

TEST REPORT

Reference No. WTU15D0933878S

Applicant Wuxi Sans Electronic Co., Ltd.

Industrial WuYi, DongGang Town, Wuxi City, Jiangsu Province. China Address

Manufacturer Wuxi Sans Electronic Co., Ltd.

Industrial WuYi, DongGang Town, Wuxi City, Jiangsu Province, China Address

Product Name..... Li-ion Battery Charger

Model No. SSLC076V42BD

Household and similar electrical appliances - Safety -

Part 2-29: Particular requirements for battery chargers

EN 60335-1:2012 Standards

EN 60335-2-29:2004+A2:2010

EN 62233:2008

Date of Receipt sample.... 2015-10-08

Date of Test..... 2015-10-09 to 2015-10-23

Date of Issue 2015-10-26

Test Report Form No..... WSH-60335229F-02A

Test Result 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 compiler and approver.

Prepared By:

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Test item description Li-ion Battery Charger

Trademark N/A

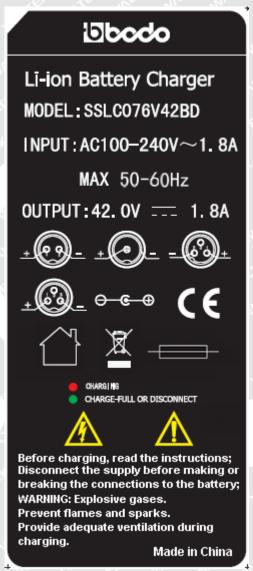
Model and/or type reference: SSLC076V42BD

Rating(s)...... Input: 100-240V~, 50-60Hz, 1.8A Max.;

Output: 42.0V===, 1.8A

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



Summary of testing:

1. The samples are tested and found to be complied with the requirements of standards listed on cover page.



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Test item particulars.....: Li-ion Battery Charger

Classification of installation and use Portable appliance and household indoor use

power supply cord used

Possible test case verdicts:

General remarks:

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

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

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

General product information:

- 1. The Li-ion Battery Charger is class I appliance.
- 2. The appliance is for household and indoor use only.
- 3. It is intended to charge maximum capacity battery.

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	IEC 60335-2-29		
Clause	Requirement + Test	Result - Remark	Verdict
5	GENERAL CONDITIONS FOR THE TESTS	MATERIAL MATERIAL MATERIAL	Р
ek walte	Tests performed according to cl. 5, e.g. nature of supply, sequence of testing, etc.	TEX NITEX MITER MATER	NIT P
5.2	If the test of 21.101 is carried out two additional battery chargers required (IEC 60335-2-29)	the state of the state of	JEK P
5.3	The test of 19.14 carried out before the test of 19.11	Mr. M. M.	Р
5.101	Battery chargers tested as motor-operated appliances (IEC 60335-2-29)	Whitek whitek whitek white	N _P .

6	CLASSIFICATION	AUTH MUT MUT MILL	Р
6.1	Protection against electric shock: Class 0, 0I, I, II, III	Class I	LIFPUNI
6.2	Protection against harmful ingress of water	The set of	et N

7	MARKING AND INSTRUCTIONS	at let let let	P
7.1	Rated voltage or voltage range (V):	See page 2	Р
EX (C)	Nature of supply	THE TEXT TEXT	P
20.	Rated frequency (Hz)	See page 2	Р
MITE	Rated power input (W)	Et TEX LEX SLIET IN	N
٠. ـ	Rated current (A):	See page 2	Р
WITE.	Manufacturer's or responsible vendor's name, trademark or identification mark:	See the label	, P. I
JEK 1	Model or type reference	See page 2	Р
7	Symbol 5172 of IEC 60417, for Class II appliances	Wr. W. Mr.	N
المال المال	IP number, other than IPX0	IP20	J'N J
TEX	Symbol IEC 60417-5180, for class III appliances, unless	L A SH SH	N
7/1	the appliance is operated by batteries only	WILL MUT MUT MILL	Ñ
ALTER V	Symbol IEC 60417-5036, for the enclosure of electrically-operated water valves in external hosesets for connection of an appliance to the water mains	WHITEK WHITEK WHITEK	NIEK
7,1,2	Battery chargers marked with (IEC 60335-2-29):	WILL MUT ME ME	Р
الرارة	- rated d.c. output voltage (V)	See page 2	JEP N
2,	- rated d.c. output current (A)	See page 2	Р
MITE	- rated current (A) of protective devices incorporated in a d.c. distribution board	United Whitek Whitek White	N



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IEC 60335-2-29			
Clause	Requirement + Test	Result - Remark	Verdic
ik wiles	- polarity of the output terminals indicated by symbol IEC 60417-5005 for the positive terminal and IEC 60417-5006 for the negative terminal	Special output terminal used.	P Life
All the	- time-current characteristic of fuse-links of the time-lag type	F type	N
Up.	If the output exceeds 20 VA, battery chargers marked	d with (IEC 60335-2-29):	Р
TEX	- before charging, read the instructions	at at the st	P
	- for indoor use or do not expose to rain, unless appliance is at least IPX4	IP20	P
MULT	If the output exceeds 20 VA and the battery charger chargers marked with (IEC 60335-2-29):	is for lead-acid batteries, battery	W P
WALTE	- disconnect the supply before making or breaking the connections to the battery	EX WILLER WHITER WHITE W	Р
MALTER V	- WARNING: Explosive gases. Prevent flames and sparks. Provide adequate ventilation during charging.	WALTER WALTER WALTER WAL	EK PIN
LIE. WA	Battery chargers incorporating an engine cracking sw supply a supplementary starting current for the engine		AN N.F.
it alle	- maximum "on" time	at let tex tex	N
W.	- minimum "off" time or maximum ratio between "on" time and "off" time	the min me me	N
7.2	Warning for stationary appliances for multiple supply	ex nifer unifer whire wh	N
TEX	Warning placed in vicinity of terminal cover		↓ N
7.3	Range of rated values marked with the lower and upper limits separated by a hyphen	MULTE MULTE MULT WILL	P
in	Different rated values marked with the values separated by an oblique stroke	ALL SIE WHITE WALLE	W.N.
7.4	If the appliance can be adjusted for different rated voltages or rated frequencies, the voltage or the frequency to which the appliance is adjusted shall be clearly discernible.	No voltage setting	N N
nn v	Requirement met if frequent changes are not required and the rated voltage to which the appliance is to be adjusted is determined from a wiring diagram	MULTE WHITEK WHITEK WHITE	N
ek white	Output voltage clearly discernible if the battery charger can be adjusted to different rated d.c. output voltages (IEC 60335-2-29)	LIFEK WILLEK WILLEK	N N N
7.5 NI	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	EX WITEX WHITE WHITE W	et Nu
TEX .	the power input is related to the arithmetic mean value of the rated voltage range	A St St To	N



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Clause	Requirement + Test	Result - Remark	Vordia
Clause	Requirement + Test	Result - Remark	Verdic
ek unitek	Relation between marking for upper and lower limits of rated power input or rated current and voltage is clear	INCHE WALL WALL WALL WALL	W N
7.6	Correct symbols used	in the the	Р
MILIE	Symbol for nature of supply placed next to rated voltage	MATER WHITE WATER OF	Pur
NITEK WY	Symbol for class II appliances placed unlikely to be confused with other marking	NIFE MIEK WALTER WALT	PI
IEK WILL	Units of physical quantities and their symbols according to international standardized system	TEX TEX STEX WITH	PY
7.7 WHITEK	Connection diagram fixed to appliances to be connected to more than two supply conductors and appliances for multiple supply, unless	EX WILLEY WILLEY	ALTER N
TEX	correct mode of connection is obvious	A A A A A A A A A A A A A A A A A A A	N N
7.8	Except for type Z attachment, terminals for connection as follows:	n to the supply mains indicated	N
TIL MUT	- marking of terminals exclusively for the neutral conductor (N)	WILLER MILITER MILITER MILITER	N.N.
WALTE	- marking of protective earthing terminals (symbol 5019 of IEC 60417)	LIES WHITES WHITES	JULY N
LIEK	- marking not placed on removable parts	No removable parts	N
7.9	Marking or placing of switches which may cause a hazard	mer me me	N
7.10	Indications of switches on stationary appliances and controls on all appliances by use of figures, letters or other visual means	White White White who	N N
it itek	The applies also to switches which are part of a control	the let	N
'E'X	If figures are used, the off position indicated by the figure 0	THE THE THE	N
Mur. 1	The figure 0 indicates only OFF position, unless no confusion with the OFF position	White White white wh	N.
7.11	Indication for direction of adjustment of controls	TEX LIEK OLIEK MITE	N
7.12	Instructions for safe use provided	Mr. Mr. Mr.	P
White	Details concerning precautions during user maintenance	LIER WAITER WALTER WALTE	P
ALTE	The instructions state that:	et tet itet itet	Р
MUTER W	- 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	Whitek Multer Multer Mar	P



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11° 21	IEC 60335-2-29		all.
Clause	Requirement + Test	Result - Remark	Verdict
	- children being supervised not to play with the appliance	Marie Marie Marie Marie	Р
all Life	Instructions for safe use contains (IEC 60335-2-29):	LET THE THE RUTER	Р
J. C.	- specification of types, number of cells and rated capacity of batteries that can be charged	The state of	Р
	- warning against recharging non-rechargeable batteries	MULL MULL MULL M	Р
	- statement that during charging, batteries must be placed in the well ventilated area, only for battery chargers for lead-acid batteries	WAITER WALTER WALL WALL	Р
NA WITER	- statement that battery chargers must only be plugged into an earthed socket-outlet, only for portable Class I battery chargers for outdoor use	For indoor use	SUN N
VEX.	- explanation of automatic function stating any limitation, only for automatic battery chargers	which was my a	N
WV. A	Battery chargers for charging automobile batteries in (IEC 60335-2-29):	clude substance concerning	Р
EX WAITE	- The battery terminal not connected to the chassis has to be connected first. The other connection is to be made to the chassis, remote from the battery and fuel line. The battery charger is then to be connected to the supply mains;	UNITER WHITE WHITE WHITE	MITER
WALTER	- After charging, disconnect the battery charger from the supply mains. Then remove the chassis connection and then the battery connection.	EX INLIEX MILIER WALTER ON	TEKP
	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	WALTER WALTER WALTER WAL	* N
IE. WAY	Instructions for class III appliances state that it must only be supplied at SELV, unless	ati the white white	- Many
	it is a battery-operated appliance, the battery being charged outside the appliance	L A TEX TEX	TEN
7.12.1	Sufficient details for installation supplied	241 241 241 2	Р
WALTER	For an appliance intended to be permanently connected to the water mains and not connected by a hose-set, this is stated	A MULTER MALTER MALTER MA	N
EX WUTT	The instructions for battery chargers for installation in caravans and similar vehicles shall state that the connection to the supply mains is to be in accordance with the national wiring rules (IEC 60335-2-29).	JUNITER WHITE WHITER WHITER	JUNITER .
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	Whitek Multer Multer Mar	ITEN NU



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lo " ^{Lo} ll)	IEC 60335-2-29			
Clause	Requirement + Test	Result - Remark	Verdict	
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	united white white	M. N.	
7.12.4	Instructions for built-in appliances:	ir mir me m	N	
antie.	- dimensions of space	the little little all	N	
**	- dimensions and position of supporting means	Mice Au Au	N	
VIII W	- distances between parts and surrounding structure	LIEK OLIEK WITE	Maril MN	
iek unii	- dimensions of ventilation openings and arrangement	ART THE TIES	ALTER MITTER	
LIEK	- connection to supply mains and interconnection of separate components	it it it is	N	
W Wifek	- allow disconnection of the appliance after installation, by accessible plug or a switch in the fixed wiring, unless	TEK SIEK MIL	May Now	
t	a switch complying with 24.3	All My An	N	
7.12.5	Replacement cord instructions, type X attachment with a specially prepared cord	UNITER WALTER WALTER	anes and	
MALTE	Replacement cord instructions, type Y attachment	TEX TEX STEEL	LIFE INLIP	
	Replacement cord instructions, type Z attachment	r. Mr. M. M.	N	
7.12.6	If a non-self-resetting thermal cut-out is required in order to comply with the standard then the instructions for appliances incorporating a non-self-resetting thermal cut-out that is reset by disconnection of the supply mains shall contain the substance of the following:	Whitek whitek whitek	white white	
ynitek Vinitek	CAUTION: In order to avoid a hazard due to inadvertent resetting of the thermal cut-out, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.	THE WALLS	A TELL OF THE PARTY OF THE PART	
7.12.7	Instructions for fixed appliances stating how the appliance is to be fixed	mit mi mi	N N	
7.12.8	Instructions for appliances connected to the water ma	ins: The state of	Mr. MY	
et s	- max. inlet water pressure (Pa)	in the st	N+	
m	- min. inlet water pressure, if necessary (Pa):	THE MULL MULL M	N N	
WALTER	Instructions concerning new and old hose-sets for appliances connected to the water mains by detachable hose-sets	et whitet whitet whi	SEX MITTERN	
7.13	Instructions and other texts in an official language	English	P.	
7.14	Marking clearly legible and durable	m. m. m.	Р	
7.15	Marking on a main part	TEX JEX JE	Р	



	IEC 60335-2-29		
Clause	Requirement + Test	Result - Remark	Verdict
ize <u>nn</u> ize	Marking clearly discernible from the outside, if necessary after removal of a cover	UNITED WALLET WALLET	Jun 2 Jun P
Mer	For portable appliances, cover can be removed or opened without a tool	No such cover	N N
MILITE.	For stationary appliances, name, trademark or identification mark and model or type reference visible after installation	THE WALTER WALTER WALT	N ₁
TEK WI	For fixed appliances, name, trademark or identification mark and model or type reference visible after installation according to the instructions	White white whi	JUNE ON
K WALTER	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	LEK MULTER MUTER AN	P STEP W
7.16	Marking of a possible replaceable thermal link or fuse link clearly visible with regard to replacing the link	Whitek Whitek White	N.
7.101	D.C. distribution boards marked with (IEC 60335-2-29	9): (1)	Why WIN
EX WALTE	- maximum output current (A) for each output circuit	TEX SIEX NITER	NIEL WIN
NLTEX	- types of any additional power supply which can be connected	et ret ret	TEK NITEKN

8	PROTECTION AGAINST ACCESS TO LIVE PARTS	to the little still soil	P
8.1	Adequate protection against accidental contact with live parts	THE THE TEXT	P
8.1.1	Requirement applies for all positions, detachable parts removed	Car and the	P
MEX	Insertion or removal of lamps, protection against contact with live parts of the lamp cap	An In Inch I	N
MULL	Use of test probe B of IEC 61032: no contact with live parts	MULTER MULTE WALL MAY	P
8.1.2	Use of test probe 13 of IEC 61032 through openings in class 0 appliances and class II appliances/ constructions: no contact with live parts	Whitek whitek whitek white	WPI TEK
yn. F airei	Test probe 13 also applied through openings in earthed metal enclosures having a non-conductive coating: no contact with live parts	LIFE WALTE WALL WALL TEX	IP'N S
8.1.3	For appliances other than class II, use of test probe 41 of IEC 61032: no contact with live parts of visible glowing heating elements	Whit was an a	P
8.1.4	Accessible part not considered live if:	N, N, T	P



Referenc	e No.: WTU15D0933878S Page 10 of 89 IEC 60335-2-29	· s & At .	(E) (S)
Clause	Requirement + Test	Result - Remark	Verdict
5 m	ST THE THE THE THE	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100
<u>↓ _</u>	- safety extra-low a.c. voltage: peak value not exceeding 42,4 V	mir mur mur in	N N
	- safety extra-low d.c. voltage: not exceeding 42,4 V	(see appended table 10.101)	P
MITER.	- or separated from live parts by protective impedance	of the lifet street of	STEK P
LIEK	If protective impedance: d.c. current not exceeding 2 mA, and	the text item of	N N
	a.c. peak value not exceeding 0,7 mA	0.608mA peak	Р
WALT	- for peak values over 42,4 V up to and including 450 V, capacitance not exceeding 0,1 μF	LIET WHIEK WHIEK WHIE	MIN
WALTER	- for peak values over 450 V up to and including 15 kV, discharge not exceeding 45 μC	Et outet unitet whitet	A LITE N
UNLTEK V	- for peak values over 15kV, the energy in the discharge not exceeding 350 mJ	Tex street street on	EX N
3.1.5	Live parts protected at least by basic insulation before	e installation or assembly:	N
71. NV	- built-in appliances	TEX SITE OUTER MIT	N
پ. ب	- fixed appliances	and the same of the	N
MULL	- appliances delivered in separate units	TER STEE WILL MILE	N N
3.2 EF	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	Et Whitek Muries Milles M	TEXP W
ut M	Only possible to touch parts separated from live parts by double or reinforced insulation	White white white wh	√P
, was	1947 July 1	TE WITE WALTE	WILL
	STARTING OF MOTOR-OPERATED APPLIANCES	t et	N
MULT	Requirements and tests are specified in part 2 when necessary	In the man	N N
MITT	into mer me in the state of	EX LIEX NIFE WIFE NO	life whi
0	POWER INPUT AND CURRENT	Mr. 20, 20,	Р
0.1	Power input at normal operating temperature, rated voltage and normal operation not deviating from rated power input by more than shown in table 1	MITER WHITE WHITE WHITE	WN.
'NI'	Test for an appliance with one or more rated voltage ranges	LITE WALL WALL WALL	N
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 10.2)	P

(see appended table 10.2)

Ρ

Test for an appliance with one or more rated voltage ranges



Reference	e No.: WTO 15D09338785 Page 11 01 89		
Marie .	IEC 60335-2-29	et tet tet atter at	LEE WILL
Clause	Requirement + Test	Result - Remark	Verdict
10.101	No-load d.c. output voltage does not exceed 42,2 V (IEC 60335-2-29):	(see appended table 10.101)	P
10.102	Arithmetic mean value of output current does not deviate from rated d.c. output current by more than 10 % (IEC 60335-2-29)	(see appended table 10.102)	only P W

