58.2	46.4	47.2	T130-25=105
C4 body	62.2	63.9	46.8	47.7	T105-25=80
T1 winding	83.4	84.4	62.2	63.5	85, Class 130
T1 bobbin	68.1	70.1	50.3	51.3	For cl.30.1
L3 winding	76.2	78.1	60.2	61.4	T130-25=105
CY1 body	45.4	47.0	43.8	44.6	T125-25=100
CY2 body	52.1	53.7	50.9	51.9	T125-25=100
U2 body	70.9	72.8	55.9	57.0	T100-25=75
L4 winding	48.7	50.4	44.0	44.8	T130-25=105
C41 body	62.6	64.4	57.6	58.7	T105-25=80
PCB near D53	63.0	64.8	54.1	55.2	T130-25=105
Output lead wire	35.9	37.4	31.2	31.6	T80-25=55
Plastic enclosure inside near T1,	65.0	65.8	38.5	39.2	For cl.30.1
Plastic enclosure outside near T1	42.7	41.8	27.5	27.7	74
Test floor	36.0	35.2	21.4	21.5	65
Ambient	24.4°C	24.2°C	24.1°C	24.2°C	at at at

TABLE: Heating test	, resistance	method			N/A
Test voltage (V)				the set	
Ambient, t ₁ (°C)			in min	m. m.	10 10
Ambient, t ₂ (°C)				SP- SP .	NUTER WAITE
ure rise of winding	R ₁ (Ω)	R ₂ (Ω)	ΔΤ(Κ)	Max. Δ T (K)	Insulation class
i at at a	\$	NUT - NUT	mer m	m_ m	
	Test voltage (V) Ambient, t1 (°C) Ambient, t2 (°C)	Test voltage (V) Ambient, t1 (°C) Ambient, t2 (°C)	Ambient, t_1 (°C) Ambient, t_2 (°C) ure rise of winding R_1 (Ω) R_2 (Ω)	Test voltage (V)	Test voltage (V) Ambient, t_1 (°C) Ambient, t_2 (°C) ure rise of winding R_1 (Ω) R_2 (Ω) Δ T (K)

13.2	TABLE: Leakage current	Р
A	Heating appliances: 1.15 x rated input (W):	7



at whitek	Motor-operated and combined appliances: 1.06 x rated voltage (V)	: 254.4	t unit with much
Leakage o	current between	I (mA)	Max. allowed I (mA)
Tested wit	h model GTM96900P9012-T2	it it it	where mare white a
L/N to plas	stic enclosure	0.045	0.35 peak
L/N to out	put connector	0.136	0.35 peak
Tested wit	h model GTM96900P9030-T2	me m m	1 1 1 1 1
L/N to plas	stic enclosure	0.033	0.35 peak
L/N to out	put connector	0.152	0.35 peak
Tested wit	h model GTM961200P11112-T2	LIFE MITER MAIL	white white white
L/N to plas	stic enclosure	0.046	0.35 peak
L/N to out	put connector	0.155	0.35 peak
Tested wit	h model GTM961200P12024-T2	s st	at the set of
L/N to plas	stic enclosure	0.037	0.35 peak
L/N to out	put connector	0.146	0.35 peak
Suppleme	ntary information:	men when when	m. m. m.

13.3	TABLE: Dielectric strength		P
Test vol	tage applied between:	Test potential applied (V)	Breakdown / flashover (Yes/No)
Tested w	vith model GTM96900P9030-T2		at the all and
L/N to pla	astic enclosure	3000	No
L/N to ou	itput connector	3000	No
Primary a	and secondary of T1	3000	No
Seconda	ry and iron core of T1	3000	No
One laye	er of insulation tape	3000	No
Tested w	vith model GTM961200P12024-T2	at let set when	neres where where wh
L/N to pla	astic enclosure	3000	No
L/N to ou	utput connector	3000	No
Primary a	and secondary of T1	3000	Not
Seconda	ry and iron core of T1	3000	JAN JANO JA
One laye	er of insulation tape	3000	No
Supplem	entary information:	the state of the second second	mr. m. m. m

16.2	TABLE: Leakage current	with most work what whe	Р
ex white	Single phase appliances: 1.06 x rated voltage (V):	254.4	whiter

¢



	Three phase appliances 1.06 x rated volume divided by $\sqrt{3}$ (V)		t stat word muse
Leakage o	current between	I (mA)	Max. allowed I (mA)
Tested wit	h model GTM96900P9012-T2	it it set	ALTER MALTER MALTER
L/N to plas	tic enclosure	0.045	0.25
L/N to outp	put connector	0.136	0.25
Tested wit	h model GTM96900P9030-T2	we me me m	s it it i
L/N to plas	tic enclosure	0.033	0.25
L/N to outp	put connector	0.152	0.25
Tested wit	h model GTM961200P11112-T2	* sufer mater white	water water water
L/N to plas	tic enclosure	0.046	0.25
L/N to outp	put connector	0.155	0.25
Tested wit	h model GTM961200P12024-T2	i i at	at the the state of
L/N to plas	tic enclosure	0.037	0.25
L/N to outp	out connector	0.146	0.25
Suppleme	ntary information:	it with with me	The second

16.3	TABLE: Dielectric strength		Р
Test vol	tage applied between:	Test potential applied (V)	Breakdown / flashover (Yes/No)
Tested w	ith model GTM96900P9030-T2		at the with a start
L/N to pla	astic enclosure	3000	No
L/N to ou	tput connector	3000	No
Primary a	and secondary of T1	3000	No
Seconda	ry and iron core of T1	3000	No
One laye	r of insulation tape	3000	No
Tested w	ith model GTM961200P12024-T2	at let set with a	use must while wh
L/N to pla	astic enclosure	3000	No A
L/N to ou	tput connector	3000	No No
Primary a	and secondary of T1	3000	No
Seconda	ry and iron core of T1	3000	No No
One laye	r of insulation tape	3000	No
Supplem	entary information:	the state with south sublic s	up my my m

17	TABLE: Overload protection	n, thermocouple method	in an an	Р
Tempe	rature rise of part/at:	Max. temperature rise measured, ΔT (K)	Max. temperatu limit, ΔT (ł	
Tested	with model GTM96900P9012-T2	set and an an	- 10 10t	Set

Page 85 of 126

T1 winding	84.3	150
T1 bobbin	72.1	For cl.30.1
Output lead wire	41.3	55
Tested with model GTM96900P9030-1	72	antie water wa
T1 winding	54.5	150
T1 bobbin	41.0	For cl.30.1
Output lead wire	27.8	55 1
Tested with model GTM961200P1111	2-T2	ner when when
T1 winding	79.2	150
T1 bobbin	66.6	For cl.30.1
Output lead wire	43.9	55
Tested with model GTM961200P12024	4-T2	me m n
T1 winding	77.2	150
T1 bobbin	64.6	For cl.30.1
Output lead wire	41.9	55

Supplementary information:

19.7	TABLE: Abnormal operation, locked rotor/moving parts								
Vry M	Test voltage (V)		X	White white	11	r - n			
to a	Ambient, t ₁ (°C)		<u></u>	:	- 4 10	-	et — S		
m	Ambient, t ₂ (°C)		<u></u>	NIE MUT	me me	m	-m.		
Temper	ature of winding	R ₁ (Ω)	R ₂ (Ω)	ΔΤ(Κ)	T (°C)	Ma	x. T (°C)		
	1 10 10	Jet Juli	nr - nr	an <u>-</u> a			,-		
Supplem	nentary information:	19 T	A 14	+ . t :	et the	5	Nº 11		

19.13 TABLE: Abnormal operation, temperature rises					
Thermoco	ouple locations	Max. temperature rise measured, ΔT (K)	Max. temperature rise limit, ΔT (K)		
	at at at 5	et all a shirt where all a			
Suppleme	ntary information:	+ + + + + + ·	set alle with white		

21.1	TABLE: Impac	t resistance	t alt all aller out	P.
Impacts p	ber surface	Surface tested	Impact energy (Nm)	Comments
Three	e blows	Enclosure	0.5J	No hazards
Supplement	tary information:	white white white	m m m m	1. 1. 1.