11	HEATING		P
11.1	No excessive temperatures in normal use	MULLE MULLE WALL WALL WALL	√P
11.2	Placing and mounting of battery chargers in the test corner as specified for heating appliances (IEC 60335-2-29)	NIFEK WHITEK WHITEK WHITEK	WI PX
11.3	Temperature rises, other than of windings, determined by thermocouples	EX WITER WHITER WHITER	Р
WALTER	Temperature rises of windings determined by resistance method, unless	WILLER WILLER MULTER WA	N
NITEK W	the windings makes it difficult to make the necessary connections	LIET WIFE WITER WALT	P
11.4	Heating appliances operated under normal operation at 1,15 times rated power input	TEK TEK SITEK WITEK	N-
11.5	Battery chargers supplied only at 1,06 times rated voltage (IEC 60335-2-29)	(see appended table 11.8)	P
11.6	Combined appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage	unt who wifet and	N N
11.7	Battery chargers operate until steady conditions are established (IEC 60335-2-29)	THE LIFE WITE	P
11.8	Temperature rises not exceeding values in table 3	(see appended table 11.8)	Р
WALT	If the temperature rise of a motor winding exceeds the value of table 3, or	TEN JUNLIER	N.
LIEK	if there is doubt with regard to classification of insulation,	L st st st	⊬ N
211,	tests of Annex C are carried out	MULL MULL MULL MI	Ñ
LIEK	Sealing compound does not flow out	at set set s	P
	Protective devices do not operate, except	Weign Wer Alexander	Р
IEK WAL	components in protective electronic circuits tested for the number of cycles specified in 24.1.4	No such parts	N N

13	LEAKAGE CURRENT AND ELECTRIC STRENGTH AT OPERATING TEMPERATURE	
13.1	Leakage current not excessive and electric strength adequate	Р



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	IEC 60335-2-29		
Clause	Requirement + Test	Result - Remark	Verdict
	Heating appliances operated at 1,15 times rated power input	MILIER MILIER WALTER WATER	N N
MUL	Motor-operated appliances and combined appliances supplied at 1,06 times rated voltage:	(see appended table 13.2 and 13.3)	P
Merico.	Protective impedance and radio interference filters disconnected before carrying out the tests	MUNITER WHITER WHITER WA	P.
13.2 M	For class 0, class II appliances, class II constructions and class III appliances, leakage current measured by means of the circuit described in figure 4 of IEC 60990. For class 0I appliances and class I appliances, C may be replaced by a low impedance ammeter responding to the rated frequency of the appliance.	Class II construction	PITE VINLITER
MUL	For class 0I appliances and class I appliances, C may be replaced by a low impedance ammeter responding to the rated frequency of the appliance.	EL WILL MILL WILL W	et .
	Leakage current measurements	(see appended table 13.2)	Р
13.3	The appliance is disconnected from the supply	a at at all	Р
n.	Electric strength tests according to table 4	(see appended table 13.3)	₹ P
et «	No breakdown during the tests	L st set	Р

14	TRANSIENT OVERVOLTAGES		N
VII.	Appliances withstand the transient overvoltages to which they may be subjected	And And And And	N
JEK .	Clearances having a value less than specified in table 16 subjected to an impulse voltage test, the test voltage specified in table 6	White white whi whi	N N
	No flashover during the test, unless of functional insulation	the set	N
WILLEY WILLEY	In case of flashover of functional insulation, the appliance complies with clause 19 with the clearance short circuited	St TEX STEX SITES IN	N W

15	MOISTURE RESISTANCE	OLITE MITE MPILE
15.1	Enclosure provides the degree of moisture protection according to classification of the appliance	THE THE OUT
L WALTE	Compliance checked as specified in 15.1.1, taking into account 15.1.2, followed by the electric strength test of 16.3	EX WITER MITTER WAT
MALTEX	No trace of water on insulation which can result in a reduction of clearances and creepage distances below values specified in clause 29	whitek white white



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11° 21	IEC 60335-2-29		The area
Clause	Requirement + Test	Result - Remark	Verdic
15.1.1	Appliances, other than IPX0, subjected to tests as specified in IEC 60529	IP20	W N
WAL.	Water valves in external hoses for connection of an appliance to the water mains tested as specified for IPX7 appliances	TER WHITE WHITE W	et jet N
15.1.2	Hand-held appliance turned continuously through the most unfavourable positions during the test	Muty Muty Muty	N N
	Built-in appliances installed according to the instructions	White White White	mr N
Whi	Appliances placed or used on the floor or table placed on a horizontal unperforated support	NITER WALTER WALTER V	in in M
WALTE	Appliances normally fixed to a wall and appliances with pins for insertion into socket-outlets are mounted on a wooden board	Ex Writer Whiter Wh	TEL WITEN
itex of	For IPX3 appliances, the base of wall mounted appliances is placed at the same level as the pivot axis of the oscillating tube	MULTER MULTER WALL	MAL NA
ik white	For IPX4 appliances, the horizontal centre line of the appliance is aligned with the pivot axis of the oscillating tube	and whi whi	NITEX WITEX
WALTER	However, 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	Ex Milex Milex Mul	TEX NOTE OF THE NO
iek mu ur, m	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	white white white	untiek watek
MALIER	For IPX4 appliances, the movement of the tube is limited to two times 90° from the vertical for a period of 5 min	IN THE WAY	LIEK WILTEN
MALTER	Wall-mounted appliances, take into account the distance to the floor stated in the instructions	ex writex writex write	The second
LIEK	Appliances with type X attachment fitted with a flexible cord as described	TIEK NIEK MITEK	MALLE - NE
et s	Detachable parts tested as specified	241. 24. 2	N-
15.2	Spillage of liquid does not affect the electrical insulation	HIER MILE MULIC A	nti jin'n
MULIC	Appliances with type X attachment fitted with a flexible cord as described	EK WHITEK WHITEK WH	I'm WIT No
WILLER OF	Appliances incorporating an appliance inlet tested with or without an connector, whichever is most unfavourable	WALTER WALTER WALTE	With Mil



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IEC 60335-2-29			
Clause	Requirement + Test	Result - Remark	Verdict
2113	Detachable parts removed	UNITED WALTER	N N
ek wate	Overfilling test with additional amount of water, over a period of 1 min (I)	TEX OUTEX MUTEX OU	iter pit N
WILLIEM.	The appliance withstands the electric strength test of 16.3	y jey sjey sji	EK JEKN
in ^{litek} w	No trace of water on insulation that can result in a reduction of clearances and creepage distances below values specified in clause 29	MILES MILES WALTES	unit unit
15.3	Appliances proof against humid conditions	L St St	P.
M	Humidity test for 48 h in a humidity cabinet	25°C, 93 % R.H.	In P
+ JEX	The appliance withstands the tests of clause 16	* * *	CEL CEP

16	LEAKAGE CURRENT AND ELECTRIC STRENGTH	TEX TEX LIEX OU	PILL
16.1	Leakage current not excessive and electric strength adequate	while with the the	P
	Protective impedance disconnected from live parts before carrying out the tests	unite white white whi	WP P
16.2	Single-phase appliances: test voltage 1,06 times rated voltage	(see appended table 16.2)	IL P W
WILL	Three-phase appliances: test voltage 1,06 times rated voltage divided by √3:	sex writer writer writer wr	Nun
CLIER	Leakage current measurements	(see appended table 16.2)	Pile
16.3	Electric strength tests according to table 7	(see appended table 16.3)	Р
LIE IN	No breakdown during the tests	TE THE STEEL	Ρ

17	OVERLOAD PROTECTION OF TRANSFORMERS AND ASSOCIATED CIRCUITS		P
MULLER	No excessive temperatures in transformer or associated circuits in event of short-circuits likely to occur in normal use	(see appended table 17)	IEK P
ALTEK V	Appliance supplied with 1,06 or 0,94 times rated voltage and the most unfavourable short-circuit or overload likely to occur in normal use applied:	(see appended table 17)	PIEK
TE WA	Output terminals of battery chargers are short-circuited (IEC 60335-2-29)	The appliance did not work	MULE N
+ .LTF	Basic insulation is not short-circuited	at at alt alt	of®N of
WILLER	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	WILL WALL WILEY WILL	PW ITE
LIFEK	Temperature of the winding not exceeding the value specified in table 8,	IN THE TEXT STEEL	PEK



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10 L	IEC 60335-2-29	of the text of the	TOTAL SALL
Clause	Requirement + Test	Result - Remark	Verdic
4	however limits do not apply to fail-safe transformers complying with sub-clause 15.5 of IEC 61558-1	united united white.	W. A. W.
Mec	and an an a state	LIER OLITER MITTER	ing wing
18	ENDURANCE		→ N
whi.	Requirements and tests are specified in part 2 when necessary	ANTIE MULL AND	w N
ALI W	it with my my the test that	- LIEK OLIEK MALIE	WALL MALL
19	ABNORMAL OPERATION	10, 10, 1	P+
19.1	The risk of fire or mechanical damage under abnormal or careless operation obviated	NITER WALTER WALTER	IN IN P
MULTE	Electronic circuits so designed and applied that a fault will not render the appliance unsafe	tex matter an	TEN WITTE
MALTER	if the appliance also has a control that limit the temperature during clause 11 it is subjected to the test of 19.4, and	MALTER WALTER WALTE	AND AND
	Appliances incorporating motors subjected to the tests of 19.7 to 19.10, as applicable	TEX SLIEK WILEK	ANLIE MAN
ix white	Appliances incorporating electronic circuits subjected to the tests of 19.11 and 19.12, as applicable	TEX TEX WIFEX	NITEK JALTER
MALTEX	Appliances incorporating contactors or relays subjected to the test of 19.14, being carried out before the tests of 19.11	et liet lifet mi	TEK N TEKN
(Et	Appliances incorporating voltage selector switches subjected to the test of 19.15	Mr. Mr. M.	N
19.2	Test of appliance with heating elements with restricted heat dissipation; test voltage (V): power input of 0,85 times rated power input	White White White	NA ON
19.3	Test of 19.2 repeated; test voltage (V): power input of 1,24 times rated power input:	The state of	N TEL
19.4	Test conditions as in cl. 11, any control limiting the temperature during tests of cl. 11 short-circuited	The Thirty was	N O
19.5	Test of 19.4 repeated on Class 0I and I appliances with tubular sheathed or embedded heating elements. No short-circuiting, but one end of the element connected to the elements sheath	MILIER WAITE WALLES	White white
EX WALT	The test repeated with reversed polarity and the other end of the heating element connected to the sheath	TIFEK MULTER MULTER	nitek watN
WALTEY.	The test is not carried out on appliances intended to be permanently connected to fixed wiring and on appliances where an all-pole disconnection occurs during the test of 19.4	EX WHITEX WHITEX WH	rek wite N
19.6	Appliances with PTC heating elements tested at rated voltage, establishing steady conditions	me me m	N



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Olavia	Demiliana et l'Itali	Daniel Damanie	Mandiat
Clause	Requirement + Test	Result - Remark	Verdict
ik mitek	The working voltage of the PTC heating element is increased by 5% and the appliance is operated until steady conditions are re-established. The voltage is then increased in similar steps until 1.5 times working voltage or until the PTC heating element ruptures		SUP N
19.7	Stalling test by locking the rotor if the locked rotor torque is smaller than the full load torque or locking moving parts of other appliances	While will white	WALTE WALTE
IEK WALT	Locked rotor, motor capacitors open-circuited or short-circuited, if required	TEX SITES BLIEF	INLIEK WALLAX
L it	Locked rotor, capacitors open-circuited one at a time	1. 1/11 1.	N
MULL	Test repeated with capacitors short-circuited one at a time, if required	EK WILLER WHILE WH	N N N N N N N N N N N N N N N N N N N
MULLE A	Appliances with timer or programmer supplied with rated voltage for each of the tests, for a period equal to the maximum period allowed	WALTER WALTER WALTE	MILL THE
ex white	If the timer or programmer is an electronic type that operates to ensure compliance with the test before the maximum period under the conditions of Clause 11 is reached, it is considered to be a protective electronic circuit as well as a control that operates under the conditions of Clause 11.	unifer white whitek w	NIAL MITER
TEX.	Other appliances supplied with rated voltage for a period as specified	Mr. Mr. M	N
15.4 V	Winding temperatures not exceeding values specified in table 8	MULL MILL MULL	M N
19.8	Three-phase motors operated at rated voltage with one phase disconnected	all lik mail	in, in N
19.9	Running overload test on appliances incorporating motors intended to be remotely or automatically controlled or liable to be operated continuously	THE THE THE	
of white	Motor-operated and combined appliances for which 30.2.3 is applicable and that use overload protective devices relying on electronic circuits to protect the motor windings, are also subjected to the test	White white white	JUNITE WALTE
MULL	Winding temperatures not exceeding values as specified	LIER WALTER WALTER O	NI JULIN .
19.10	Series motor operated at 1,3 times rated voltage for 1 min	EX WHITEX WHITEX WH	LET WILL NOW
UNLIEK W	During the test, parts not being ejected from the appliance	TEL STEEL WITE	ANTER NAT



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Clause	Deguirement L Test	Dogult Domonic	Marellet
Clause	Requirement + Test	Result - Remark	Verdict
19.11	Electronic circuits, compliance checked by evaluation of the fault conditions specified in 19.11.2 for all circuits or parts of circuits, unless they comply with the conditions specified in 19.11.1	neter while while while	VIII P
WALTER.	Appliances incorporating an electronic circuit subjected to the tests of 19.11.3 and 19.11.4	* DITER MILER WHITER OF	TEN N
NITEK W	Appliances incorporating an electronic circuit that relies upon a programmable component to function correctly, subjected to the test of 19.11.4.8 unless	WALTER WALTER WALT	N N
TER WALT	Restarting at any point in the operating cycle after interruption of operation due to supply voltage not result in a hazard	HIEK WHITEK WHITEK WHITEK	an i N
MUTER 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	THE WILL WHITE WHITE WAS	in Nu
19.11.1	Before applying the fault conditions a) to f) in 19.11.2, of circuit meet both of the following conditions:	it is checked if circuits or parts	NE
ex white	- 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	LIER WILER MULLER	MALTE
WALTER	- 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	ex unitex unitex unitex of	TEXN W
19.11.2	Fault conditions applied one at a time, the appliance of specified in cl. 11, but supplied at rated voltage, the d	• 6/1	P
x vilex	a) short circuit of functional insulation if clearances or creepage distances are less than the values specified in 29	(see appended table 19.11.2)	WP TEX
71,	b) open circuit at the terminals of any component	The The The A	Р
MULIER	c) short circuit of capacitors, unless they comply with IEC 60384-14	t inties whites whites wh	P
EK W	d) short circuit of any two terminals of an electronic component, other than integrated circuits. This fault condition is not applied between the two circuits of an optocoupler	anifek milek anifek mile	Pre
711.	e) failure of triacs in the diode mode	THE MULT MULT WAS	Р
LIEK	f) failure of an integrated circuit	at all test	√ P
111	g) failure of an electronic power switching device	Auri Aur Aur A	N
19.11.3	If the appliance incorporates a protective electronic circuit which operates to ensure compliance with clause 19, the relevant test is repeated with a single fault simulated, as indicated in a) to f) of 19.11.2	MILER WAITER WAITER WAI	N.C



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10 20	IEC 60335-2-29	The Mark Mark	alle
Clause	Requirement + Test	Result - Remark	Verdict
7010	During and after each test the following is checked:	OLICE WILLER WILLER	N
WALTER	- the temperature rise of the windings do not exceed the values specified in table 8	TEX BUTER BUTER SUBJECT	N
official and	- the appliance complies with the conditions specified in 19.13	et tet tret stret stret	TEK-N
LIEK IN	- any current flowing through protective impedance not exceeding the limits specified in 8.1.4	the the the state of	N
iek walie	If a conductor of a printed board becomes open-circuito have withstood the particular test, provided all three met:		N
- WITEK	- the material of the printed circuit board withstands the burning test of annex E	EX TEX LIEX NITEX	LIE N
MULTER W	- any loosened conductor does not reduce the clearances or creepage distances between live parts and accessible metal parts below the values specified in cl. 29	Whitek Multer Multer Mul	N W
LIL WAL	- the appliance withstands the tests of 19.11.2 with open-circuited conductor bridged	MILER WALTER WALTER WALTE	un N
19.11.4	Appliances having a switch with an off position obtained by electronic disconnection, or	LIEK WILLER WHITER	y (N
TEX	a switch that can be placed in the stand-by mode,	a st set set	N
2112 1	subjected to the tests of 19.11.4.1 to 19.11.4.7	MULL MULL MULL MI	N
INLIEK WY	Appliances incorporating a protective electronic circuit subjected to the tests of 19.11.4.1 to 19.11.4.7, except that	WALTER WALTER WALTER WALT	N.Y
k lek	appliances operated for 30 s or 5 min during the test of 19.7 are not subjected to the tests for electromagnetic phenomena.	ner ste white white	W. N
19.11.4.1	The appliance is subjected to electrostatic discharges in accordance with IEC 61000-4-2, test level 4	t tet tet tet det	N A
19.11.4.2	The appliance is subjected to radiated fields in accordance with IEC 61000-4-3, test level 3	The the tex is	N
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	white with white wifet wifet	MITER
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	Et witet whitet whitet	ITELN W
inriek m	Earthed heating elements in class I appliances disconnected	TIFE WITER WITER	× N
19.11.4.5	The appliance is subjected to injected currents in accordance with IEC 61000-4-6, test level 3	at 1st 1st 1st	N



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wer ar	IEC 60335-2-29	THE IT WITH MY	. arr
Clause	Requirement + Test	Result - Remark	Verdict
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	Miles Miles Maries Maries	N
WILLER	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	ter until whith whith w	N
19.11.4.7	The appliance is subjected to mains signals in accordance with IEC 61000-4-13, test level class 2	and an an are	N
19.11.4.8	The appliance is supplied at rated voltage and operated under normal operation. After 60s the power supply is reduces to a level such that the appliance ceases to respond or a programmable component cease to operate.	while walk whitek whitek	N Matrick
"EX	The appliance continues to operate normally or requires a manual operation to restart	The Maria Maria A	N ₀
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)	Whitek whitek white white	PALTER
19.13	During the tests the appliance does not emit flames, molten metal, poisonous or ignitable gas in hazardous amounts	(see appended table 19.13)	TEK NI
SLIEK (S)	Temperature rises not exceeding the values shown in table 9	at the text of	P ALI
" h	During the tests, the values of Table 8 apply (IEC 60335-2-29)	Mary Mary Mary Mary	Р
M	Compliance with clause 8 not impaired	TE MITE WALTE	un P
L EX	No rupture of the battery		Р
MUL	If the appliance can still be operated it complies with 20.2	In the mile of	P
White M	Insulation, other than of class III appliance, withstand the test voltage specified in table 4:	the electric strength test of 16.3,	Pri
LIEK NI	- basic insulation:	1250V	P
4,,	- supplementary insulation	1750V	Р
Et OLIE	- reinforced insulation:	3000V	P
WALIEK.	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	ex writex writex w	P
	The appliance does not undergo a dangerous malfunction, and	WHITE WHITE WHITE WHI	Р



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. (1 ²)	IEC 60335-2-29	t tek itek litek litek mi	16
Clause	Requirement + Test	Result - Remark	Verdict
ide <u>ville</u> St. di	no failure of protective electronic circuits, if the appliance is still operable	Willy Milly Multinuit	N
Mir	Appliances tested with an electronic switch in the off position, or in the stand-by mode:	TEE WALTER WALTER WALLY	N s
all Life	- do not become operational, or	the state of the state of	N
NLTEK W	- if they become operational, do not result in a dangerous malfunction during or after the tests of 19.11.4	MILER MALTER MALTER WALT	N
IEK WALT	If the appliance contains lids or doors that are contro one of the interlocks may be released provided that:		MILINY
k NITEK	- the lid or door does not move automatically to an open position when the interlock is released, and	et tet tet atet	LITEN
TEX	- the appliance does not start after the cycle in which the interlock was released	at let test	N
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	whit with whi win	N
EX THE	For a relay or contactor with more than one contact, all contacts are short-circuited at the same time	unit with white white	AN N
- TEX	A relay or contactor operating only to ensure the appliance is energized for normal use is not shortcircuited	the war war and	N
In.	If more than one relay or contactor operates in clause 11, they are short-circuited in turn	MILL MILL MAL MI	N
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	WALLER WHILE ANTER WHI	NET
19.101	Battery chargers supplied at rated voltage and operated under normal operation, any control limiting the temperature during tests of clause 11 short-circuited (IEC 60335-2-29)	THE WAITER WAITER	N Nited a
19.102	Reverse connection of battery chargers to a fully charged battery at rated voltage (IEC 60335-2-29)	The appliance did not work	P
TEX	The capacity of the battery (IEC 60335-2-29):	Tested	P
19.103	Battery chargers intended to be used with a d.c. distribution board supplied at rated voltage and operated under normal operation, load increased as specified until protective device operates or short-circuit conditions are established (IEC 60335-2-29)	one whilet whilet whilet	WN Maritex

20	STABILITY AND MECHANICAL HAZARDS	Р
20.1	Adequate stability	Р



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	IEC 60335-2-29		
Clause	Requirement + Test	Result - Remark	Verdict
<u> </u>	it were my my		-50° -50°
er wie	Tilting test through an angle of 10° (appliance placed on an inclined plane/horizontal plane); appliance does not overturn	init mit mit .	SILLER STEEL
- Significant	Tilting test repeated on appliances with heating elements, angle of inclination increased to 15°	The sure of	N N
WILLER WILLER	Possible heating test in overturned position; temperature rise does not exceed values shown in table 9	unit was with	W N
20.2	Moving parts adequately arranged or enclosed as to provide protection against personal injury	No such parts	NE NET
t ciex	Protective enclosures, guards and similar parts are non-detachable	in the site of	N
M	have adequate mechanical strength	The Wall WA	N
MITER	Enclosures that can be opened by overriding an interlock are considered to be detachable parts	TEX LIEK NUT	A WITH NAT
VITEK WA	Self-resetting thermal cut-outs and overcurrent protective devices not causing a hazard, by unexpected reclosure	WILE AWIEK WHILEK	MILIE WALLER
EX WALTE	Not possible to touch dangerous moving parts with test probe	TEX LIEK NITER	ALTEK MIT N

21	MECHANICAL STRENGTH	EX OLIEX WILE, WALL WA	P
21.1	Appliance has adequate mechanical strength and is constructed as to withstand rough handling	Tex stex stex out	* PIEX
LIEX WA	Checked by applying blows to the appliance in accordance with test Ehb of IEC 60068-2-75, spring hammer test, impact energy 1,0 J \pm 0,05 J (IEC 60335-2-29)	White whitek whitek	PEK
will	If necessary, supplementary or reinforced insulation subjected to the electric strength test of 16.3	W. TEL WILL A	N W
WALTER	If necessary, repetition of groups of three blows on a new sample	MILER WALTER WALTER WA	NALT
21.2	Accessible parts of solid insulation having strength to prevent penetration by sharp implements	OLITEK WITER MULER WHILE	PIEK
et d	The insulation is tested as specified, unless	an an at let	N-
, My	the thickness of supplementary insulation is at least 1 mm and reinforced insulation is at least 2 mm	THE WHITE WHITE WALL	N P N
21.101	Battery chargers, other than built-in battery chargers, having a mass not exceeding 5 kg, subjected to a drop test (IEC 60335-2-29)	EX WHITE WHITE WHITE W	Port
MUL A	Battery chargers show no damage that could impair compliance with 8.1, 15.1.1, 16.3 and cl. 29 (IEC 60335-2-29)	white white will who	P



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IEC 60335-2-29				
Clause	Requirement + Test	Result - Remark	Verdict	
21.102	Battery chargers for installing in caravans and similar vehicles withstand vibrations to which they may be subjected (IEC 60335-2-29)	INLIER WHITE WHITE WHITE	N	
The Table	Vibration test as specified in IEC 60068-2-6 (IEC 60335-2-29)	We we will	N	
WALLER O	Battery chargers show no damage that could impair compliance with 8.1, 15.1.1, 16.3 and cl. 29 (IEC 60335-2-29)	MULTER WALL WALL WALL WA	N ^I	
	Connections have not worked loose (IEC 60335-2-29)	with my mit me	N	

22	CONSTRUCTION	P
22.1	Appliance marked with the first numeral of the IP system, relevant requirements of IEC 60529 are fulfilled	or No
22.2	Stationary appliance: means to provide all-pole disconnection from the supply provided, the following means being available:	N
11	- a supply cord fitted with a plug	N N
	- a switch complying with 24.3	ST N
MALIEN	- a statement in the instruction sheet that a disconnection incorporated in the fixed wiring is to be provided	N TELL WI
.EX	- an appliance inlet	L N
Mr. V	Singe-pole switches and single-pole protective devices for the disconnection of heating elements in single-phase, permanently connected class 01 and class I appliances, connected to the phase conductor	INC N
22.3	Appliance provided with pins: no undue strain on socket-outlets	N
CLIER	Applied torque not exceeding 0.25 Nm	N
VILLEX N	Pull force of 50N 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 1mm	N LITE WALT
iei wal	Each pin subjected to a torque of 0.4Nm; the pins are not rotating unless rotating does not impair compliance with the standard	IET MININ
22.4	Appliance for heating liquids and appliance causing undue vibration not provided with pins for insertion into socket-outlets	No.



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21° 21	IEC 60335-2-29		276 276
Clause	Requirement + Test	Result - Remark	Verdict
22.5	No risk of electric shock when touching the pins of the plug, for appliances having a capacitor with rated capacitance greater than $0.1\mu F$, the appliance being disconnected from the supply at the instant of voltage peak	12V Max.	P ALTER
22.6	Electrical insulation not affected by condensing water or leaking liquid	X WATER WATER WATER	WA TER PART
ULLER W	Electrical insulation of Class II appliances not affected in case of a hose rupture or seal leak	ALIEK MITEK MAITEK	White Will
22.7 	Adequate safeguards against the risk of excessive pressure in appliances provided with steam-producing devices	NITER MULTER MULTER M	with with
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	EX WHITEK WHITEK WHITE	EK WITEN
22.9	Insulation, internal wiring, windings, commutators and slip rings not exposed to oil, grease or similar substances	WALL WIFEX WIFEX	INLIE WALTER
ex mir	Adequate insulating properties of oil or grease to which insulation is exposed	TEX TEX STEX W	TEX UNLIN
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	No such parts	X WELL W
inrii w	Non-self resetting thermal motor protectors have a trip-free action, unless	White White White	unti unti
TEN ON	they are voltage maintained	TEV STEEL O	LIFE NE
y Walify	Location or protection of reset buttons of non-self- resetting controls is so that accidental resetting is unlikely	TEK MIL	N N
22.11	Reliable fixing of non-detachable parts that provide the necessary degree of protection against electric shock, moisture or contact with moving parts	Appliance inlet used	ans tex N
NITEK WA	Obvious locked position of snap-in devices used for fixing such parts	WILER MILIER MULTER	UNITE TUNKE
EX WALT	No deterioration of the fixing properties of snap-in devices used in parts that are likely to be removed during installation or servicing	LIEK WHITEK WHITEK WA	LIEK WILLING
MLTE	Tests as described	EX TEX JEX SIT	N
22.12	Handles, knobs etc. fixed in a reliable manner	me m. m.	Р
Write W	Fixing in wrong position of handles, knobs etc. indicating position of switches or similar components not possible	Whitek Whitek Whiteh	unit Pi



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a Carrier	IEC 60335-2-29	t the the the	" WILL WALL
Clause	Requirement + Test	Result - Remark	Verdict
<u> </u>	Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied	MILITER MILITER WILLIAM	W. T. W. P.
MUL	Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied	TER WALTER WALTER ON	P
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	H WHITE WHITE WHITE WHITE	e un le Naci
22.14	No ragged or sharp edges creating a hazard for the user in normal use, or during user maintenance	out the test test	ALTEK MUTEL
k whitek	No exposed pointed ends of self tapping screws etc., liable to be touched by the user in normal use or during user maintenance	it with with	P
22.15	Storage hooks and the like for flexible cords smooth and well rounded	TEX LIEK OLLY	at the N
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	UNITER WHITEK WHITEK	White white
	Cord reel tested with 6000 operations, as specified	TEX SIEK MIER OF	N'IN N
MITEK	Electric strength test of 16.3, voltage of 1000 V applied	at the the	TELN STELL
22.17	Spacers not removable from the outside by hand or by means of a screwdriver or a spanner	Me Me M	N
22.18	Current-carrying parts and other metal parts resistant to corrosion under normal conditions of use	multi mil mil	VII VP
22.19	Driving belts not used as electrical insulation	No such parts	nr ann
22.20	Direct contact between live parts and thermal insulation effectively prevented, unless material used is non-corrosive, non-hygroscopic and non-combustible	THE WA	TELL WITE
Wh. A	Compliance is checked by inspection and, if necessary, by appropriate test	writ man man	P
22.21	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless impregnated	unties white white	MP NP
- MALTELY	This requirement does not apply to magnesium oxide and mineral ceramic fibres used for the electrical insulation of heating elements	No such parts	TEX METER ON
22.22	Appliances not containing asbestos	14. 14. 25.	Р
22.23	Oils containing polychlorinated biphenyl (PCB) not used	WALTER WALTER WALTE	Mr. Pr.



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Clause	Clause Reguirement + Test Result - Remark			
X8		A 15 15	Verdic	
22.24	Bare heating elements, other than those in class III appliances or class III constructions that do not contain live parts, shall be supported so that the heating conductor is unlikely to come into contact with accessible metal parts if they rupture.	TEX WITTER WATER ON	N PETER	
WILL .	In case of rupture, the heating conductor is unlikely to come in contact with accessible metal parts	White white whi	an Nr	
22.25	Appliances shall be constructed so that sagging heating conductors cannot come into contact with accessible metal parts. This requirement does not apply to class III appliances or class III constructions that do not contain live parts.	Whilek Whilek whilek	WALTER WALTER	
22.26	Output circuit supplied through a safety isolating transformer (IEC 60335-2-29)	EK LIEK MLIEK IN	ITEX WAITEP	
MALIEK	No connection between the output circuit and accessible metal parts or an earthing terminal (IEC 60335-2-29)	nitet unit	et whi	
LITEK WA	Insulation between parts operating at safety extra- low voltage and live parts complies with the requirements for double or reinforced insulation (IEC 60335-2-29)	UNLIEK WALTER WALTER	WALTE WALTER	
22.27	Parts connected by protective impedance separated by double or reinforced insulation	LIER WALTER WALTE 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	H WALTER WALTER WAL	ic united whi	
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	THE WILLER	antitek antitek	
22.30	Parts serving as supplementary or reinforced insulation fixed so that they cannot be removed without being seriously damaged, or	The profits of	P	
white w	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	t whitek whitek white	entif mit	
22.31	Clearances and creepage distances over supplementary and reinforced insulation not reduced below values specified in clause 29 as a result of wear	THE MUTTER MUTTER	MITER MATER	
WILLER A	Clearances and creepage distances between live parts and accessible parts not reduced below values for supplementary insulation, if wires, screws etc. become loose	EX WHITE WHITE WH	t while Pu	
22.32	Supplementary and reinforced insulation designed or protected against deposition of dirt or dust	it it is	THE PLAN	



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01	Design Design of Test				
Clause	Requirement + Test	Result - Remark	Verdict		
EK MUTE	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	TEX WILLEY	White WP		
WILLER.	Ceramic material not tightly sintered, similar material or beads alone not used as supplementary or reinforced insulation	A MUTER MUTER MUT	W SEE N		
	Oxygen bomb test at 70°C for 96 h and 16 h at room temperature	WALTER WALTER WALTER	MULTE NAT		
TERWALT	Ceramic and similar porous material in which heating conductors are embedded is considered to be basic insulation and not reinforced insulation	NIEK WALTER WALTER	united unin		
22.33	Conductive liquids that are or may become accessible in normal use are not in direct contact with live parts or unearthed metal parts that are separated from live parts by basic insulation only	EX WILEX WILEX	Tex WITEN		
	Electrodes not used for heating liquids	White White Whi	N N		
NITEK WAIF	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	Writer Whiter Whiter	Marie Mer		
LIEK	The reinforced insulation consists of at least 3 layers	at the text	TEKN JOH		
NULLEK M	For class II constructions, conductive liquids which are in contact with live parts, not in direct contact with reinforced insulation, unless	MAL MAL MITE	L N N		
ITEK IN	The reinforced insulation consists of at least 3 layers	THE THE TELL	NA NA		
ex writes	An air layer not used as basic or supplementary insulation in a double insulation system if likely to be bridged by leaking liquid	The state of	N STEEL STEEL		
22.34	Shafts of operating knobs, handles, levers etc. not live, unless the shaft is not accessible when the part is removed	* Write Multer Auti	EK WATER P		
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	MILIER WHITER WHITER	Write Pie		
	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	LIEK WALIER WALIER WA			



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Clause	Requirement + Test	Result - Remark	Verdict
Ciause	Requirement + rest	Result - Remark	Verdict
ex white	For stationary appliances and cordless appliances, 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	ALIE WALTER WALTER WALTER	ALTER AND
	Insulating material covering metal handles, levers and knobs withstand the electric strength test of 16.3 for supplementary insulation	wifet writer writer w	THE WALTE
22.36	Handles continuously held in the hand in normal use are so constructed that when gripped as in normal use, the operators hand is not likely to touch metal parts, unless they are separated from live parts by double or reinforced insulation	NIFEK WHITEK WHITEK WHITEK	N STEK W
22.37	Capacitors in Class II appliances not connected to accessible metal parts, unless complying with 22.42	No accessible metal parts	ni ex N
LIFEK WA	Metal casings of capacitors in Class II appliances separated from accessible metal parts by supplementary insulation, unless complying with 22.42	WITER MUTER MUTER MUT	N JANITES
22.38	Capacitors not connected between the contacts of a thermal cut-out	No thermal cut-outs	W.N.
22.39	Lamp holders used only for the connection of lamps	et tet tet attet	N.
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	whitek whitek whitek w	ex ricex
MULTER MULTER	Unless the appliance can operate continuously, automatically or remotely without giving rise to a hazard, appliances for remote operation being fitted with a switch. The actuating member of the switch being easily visible and accessible	TEK WILLEY	WATER A
22.41	No components, other than lamps, containing mercury	White Mail White V	P
22.42	Protective impedance consisting of at least two separate components	WHITEK WHITEK WHITE WH	WP.
WALT	Values specified in 8.1.4 not exceeded if any one of the components are short-circuited or open-circuited	See Cl. 8.1.4	MILE
WALTER	Resistors checked by the test of 14.1 a) in IEC 60065	EX OLIEX WILEX	M CLENN
CLIEK	Capacitors checked by the tests for class Y capacitors in IEC 60384-14	Approved	I P



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(1 ² 0)	IEC 60335-2-29	The sale with	The one
Clause	Requirement + Test	Result - Remark	Verdic
22.43	Appliances adjustable for different voltages, accidental changing of the setting of the voltage unlikely to occur	Milet Willet Whilet	an N
22.44	Appliances shall not have an enclosure that is shaped or decorated like a toy	I ME WE WE	Р
22.45	When air is used as reinforced insulation, clearances not reduced below the values specified in 29.1.4 due to deformation as a result of an external force applied to the enclosure		white white
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	LIFE WALTER WALTER	Mariet and N
MULIEK D	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	Whitek whitek white	x uni ex uni
LIFEK WA	These requirements are not applicable to software used for functional purpose or compliance with clause 11	UNITER WHITEK WHITEK	WALLE WAR
22.47	Appliances connected to the water mains withstand the water pressure expected in normal use	LIEK WALTER WALTER W	NUTE INLIN
WALTER	No leakage from any part, including any inlet water hose	it writet writet wri	in in Nu
22.48	Appliances connected to the water mains constructed to prevent backsiphonage of non-potable water	Whitek whitek whitek	white Will
22.49	For remote operation, the duration of operation set before the appliance can be started, unless	ALL WALTER	until un N
WALTER	the appliance switches off automatically or operate continuously without hazard	TEX WI	LIER VILLEN
22.50	Controls incorporated in the appliance take priority over controls actuated by remote operation	t liet wifet wir	it which whi
22.51	A control on the appliance being manually adjusted to the setting for remote operation before the appliance operated in this mode	WILEX WILEX MULTER	white white
EK WALTE	Visual indication showing that the appliance is adjusted for remote operation	LIEN OLIEN WILEN	niter unit
WALTER	Manual setting and visual indication not necessary on appliances that can operate as follows, without giving rise to a hazard:	EX WILEX MULTER MU	SEX WITEIN
LIEK	- operate continuously,	et et de	N
11 2	- operate automatically, or	MULL MULL MULL	Zu N
JEK J	- be operated remotely	A A A	N°