24.1 TABLE: Components

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

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Page 86 of 126



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122

Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
Enclosure	SABIC INNOVATIVE PLASTICS B V	HF500R	PC, V-0, Min. thickness: 2.0mm, 125°C	IEC/EN 60335-1 UL 94 UL 746 A/B/C/D	Tested with appliance & UL E45329
(Alternative)	SABIC INNOVATIVE PLASTICS US L L C	940	PC, Min. V-0, Min. thickness: 2.0mm, 120°C	IEC/EN 60335-1 UL 94 UL 746 A/B/C/D	Tested with appliance & UL E121562
(Alternative)	SABIC JAPAN L L C	945(GG)	PC, Min. V-0, Min. thickness: 2.0mm, 120°C	IEC/EN 60335-1 UL 94 UL 746 A/B/C/D	Tested with appliance & UL E207780
(Alternative)	SABIC INNOVATIVE PLASTI Alt. use CS B V	C2950	PC/ABS, Min. V-0, Min. thickness: 2.0mm, 105°C	IEC/EN 60335-1 UL 94 UL 746 A/B/C/D	Tested with appliance & UL E45329
(Alternative)	SABIC INNOVATIVE PLASTICS B V	CX7211	PC/ABS, Min. V-0, Min. thickness: 2.0mm, 90°C	IEC/EN 60335-1 UL 94 UL 746 A/B/C/D	Tested with appliance & UL E45329
(Alternative)	TEIJIN CHEMICALS LTD	LN-1250P, LN-1250G	PC, Min. V-0, Min. thickness: 2.0mm, 115°C	IEC/EN 60335-1 UL 94 UL 746 A/B/C/D	Tested with appliance & UL E50075
Appliance inlet CN1 (C8 type)	LECI Electronics Co., Ltd	DB-8	250 Vac, 2.5A	IEC/EN 60320-1	VDE 40032028
(Alternative)	Rich Bay Co Ltd	R-201SN90	250 Vac, 2.5A	IEC/EN 60320-1	VDE 40030384
(Alternative)	Sun Fair Electric Wire & Cable (HK) Co Ltd	S-01	250 Vac, 2.5A	IEC/EN 60320-1	VDE 40034449
(Alternative)	TECX-UNIONS Technology Corporation	SO-222	250 Vac, 2.5A	IEC/EN 60320-1	VDE 40043268
(Alternative)	RongFeng Industrial Co., Ltd.	RF- 180	250 Vac, 2.5A	IEC/EN 60320-1	VDE 40030168
(Alternative)	Inalways Corp.	0721	250 Vac, 2.5A	IEC/EN 60320-1	ENEC/FI 2010087
(Alternative)	Zhe Jiang BeiErjia	ST-A03-005	250 Vac, 2.5A	IEC/EN 60320-1	VDE 40014833
(Alternative)	Delikang Electronics Technology Co Ltd	CDJ-8	250 Vac, 2.5A, 2 pins, 75°C	IEC/EN 60320-1 UL 498	VDE 40025531 UL E217394
Appliance inlet CN1 (C18 type)	RongFengIndustr ial Co.,Ltd	SS-120	250 Vac, 10A	IEC/EN 60320-1	VDE 40028101



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24.1	TABLE: Components	. LET OLIET.			Р
Object / part No.	: Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
(Alternative)	HCR ELECTRONICS CO., LTD.	SK05	250 Vac, 10A	IEC/EN 60320-1	CB:NO69247
(Alternative)	Rich Bay Co., Ltd	R-301SN	250 Vac, 10A	IEC/EN 60320-1	VDE 40030228
PCB	WALEX ELECTRONIC (WUXI) CO LTD	T2, T2A, T2B, T4	V-0, 130°C	UL 796	UL E154355
(Alternative)	DONGGUAN HE TONG ELECTRONICS CO LTD	CEM1, 2V0, FR4	V-0, 130°C	UL 796	UL E243157
(Alternative)	CHEERFUL ELECTRONIC (HK) LTD	02, 03, 03A	V-0, 130°C	UL 796	UL E199724
(Alternative)	DONGGUAN DAYSUN ELECTRONIC CO LTD	DS2	V-0, 130°C	UL 796	UL E251754
(Alternative)	DAFENG AREX ELECTRONICS TECHNOLOGY CO LTD	02V0, 03V0, 04V0	V-0, 130°C	UL 796	UL E186016
(Alternative)	KUOTIANG ENT	C-2, C-2A	V-0, 130°C	UL 796	UL E227299
(Alternative)	SHENZHEN TONGCHUANG XIN ELECTRONICS CO LTD	тсх	V-0, 130°C	UL 796	UL E250336
(Alternative)	YUANMAN PRINTED CIRCUIT CO LTD	1V0	V-0, 130°C	UL 796	UL E74757
(Alternative)	SUZHOU XINKE ELECTRONICS CO LTD	ХК-2, ХК-3	V-0, 130°C	UL 796	UL E231590
(Alternative)	KUNSHAN CITY QIANDENG WUQIAO ELECTRICAL APPLIANCE FACTORY	WQ-A, WQ-B, WQ-C	V-0, 130°C	UL 796	UL E492425



24.1 TA	BLE: Components				Р
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
(Alternative)	Jiangxi ZHONG XIN HUA Electronics Industry Co Ltd	ZXH-1, ZXH-2, ZXH-3	V-0, 130°C	UL 796	UL E331298
(Alternative)	Shenzhen Jia Li Chuang Technology Development Co LTD	JLC-2	V-0, 130°C	UL 796	UL E479892
(Alternative)	KUNSHAN CITY HUA SHENG CIRCUIT BOARD CO LTD	HS-S	V-0, 130°C	UL 796	UL E229877
(Alternative)	JIANGSU DIFEIDA ELECTRONICS CO LTD	DFD-1	V-0, 130°C	UL 796	UL E213009
(Alternative)	SHANGHAI H-FAST ELECTRONICS CO LTD	211001, 411001	V-0, 130°C	UL 796	UL E337862
Insulating tape wrapping around the heatsink (Use insulation tape will not use Insulating tube)	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F-1, 1350T-1	Min. 130°C	UL 510	UL E17385
(Alternative)	BONDTEC PACIFIC CO LTD	370S	Min. 130°C	UL 510	UL E175868
(Alternative)	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ, CT	Min. 130°C	UL 510	UL E165111
(Alternative)	JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD	JY25-A	Min. 130°C	UL 510	UL E246950
(Alternative)	CHANG SHU LIANG YI TAPE INDUSTRY CO LTD	LY-XX	Min. 130°C	UL 510	UL E246820