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IEC 60335-2-29			
Clause	Requirement + Test	Result - Remark	Verdict
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	united while while	N
22.102	Each circuit supplied from a d.c. distribution board incorporates an overload protective device (IEC 60335-2-29)	A TEX WIFE MILE	Et un IEK N
22.103	Battery chargers for installing in caravans or similar vehicles constructed so that they can be securely fixed to a support (IEC 60335-2-29)	NITER WITER WAITER	WALTE WALTE

23	INTERNAL WIRING		Р
23.1	Wireways smooth and free from sharp edges	at at tet tet	J P
JU.	Wires protected against contact with burrs, cooling fins etc.	THE WAY WELL	P
WY.	Wire holes in metal well rounded or provided with bushings	white will mit we	N
	Wiring effectively prevented from coming into contact with moving parts	united white white whit	MN
23.2	Beads etc. on live wires cannot change their position, and are not resting on sharp edges or corners	LIER WHITEK WHITEK WHITEK	JALÍN JEK
MUT	Beads inside flexible metal conduits contained within an insulating sleeve	Mulita Walit Mali a	N N
23.3	Electrical connections and internal conductors movable relatively to each other not exposed to undue stress	Whitek whitek whiteh wh	N
x	Flexible metallic tubes not causing damage to insulation of conductors	Will Muli Muli	W _N N
MULL	Open-coil springs not used	TE WILL	N.
MITEK	Adequate insulating lining provided inside a coiled spring, the turns of which touch one another	t Tex street satisfies	N CEL N
NITEK W	No damage after 10 000 flexings for conductors flexed during normal use or 100 flexings for conductors flexed during user maintenance	WILLER MALTER WALTER	E N
IEK WAL	Electric strength test of 16.3, 1000 V between live parts and accessible metal parts	No accessible metal parts	MILINE
LALTER	Not more than 10% of the strands of any conductor broken, and	et let let let	N
TEX	not more than 30% for wiring supplying circuits that consume no more than 15W	m m m	N
23.4	Bare internal wiring sufficiently rigid and fixed	ality with while we	Р



	IEC 60335-2-29		
Clause	Requirement + Test	Result - Remark	Verdict
23.5	The insulation of internal wiring withstanding the electrical stress likely to occur in normal use	until until white of	Р
June Jest	Basic insulation electrically equivalent to the basic insulation of cords complying with IEC 60227 or IEC 60245, or	LIE WHITE WHITE WAS	N N
DITEK NI	No breakdown when a voltage of 2000 V is applied for 15 min between the conductor and metal foil wrapped around the insulation	Tex lifet with	WITE WALTE
23.6	Sleeving used as supplementary insulation on internal wiring retained in position by clamping at both ends, or	with whitek whitek w	LITEX MILITER
* NALTEX	be such that it can only be removed by breaking or cutting	tet itet stiet sti	EK NITEP W
23.7	The colour combination green/yellow used only for earthing conductors	et 15t 17th	N N
23.8	Aluminium wires not used for internal wiring	No aluminium wires	Р
23.9	No lead-tin soldering of stranded conductors where they are subject to contact pressure, unless	INLIEK WALTER WALTER	unlie un Pie
EX WALTE	clamping means so constructed that there is no risk of bad contact due to cold flow of the solder	TEX MITEX MITEX	TEX WITH
23.10 ch	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)	EX WHITEK WHITEK WHITE	H TEKN

24	COMPONENTS		JUL P
24.1	Components comply with safety requirements in relevant IEC standards	THE MITTER	P
*	List of components	(see appended table 24.1)	Р
White w	Components not tested and found to comply with relevant IEC standard for the number of cycles specified are tested in accordance with 24.1.1 to 24.1.9	Whitek whitek whiteh wh	PALI
SEK WAL	For components mentioned in 24.1.1 to 24.1.9 no additional tests specified in the relevant component standard are necessary other than those specified in 24.1.1 to 24.1.9	STEET WHITEH WAITER WHITEH	PL W
WALTER	Components not tested and found to comply with relevant IEC standard, components not marked or not used in accordance with its marking, tested under the conditions occurring in the appliance	EX WHITE WHITE WHITE W	Puni EX WALLE



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01		335-2-29	Die ii Delle I delle delle	1 1/ 1: 1
Clause	Requirement + Test	24.	Result - Remark	Verdict
ek mrite ek mrite	Lampholders and starterholders not being and found to comply with the relevant IEC tested as a part of the appliance and addit according to the gauging and interchange requirements of the relevant IEC standard	standard, tionally ability	TEX WITTER WITTER WITTER	WN N
White A	No additional tests specified for nationally standardized plugs such as those detaile IEC/TR 60083 or connectors complying standard sheets of IEC 60320-1 and IEC	d in vith the	White white white	P PIN
24.1.1	Capacitors likely to be permanently subject supply voltage and used for radio interfere suppression or for voltage dividing, complete 16C 60384-14, or	ence	Approved	H PK
	tested according to annex F		CER WALLE WALL	Non
24.1.2	The relevant standard for safety isolating transformers is IEC 61558-2-6. If they hav tested, they are tested in accordance with		WITEK WITEK WALTER WA	EX N
LEX .	tested according to annex G			P
24.1.3	Switches complying with IEC 61058-1, the of cycles of operation being at least 10 00		No switches used	₹ N
MULL	tested according to annex H	NEX.	TER STEE WITE WAITE	JUL N J
MITEK	If the switch operates a relay or contactor, complete switching system is subjected to		ek itek itek mitek	TEXN N
MITEK	If the switch only operates a motor starin complying with IEC 60730-2-10 with the cycles of a least 10 000 as specified, the switching system need not be tested	number of	Whitek Muries Muries and	N WALE
24.1.4	Automatic controls complying with IEC 60 cycles of operation being:	730-1 with r	elevant part 2. The number of	N
et alies	- thermostats:	10 000	I TEX STEEL	II N
- 5"	- temperature limiters:	1 000	The Part In	N
all Life	- self-resetting thermal cut-outs:	300	t TEX LIEX SLIER OF	N
LIEK IN	- voltage maintained non-self-resetting thermal cut-outs:	1000	the tex tex	E NEW
iet is	- other non-self-resetting thermal cut- outs:	30	mer are the tex	N
'un.	- timers:	3 000	Life Whit WAL WAL	N
LIEK	- energy regulators:	10 000	at left test	N
WILEY V	Thermal motor protectors are tested in cou with their motor under the conditions spec Annex D		TEX TEX LIEX O	N N



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21/2 21	IEC 60335-2-29	- 02 - 02 - 02	27/2
Clause	Requirement + Test	Result - Remark	Verdict
MUTLE S. MU	For water valves containing live parts and that are incorporated in external hoses for connection of an appliance to the water mains, the degree of protection declared for subclause 6.5.2 of IEC 60730-2-8 is IPX7	Intite white white	ALTER NATER
24.1.5	Appliance couplers complying with IEC 60320-1	A NITE WILLEN WILL	n Pu
NITEK W	However, appliances classified higher than IPX0, the appliance couplers complying with IEC 60320-2-3	IP20	- NIE NIE
	Interconnection couplers complying with IEC 60320-2-2	TEX TEX TEX	ALTER MA
24.1.6	Small lamp holders similar to E10 lampholders complying with IEC 60238, the requirements for E10 lampholders being applicable	ex are awares	TEL WEITER
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	Whitek whitek white	t whi
24.1.8	The relevant standard for thermal links is IEC 60691. Thermal links not complying with IEC 60691 are considered to be an intentionally weak part for the purposes of Clause 19	Intermediate while	WILL WILLER
24.1.9	Relays, other than motor starting relays, tested as part of the appliance	ek altek milek uni	TEX NO
WILEK M	They also tested in accordance with Clause 17 of IEC 60730-1, the number of operations in 24.1.4 selected according to the relay function in the appliance	WATER WHITER WHITE	unit white
24.2	Appliances not fitted with:	TE MITE	WILL WE
t 184	- switches or automatic controls in flexible cords		A AP
MULT	- devices causing the protective device in the fixed wiring to operate in the event of a fault in the appliance	THE THE THE	P V
nu 1	- thermal cut-outs that can be reset by soldering, unless	MILL WILL MILL	N. N.
Life W	the solder has a melding point of at least 230°C	LIEK NIEK MIEK	WIN'T
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	est tex ites	NETER WATER
24.4	Plugs and socket-outlets for extra-low voltage circuits and heating elements, not interchangeable with plugs and socket-outlets listed in IEC 60083 or IEC 60906-1 or with connectors and appliance inlets complying with the standard sheets of IEC 60320-1	united white white	N N N N N N N N N N N N N N N N N N N



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18 W 18	IEC 60335-2-29	the feet the the	The state of the s
Clause	Requirement + Test	Result - Remark	Verdict
24.5	Capacitors in auxiliary windings of motors marked with their rated voltage and capacitance and used accordingly	UNITER WALLER WALLER	WILLEY WIN
WALTEK.	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	ex mures mures white	N N
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	Whitek whitek white	unit uniter.
t NLTEX	In addition, the motors are complying with the requirements of Annex I	it let let	TEX LIEN
24.7	Detachable hose-sets for connection of appliances to the water mains comply with IEC 61770	The Mrs. M.	, N
	They are supplied with the appliance	ALTER WITE WALT	N N
LIEK WA	Appliances intended to be permanently connected to the water mains shall not be connected by a detachable hose-set	STEK WIFEK WIFEK	WALTER WALTER
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	TEX WILLEX WILLER	NITER WITH
WITE.	One or more of the following conditions are to be more	et:-	TEN NAME
LIEX	- the capacitors are of class P2 according to IEC 60252-1	We are the	N N
TEXT OF	- the capacitors are housed within a metallic or ceramic enclosure	Must Must Must	N N
T MU	- the distance of separation of the outer surface to adjacent non-metallic parts exceeds 50 mm	WILL MILLS	an an N
MULL	- adjacent non-metallic parts within 50 mm withstand the needle-flame test of Annex E	THE THE THE	LICE N ALL N
WALTER	- adjacent non-metallic parts within 50 mm classified as at least V-1 according to IEC 60695-11-10	Whitek Multer Mult	THE WALL

25	SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CORDS	
25.1	Appliance not intended for permanent connection to fixed wiring, means for connection to the supply:	M P M
WALTE	- 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;	WILL BURE
one .	- an appliance inlet having at least the same degree of protection against moisture as required for the appliance	P



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Clause	Reguirement + Test Result - Remark	Verdict
Olause	requirement : rest remain	Verdio
- an	- pins for insertion into socket-outlets	Mrs. Mrs. M.B.
25.2	Appliance not provided with more than one means of connection to the supply mains	TEX MILEY ATTP
MALTER VI	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	A WALTER ON THE WALTE
25.3	Appliance intended to be permanently connected to fixed wiring provious of the following means for connection to the supply mains:	ded with one N
L TEX	- a set of terminals allowing the connection of a flexible cord	N TEL
Me	- a fitted supply cord	No No
NALTEX	- a set of supply leads accommodated in a suitable compartment	- WITEL WITE WATE
itiek wa	- 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	united united united
MALTER	- 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	et mites on test on
ist in	Appliances intended to be permanently connected to fixed wiring that are provided with	Mr. Mr. N
t TEX	a set of terminals allowing the connection of cables of fixed wiring having the nominal cross-sectional areas specified in 26.6, or	nut must win
JUNITEK V	a set of terminals and cable entries, conduit entries, knock-outs or glands, which allow the connection of the appropriate types of cable or conduit,	AWITER MUTER MU
LIEK	shall allow the connection of the supply conductors after the appliance has been fixed to its support.	MITEL MITE MY
EX WALTE	If a fixed appliance is constructed so that parts can be removed to facilitate easy installation, this requirement is considered to be met if it is possible to connect the fixed wiring without difficulty after a part of the appliance has been fixed to its support. In this case, removable parts are to be constructed for ease of reassembly without risk of incorrect assembly or damage to the wiring or terminals.	LIFE WALTER WALTER W
25.4	Cable and conduit entries, rated current of appliance not exceeding 16 A, dimension according to table 10	Mr. M. N



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Clause	Requirement + Test	Result - Remark	Vardia
Clause	Requirement + Test	Result - Remark	Verdic
ek mile	Introduction of conduit or cable does not reduce clearances or creepage distances below values specified in 29	INTER WHITE WHITE WHITE	N
25.5	Method for assemble supply cord with the appliance:	r. Mr. M. M.	Р
Mile	- type X attachment	it tex stek stek stek st	N
ct	- type Y attachment	Mr. Mr. M.	Р
nii w	- type Z attachment, if allowed in part 2	aliek aliek unlier wal	N
iek unii	Type X attachment, other than those with a specially prepared cord, not used for flat twin tinsel cords	TEX TEX TEX	N.C
L WALTER	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	Et Whitek Whitek Whitek	N
25.6	Plugs fitted with only one flexible cord	TEX TEX STEEL OF	P
25.7	Supply cords, other than for class III appliances, bei	ing one of the following types:	Р
LIL WY	- rubber sheathed (at least 60245 IEC 53)	TEX SITER WITER WALT	NN
* *	- polychloroprene sheathed (at least 60245 IEC 57)	n n x	N-
WULL	- cross-linked polyvinyl chloride sheathed (at least 60245 IEC 87)	LIER WHITE WHITE WHITE	W.N.
WALLER W	Polyvinyl chloride sheathed: Not used if they are likely to touch metal parts having a temperature rise exceeding 75K during the test of Clause 11.	et unliet while while w	n it Pur
IEX WY	- light polyvinyl chloride sheathed cord (at least 60227 IEC 52), appliances not exceeding 3 kg	0.45kg, see appended table 24.1	F PEX
y nite	- ordinary polyvinyl chloride sheathed cord (at least 60227 IEC 53), other appliances	TEX LIEX	N
WALTER	Heat resistant polyvinyl chloride sheathed: Not used for type X attachment other than specially prepared cords.	t ories ouries on	I I N
LIEK W	- Heat-resistant light polyvinyl chloride sheathed cord (at least 60227 IEC 56), appliances not exceeding 3 kg	WHILEK WHILEK WHILEK WHI	N. E.
WALT	- heat-resistant polyvinyl chloride sheathed cord (60227 IEC 57), other appliances	LIEK WALTER WALTER	N N
WALTER	Supply cords for class III appliances adequately insulated	EX WIET WILEY WILEY	N STEN
WALTER V	A voltage of 500 V is applied for 2 min between the conductor and metal foil wrapped around the insulation, the insulation being at the temperature measured during the test of Clause 11. There shall be no breakdown during this test.	Whitek whitek whitek and	X NITEX



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and the sales	IEC 60335-2-29	of the ties liter o	Street Mills
Clause	Requirement + Test	Result - Remark	Verdict
et rui	Battery chargers for charging automobile batteries shall not be fitted with natural rubber sheathed supply cords (IEC 60335-2-29).	MILLER MALLER MALLER MALLER MALLER MALLER	III N
25.8	Nominal cross-sectional area of supply cords according to table 11; rated current (A); cross-sectional area (mm²):	(see appended table 24.1)	ALLER AND
25.9	Supply cord not in contact with sharp points or edges	who are all	P
25.10	Green/yellow core for earthing purposes in Class I appliance	Must me my m	P
25.11	Conductors of supply cords not consolidated by lead-tin soldering where they are subject to contact pressure, unless	NITE WHITE WHITE WHITE	WALTER AND
TEX	clamping means so constructed that there is no risk of bad contacts due to cold flow of the solder	in the same	N
25.12	Moulding the cord to part of the enclosure does not damage the insulation of the supply cord	MULL MULL MA W	Р
25.13	Inlet opening so shaped as to prevent damage to the supply cord	Appliance inlet used	WN.
WALI	If unsheathed supply cord, a similar additional bushing or lining is required, unless	LIET WILLES WHITE WHITE	uni N
CITER	the appliance is class 0	ex let let let	JE N
731	a class III appliance not containing live parts	MUT AUT MUT	N
25.14	Supply cords adequately protected against excessive flexing	Appliance inlet used	I NIT
TEX S	Flexing test:	the state of	N
74	- applied force (N):	Wr. Mur. Mur.	N
N CLIER	- number of flexings:	L TEK ITEK	J ^C N ,
79)	The test does not result in:	in the sale	N
WITE.	- short circuit between the conductors	A LEK TEK LIEK	NO.
JEK .	- breakage of more than 10% of the strands of any conductor	THE THE THE	N ITE
10,	- separation of the conductor from its terminal	Write Mr. Mr. Mr.	N
IEK OLI	- loosening of any cord guard	at at the the	N
- TEX	- damage, within the meaning of the standard, to the cord or the cord guard	THE WAY WAY WAY	N
M	- broken strands piercing the insulation and becoming accessible	the Murit Murit Murit	N ₂₁₁
25.15	Conductors of the supply cord relieved from strain, twisting and abrasion by use of cord anchorage	Appliance inlet used	N



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IEC 60335-2-29				
Clause	Requirement + Test	Result - Remark	Verdict	
ek untie	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 N	
WILLIEK.	Pull and torque test of supply cord, values shown in table 10: pull (N); torque (not on automatic cord reel) (Nm)	ist with writer writer	- N FEE N	
ALTEK W	Max. 2 mm displacement of the cord, and conductors not moved more than 1 mm in the terminals	Whitek Whitek Whitek	MALIE WALLE	
IER WALT	Creepage distances and clearances not reduced below values specified in 29.1	NITER WHITER WH	LIER WININ	
25.16	Cord anchorages for type X attachments constructed	and located so that:	of SON	
411	- replacement of the cord is easily possible	Type Y	N ₂	
NALTEK V	- it is clear how the relief from strain and the prevention of twisting are obtained	MITER MITER WAITER	WALL WALL	
TEX.	- they are suitable for different types of cord	a at at	N O	
	 cord cannot touch the clamping screws of cord anchorage if these screws are accessible, unless separated from accessible metal parts by supplementary insulation 	intres united whitely whi	TEX JUSTIEN	
WALTER	- the cord is not clamped by a metal screw which bears directly on the cord	Et NIET MIET MITE	X TEXN	
INLIEK W	- at least one part of the cord anchorage securely fixed to the appliance, unless part of a specially prepared cord	Whitek Whitek Whitek	whit X N	
TEK WA	- screws which have to be operated when replacing the cord do not fix any other component, if applicable	White was	N N	
WILL	- if labyrinths can be bypassed the test of 25.15 is nevertheless withstood	THE WILL	N N	
WALTER V	- for Class 0, 0I and I appliances: they are of insulating material or are provided with an insulating lining, unless a failure of the insulation of the cord does not make accessible metal parts live	Mules whites whites	will White	
EK WALT	- for Class II appliances: they are of insulating material, or if of metal, they are insulated from accessible metal parts by supplementary insulation	Whitek whitek whitek wh	TEX WILLEY	
25.17	Adequate cord anchorages for type Y and Z attachment	Type Y	X LIEP	
25.18	Cord anchorages only accessible with the aid of a tool, or	Appliance inlet used	N N	
ar and a second	so constructed that the cord can only be fitted with the aid of a tool	Mur. Mr. M.	N	



	IEC 60335-2-29			
Clause	Requirement + Test	Result - Remark	Verdict	
25.19	Type X attachment, glands not used as cord anchorage in portable appliances	MILE WILLIAM MULTER MILE	N	
MUL	Tying the cord into a knot or tying the cord with string not used	TER WALTER WALTER WHILE	AL N A	
25.20	The insulated conductors of the supply cord for type Y attachment and type Z attachment shall be additionally insulated from accessible metal parts by basic insulation for class 0 appliances, class 0I appliances and class I appliances, and by supplementary insulation for class II appliances. This insulation may be provided by the sheath of the supply cord or by other means.	No accessible metal parts	un i Note	
25.21 (1)	Space for supply cord for type X attachment or for connection of fixed wiring constructed to permit checking of conductors with respect to correct positioning and connection before fitting any cover, no risk of damage to the conductors when fitting the cover, no contact with accessible metal parts if a conductor becomes loose, etc.	Whitek whitek whitek	W LITE'N W LITE'N W LITE'N W LITE'N W LITE'N W LITE'N	
EK MUTLE	For portable appliances, the uninsulated end of a conductor prevented from any contact with accessible metal parts, unless the end of the cord is such that the conductors are unlikely to slip free	UNLIER WHITE WHITE WHITE	VINN VALTER	
25.22	Appliance inlet:	i at at all	P	
2/12	- live parts not accessible during insertion or removal	WALL WALL WALL	D ₁₀	
INLIEK N	Requirement not applicable to appliance inlets complying with IEC 60320-1	TEX TEX STEEL OF	LTEX PLTE	
	- connector can be inserted without difficulty	me m. m.	Р	
	- the appliance is not supported by the connector	TE STEEL WITE	P	
it ites	- not for cold conditions if temp. rise of external metal parts exceeds 75 K during clause 11, unless the supply cord is unlikely to touch such metal	The state of the s	N N	
	parts	In in in	IN	
25.23	Interconnection cords comply with the requirements for the supply cord, except as specified	* MITER MITER WHITER W	P	
TEX	If necessary, electric strength test of 16.3	L at at	- N	
25.24	Interconnection cords not detachable without the aid of a tool if compliance with the standard is impaired when they are disconnected	White white whe wh	ANTIEK .	
25.25	Dimensions of pins compatible with the dimensions of the relevant socket-outlet. Dimensions of pins and engagement face in accordance with the relevant plug in IEC 60083	EX WILEX ANTIER MULTER	N LIFE N	

26	TERMINALS FOR EXTERNAL CONDUCTORS	m m	Р
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	IEC 60335-2-29		
Clause	Requirement + Test	Result - Remark	Verdict
26.1	Appliances provided with terminals or equally effective devices for connection of external conductors	WILLER MATTER MUTTER	P
JEE	Terminals only accessible after removal of a non- detachable cover, except	A SA SEA SEA	N
24,	for class III appliances that do not contain live parts	write mir mer on	N
ILITEIX W	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	Whitek whitek whitek white	N.TE
26.2	Appliances with type X attachment and appliances for connection of cables of fixed wiring provided with terminals in which connections are made by means of screws, nuts or similar devices, unless the connections are soldered	EX MULTER WHITE WHITE	will w
MALIT	the connections are soldered	LIER SLIER WILLE WA	N
LIEK ON	Screws and nuts serve only to clamp supply conductors, except	THE THE LIFE OUTE	NEX
EK WALTE	internal conductors, if so arranged that they are unlikely to be displaced when fitting the supply conductors	ITEK OLIEK MILIEK MILIEK	N
WALTER	If soldered connections used, the conductor so positioned or fixed that reliance is not placed on soldering alone	ex unitex unitex unitex on	TEKN
	Soldering alone used, barriers provided, clearances and creepage distances satisfactory if the conductor becomes free at the soldered joint	whitek whitek whitek whi	N.T.
26.3 W	Terminals for type X attachment and for connection of cables of fixed wiring so constructed that the conductor is clamped between metal surfaces with sufficient contact pressure and without damaging the conductor	TE WHITE WHITE	WN N
WALTER	Terminals for type X attachment and those for connect when tightening or loosening the clamping means:	ction to fixed wiring so fixed that	N
LIEK W	- the terminal does not loosen	at the text of	N. C
10.	- internal wiring is not subjected to stress	MULL MULL MULL MILL	N
IER WALT	- clearances and creepage distances are not reduced below the values in 29	LIER WILER WILER	an i N
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. Nominal diameter of thread (mm); screw category; torque (Nm)	EX WHITEX WHITEX WHITEX W	et unit



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. 10 ⁴⁷ . 11	IEC 60335-2-29	t the the site	WILL WILL
Clause	Requirement + Test	Result - Remark	Verdict
26.4	Terminals for type X attachment, except those with a specially prepared cord, and those for connection of cables of fixed wiring, no special preparation of conductors required, and so constructed or placed that conductors prevented from slipping out	TEK WALTER WALTER W	and N
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	MULTER WALTER WALTER	white water
ret is	Stranded conductor test, 8 mm insulation removed	70° 71° 71° 71° 71° 71° 71° 71° 71° 71° 71	N+
X WILLEY	No contact between live parts and accessible metal parts and, for class II constructions, between live parts and metal parts separated from accessible metal parts by supplementary insulation only	NITE WALTE WALTER WA	TEX WITELL M
26.6 × V	Terminals for type X attachment and for connection of cables of fixed wiring suitable for connection of conductors with required cross-sectional area according to table 13; rated current (A); nominal cross-sectional area (mm²)	Whitek Whitek White	white whitek
et de	Terminals only suitable for a specially prepared cord		N-
26.7	Terminals for type X attachment accessible after removal of a cover or part of the enclosure	LIER WALTER WALTE W	ns mn N a
26.8	Terminals for the connection to fixed wiring, including the earthing terminal, located close to each other	EX WALTEX WALTER WAL	N. I
26.9	Terminals of the pillar type constructed and located as specified	MULL MILL MULL	Mr. W
26.10	Terminals with screw clamping and screwless terminals not used for flat twin tinsel cords, unless conductors ends fitted with a device suitable for screw terminals	cir fir unit	LIET WENTER OF
TEX	Pull test of 5 N to the connection		of N
26.11	For type Y and Z attachment: soldered, welded, crimped and similar connections may be used	Multingality wal	W Pin
nii wi	For Class II appliances: the conductor so positioned or fixed that reliance is not placed on soldering, welding or crimping alone	White white white	White the
MUTER	For Class II appliances: soldering, welding or crimping alone used, barriers provided, clearances and creepage distances satisfactory if the conductor becomes free	Et unliet whilet un	TEK M TEK MU

27	PROVISION FOR EARTHING	Р
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10 th 1	IEC 60335-2-29	t the the the	The Maria
Clause	Requirement + Test	Result - Remark	Verdict
27.1	Accessible metal parts of Class 0I and I appliances, permanently and reliably connected to an earthing terminal or contact of the appliance inlet	No accessible metal parts	N N
4	Earthing terminals not connected to neutral terminal	2 My 24 24	Р
MILIE.	Class 0 appliances, class II appliances and class III appliances shall have no provision for earthing.	A STEE WITE WAITER	In The Nation
	Safety extra-low voltage circuits not earthed, unless protective extra-low voltage circuits	LIET STEEL WILEY W	TE PIE
27.2	Clamping means adequately secured against accidental loosening	et tet tet its	PL
y White	Terminals used for the connection of external equipotential bonding conductors allow connection of conductors of 2.5 to 6 mm², and	HE WALL WILEY WILLEY	Natifix
MITEK 3	do not provide earthing continuity between different parts of the appliance	TEK STEK NITEK	AL EX N
LIEK N	Conductors cannot be loosened without the aid of a tool	The the tex	P
27.3 WALTE	For detachable parts that are plugged into another part of the appliance, and having an earth connection, the earth connection made before and separated after current-carrying connections when removing the part	TEK WHIEK WHIEK WHIEK	N
WITEK M	For appliances with supply cord, current-carrying conductors become taut before earthing conductor, if the cord slips out of the cord anchorage	white white was a	M Non
27.4	No risk of corrosion resulting from contact between metal of earthing terminal and other metal	Mar Mr Mr Mr	N
ek natiek	Adequate resistance to corrosion of coated or uncoated parts providing earthing continuity, other than parts of a metal frame or enclosure	CE FER OUTER	N N
MALTEX	Parts of steel providing earthing continuity provided at the essential areas with an electroplated coating, thickness at least 5 µm	t wilet writer writer	ILIK N
ALTEK W	Adequate protection against rusting of parts of coated or uncoated steel, only intended to provide or transmit contact pressure	MULIEK MULIEK MULIEK MU	TE NE
IE. WALT	In case of aluminium alloys precautions taken to avoid risk of corrosion	LIEK MILIEK WALTER WALTE	MIN
27.5	Low resistance of connection between earthing terminal and earthed metal parts	EX OLIEX MATER MALTER	WITEP
JUNITER OF	This requirement does not apply to connections providing earthing continuity in the protective extralow voltage circuit, provided that clearances of basic insulation are based on the rated voltage of the appliance	MULEY WHITEH WHITEH W	E MALTER

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IEC 60335-2-29			
Clause	Requirement + Test	Result - Remark	Verdict
	Resistance not exceeding 0,1 Ω at the specified low-resistance test	0.02Ω	Р
27.6	The printed conductors of printed circuit boards not used to provide earthing continuity in hand-held appliances.	TEX WHITE WHITE WHITE	A N W
MITEK W	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	WALLER WHILE WHILER	NI NI

28	SCREWS AND CONNECTIONS		Р
28.1	Fixings, electrical connections and connections providing earthing continuity withstand mechanical stresses	EK WILLER WILLER WILLER	P
NV.	Screws not of soft metal liable to creep, such as zinc or aluminium	MUTTE MUTTE MUTI MUT	Р
الل	Diameter of screws of insulating material min. 3 mm	ITEX NITER MITE MALIE	NN.
ex whi	Screws of insulating material not used for any electrical connection or connections providing earthing continuity	LITER WHITEK WHITEK	MITE
WALTER	Screws used for electrical connections or connections providing earthing continuity screw into metal	EX WHITEX WHITEX WHITEX W	TELN
	Screws not of insulating material if their replacement by a metal screw can impair supplementary or reinforced insulation	whitek whitek whitek whi	N ^C
Y WALTE	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 can impair basic insulation	RE TEK WHITEK	ALTER .
TEX	For screws and nuts; test as specified	(see appended table 28.1)	P
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	White white white white	P
iek Wal	there is resiliency in the metallic parts to compensate for shrinkage or distortion of the insulating material	LIET WIET WILET WILLER	Nr. Nt
MITE	This requirement does not apply to electrical connection which:	ctions in circuits of appliances	LIE!N
TEX	30.2.2 is applicable and that carry a current not exceeding 0,5 A	we we we	N
, t	30.2.3 is applicable and that carry a current not exceeding 0,2 A	Mary Mar Mer My	N



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	IEC 60335-2-29		
Clause	Requirement + Test Requirement + Test	esult - Remark	Verdict
28.3	Space-threaded (sheet metal) screws only used for electrical connections if they clamp the parts together	et Tet Tet Stet	N N
WILLIEK.	Thread-cutting (self-tapping) screws and thread rolling screws only used for electrical connections if they generate a full form standard machine screw thread	MULTER MULTER MULTER ON	FEEK N
nlite w	Thread-cutting (self-tapping) screws not used if they are likely to be operated by the user or installer	Whitek Multer Multer Mult	N
TEK WALT	Thread-cutting, thread rolling and space threaded screw providing earthing continuity provided it is not necessary		on N
t liet	- in normal use,	t et let let	N
7/11	- during user maintenance,	THUT, AND, MILL OF	N
WALTER	- when replacing a supply cord having a type X attachment, or	WILLER WALTER WALTER WAL	N
LIEK N	- during installation	at let let le	N
EX SE	At least two screws being used for each connection providing earthing continuity, unless	it was me m	N
- LEX	the screw forms a thread having a length of at least half the diameter of the screw	in with much many	N
28.4 m	Screws and nuts that make mechanical connection secured against loosening if they also make electrical connections or connections providing earthing continuity	White white whitek whi	PM
TEK WY	Rivets for electrical connections or connections providing earthing continuity secured against loosening if subjected to torsion	JEY WHITEK WHITEK	WILL

29	CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION		Р
WALTE	Clearances, creepage distances and solid insulation withstand electrical stress	A MALTER WALLER WALLER WAS	Poli
ALTEK.	For coatings used on printed circuits boards to protect the microenvironment (Type 1) or to provide basic insulation (Type 2), Annex J applies:	WHITEK WHITEK WHITE	NE
ZEX W	The microenvironment is pollution degree 1 under type 1 protection	TEX LIEX NITER MITER	IN N
t whit	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	TEK MILTER MUTTER MUTTER M	LIE WAL
MULTER	These values apply to functional, basic, supplementary and reinforced insulation	Whitek Multer White Mil	N



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18-17 d	IEC 60335-2-29	t the text of	Lie Mill
Clause	Requirement + Test	Result - Remark	Verdict
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 29.1)	W P
	For basic insulation and functional insulation they comply with the impulse voltage test of clause 14	et miret unitet unitet u	N
nitek wi	However, if the construction is affected by wear, distortion, movement of the parts or during assembly, the clearances for rated impulse voltages of 1500V and above are increased by 0,5 mm and the impulse voltage test is not applicable	whilek whilek whilek whi	K Whitek
t let	Impulse voltage test not applicable:		N
MUL	- when the microenvironment is pollution degree 3	EL OLIER WILL WILL	ol C. Na
WITEK 1	- for basic insulation of class 0 and class 01 appliances	TEX LIFE OLIFER	EX N
×	Appliances are in overvoltage category II	Mus All And As	Р
	Clearances less than specified in table 16 not allowed for basic insulation of class 0 and class 0 appliances,	INLIER WALTER WALTER WALTER	N
m.	or if pollution degree 3 is applicable	LIE WALL WALL WALL	N .
MALTEX	Compliance is checked by inspection and measurements as specified	ex outex outex ontrex	IN THE P
29.1.1	Clearances of basic insulation withstand the overvoltages, taking into account the rated impulse voltage	whitek multek multek mi	TEX P
TEX MY	Clearance at the terminals of tubular sheathed heating elements may be reduced to 1mm if the microenvironment is pollution degree 1	NULLEY WHILE	N N
White	Lacquered conductors of windings considered to be bare conductors	THE WILLE	N S
29.1.2	Clearances of supplementary insulation not less than those specified for basic insulation in table 16	(see appended table 29.1)	NIE PAI
29.1.3	Clearances of reinforced insulation not less than those specified for basic insulation in table 16, but using the next higher step for rated impulse voltage	(see appended table 29.1)	E PIE
Whitek	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	Et whilet whilet while	Writer An
29.1.4	Clearances for functional insulation are the largest v	values determined from:	P
11. 2	- table 16 based on the rated impulse voltage:	(see appended table 29.1)	Р



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(1 ²)	IEC 60335-2-29		all.
Clause	Requirement + Test	Result - Remark	Verdic
	- table F.7a in IEC 60664-1, frequency not exceeding 30 kHz	Write Murice Murice Milit	N
Miles	- clause 4 of IEC 60664-4, frequency exceeding 30 kHz	TER WALTER WALTE WALLE	N
White.	If values of table 16 are largest, the impulse voltage test of clause 14 may be applied instead, unless	WALTER WHITER WHITER WA	N
Vr. M	the microenvironment is pollution degree 3, or	SLIER WILL MULL MULL	N
IEK NALI	the distances can be affected by wear, distortion, movement of the parts or during assembly	TEX TEX TEX WITH	N.F
L WITER	However, clearances are not specified if the appliance complies with clause 19 with the functional insulation short-circuited	telt telt treet nutert	P
	Lacquered conductors of windings considered to be bare conductors	inger any any	Р
MULL 1	However, clearances at crossover points are not measured	MALTER WALTER WALLE WAL	Р
	Clearance between surfaces of PTC heating elements may be reduced to 1mm	CALTER ANTER MALTER WALTE	VIN NE
29.1.5	Appliances having higher working voltages than rate insulation are the largest values determined from:	ed voltage, clearances for basic	WILL P
et	- table 16 based on the rated impulse voltage:	(see appended table 29.1)	Р
MILL	- table F.7a in IEC 60664-1, frequency not exceeding 30 kHz	EK MUTEK MUTEU MUTE MU	N
INLIFE W	- clause 4 of IEC 60664-4, frequency exceeding 30 kHz	MILEY WHITEK WHITEK WHI	N
TEK WIN	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	TEK WALTER WALTER	N TELL
Whitek	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	Multer whiter whiter wh	EF N
IEK WALT	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	TILEX MUTER MUTER MUTER	N
WALTER V	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	Whitek Multer Multer M	it N _M