24.1	TAE	BLE: Components				Р
Object / par No.	ť	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
Insulating tul used on heatsink and ground wire (Heatsink us insulating tul will not use insulation tap	d sing be	SHENZHEN WOER HEAT-SHRINKA BLE MATERIAL CO LTD	RSFR RSFR-H RSFR-HPF	600V, 125°C	UL 224	UL E203950
(Alternative)	Ser No	QIFURUI ELECTRONICS CO	QFR-h	600V, 125°C	UL 224	UL E225897
(Alternative)	n ine	DONGGUAN SALIPT CO LTD	SALIPT S-901-300, SALIPT S-901-600	600V, 125°C	UL 224	UL E209436
(Alternative)	N ^{LTE}	GUANGZHOU KAIHENG ENTERPRISE GROUP	K-2 (+), K-2 (CB)	600V, 125°C	UL 224	UL E214175
(Alternative)		CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-HFT	600V, 125°C	UL 224	UL E180908
Fuse (F1, F2 (F2 is option		Ever Island Electric Co., Ltd.And Walter Electric	2010	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40018781 UL E220181
(Alternative)	et 1	Conquer ElectronicsCo., Ltd.	MST series	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40017118 UL E82636
(Alternative)	white white	Bel Fuse Ltd.	RST-Serie(s)	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40011144 UL E20624
(Alternative)	STER X	Cooper Bussmann LLC	SS-5	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40015513 UL E19180
(Alternative)	whi	Conquer Electronics Co., Ltd.	MET series	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40017157 UL E82636



24.1	TABLE: Components				Р
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
X capacitor (CX1) (optional)	Cheng Tung Industrial Co., Ltd.	СТХ	Max. 0.22µF, Min.300V, 110°C, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	ENEC-02671 UL E193049
(Alternative)	Tenta Electric Industrial Co. Ltd.	MEX	Max. 0.22µF, Min.250V, 100°C, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 119119 UL E222911
(Alternative)	JOEY ELECTRONICS (DONG GUAN) CO LTD	MPX	Max. 0.22µF, Min.250V, 105°C, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40032481 UL E216807
(Alternative)	Ultra Tech Xiphi Enterprise Co. Ltd.	HQX	Max. 0.22µF, Min.250V, 100°C, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40015608 UL E183780
(Alternative)	Yuon Yu Electronics Co. Ltd.	MPX	Max. 0.22µF, Min.250V, 100°C, X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40032392 UL E200119
(Alternative)	Sinhua Electronics (Huzhou) Co., Ltd.	MPX	Max. 0.22µF, Min.250V, 100°C, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40014686 UL E237560
(Alternative)	Jiangsu XinghuaHuayu Electronics Co., Ltd.	MPX - Series	Max. 0.22µF, Min.250V, 100°C, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40022417 UL E311166
(Alternative)	Dain Electronics Co., Ltd.	MEX, MPX, NPX	Max. 0.22µF, Min.250V, 100°C, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40018798 UL E147776
(Alternative)	Shenzhen Jinghao Capacitor Co., Ltd.	CBB62B	Max. 0.22µF, Min.250V, 110°C, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40018690 UL E252286
(Alternative)	FoshanShunde Chuang Ge Electronic Industrial Co., Ltd.	МКР-Х2	Max. 0.22µF, Min.250V, 105°C, X1 or X2	IEC/EN 60384-14	VDE 40008922
(Alternative)	Winday Electronic Industrial Co., Ltd.	MPX series	Max. 0.22µF, Min.250V, 100°C, X1 or X2	IEC/EN 60384-14	VDE 40018071
Bleeder resistance (R1, R2)	Interchangeable	Interchangeable	Max. 2MΩ, 1/4W	IEC/EN 60335-1	Tested with appliance



24.1 TA	BLE: Components	with out of	the app and		P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
Bleeder resistance (R1A, R2A)	Interchangeable	Interchangeable	Max. 4.7MΩ, 1/4W	IEC/EN 60335-1	Tested with appliance
Y capacitor (CY1, CY2) (optional)	TDK Corporation	CD	Y1, AC250V, max. 2200pF, T125	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40029780 UL E37861
(Alternative)	Success Electronics Co., Ltd.	SE	Y1, AC250V, max. 2200pF, T125	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40037211 VDE 40020002 UL E114280
(Alternative)	Success Electronics Co., Ltd.	SB	Y1, AC250V, max. 2200pF, T125	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40037221 VDE 40020001 UL E114280
(Alternative)	Murata Mfg. Co., Ltd.	кх	Y1, AC250V, max. 2200pF, T125	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40002831 UL E37921
(Alternative)	Walsin Technology Corp.	AH	Y1, AC250V, max. 2200pF, T125	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40001804 UL E146544
(Alternative)	JYA-NAY Co., Ltd.	JN	Y1, AC250V, max. 2200pF, T125	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40001831 UL E201384
(Alternative)	Haohua Electronic Co.	CT7	Y1, AC250V, max. 2200pF, T125	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40003902 UL E233106
(Alternative)	Jyh Chung Electronic Co., Ltd.	JD	Y1, AC250V, max. 2200pF, T125	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 137027 UL E187963
(Alternative)	Jerro Electronics Corp.	JX-series	Y1, AC250V, max. 2200pF, T125	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40032158 UL E333001
(Alternative)	WELSON INDUSTRIAL CO LTD	WD	Y1, AC250V, max. 2200pF, T125	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40016157 UL E104572
Varistor MOV1 (optional)	Thinking Electronic Industrial Co., Ltd.	TVR10471K, TVR14471K	Max. Continuous voltage: min 300Vac(rms), 85°C	IEC 61051-1 IEC 61051-2	VDE 005944



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24.1	TA	BLE: Components				Р
Object / par No.	t	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
(Alternative)	۲ ۲ ۱	Centra Science Corp.	10D471K, 14D471K	Max. Continuous voltage: min 300Vac(rms), 85°C	IEC 61051-1 IEC 61051-2	VDE 40008220
(Alternative)	uni Maria	SUCCESS ELECTRONICS CO LTD	SVR10D471K, SVR14D471K	Max. Continuous voltage: min 300Vac(rms), 85°C	IEC 61051-1 IEC 61051-2	VDE 40030401
(Alternative)	et .	WALSIN TECHNOLOGY CORP	10D471K, 14D471K	Max. Continuous voltage: min 300Vac(rms), 85°C	IEC 61051-1 IEC 61051-2	VDE 40010090
(Alternative)	140- 171-	BestBright Electronics Co. Ltd	10D471K, 14D471K	Max. Continuous voltage: min 300Vac(rms), 85°C	IEC 61051-1 IEC 61051-2	VDE 40005858 VDE 40027827
(Alternative)	S. est	CERAMATE TECHNICAL CO LTD	GNR10D471K, GNR14D471K	Max. Continuous voltage: min 300Vac(rms), 85°C	IEC 61051-1 IEC 61051-2	VDE 40031745
(Alternative)		Joyin Co., Ltd.	10N471K, 14N471K	Max. Continuous voltage: min 300Vac(rms), 85°C	IEC 61051-1 IEC 61051-2	VDE 005937
Optocoupler (U2)	r Nife	Everlight Electronics Co., Ltd.	EL817	Dti=0.5mm, Int., dcr=6.0mm, EXT. dcr=7.7mm, thermal cycling test, 110°C	IEC/EN 60747-5-2	VDE 132249
(Alternative)	vol NAL	COSMO ELECTRONICS CORP	K1010, KP1010	Dti=0.6mm, Int., dcr=4.0mm EXT. dcr=5.0mm, thermal cycling test, 115°C	IEC/EN 60747-5-2	VDE 101347
(Alternative)	lar ex v	Lite-On Technology Corporation	LTV-817	Dti=0.8mm, Int., EXT. dcr=7.8mm, thermal cycling test, 110°C	IEC/EN 60747-5-2	VDE 40015248