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لو سي	IEC 60335-2-29			
Clause	Requirement + Test	Result - Remark	Verdict	
ek vinitei	Circuits supplied with a voltage lower than rated voltage, clearances of functional insulation based on the working voltage used as the rated voltage in table 15	TEK MULLER MULLER MULLER	ANTER D	
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 29.2)	N. TEK P	
WILL M	Pollution degree 2 applies, unless	TER STER WITER ON	P	
IEK MI	precautions taken to protect the insulation; pollution degree 1	THE TEXT STEEL STEEL	K NX	
X JEX	insulation subjected to conductive pollution; pollution degree 3	her who was an	N	
WIL.	Compliance is checked by inspection and measurements as specified	the many many many	N PW	
29.2.1	Creepage distances of basic insulation not less than specified in table 17	(see appended table 29.2)	Р	
ALTER WA	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	Considered	WITEK W	
WALTER	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	H WILLER WHITER WHITER	in the Nunite	
29.2.2	Creepage distances of supplementary insulation at least those specified for basic insulation in table 17, or	(see appended table 29.2)	P	
× .64	Table 2 of IEC 60664-4, as applicable:		N	
29.2.3	Creepage distances of reinforced insulation at least double those specified for basic insulation in table 17, or	(see appended table 29.2)	P	
411 1	Table 2 of IEC 60664-4, as applicable	MULL MULL MULL M	N	
29.2.4	Creepage distances of functional insulation not less than specified in table 18	(see appended table 29.2)	E PIE	
iek whit	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	Considered	WALTER AND	
WILLER V	Creepage distances may be reduced if the appliance complies with clause 19 with the functional insulation short-circuited	WITER WITER WILLER	I P WILL	



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Clause	Requirement + Test	Result - Remark	Verdict
Clause	Requirement + Test	Result - Remark	verdici
29.3	Supplementary and reinforced insulation having adequate thickness, or a sufficient number of layers, to withstand the electrical stresses	INCIDE WALL WALL WALL WALL	P
, L	Compliance checked by:	or my my	Р
MITE	- measurement, in accordance with 29.3.1, or	H TEK NITEK MITER	P
LIEK	- an electric strength test in accordance with 29.3.2, or	My My 201	P
iek wali	- an assessment of the thermal quality of the material combined with an electric strength test, in accordance with 29.3.3, and	TEX WIFEX WIFEX WIT	THE WALLEY
MULLER	for accessible parts of reinforced insulation consisting of a single layer, by measurement in accordance with 29.3.4, or	EX NITEX WALTER WALTER	NATEN
NALTEK V	- 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	WALTER WALTER WALTER	ne ex N
29.3.1	Supplementary insulation having a thickness of at least 1 mm	Writek Mritek Mritek Mi	IF WIP
ex while	Reinforced insulation having a thickness of at least 2 mm	LIEK WILEK WALTER WALTE	PLIP
29.3.2	Each layer of material withstand the electric strength test of 16.3 for supplementary insulation	ex lifex surex south	W TEXP
NLTEK 1	Supplementary insulation consisting of at least 2 layers	THE TEXT STEET	P P
	Reinforced insulation consisting of at least 3 layers	Insulation for transformer	Р
29.3.3	The insulation is subjected to the dry heat test Bb of IEC 60068-2-2, followed by	NE STEE WALTER WAL	N N
LIEK NITER	the electric strength test of 16.3	at the state	N N
	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	t ifet stifet stifet	IN N
29.3.4	Thickness of accessible parts of reinforced insulation consisting of a single layer not less than specified in table 19	WILEX MATER WHITEK ON	ITE WALTE
30 W	RESISTANCE TO HEAT AND FIRE	LIEF OLIEF WIE MILE	MILD.
30.1	External parts of non-metallic material,	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Р
MUL	parts supporting live parts, and	EK WILL MULLE MULLE	M PM
INLIEK N	thermoplastic material providing supplementary or reinforced insulation,	- TEK STEK SUTEK	NI EX P
	sufficiently resistant to heat	The The Train To	Р



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Clause	Requirement + Test	Result - Remark	Verdict
Ciause	requirement : rest	Tesuit - Terriark	Verdict
1/1/2	Ball-pressure test according to IEC 60695-10-2	WITE WILL MILL MILL WILL	on P
ek vantie Vantiek	External parts: 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 30.1)	ALT P
UTEK M	Parts supporting live parts: 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 30.1)	P
TEX WALT	Parts of thermoplastic material providing supplementary or reinforced insulation, 25°C plus the maximum temperature rise determined during clause 19, if higher; temperature (°C)	(see appended table 30.1)	WALTER W
30.2	Parts of non-metallic material adequately resistant to ignition and spread of fire	(see appended table 32.2-1)	P
<i>a</i>	This requirement does not apply to:	Mult mil my my	Р
ITEK WY	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	Writer Whiter White	P
WULL	decorative trims, knobs and other parts unlikely to be ignited or to propagate flames that originate inside the appliance	LIET WALLE WALL WALL	AL N
MUL	Compliance checked by the test of 30.2.1. In addition:	the marte marte main w	P
	- attended appliances, 30.2.2 applies	LIEK SLIEK MITER WAL	Р
.*	- unattended appliances, 30.2.3 applies	Mr. M. M.	Р
in	Appliances for remote operation, 30.2.3 applies	is the mile white	JUN N
* EX	Base material of printed circuit board, 30.2.4 applies		Р
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 30.2-1)	P
MULL	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	MULTER WALTER WALTER WA	N
	the material is classified at least HB40 according to IEC 60695-11-10	MULTER WALL MALL WALL	√N ∴
WAL	Parts for which the glow-wire test cannot be carried out meet the requirements in ISO9772 for category HBF material	tifet while while while	anch .
30.2.2	Appliances operated while attended, parts of nonmetallic material supporting current-carrying connections, and	Not applicable for IEC 60335-2-29.	N
	parts of non-metallic material within a distance of 3mm of such connections,	Mari Muri Aut Mu	N
	subjected to the glow-wire test of IEC 60695-2-11	TEX TEX TEX STE	N



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لو سران	IEC 60335-2-29	the state of the s	- 40
Clause	Requirement + Test	Result - Remark	Verdict
11/2	The test severity is:	MITE WALL WALL WALL	N
ex antie	- 750 °C, for connections carrying a current exceeding 0,5 A during normal operation	THE THE STEEL STEEL	N
	650 °C, for other connections	24 24 24	N
MILITER .	Glow-wire applied to an interposed shielding material, if relevant	A WILL WITE MILITER ON	N
	The glow-wire test is not carried out on parts of mater wire flammability index according to IEC 60695-2-12		N. E
TEX INLY	-750°C, for connections carrying a current exceeding 0,5A during normal operation	fet tet tiet with	N.C.
	-650°C, for other connections	by My My My	N
MILIE	Test as specified for an interposed shielding material	tex tex liter with	LITE N UT
	The glow-wire test is also not carried out on small pa	arts. These parts are to:	N
MULLE A	 comprise material having a glow-wire flammability index of at least 750 °C, or 650 °C as appropriate, or 	White white white wh	N
NITE WA	- comply with the needle-flame test of Annex E, or	LIEK NIEK MITER MALT	N
et je	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10	or or or of the	N
7/1/2	Glow-wire test not applicable to conditions as specified	The Maria Mari Mure	N
30.2.3	Appliances operated while unattended, tested as specified in 30.2.3.1 and 30.2.3.2	(see appended table 32.2-1)	TE Puri
LIEN	Tests not applicable to conditions as specified	at at tell of	P
30.2.3.1	Parts of insulating material supporting connections carrying a current exceeding 0,2A during normal operation, and	white with white with	P
K CLIEN	parts of non-metallic material within a distance of 3mm,	THE LIFE	P
TEX	subjected to the glow-wire test of IEC 60695-2-11 with a test severity of 850°C	The set set	P
WALTER WA	Glow-wire test not carried out on parts of material classified as having a glow-wire flammability index of at least 850°C according to IEC 60695-2-12	TEX TEX STEX WITH AND	NITE
IEX WALT	Glow-wire test not carried out on small parts that comply with the needle-flame test of Annex E or on small parts of material classified as V-0 or V-1 according to IEC 60695-11-10	THE MATTER MULTER MATTER	PL
MILIT	Test as specified for an interposed shielding material	EX LIER OLIER WILE IN	Pyr
30.2.3.2	Parts of non-metallic material supporting current- carrying connections, and	- TEX TEX TEX	P P
W. A	parts of non-metallic material within a distance of 3mm,	Must me my my	Р



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	IEC 60335-2-29		1,011	
Clause	Requirement + Test	Result - Remark	Verdic	
2/1/2	subjected to glow-wire test of IEC 60695-2-11	WILL MULL MULL MALL	Р	
× 50	The test severity is:	is it let get	Ϋ́P	
'Ul	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation - 650 °C, for other connections	The much much much	P P	
alex.	Glow-wire applied to an interposed shielding material, if relevant	Marile Maril Mari Mari	N	
	However, the glow-wire test of 750 °C or 650 °C as a on parts of material fulfilling both or either of the follow		N	
MUL	- a glow-wire ignition temperature according to IEC 60695-2-13 of at least:	WIER WHITE WHITE WHITE	N N	
WALTER	775 °C, for connections carrying a current exceeding 0,2 A during normal operation	EX WILEX MAILER WHILES	LIEN	
TEX	675 °C, for other connections	A LET LET	OF N	
ilik 1	- a glow-wire flammability index according to IEC 60695-2-12 of at least:	mer me me me	N	
7 M	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation	INLIE WALLE WHEN WHEN	WN	
WALT	- 650 °C, for other connections	TEX LIEX WITER WITER	JIN N	
, jet	The glow-wire test is also not carried out on small part	rts. These parts are to:	ŁN.	
WALL	- comprise material having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or	et united white white w	No.	
ier in	- comprise material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or	white white white wife	N Milex	
الم	- comply with the needle-flame test of Annex E, or	VD 1211 1211	N	
MULLE	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10	THE WITE V	N ,	
WALTER WA	The consequential needle-flame test of Annex E appl encroach within the vertical cylinder placed above the zone and on top of the non-metallic parts supporting and parts of non-metallic material within a distance of these parts are those:	e centre of the connection current-carrying connections,	IC NA	
EX WALT	- 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	LIEK WALTER WALTER	MINE	
WALTE	- parts that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or	EX WULLEY WHILEY MULLEY M	N	
ivri 2	- small parts, that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or	WALTER WALTER WALTER WAL	N	



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1547 0	IEC 60335-2-29	It to the the the	and and
Clause	Requirement + Test	Result - Remark	Verdict
it with	- small parts for which the needle-flame test of Annex E was applied, or	MULLEY MULLEY MULLEY WAS	W N
Whi.	- small parts for which a material classification of V-0 or V-1 was applied	LIER MULTER MULTER MULTER	N V
WALTER.	However, the consequential needle-flame test is no parts, including small parts, within the cylinder that a		IN THE NAME
nliek w	- parts having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or	OLIEK WIFE WHIFEK WAY	TEX N.T.
IEX MI	- parts comprising material classified as V-0 or V-1 according to IEC 60695-11-10, or	THE STEE STEEL STEEL STATE	K NX
L WALTER	- 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	TEX WILLER WHITEK WHITEK	N ALTER N
30.2.4	Base material of printed circuit boards subjected to needle-flame test of annex E	Approved PCB used	N.
LIER	Test not applicable to conditions as specified	LET TEXT TEXT ALL	N
	t at a re in the	not must also my	
31	RESISTANCE TO RUSTING	TEX TEX LIER ALTER	N
LIEK	Relevant ferrous parts adequately protected against rusting	A SH SH THE	N
32	RADIATION, TOXICITY AND SIMILAR HAZARDS	in Muric Muric Muric A	Р
INLIER W	Appliance shall not emit harmful radiation, present a toxic or similar hazard due to their operation in normal use	WHITEK WHITEK WHITEK WA	TER PLT
'I' WA'	Relevant tests specified in part 2, if necessary	TE MITE MALI	N'N _U
A white	ANNEX A (INFORMATIVE) ROUTINE TESTS	TEL MALTE	JAJUN S
WALTER	Description of routine tests to be carried out by the manufacturer	EX STEX WITER WAITER W	Will My
TIEK W	Test voltage of electric strength test between the input and output circuits (IEC 60335-2-29)	LIET WIET WILEY MIL	E NE
et a	et tex lifet outer while whi whi		t let
B WAL	ANNEX B (NORMATIVE) APPLIANCES POWERED BY RECHARGEABLE BA	ATTERIES	W.N
WALTE	The following modifications to this standard are applicable for appliances powered by batteries that are recharged in the appliance	TEK WALTER WALTER WALTER	N N N
Mr. A	This annex does not apply to battery chargers	White white white we	N
3.1.9	Appliance operated under the following conditions:	4 4	A NO



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Clauss	IEC 60335-2-29	Docult Dominal	1/2 22 2
Clause	Requirement + Test	Result - Remark	Verdict
is one	-the appliance, supplied by its fully charged battery, operated as specified in relevant part 2	Marie Marie Marie	an N
whi.	-the battery is charged, the battery being initially discharged to such an extent that the appliance cannot operate	TER MUTEL MUTE W	Et Jet N
	-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	while while while	white white
MULLEX	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	TEK White Whitek	TEX WITEY
3.6.2	Part to be removed in order to discard the battery is not considered to be detachable	OLIEK MITEK MALIE	A MILL
5.101	Appliances supplied from the supply mains tested as specified for motor-operated appliances	TEX LIEX SLITER	MEX NATION
7.1	Battery compartment for batteries intended to be replaced by the user, marked with battery voltage and polarity of the terminals	TER WILER MILER	NITEX WITE
WALTER	The positive terminal indicated by symbol IEC 60417-5005 and the negative terminal by symbol IEC 60417-5006	ex whitex whitex whi	TEX N
7.12	The instructions for appliances incorporating batteries intended to be replaced by the user includes required information	whitek whitek whiteh	white N. I.
in we	Details about how to remove batteries containing materials hazardous to the environment given	all life waite	unit un'N
7.15	Markings placed on the part of the appliance connected to the supply mains	The The Late And	IT N N
8.2 TEL	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	Hanifek whiles while	et un et N
CEX TE	If the appliance can be operated without batteries, double or reinforced insulation required	mer mer me	TEXT TEXT
11.7	The battery is charged for the period described	THE WALL MALL A	u N
19.1	Appliances subjected to tests of 19.101, 19.102 and 19.103	let writes whites whi	TEK WITEN
19.13	The battery shall not rupture or ignite.	74.	← N
19.B.101	Appliances supplied at rated voltage for 168 h, the battery being continually charged	White Write White	an N



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		- " - " - " - " - " - " - " - " - " - "	
Clause	Requirement + Test	Result - Remark	Verdict
19.B.102	Short-circuiting of the terminals of the battery, being fully charged, for appliances having batteries that can be removed without the aid of a tool	White white white whi	N N
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	st multer multest multest and	N JEK WA
21.B.101	Appliances having pins for insertion into socket- outlets have adequate mechanical strength, checked according to procedure 2 of IEC 68-2-32	Whitek Whitek White white	N.N.
t "ex	Part of the appliance incorporating the pins subjected of IEC 60068-2-32, the number of falls being:	to the free fall test, procedure 2,	on N
WILL	- 100, the mass of part does not exceed 250 g	tex cites wife will w	N.V
all the	- 50, the mass of part exceeds 250 g	A A A	↓ N
NUT. W	After the test, the requirements of 8.1, 15.1.1, 16.3 and clause 29 are met	White mark will whi	-N
22.3	Appliances having pins for insertion into socket- outlets tested as fully assembled as possible	UNLIER WHITER WHITER WHITE	ur N
25.13	An additional lining or bushing not required for interconnection cords operating at safety extra-low voltage	LIEK WALTER WALTER WALTER	unit N
30.2	For parts of the appliance connected to the supply mains during the charging period, 30.2.3 applies	et white white white wh	N
INLIE WY	For other parts, 30.2.2 applies	TEX STEX STIER SOLI	N
, t	at let lest liest while while while	Mr. M. M. A.	ct
C w	ANNEX C (NORMATIVE) AGEING TEST ON MOTORS	THE WALTER WALTER	NIN
white	Tests, as described, carried out when doubt with regard to the temperature classification of the insulation of a motor winding	THE WALTER W	N N
Will W	ne who will be the test it	ex alter write wait wa	, w
D EX WAI	ANNEX D (NORMATIVE) THERMAL MOTOR PROTECTORS	tet tet street mire	- NE
iek olie	Applicable to appliances having motors that incorporate thermal motor protectors	on on the lift	N
400	A LET LET DELLE WILL AND THE	ur, aug aug ang	20.
EWALTER	ANNEX E (NORMATIVE) NEEDLE-FLAME TEST	TEX MILEY WALTER WALTER W	LIE N _M
Whiteh wh	Needle-flame test carried out in accordance with IEC 60695-11-5, with the following modifications:	- TITEL WILLER WHITEL	EX N
7.04	Severities		N