24.1 T	ABLE: Components				P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
(Alternative)	Fairchild Semiconductor Pte Ltd	H11A817B, FOD817B	Insulation voltage: 850V, Transient overvoltage: 6000V, CTI175; Int. Cr/ Ext. Cr: ≥7.0/ 7.0 mm, 30/110/21	IEC/EN 60747-5-2	VDE 40026857
(Alternative)	SHARP CORP ELECTRONIC COMPONENTS AND DEVICES BU	PC817	Insulation voltage: 890V, Transient overvoltage: 9000V, Int. Cr/ Ext. Cr: 7.62/ 7.62 mm, 30/110/21	IEC/EN 60747-5-2	VDE 40008087
(Alternative)	Bright Led Electronics Corp.	BPC-817 A/B/C/D/L, BPC-817 M , BPC-817 S	Dti=0.4mm, EXT. dcr=7.0mm, thermal cycling test, 110°C	IEC/EN 60747-5-2	VDE 40007240
(Alternative)	TOSHIBA ELECTRONIC DEVICES & STORAGE CORPORATION	TLP817F	Dti> 0,4mm, Ext cr> 8,0mm, Isolation 3000Vac min., 110°C min., Thermal cycling test	IEC/EN 60747-5-2	VDE 40021173
Transformer (T1)	GlobTek / HAOPUWEI	See attachment for details	Class B, with critical component listed below	IEC/EN 60335-1	Tested with appliance
-Magnet wire	PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD	UEWN/U	MW28-C, 130°C	UL 1446	UL E201757
(Alternative)	PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD	UEWS/U	MW75-C, 130°C	UL 1446	UL E201757
(Alternative)	PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD	UEWS/U	MW75-C, 130°C	UL 1446	UL E201757
(Alternative)	JUNG SHING WIRE CO LTD	UEW-4	MW75C, 130°C	UL 1446	UL E174837



24.1 1	ABLE: Components				Р
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
(Alternative)	JUNG SHING WIRE CO LTD	UEY-2	MW28-C, 130°C	UL 1446	UL E174837
(Alternative)	JIANGSU HONGLIU MAGNET WIRE TECHNOLOGY CO LTD	2UEW/130	MW75-C, 130°C	UL 1446	UL E335065
(Alternative)	CHANGZHOU DAYANG WIRE & CABLE CO LTD	2UEW/130	MW75-C, 130oC	UL 1446	UL E158909
(Alternative)	WUXI JUFENG COMPOUND LINE CO LTD	2UEWB	MW75#, 130°C	UL 1446	UL E206882
(Alternative)	JIANGSU DARTONG M & E CO LTD	UEW	MW75-C, 130°C	UL 1446	UL E237377
(Alternative)	SHANDONG SAINT ELECTRIC CO LTD	UEW/130	MW75#, 130°C	UL 1446	UL E194410
(Alternative)	ZHEJIANG LANGLI ELECTRIC EQUIPMENTS CO LTD	UEW	MW 79#, 130°C	UL 1446	UL E222214
-Triple-insulat wire (Secondary)	ed Great Leoflon IndustrialCo., Ltd.	TRW (B) Serie(s)	Class B, reinforced insulation	IEC/EN 60335-1 UL 2353	VDE 136581 UL E211989
(Alternative)	KBI COSMOLINK CO.,LTD	TIW-M Serie(s)	Class B, reinforced insulation	IEC/EN 60335-1 UL 2353	VDE 138053 UL E213764
(Alternative)	Furukawa Electric Co., Ltd.Electronics & Automotive Systems CompanyGlobal Business Development Division	TEX-E	Class B, reinforced insulation	IEC/EN 60335-1 UL 2353	VDE 006735 UL E206440
(Alternative)	TOTOKU ELECTRIC CO LTD	TIW-2	Reinforced insulation, rated 130° C (Class B)	IEC/EN 60335-1 UL 2353	VDE 40044910 UL E166483



24.1	TABLE: Components				Р
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
(Alternative)	E&B TECHNOLOGY CO LTD	E&B-XXXB, E&B-XXXB-1	Reinforced insulation, Class B	IEC/EN 60335-1 UL 2353	VDE 40023473 UL E315265
(Alternative)	SHENZHEN JIUDING NEW MATERIAL CO LTD	DTIW-B	Reinforced insulation, Class B	IEC/EN 60335-1 UL 2353	VDE 40037495 UL E357999
-Bobbin	CHANG CHUN PLASTICS CO LTD	T375J, T375HF	V-0, 150°C, thickness 0.45 mm min.	IEC/EN 60335-1	Tested with appliance & UL E59481
(Alternative)	CHANG CHUN PLASTICS CO LTD	4130	V-0, 140°C, thickness 0.74 mm min.	IEC/EN 60335-1	Tested with appliance & UL E59481
(Alternative)	SUMITOMO BAKELITE CO LTD	PM-9820	V-0, 150°C, thickness 0.45 mm min.	IEC/EN 60335-1	Tested with appliance & UL E41429
(Alternative) SHOWA DENKO MATERIALS TECHNO SERVICE CO., LTD.		CP-J-8800	V-0, 150°C, thickness 0.45 mm min.	IEC/EN 60335-1	Tested with appliance & UL E514814
-Insulating tap	De 3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F-1, 1350T-1, 44	Min.130°C	IEC/EN 60335-1 UL 510	Tested with appliance & ULE17385
(Alternative)	BONDTEC PACIFIC CO LTD	370S	Min.130°C	IEC/EN 60335-1 UL 510	Tested with appliance & UL E175868
(Alternative)	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ, CT, WF	Min.130°C	IEC/EN 60335-1 UL 510	Tested with appliance & UL E165111
(Alternative)	JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD	JY25-A	Min.130°C	IEC/EN 60335-1 UL 510	Tested with appliance & UL E246950
(Alternative)	CHANG SHU LIANG YI TAPE INDUSTRY CO LTD	LY-XX	Min.130°C	IEC/EN 60335-1 UL 510	Tested with appliance & UL E246820
-Teflon tube	GREAT HOLDING INDUSTRIAL CO LTD	TFT, TFS	Min. 300V, 200°C	UL 224	UL E156256



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24.1 T.	ABLE: Components				Р
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
(Alternative)	SHENZHEN WOER HEAT-SHRINKA BLE MATERIAL CO LTD	WF	600V, 200°C	UL 224	UL E203950
(Alternative)	CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-TT-T, CB-TT-S	Min. 300V, 200°C	UL 224	UL E180908
-Varnish SUZHOU TAIHU ELECTRIC ADVANCED MATERIAL CO LTD		T-4260(a)	130°C	UL 1446	UL E228349
Output lead wire NEWZHICHENG ELECTRONICST ECHNOLOGIES CO LTD		1185, Min. 20AWG, 2464, min. 300Vac, 2468, min. 80°C 1015		IEC/EN 60335-1	Tested with appliance & UL E237831
(Alternative) ZHUANG SHANCHUANEL ECTRICALPRO DUCTS(KUNSH AN) COLTD		1185, Min. 20AWG, IEC/EN 6 2464, min. 300Vac, IEC/EN 6 2468, min. 80°C IEC/EN 6		IEC/EN 60335-1	Tested with appliance & UL E333601
(Alternative)	ZHUANG SHANCHUANEL ECTRICALPRO DUCTS(KUNSH AN) COLTD	SPT-1, SPT-2	Min. 20AWG, min. 300Vac, min. 80°C	IEC/EN 60335-1	Tested with appliance & UL E333536
(Alternative)	SUZHOU JIAHUISHU ELECTRONIC CO LTD	1185, 2464, 2468, 1015	Min. 20AWG, min. 300Vac, min. 80°C	IEC/EN 60335-1	Tested with appliance & UL E353532
(Alternative)	SUZHOUDIOUD EELECTRONICS CO LTD	SPT-1, SPT-2	Min. 20AWG, min. 300Vac, min. 80°C	IEC/EN 60335-1	Tested with appliance & UL E336192
Material of quick connector Technology Co.,L		Brass	H65	IEC/EN 60335-1	Tested with appliance
(Alternative)	Suzhou xianlede Electronics Co.,Ltd	Brass	H65	IEC/EN 60335-1	Tested with appliance
(Alternative)	HUANG JI MEC HANICAL ELECT RONIC FTY.	Brass	H65	IEC/EN 60335-1	Tested with appliance



24.1	TABLE: Component	s Stranger			4 A-	Р
Object / par No.	t Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s confor	
Supplement	ary information:	n m	, it it	584 58	In The st	£ .

1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.

Product model	Voltage range	Transformer model
GT*96900P series	12-13.4V	TF047
and GT*961200P series	13.5-14.9V	TF075
Selles	15-16.9V	TF048
a at	17-18.9V	TF076
at our and and and	19-21.3V	TF072
10 10	21.4-23.9V	TF077
where where where	24-27.4	TF049
m. m. w.	27.5-30.0V	TF078

28.1	TABLE: Threade	d part torque test		N/A
Threaded	d part identification	Diameter of thread (mm)	Column number (I, II, or III)	Applied torque (Nm)
- 1		A STATE OF		VA IT IN
Suppleme	entary information:		1 11 17	intre white white we

29.1	TABLE: Clearance	s				June	Р
t St is	Overvoltage categ	ory.:	m. m. n.	Category I	to the	1. St	
m. m.	and the	d.	Type of in	sulation:	the week	m. 1	30
Rated impulse voltage (V):	Min. cl (mm)	Basic (mm)	Supplementary (mm)	Reinforced (mm)	Functional (mm)	Verdi Rema	
330	0,2* / 0,5 / 0,8**		10-10-	5 ⁶⁵ 5 ⁶¹	In the second	NI-	m
500	0,2* / 0,5 / 0,8**	and the second	white the state	n. Tu	<u> </u>		
800	0,2* / 0,5 / 0,8**	<u> </u>	at -at	5 ⁶⁵ - 5 ⁶⁷	ner - mer	me -	ma
1 500	0,5 / 0,8** / 1,0***	Martin V	here the ch	<u> </u>	1 - 1	A	det
2 500	1,5 / <u>2,0</u> ***	>2.0	>2.0	10. ⁴ LIN.	>2.0	м ^т Р	S
4 000	3,0 / <u>3,5</u> ***	n - m		>3.5	t - d-	e P	Set.
6 000	5,5 / 6,0***	s S	NUT NUT	Martin - Martin	n - n	24	- 14
8 000	8,0 / 8,5***	-74-		* - 1	A	\$. <u>_</u>	
10 000	11,0 / 11,5***		ALTER TALE	Ner The	me - m	- 20.	



Supplementary information:

*) For tracks on printed circuit boards if pollution degree 1 and 2
**) For pollution degree 3
***) If the construction is affected by wear, distortion, movement of the parts or during assembly

29.2 TABLE: Working voltage (V):	Creep	age dis	Cre	basic, su eepage di (mm) ollution de	stance	ntary a	nd reinfor	ced in	sulati	on	<u>P</u>
autet maret an	1	NUTEX W	, S ²	while w	1 N	3	Ner M		Type o sulatio		
The second second	-	Ma	terial g	roup 🧹	Ма	terial g	roup	m	5		2
NUTER MALTE MALT	m	. Pur	110,0	IIIa/IIIb	1	, II ,	IIIa/IIIb*	B**	S**	R**	Verdict
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9	24	-20	_	N/A
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9	<u>Ja</u> r	. NITE		N/A
≤50	0,36	1,2	1,7	2,4	3,0	3,4	3,8				N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4	See al	<u>5 </u>	<u></u>	N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4	_	d.	,÷	N/A
125	0,56	1,5	2,1	3,0	3,8	4,2	4,8		-1	× .	N/A
250	0,56	1,25	1,8	<u>2,5</u>	3,2	3,6	4,0	>2.5		ø-	«́Р
250	0,56	1,25	1,8	<u>2,5</u>	3,2	3,6	4,0	<u>11-0-</u>	>2.5	ne	Р
250	1,12	2,5	3,6	<u>5,0</u>	6,4	7,2	8,0	24	-	>5.0	P
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3		n	-2010	N/A
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3	*	State .	S.	N/A
400	2,0	4,0	5,6	8,0	10,0	11,2	12,6		`		N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0		- n	<u> </u>	N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0				N/A
500	2,6	5,0	7,2	10,0	12,6	14,2	16,0	<u></u>	and the second s	m	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	A			N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	<u> </u>	N	en_	N/A
>630 and ≤800	3,6	6,4	9,0	12,6	16,0	18,0	20,0	t	<u>e</u> t	Set	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	- m		_	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5		S	ø <u>-</u> "	N/A
>800 and ≤1000	4,8	8,0	11,2	16,0	20,0	22,0	25,0	20	-20		N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	5th	10 - AC		N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	_			N/A
>1000 and ≤1250	6,4	10,0	14,2	20,0	25,0	28,0	32,0		<u>ه _</u> ر	ST.L.	N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0				N/A



>

Working voltage (V):		Creepage distance (mm) Pollution degree								White Tex	WAL-
when when when	1	* min	2	et white	main	3	which		Type o Isulatio		et s
r me m	-m	Material group			Material group			min white wh			. m
at the set	NUTER	J. L.	_ îl	IIIa/IIIb	20	Т.	IIIa/IIIb*	B**	S**	R**	Verdict
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	2_3	15	2hr	N/A
>1250 and ≤1600	8,4	12,6	18,0	25,0	32,0	36,0	40,0	*	al-	Set	N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0</td <td>20,0</td> <td>22,0</td> <td>25,0</td> <td>m</td> <td></td> <td></td> <td>N/A</td>	20,0	22,0	25,0	m			N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0		÷ _ ز	<u></u>	N/A
>1600 and ≤2000	11,2	16,0	22,0	32,0	40,0	44,0	50,0	-2m			N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	SIL	J. S. S. C.		N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	_		—	N/A
>2000 and ≤2500	15,0	20,0	28,0	40,0	50,0	56,0	64,0	« <u> </u>	S	WILL	N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0			<u>.</u>	N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0		W.	<u> </u>	N/A
>2500 and ≤3200	20,0	25,0	36,0	50,0	64,0	72,0	80,0	Ľ,		et-	≪N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	m	- m	-24	N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	1	1		N/A
>3200 and ≤4000	25,0	32,0	44,0	64,0	80,0	90,0	100,0	~_<	<u> </u>	20	N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	<63,0	st i	500	1100 - California	N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0				N/A
>4000 and ≤5000	32,0	40,0	56,0	80,0	100,0	112,0	126,0	1		× .	N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0		<u> </u>		N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	N LTW	min	-4-	N/A
>5000 and ≤6300	40,0	50,0	72,0	100,0	126,0	142,0	160,0	15			N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0		<u>~_</u>	"	N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	¢— ,	de .	<u>A</u>	N/A
>6300 and ≤8000	50,0	64,0	90,0	126,0	160,0	180,0	200,0	- m			N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	S.		×	N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	n.	-2010	_	N/A
>8000 and ≤10000	64,0	80,0	112,0	160,0	200,0	220,0	250,0	<u>jer</u>	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	JULI	N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0				N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0		5	<u>112</u>	N/A
>10000 and ≤12500	80,0	100,0	142,0	200,0	250,0	280,0	320,0	_	_	,t	N/A