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	IEC 60335-2-29		
Clause	Requirement + Test	Result - Remark	Verdict
	The duration of application of the test flame is 30 s ± 1 s	WALLEY WALLEY	N N
9 🐠	Test procedure	LIER OLIER MILER ON	N A
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	EX MULTEX MULTER WALT	EK AN JEKN
9.2	The first paragraph does not apply	TEX TEX STEX	N.TE
1614 J	If possible, the flame is applied at least 10 mm from a corner	mur mur mur	N N
9.3	The test is carried out on one specimen	rife while whi v	W. N.
WALTER	If the specimen does not withstand the test, the test may be repeated on two further specimens, both withstanding the test	TEK WHITEK WHITEK WH	TEL WITCH
11	Evaluation of test results	ITEX SITEX MITE	N.C.
. **	The duration of burning not exceeding 30 s	Mr. Mr. Mr.	N
in wh	However, for printed circuit boards, the duration of burning not exceeding 15 s	INLIER WALTER WALTER	MET WIN

F	ANNEX F (NORMATIVE) CAPACITORS	THE N
JALTEK JUL TEK	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:	miles while whi
1.5	Terminology	and and
1.5.3	Class X capacitors tested according to subclass X2	+ A N
1.5.4	This subclause is applicable	AL A N
1.6	Marking	THE N
711.	Items a) and b) are applicable	n n N
3.4	Approval testing	TEL TE NE
3.4.3.2	Table 3 is applicable as described	N
4.1	Visual examination and check of dimensions	Et ale Min
, t	This subclause is applicable	N
4.2	Electrical tests	NU LI NU
4.2.1	This subclause is applicable	N
4.2.5	This subclause is applicable	Intil Mil N.
4.2.5.2	Only table IX is applicable	N



			77, 27,
Clause	Requirement + Test	Result - Remark	Verdict
The same	Values for test A apply	WILL MILL MULLER	W N
ek wate	However, for capacitors in heating appliances the values for test B or C apply	TEK STEK MITEK MI	LITER VICTORY
4.12	Damp heat, steady state		A AN
m.	This subclause is applicable	LICH MITE WILL WILL	W. N.
NITEK W	Only insulation resistance and voltage proof are checked	y lifet slifet splifet	NIE WILL
4.13	Impulse voltage	711 711	N.L
MI	This subclause is applicable	SIFE WIFE WITE S	uris an'n
4.14	Endurance	M. A. A.	at an
W.	Subclauses 4.14.1, 4.14.3, 4.14.4 and 4.14.7 applicable	TER WALTE WALTE WA	N N
4.14.7	Only insulation resistance and voltage proof are checked	WHITEK WALTER WHITE	N. N.
LIE NA	Visual examination, no visible damage	TEK TEK LITEK	ntie nNE
4.17	Passive flammability test	ing ing in	N
E. WIT	This subclause is applicable	TEX LIEK SLIEK	LITE IN IN
4.18	Active flammability test	My My M	N
INLI .	This subclause is applicable	Et TEX TEX ST	N/L

G w	ANNEX G (NORMATIVE) SAFETY ISOLATING TRANSFORMERS	unti P
ITE WAY	The following modifications to this standard are applicable for safety isolating transformers:	White Wh P
7 Willet	Marking and instructions	LIEF LIFE IN
7.1	Transformers for specific use marked with:	Р
WALTER	-name, trademark or identification mark of the manufacturer or responsible vendor	TER WALLE
	-model or type reference	PIET PIET
17	Overload protection of transformers and associated circuits	√ ¹ P
TEKWALTE	Fail-safe transformers comply with subclause 15.5 of IEC 61558-1	WALTEL WALNE
22	Construction	A P
AL.	Subclauses 19.1 and 19.1.2 of IEC 61558-2-6 are applicable	PILL
29	Clearances, creepage distances and solid insulation	, 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	MITEL PEX
		- Ch



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Clause	IEC 60335-2-29	Dogult Domork	Mordia
Clause	Requirement + Test	Result - Remark	Verdic
ek _{mit} e	For insulated winding wires complying with subclause 19.12.3 of IEC 61558-1 there are no requirements for clearances or creepage distances	Write White White	TEL STEE
WALTER.	For windings providing reinforced insulation, the distance specified in item 2c of table 13 of IEC 61558-1 is not assessed	it and white and	EK MY JEK MY
nliek whi	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	Whitek whitek whitek	MITER WHITEK
H JOLIEN	ANNIEV H (NORMATIVE)		N N N
11.20	ANNEX H (NORMATIVE) SWITCHES		70, 142
WITE .	Switches comply with the following clauses of IEC 61	058-1, as modified:	No.
itek «i	-The tests of IEC 61058-1 carried out under the conditions occurring in the appliance	MAT AND AND	N N
	-Before being tested, switches are operated 20 times without load	autic many many	ALL AND N
8 1/1	Marking and documentation	ATER MALTER WALL AN	II. N
LIEK	Switches are not required to be marked	e et et «	et setN
	However, switches that can be tested separately from the appliance marked with the manufacturer's name or trade mark and the type reference	tek itek itek	No.
13	Mechanism	Mr. Mr. Mr.	N
TE MY	The tests may be carried out on a separate sample	TE CLIER	MITE MIN
15	Insulation resistance and dielectric strength	12	N
15.1	Not applicable	THE WA	N
15.2	Not applicable	201 201	L N
15.3	Applicable for full disconnection and micro-disconnection	MULTER WALLE WALL	n, N
17	Endurance 11	TEX STEX WITE	MIN'S
iek nii	Compliance is checked on three separate appliances or switches	the tex tex	LIET NI
WALTER	For 17.2.4.4, the number of cycles is 10 000, unless otherwise specified in 24.1.3 of the relevant part 2 of IEC 60335	EX NITEX NITEX NITE	THE N
MITEK V	Switches for operation under no load and which can be operated only by a tool and switches operated by hand that are interlocked so that they cannot be operated under load, are not subjected to the tests	WATER WITER WITE	ANT ANT



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	IEC 60335-2-29			
Clause	Requirement + Test	Result - Remark	Verdict	
2112	Subclauses 17.2.2 and 17.2.5.2 not applicable	UNITED WALTER WATER	N	
EK WALTE	The ambient temperature during the test is that occurring in the appliance during the test of Clause 11 in IEC 60335-1	TEX WALTER WALTER	N N	
White.	Temperature rise of the terminals not more than 30 K above the temperature rise measured in clause 11 of IEC 60335-1	White white white w	N. N. N.	
20	Clearances, creepage distances, solid insulation and assemblies	coatings of rigid printed board	N N	

L WALTER	ANNEX I (NORMATIVE) MOTORS HAVING BASIC INSULATION THAT IS INADEQUATE FOR THE VOLTAGE OF THE APPLIANCE	RATED
ounlifek v	The following modifications to this standard are applicable for motors having basic insulation that is inadequate for the rated voltage of the appliance:	LIER WALER WA
8	Protection against access to live parts	NILL WIN
8.1	Metal parts of the motor are considered to be bare live parts	- NITEX NUTE
11	Heating	N
11.3	Temperature rise of the body of the motor is determined instead of the temperature rise of the windings	uniter un ite Nu
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	E VINE ON
16	Leakage current and electric strength	N N
16.3	Insulation between live parts of the motor and its other metal parts not subjected to the test	White white N
19	Abnormal operation	N N
19.1	The tests of 19.7 to 19.9 not carried out	N. V.
19.101	Appliance operated at rated voltage with each of the following fault condition	s: N
	- short circuit of the terminals of the motor, including any capacitor incorporated in the motor circuit	N SIL
M	- short circuit of each diode of the rectifier	THE WAY
LIEN	- open circuit of the supply to the motor	JEN JEN
1211.	- open circuit of any parallel resistor, the motor being in operation	M N
ing 1	Only one fault simulated at a time, the tests carried out consecutively	L W N
22	Construction	MILL WIN



IEC 60335-2-29			
Clause	Requirement + Test	Result - Remark	Verdict
22.101	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	MULTER WALTER WALTER	SUPER N
WALTER.	Compliance checked by the tests specified for double and reinforced insulation	SE REFER WEIGH WIT	ER ZERN
et	TEX ITEX SITES ONLY MINE TO THE	70, 71	- 4 1
Vez M	ANNEX J (NORMATIVE) COATED PRINTED CIRCUIT BOARDS	White Mulice Mulice	W N
i wali	Testing of protective coatings of printed circuit boards carried out in accordance with IEC 60664-3 with the following modifications:	onited white white v	TEK TEK
5.7	Climatic sequence	TE WILL WALL WA	N _N
MITER	When production samples are used, three samples of the printed circuit board are tested	olitek unlitek aunlis	The Strain
5.7.1	Cold	The second second	NO NO
'AL	The test is carried out at -25°C	OLITER MOLITER MALITY	Who will
5.7.3	Rapid change of temperature	t at	N N
n,	Severity 1 is specified	LIE WALL WALL ON	N
5.9	Additional tests	at at at	CEL SELN
1/1	This subclause is not applicable	A MULL AND AND	N N
LIER (LLIE MALLE MALL M	t at let le	- LITER OLIT
K	ANNEX K (NORMATIVE) OVERVOLTAGE CATEGORIES	Mure Mure Mus	THE TEX
A LEX	The information on overvoltage categories is extracted from IEC 60664-1	in the contract of the contrac	N P
MUL	Overvoltage category is a numeral defining a transient overvoltage condition	In the m	P
White	Equipment of overvoltage category IV is for use at the origin of the installation	Whitek whitek whit	We Ne
LIEK 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	ounties unites whites	white with
WALTER	Equipment of overvoltage category II is energy consuming equipment to be supplied from the fixed installation	riek witek writek wri	FEK WITER W
MLTEX V	If such equipment is subjected to special requirements with regard to reliability and availability, overvoltage category III applies	A STEK WILEK WITE	* WIT IN N



Reference No.: WTU15D0933878S Page 59 of 89 IEC 60335-2-29 Clause Requirement + Test Result - Remark Verdict N 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 ANNEX L (INFORMATIVE) Ρ GUIDANCE FOR THE MEASUREMENT OF CLEARANCES AND CREEPAGE **DISTANCES** Р Sequences for the determination of clearances and creepage distances Ρ M ANNEX M (NORMATIVE) POLLUTION DEGREE Р The information on pollution degrees is extracted from IEC 60664-1 P Pollution P The microenvironment determines the effect of pollution on the insulation, taking into account the microenvironment Means may be provided to reduce pollution at the Р insulation by effective enclosures or similar Р Minimum clearances specified where pollution may be present in the microenvironment Degrees of pollution in the microenvironment For evaluating creepage distances, the following degrees of pollution in the microenvironment are established: - pollution degree 1: no pollution or only dry, non-Ν conductive pollution occurs. The pollution has no influence - pollution degree 2: only non-conductive pollution occurs, except that occasionally a temporary conductivity caused by condensation is to be expected N - pollution degree 3: conductive pollution occurs or dry non-conductive pollution occurs that becomes conductive due to condensation that is to be expected - pollution degree 4: the pollution generates N persistent conductivity caused by conductive dust or by rain or snow

N_	ANNEX N (NORMATIVE)	P
ALLIE MALL	PROOF TRACKING TEST	WILL



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. (² 1)	IEC 60335-2-29	the reth creek acree	Chile Wall
Clause	Requirement + Test	Result - Remark	Verdict
	The proof tracking test is carried out in accordance with IEC 60112 with the following modifications:	Marine Marine.	ull P
7	Test apparatus	LIER OLIER MITTER AND	11 NV P 1
7.3	Test solutions		at at P
Mr.	Test solution A is used	THE WILL WALL WALL	'IL BIL
10	Determination of proof tracking index (PTI)		P.
10.1	Procedure	Write Write Mur.	W 1P
TEX J	The proof voltage is 100V, 175V, 400V or 600V:	175V	P.Y
1/1	The last paragraph of Clause 3 applies	WILL MULL MULL A	P
LIE	The test is carried out on five specimens	at at the	TEX TEP
MITER	In case of doubt, additional test with proof voltage reduced by 25V, the number of drops increased to 100	LIEK SLIEK WILL	The state of the s
10.2	Report	My My My	Р
TI, MV	The report stating if the PTI value was based on a test using 100 drops with a test voltage of (PTI-25) V	UNITER WALTER WALTER	WILL VILN

0	ANNEX O (INFORMATIVE) SELECTION AND SEQUENCE OF THE TESTS OF CLAUSE 30	JELP JEL
TEX C	Description of tests for determination of resistance to heat and fire	P

PEK	ANNEX P (INFORMATIVE) GUIDANCE FOR THE APPLICATION OF THIS STANDARD TO APPLIANCES USED IN WARM DAMP EQUABLE CLIMATES	MULT
ek wali	Modifications applicable for class 0 and 01 appliances having a rated voltage exceeding 150V, intended to be used in countries having a warm damp equable climate and that are marked WDaE	S ALT N
White W	Modifications may also be applied to class 1 appliances having a rated voltage exceeding 150V, intended to be used in countries having a warm damp equable climate and that are marked WdaE, if liable to be connected to a supply mains that excludes the protective earthing conductor	S. N.
5	General conditions for the tests	N_
5.7	The ambient temperature for the tests of Clauses 11 and 13 is 40 +3/0	ar N
7	Marking and instructions	N
7.1	The appliance marked with the letters WDaE	N
7.12	The instructions state that the appliance is to be supplied through a RCD having a rated residual operating current not exceeding 30 mA	N



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	IEC 60335-2-29		
Clause	Requirement + Test	Result - Remark	Verdict
EK MUTLE	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	MILIER WILLER WILLER	SUP N
11 🖑	Heating	a at at a	# N
11.8	The values of Table 3 are reduced by 15 K	MULL MULL MULL	N _n
13	Leakage current and electric strength at operating tele	mperature	N.T.
13.2	The leakage current for class I appliances not exceeding 0,5 mA	Mus Mus Mus	N TEXT
15	Moisture resistance	intite while while a	W. N
15.3	The value of t is 37 °C	at at at .	CEL CIEN
16	Leakage current and electric strength	The Mar My	N ₂₀
16.2	The leakage current for class I appliances not exceeding 0,5 mA	WILLER MULTER MULTE	A WILL AND
19	Abnormal operation	at at at	Ne Ne
19.13	The leakage current test of 16.2 is applied in addition to the electric strength test of 16.3	WILL AVEL AND	AN ANN

	ANNEX Q (INFORMATIVE) SEQUENCE OF TESTS FOR THE EVALUATION OF ELECTRONIC CIRCUITS	TEKN WALT
	Description of tests for appliances incorporating electronic circuits	L N

R	ANNEX R (NORMATIVE) SOFTWARE EVALUATION	N TEL TEL
EX VILL	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	Whitek whitek wh
R.1	Programmable electronic circuits using software	The Marie Maria
NLTEK V	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	Whitek white whitek
R.2	Requirements for the architecture	N N
MULTER MULTER	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	EK WALTER WALTER WALTER



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Clause	Deguirement L Test	Decult Demorts	\/and:-
Clause	Requirement + Test	Result - Remark	Verdic
R.2.1.1	Programmable electronic circuits requiring software control the fault/error conditions specified in table R structures:		W N
TEX.	- single channel with periodic self-test and monitoring	or mer mer in	N
ap.	- dual channel (homogenous) with comparison	E WILL MILL MILL OF	N
TEX	- dual channel (diverse) with comparison	at at alt of	N.
TEX WILL	Programmable electronic circuits requiring software control the fault/error conditions specified in table R structures:		N
, ,t	- single channel with functional test	Vr. My My M	N
NALTE	- single channel with periodic self-test	LEK TEK ALTER MITE	N
,* +	- dual channel without comparison	201 201 20	N
R.2.2	Measures to control faults/errors	LIEK NIEK MLIEK NO	N
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	united whites white	N NALTE
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	ETEX WHITEK WHITE WHITEK	TEK W
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 SUPLIFIES
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	MULIER MULIER MULIER M	E N
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	TEK MULTER MULTER MULTER	WEN W
R.2.2.6	The software is referenced to relevant parts of the operating sequence and the associated hardware functions	whitek unlike unlike un	N



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Clause	Requirement + Test Result - Remark	Verdict
Clause	Requirement + Test Result - Remark	verdic
R.2.2.7	Labels used for memory locations are unique	Wer and and
R.2.2.8	The software is protected from user alteration of safety-related segments and data	TEX NITELY NITEN
R.2.2.9	Software and safety-related hardware under its control is initialized and terminates before compliance with clause 19 is impaired	MUNITER ON THE WA
R.3	Measures to avoid errors	NA NA
R.3.1	General	Mer Mer AN
TEX WALTE	For programmable electronic circuits with functions requiring software measures to control the fault/error conditions specified in table R.1 or following measures to avoid systematic fault in the software are applied	R.2, the
WALTELL W	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	EL WALTER WALLER WAS
R.3.2	Specification	TEL TE NE
R.3.2.1	Software safety requirements:	N. A. A.N.
EX WALTER	The specification of the software safety requirements includes the descriptions listed	ITEX WITEX WITH
R.3.2.2	Software architecture	L AL
R.3.2.2.1	The specification of the software architecture includes the aspects listed	me m No
	- techniques and measures to control software faults/errors (refer to R.2.2);	MULLER MULL MULL
	- interactions between hardware and software;	TEX SITEX INTER
	- partitioning into modules and their allocation to the specified safety functions;	et let let
	- hierarchy and call structure of the modules (control flow);	in with a be
	- interrupt handling;	WITER ON THE WA
	- data flow and restrictions on data access;	70, 7
	- architecture and storage of data;	WILL WILL WALL
	- time-based dependencies of sequences and data	7 7
R.3.2.2.2	The architecture specification is validated against the specification of the software safety requirements by static analysis	itet white whin
R.3.2.3	Module design and coding	MU THE NO
R.3.2.3.1	Based on the architecture design, software is suitably refined into modules	A N