Working (V)	-	at in			eepage dis (mm) ollution de			NUTER WAL				
in m	et det	1	کندر ۲	2	ret white	white	3	MALL		Type o sulatio		et s
the mar	ma	14	Ma	aterial g	group	Ma	aterial g	group	MERE	MALL	. m	m
at at	10	50	. 1	. II	Illa/IIIb	10.1	1	IIIa/IIIb*	B**	S**	R**	Verdict

*' Material group IIIb is allowed if the working voltage does not exceed 50 V
 **' B = Basic insulation, S = Supplementary insulation, R = Reinforced insulation

Working voltage (V):	MULTER			eepage di (mm) ollution d	1 st		suntret and	
INTER MATE IN	<u>1</u>	St.	2	In .	4	3	15 5	t stet when so
the second	d	🦽 Ma	iterial g	roup	Ma	aterial g	roup	m. n. r
muse main whi	m	- 34	I N	IIIa/IIIb	<u>د ا ج</u>	* II 🔬	llla/lllb*	Verdict / Remark
≤10	0,08	0,4	0,4	0,4	1,0	1,0	1,0	N/A
50	0,16	0,56	0,8	1,1	1,4	1,6	1,8	N/A
125	0,25	0,71	1,0	1,4	1,8	2,0	2,2	N/A
250	0,42	1,0	1,4	<u>2,0</u>	2,5	2,8	3,2	White Ports w
400	0,75	1,6	2,2	3,2	4,0	4,5	5,0	N/A
500	1,0	2,0	2,8	4,0	5,0	5,6	6,3	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	N/A



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Supplementary information:

 $^{\star)}$ Material group IIIb is allowed if the working voltage does not exceed 50 V

30.1 TABLE: Ball P	ressure Test of Therm	essure Test of Thermoplastics							
Allowed impression diam	eter (mm):	2.0	a sh	+					
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diame	eter (mm)					
Enclosure	See appended table 24.1	125	1.2	in white					
T1 bobbin	See appended table 24.1	125	0.6	MALTER					

Supplementary information:

All alternative components listed on table 24.1 were considered and the most unfavourable test result is recorded.

30.2	TABLE: Resistand	ce to hea	t and fire	- Glow w	ire tests			P
Object/	Manufacturer		G	low wire	test (GWT)	; (°C)	NALLE S	ner mer
Part No./ Material	1 St St	FF0	6	50	7	50	050	Verdict
me me	trademark	550	te	tí	🖉 te 🖉	ti	850	
Enclosure	See appended table 24.1	Р		1 ⁶⁴ .15	0s	0s	TEL P	- Pt-
Appliance inlet	See appended table 24.1		t white	* whitek	0s	0s	P	NUT P N
T1 bobbin	See appended table 24.1	Whitek	whitek	uniter v	0s	0s	NP N	P
Output connector	See appended table 24.1	miret v	nin <mark>at</mark> w	un- nu-	0s	0s	P V	P
Object/ Part No./	Manufacturer	Glow		mmability FI), °C	index	-	ion temp. T), °C	Verdict
Material	trademark	550	650	750	850	675	775	
Intre- Inn	2 min me	-m			10-5	et Jet	and the state	Ser of the
The test spe	ecimen passed the	glow wire	e test (GW	/T) with no	o ignition [(1	te — ti) ≤ 2s]	(Yes/No):	Yes
If no, then s	urrounding parts pa	assed the	needle-fl	ame test	of annex E	(Yes/No)		N/A
The test specimen passed the test by virtue of most of the flaming material being withdrawn with the glow-wire (Yes/No)?:								
Ignition of th	e specified layer pl	aced und	derneath t	he test sp	ecimen (Ye	s/No)		No



Supplementary information:

- 550 °C GWT not relevant (or applicable) to parts of material classified at least HB40 or if relevant HBF
 - The GWIT pre-selection option, the 850 °C GWFI pre-selection option, and the 850 °C GWT are not relevant (or applicable) for attended appliances

All alternative components listed on table 24.1 were considered and the most unfavourable test result is recorded.

30.2/30.2.4 TABLE: Needle- flame test (NFT)					N/A
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
The second	- + +	the mitter white	mer June 1	un mu	200-

Supplementary information:

- NFT not relevant (or applicable) for Parts of material classified as V-0 or V-1

- NFT not relevant (or applicable) for Base material of PCBs classified as V-0 or if relevant VTM-0

Page 103 of 126

Photo Documentation

Model: GTM96900P9012-T2

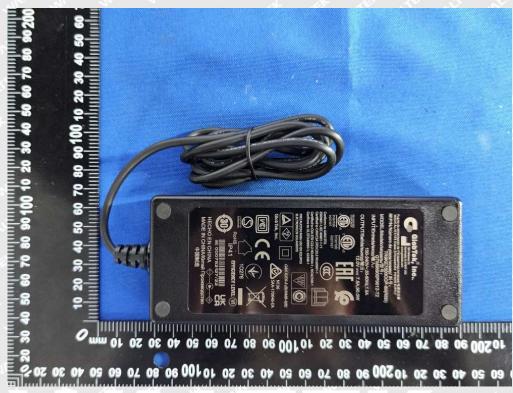


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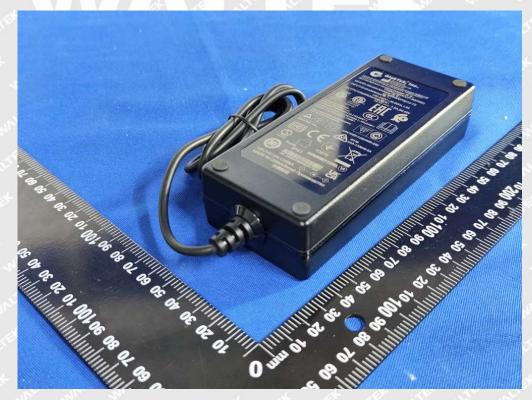


Photo 2

Page 104 of 126



Photo Documentation



Photo 4

Page 105 of 126



Photo Documentation

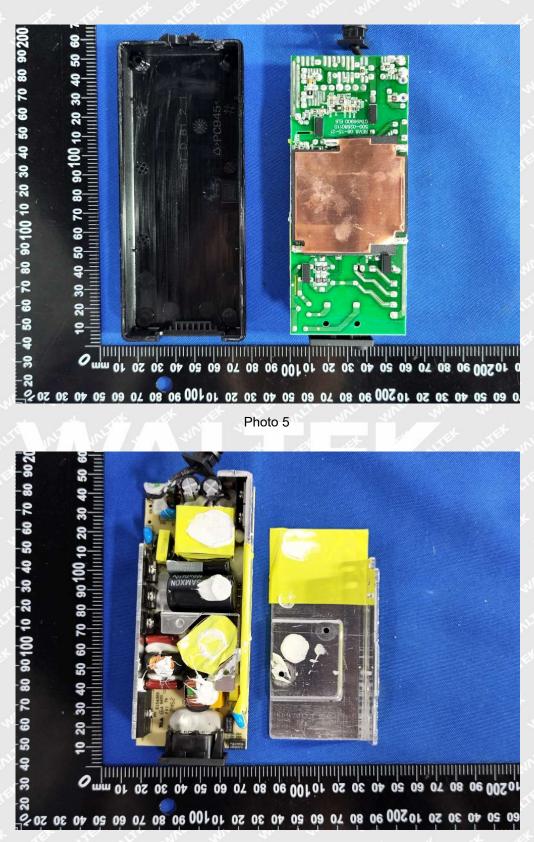
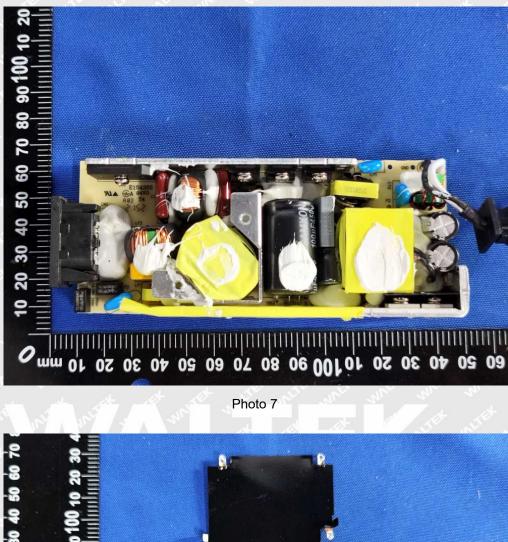


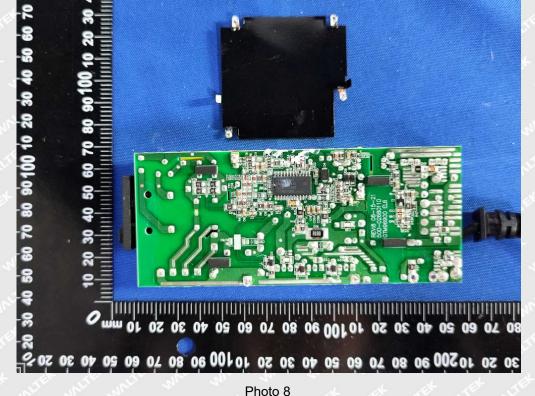
Photo 6

Page 106 of 126

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Photo Documentation





Page 107 of 126

Photo Documentation

Model: GTM96900P9015-T2



20 40 30 50 10500 80 80 20 60 20 40 30 50 10100 80 80 20 60 20 40 30 50 5

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Photo 10

Page 108 of 126



Photo Documentation



Photo 11



Photo 12

Page 109 of 126



Photo Documentation

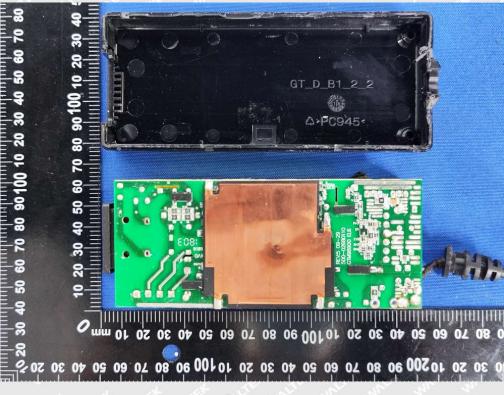


Photo 13

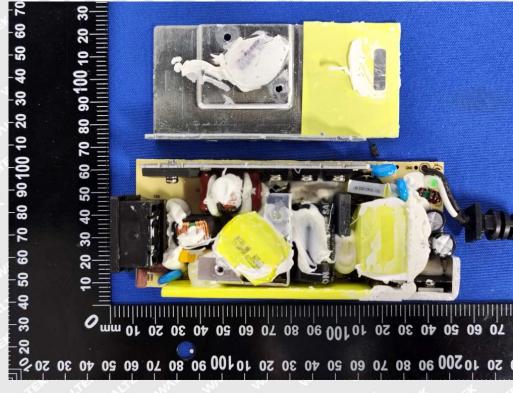


Photo 14

Page 110 of 126



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Photo Documentation

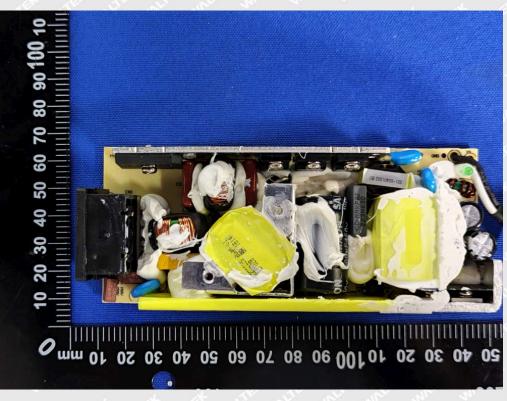


Photo 15

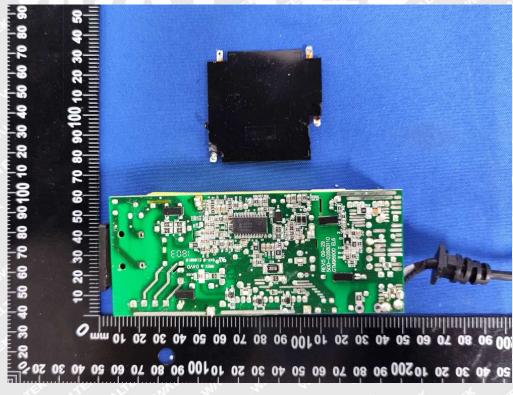


Photo 16

Page 111 of 126

Photo Documentation

Model: GTM96900P9030-T2



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Photo 17



Photo 18

Page 112 of 126



Photo Documentation



Photo 19



Photo 20

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Page 113 of 126



Photo Documentation

<image><image> Photo 21 90 2 00 60 50 70 80 40 30 30 40 50 60 70 80 90100 10 20 30 40 50 60 90 100 10 20 80 2 60 50 40 30 20 2 o 10200 90 80 70 60 50 40 30 20 100 90 80 70 60 50 40 30 20 10 mm of 02 00 00 90 90 100 mm of 000 10 20 20 20 20 40 30 50 10 500 30 80 10 20 20 20 40 30 50 10 100 30 80 10 20 20 20 20 20

Photo 22

Page 114 of 126

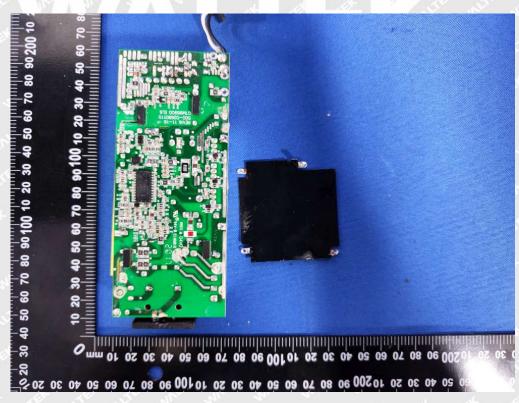
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Photo 23



Page 115 of 126

Photo Documentation

Model: GTM961200P11112-T2



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Photo 26

Page 116 of 126

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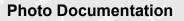
Photo 27



Page 117 of 126







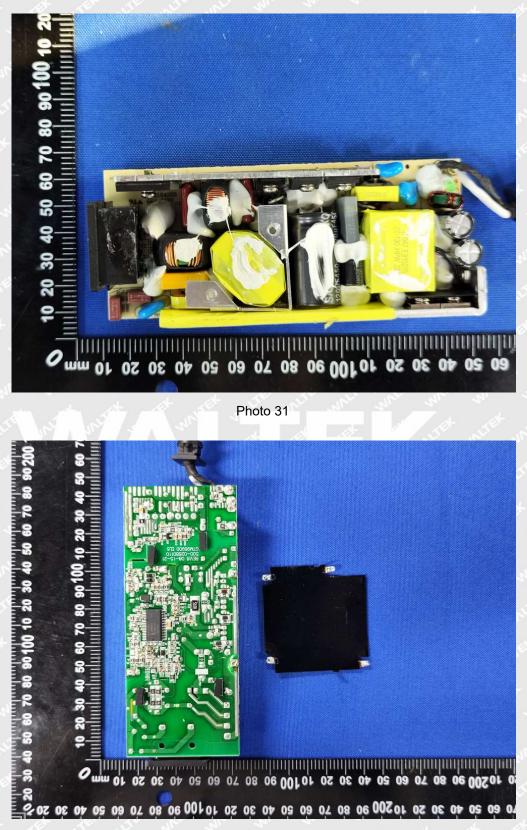


Page 118 of 126

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Page 119 of 126

Photo Documentation

GTM961200P12015-T2



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Photo 33

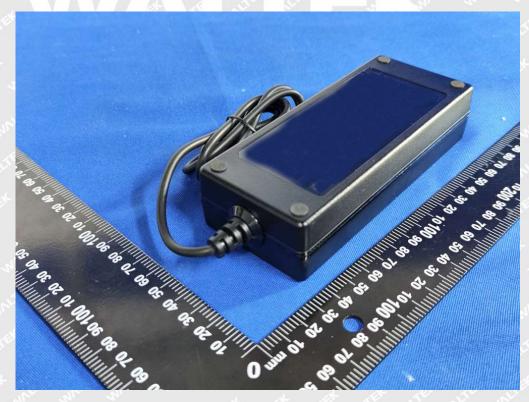


Photo 34

Page 120 of 126



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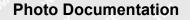


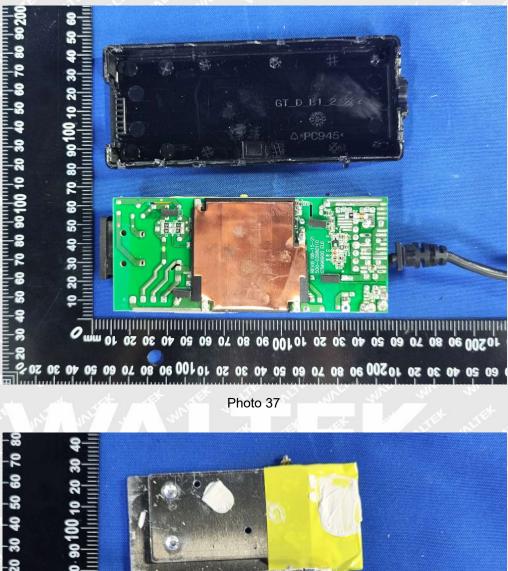
Page 121 of 126



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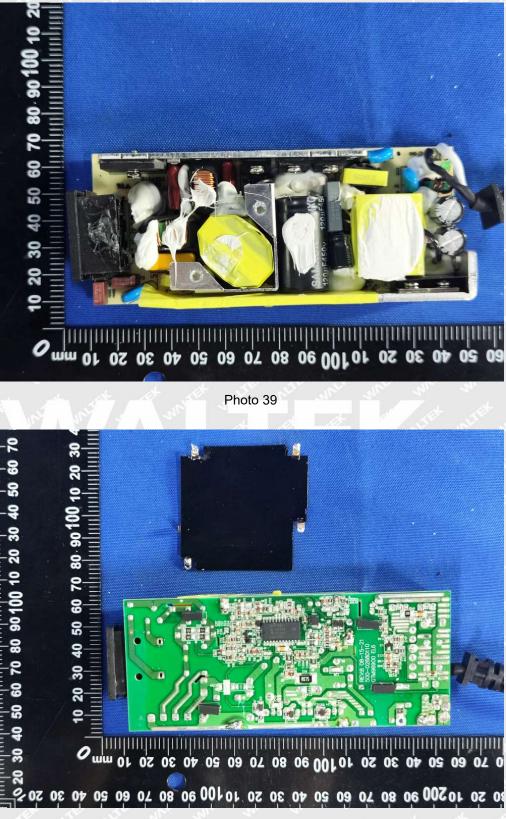




Page 122 of 126

Photo Documentation

2



Page 123 of 126

Photo Documentation

Model: GTM961200P12024-T2



-10



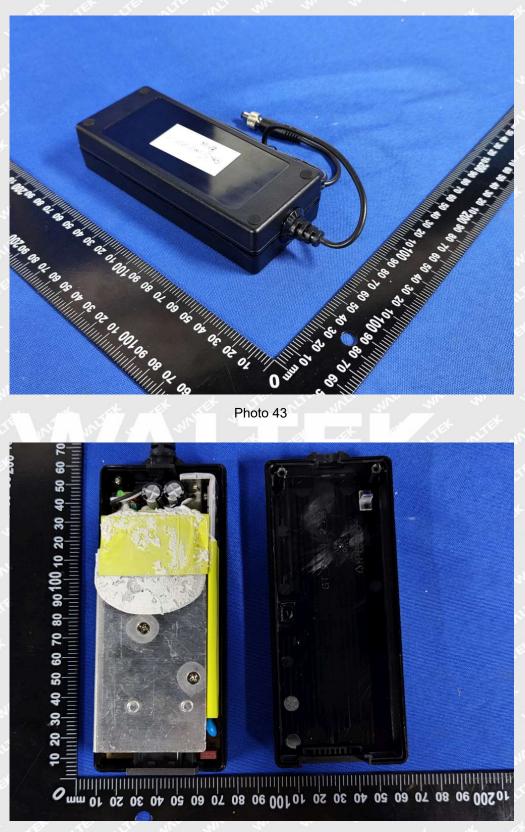
Photo 42

Page 124 of 126



2003

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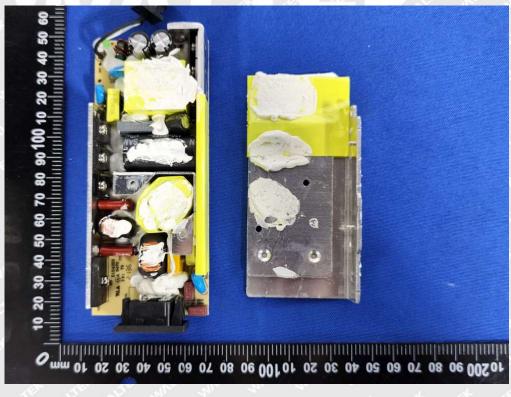
Page 125 of 126



Photo Documentation



Photo 45



Page 126 of 126

Photo Documentation

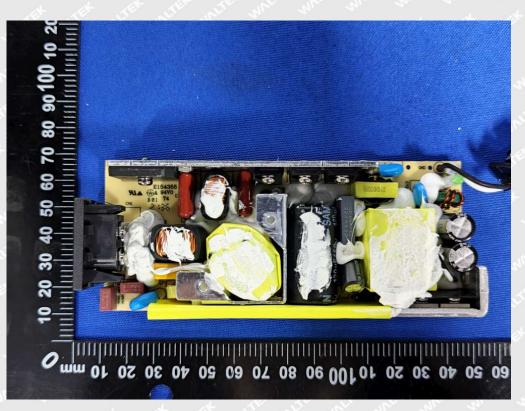


Photo 47

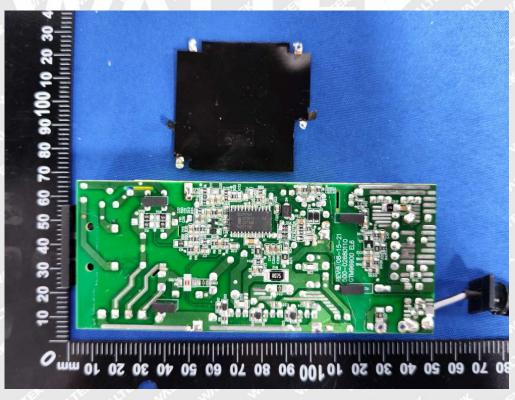


Photo 48

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