	IEC 60335-2-29		
Clause	Requirement + Test	Result - Remark	Verdict
er writer	Software module design and coding is implemented in a way that is traceable to the software architecture and requirements	UNLIENT SUNTER SUNTER.	all N
R.3.2.3.2	Software code is structured	Wer Aug Aug Au	N
R.3.2.3.3	Coded software is validated against the module specification by static analysis	THE WALTER WALTER WALT	S N
INLIEK WY	The module specification is validated against the architecture specification by static analysis	ALTER OLIER MALTER	WILL WILL
R.3.3.3	Software validation	W. W.	N+
x TEX	The software is validated with reference to the requirements of the software safety requirements specification	WITE MILE WAITE	TEX TEX
20	Compliance is checked by simulation of:	TE WALL WALL AND	N ₂₀
LIER	- input signals present during normal operation	at at A	N
4, 4,	- anticipated occurrences	MULL MULL MULL	An N
TEX C	- undesired conditions requiring system action	it at at	N [©]

AA	ANNEX AA (NORMATIVE) BATTERY CHARGERS FOR USE BY CHILDREN	Et Juni N
MALTEX	The battery charger have a d.c. output at SELV not exceeding 30 V and a rated output not exceeding 50 VA	- JEN WIT
5.210	Use of rechargeable batteries giving the most unfavourable conditions	N N N
6.1	Protection against electric shock for battery chargers for outdoor use: Class III	TEK WITTER
EX WALTE	Protection against electric shock for other battery chargers: Class II, III	of rest of
6.2	Protection against harmful ingress of water for battery chargers for outdoor use: IPX7	White Nair
6.201	Protection against ingress of solid foreign objects:	N NN
7.1	Symbol 5957 of IEC 60417 or text "For indoor use only" for battery chargers for indoor use	NON N
NITE!	IP number	TEN N
10,	Smiling face symbol together with 8+	N
7.6	Correct symbols used	NUT NUT
7.12	Instructions for safe use contains:	N



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10 Th	IEC 60335-2-29	of the tell of	MITE WILL
Clause	Requirement + Test	Result - Remark	Verdict
ist in	- Warning to only allow children at least 8 years old to use battery charger	united white white.	West WN
'Mar.	Sufficient instructions for safe use of battery charger by a child	LIER WATER MUTE M	N N
Wille.	Explanation that battery charger is not a toy	et let liet of	N _C
SLIEK II	- Instruction for child not to try and recharge non- rechargeable batteries	the tex item	N N
TEX J	- Warning to examine battery charger regularly for damage	mer mer me	N
7/1	Warning in case battery charger is damaged	Will Murit Mur.	W. N
MULTER	Instruction for Class III battery charger to be supplied from transformer for toys	TEX NITEX WITEX	TEX WITEN
7.14	Height of symbol marked on the appliance at least 10 mm	LIER SLIER WILL	A THE MAN
	Height of lettering at least 3 mm	Mr. Mr. Mr.	N
8.1.1 W	Use of test probe B of IEC 61032: no contact with live parts or metal parts separated from live parts by basic insulation only, even after use of a tool to remove parts of enclosure	UNITED WHITE WHITE	White WIN
10.101	The output voltage not exceed 42,4 V peek:	40 40 40	ALN .
11.8	Temperature rises of parts that can be touched by test probe 18 of IEC 61032	is write write wri	An Non
17	Temperature rises of parts that can be touched by test probe 18 of IEC 61032	WILL MILES MILE	With W
19.13	Temperature rises of parts that can be touched by test probe 18 of IEC 61032	INLIE JUNITER	INLITER VIN NEW
21.201	Impact test Eha of IEC 60068-2-75, with impact energy of 2 J	IL PRINTER OF	LIER NITEN
MITEK	Free fall test Ed, Procedure 1 of IEC 60068-2-32, from the height of 500 mm	* Tex Stex St	et N
LIEK	Battery charger not damaged to such extend that compliance is impaired, live parts not accessible	Wer All All	N N
22.201	Battery charger with only one rated voltage or rated voltage range	mer, mer, mer	TEX TEX
- "EX	Battery charger not incorporate means for manually adjusting output voltage	THE MILL MULL A	N
22.202	Construction of battery charger prevent reverse charging	TER WHITE WHITE WHI	N II
24.201	Transformer for toys tested in accordance with subclauses 7.2, 20.5.1 and 20.101 and clause 15 of standard IEC 61558-2-7	MULTER WALLER WALLE	W.C.



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Kelelelic	re No W 10 13D09330703 Fagi	5 00 01 09	
and the sale	IEC 6	0335-2-29	MITERWALIE
Clause	Requirement + Test	Result - Remark	Verdict
25.1	Battery charger not provided with an ap	pliance inlet	all all N
25.5	Battery charger provided with type Y or attachment	type Z	LIET NEW W

ATTACHMENT TO TEST REPORT IEC 60335-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

Household and similar electrical appliances – Safety – Part 1: GENERAL REQUIREMENTS

Differences according to: EN 60335-1:2012

EN 62233:2008

Attachment Form No.: EU_GD_IEC60335_1T

Attachment Originator : Nemko AS

Master Attachment : 2013-02

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	CENELEC COMMON MODIFICATIONS	
6.1	Delete "class 0" and "class 01"	P P
7.1	Single-phase appliances to be connected to the supply mains: 230 V covered	We was b
MUL	Multi-phase appliances to be connected to the supply mains: 400 V covered	rite murit an N
7.10	Devices used to start/stop operational functions of the appliance distinguished from other manual devices by means of shape, size, surface texture, position, etc.	EL WALTER WALT N
.L	An indication that the device has been operated is given by:	N
MULT	a tactile feedback, or	TER STIFF IN N
.et	an audible and visual feedback	N
7.12	The instructions include the substance of the following:	ITE WILL WAS B
NLIEK V	- this appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved	WALTER WALTER
MULT	- children shall not play with the appliance	ALTER WILLER WILL P
CLIEK	- cleaning and user maintenance shall not be made by children without supervision	P P



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- Willey al	IEC 60335-2-29				
Clause	Requirement + Test	Result - Remark	Verdict		
7.12.Z1	The specific instructions related to the safe operation of this appliance is collated together in the front section of the user instructions	INCIDE VIOLET VIOLET VIOLET	Р		
, lik	The height of the characters, measured on the capital letters, is at least 3 mm	we we we	Р		
W.	These instructions are also available in an alternative format, e.g. on a website	MULL AND MULL A	Р		
8.1.1	Also test probe 18 of EN 61032 is applied	alter putter unite puni	Р		
IEK NAIT	The appliance being in every possible position during the test	TEX TEX STEX BUTE	Р		
y Jiek	The force on the probe in the straight position is increased to 10 N when probe 18 is used	A SH SH SH	Р		
WILLER TO	When using test probe 18 the appliance is fully assembled as in normal use without any parts removed, and	TEX TEX WIFE W	N P		
TEX N	parts intended to be removed for user maintenance are also not removed	The fit the it	N		
8.2	Compliance is checked by applying the test probes of EN 61032	mer was and an	Р		
L VILLE	For built-in appliances and fixed appliances, the test probe B and probe 18 of EN 61032 are applied only after installation	TEX WITE WITE WITE	N		
11.8	Footnotes to "External enclosure of motor- operated appliances" to be taken into account	mir mr. m. a	Р		
15.1.2	Appliances with an automatic cord reel tested with the cord in the most unfavourable position so that the reeling of the wet cord may affect electrical insulation during operation, the cord not being dried before reeling	White white while white	N		
20.2	When using the test probe similar to test probe B with a circular stop face, the accessories and detachable covers are removed	THE WALTER	N		
MUT.	Test probe 18 applied with a force of 2,5N on the appliance fully assembled	MULTER MULTER WILL W	N		
24.1	Components comply with the safety requirements specified in the relevant standards as far as they reasonably apply	WHILE MALIER WALLER WALL	P		
t Wilek	The requirements of Clause 29 of this standard apply between live parts of components and accessible parts of the appliance.	ITER WATE WITH WITH	Р		
Mritek M	The requirements of 30.2 of this standard apply to parts of non-metallic material in components including parts of non-metallic material supporting current-carrying connections inside components	MUTER MUTER MUTER	P S		



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1 0	IEC 60335-2-29	Day Day was	1, "
Clause	Requirement + Test	Result - Remark	Verdict
ek onviter	Components that have not been previously tested or do not comply with the standard for the relevant component are tested according to the requirements of 30.2	TEK WALLER WALLER WHILE	Р
WALTER.	Components that have been previously tested and resistance to fire requirements in the standard for the retested provided that:		Р
ALTER ON	- the severity specified in the component standard is not less than the severity specified in 30.2, and	MITEL WHITEK WHITEK WHITE	Р
iek wali	- the test report for the component states whether it complied with the standard for the relevant component with or without flame, flames not exceeding 2 s during the test are ignored	NITER WHITER WHITER	N
Whitek a	Unless components have been previously tested and found to comply with the relevant standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9	antiek whilek whilek whi	Р
itex ma	For components mentioned in 24.1.1 to 24.1.9, no additional tests specified in the relevant standard for the component are necessary other than those specified in 24.1.1 to 24.1.9	UNLIER WHITEK WHITEK WHITEK	Р
WIEK	Components that have not been separately tested and found to comply with the relevant standard, and	the main was a	N
	components that are not marked or not used in accordance with their marking,	mer mer un tu	N
iek in	are tested in accordance with the conditions occurring in the appliance, the number of samples being that required by the relevant standard	white white white white	N
Whitek Whitek	Lamp holders and starter holders that have not been previously tested and found to comply with the relevant standard are tested as a part of the appliance and additionally comply with the gauging and interchangeability requirements of the relevant standard under the conditions occurring in the appliance		N
LIFE W	Where the relevant standard specifies these gauging and interchangeability requirements at elevated temperatures, the temperatures measured during the tests of Clause 11 are used	UNLIEK WHITEK WHITEK WHITE	N
WALTER	Plugs and socket-outlets and other connecting devices of interconnection cords are not interchangeable with plugs and socket-outlets listed in IEC/TR 60083 or IEC 60906-1, or	EX MUTEX ANTIER MUTER M	N
INLTER V	with connectors and appliance inlets complying with the standard sheets of IEC 60320-1,	MITER WALTER WALTER	N
TEX N	if direct supply to these parts from the supply mains gives rise to a hazard	LET THE THE STATE	N



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Clause	Requirement + Test	Result - Remark	Verdict
Olduse	requirement - rest	result remark	Verdio
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 EN 41003	White white white white	N
	Compliance with Clause 8 of this standard is not impaired by connecting the appliance to a device covered by EN 41003	IN WHITE WHITEK WHITEK WE	N
24.Z1	For motor running capacitors (IEC 60252-1 type P2) with a metallic enclosure having an overpressure fuse the flame testing of internal plastic parts supporting current carrying connections as required in 30.2.2 and 30.2.3.1 is not necessary	Whitek Whitek Whitek Whitek	N
25.6	Supply cords of single-phase portable appliances hexceeding 16 A, fitted with a plug complying with the IEC/TR 60083:		Р
ITEK MV.	- for Class I appliances: standard sheet C2b, C3b or C4	White white water white	N
EX WALLE	- for Class II appliances: standard sheet C5 or C6	LIEK WHITEK WHITEK	Р
25.7	Rubber sheathed cords (60245 IEC 53) are not suitable for appliances intended to be used outdoors or when they are liable to be exposed to significant amount of ultraviolet radiation	TER WHITE MATER WHITE WHI	N
TEX	Halogen-free thermoplastic compound sheathed su least those of:	upply cords have properties at	N
y Waliey	 halogen-free thermoplastic compound sheathed cords (H03Z1Z1H2-F or H03Z1Z1-F), for appliances having a mass not exceeding 3 kg 	TEK MITEK	N
	 halogen-free thermoplastic compound sheathed cords (H05Z1Z1H2-F or H05Z1Z1-F), for other appliances 	MULTER WHITER WHITE WA	N
Ex ANTI	Cross-linked halogen-free compound sheathed supply cords have properties at least those of cross-linked halogen-free compound sheathed cords (H07ZZ-F)	White whitek whitek whitek	N
26.11	Conductors connected by soldering are not considered to be positioned or fixed so that reliance is not placed upon the soldering alone to maintain them in position unless they are held in place near the terminals independently of the solder	TEK WALTER WALTER WALTER WAL	N



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16 W	IEC 60335-2-29	the set the set	White White
Clause	Requirement + Test	Result - Remark	Verdict
29.3.Z1	Appliance constructed so that if there is a possibility of damaging the insulation during installation, the insulation withstands the scratch and penetration test of 21.2	MULTER WALTER WALTER	N N
32	Compliance regarding electromagnetic fields is checked according to EN 62233	EN 62233	P P
Annex I, 19.I.101	The appliance is supplied at rated voltage and operated under normal operation with each of the fault conditions specified	WILEY WALTER	N
CENT JE	The duration of the test is as specified in 19.7	L A At	N
ZA	ANNEX ZA (NORMATIVE) SPECIAL NATIONAL CONDITIONS	Murity Mury Mury A	
W.	Norway	The wat was	<u> </u>
19.5	The test is also applicable to appliances intended to be permanently connected to fixed wiring	While while white	N N
x 11	Norway	Write Alver Week	.↓ N
22.2 VI	The second paragraph of this subclause, dealing with single-phase, permanently connected class I appliances having heating elements, is not applicable due to the supply system	TEX MULTER MULTER MULTER	N N
NOTE W	All CENELEC countries	alter outer outer	WALT!
25.6 and 25.25	Information concerning National plug and socket- outlets is available from the CENELEC website. Normative national requirements concerning plug and socket-outlets are shown in the relevant National standard	TEX MILIER	TIEK P
- CCX		7, 7,	, NI
25.8	Ireland and United Kingdom	d by	N N
20.0	In the table, the lines for 10 A and 16 A are replace > 10 and ≤ 13 1,25	u by.	N N
<u> </u>	> 13 and ≤ 16 1,5	Mill wint, The	N N
iet write	m m to the	TEX LIET NIET	NI FIELD
ZB	ANNEX ZB (INFORMATIVE) A-DEVIATIONS	aret izek sizek ori	-
	EX TEX ITEX INTITE WALL WITH WA	in my my	
WILL VI	Ireland	I TEK TEK TE	N N



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.0 ⁵⁰ .0	IEC 60335-2-29	TEX LIFE SUFER MAIN	" OVER
Clause	Requirement + Test Re	esult - Remark	Verdict
25.6	These regulations apply to all plugs for domestic use at a voltage of not less than 200 V and in general allow only plugs complying with I.S. 401:1997, or equivalent, to be fitted to domestic appliances	A MUNICIPALITY MUSICAL	N
ans.	M M W THE STATE OF	WILLER WILLE AND WAR	
at .	United Kingdom		P
25.6	These regulations apply to all plugs for domestic use at a voltage of not less than 200 V and in general allow only plugs to BS 1363 to be fitted to domestic appliances. It also allows plugs to BS 4573 and EN 50075 to be fitted to shavers and toothbrushes	EX WHITEX WHITEX	Р
ZC	ANNEX ZC (NORMATIVE) NORMATIVE REFERENCES TO INTERNATIONAL PUTHEIR CORRESPONDING EUROPEAN PUBLICATIONAL PUTHEIR PUBLICATIONAL		_
LIE .IN	A list of referenced documents in this standard	TEX TEX LIER WITE	Р
	a the trib the trib	Alle My An	
ZD	ANNEX ZD (INFORMATIVE) IEC and CENELEC CODE DESIGNATIONS FOR FLE	XIBLE CORDS	
WALTER	A table with IEC and CENELEC code designations for flexible cords	INTER WITER WALTER WE	Р
ZE	ANNEX ZE (INFORMATIVE) SPECIFIC ADDITIONAL REQUIREMENTS FOR APPLINTENDED FOR COMMERCIAL USE	LIANCES AND MACHINES	N
7.1	Business name and full address of the manufacturer and, where applicable, his authorized representative:	TE WAITER WALTER	N
WILL	Model or type reference	TET WITE	N
et.	Serial number, if any:	711. 20. 2	N
WALL	Production year	LIER OLIER WILLE WA	N
at	Designation of the appliance	71 71 7	N
7.12	Instructions provided with the appliance so that the appliance can be used safely	LIE WHILE WHILE WHILE	N
ie anti	The instructions contain at least the following information	on: The The The	N
WALTER	- the business name and full address of the manufacturer and, where applicable, his authorized representative	WILEY WILEY WILEY	N
NULLEK A	- model or type reference of the appliance as marked on the appliance itself, except for the serial number	WILER MATER MATER MATE	N



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10 M	IEC 60335-2-29	the state of the second	100
Clause	Requirement + Test	Result - Remark	Verdict
ek _{mije} s	- the designation of the appliance together with its explanation in case it is given by a combination of letters and/or numbers	united white white	N
J. B.	- the general description of the appliance, when needed due to the complexity of the appliance	Mar My M	N
WILLEK OUT	- specific precautions if required during installation, operation, adjusting, user maintenance, cleaning, repairing or moving	White whit whe wi	N
IEK WALT	- when needed drawings, diagrams, descriptions and explanations necessary for the safe use and user maintenance of the appliance	WILL WILLEY WILLEY WILLEY	N
VINLIEX	- the possible reasonably foreseeable misuse and, whenever relevant, a warning against the effects it may have on the safe use of the appliance	EX MITEL WHITEL WHITEL	N
WALLEK V	The words "Original instructions" appear on the language version(s) verified by the manufacturer or by the authorized representative	MULIER MULIER MULIER MU	N
ire wi	When a translation of the original instructions has been provided by a person introducing the appliance on the market; the meaning of the sentence "Translation of the original instructions" appear in the relevant instructions delivered with the appliance	UNLIEK WHITEK WHITEK	N
	The instructions for maintenance/service to be done by specialized personnel, mandated by the manufacturer or the authorized representative may be supplied in only one Community language which the specialized personnel understand	antiek whitek whitek whi	N
TEK WAY	The instructions indicate the type and frequency of inspections and maintenance required for safe operation including the preventive maintenance measures	NU TEK TEK	N
7.12.ZE1	If needed for specific appliances, the following inform	mation to be given:	N
	on use, transportation, assembly, dismantling when out of service, testing or foreseeable breakdowns, if these operations have consequences on stability of the appliance in order to avoid overturning, falling or uncontrolled movements of the appliance or of its component parts	MULIER WALTER WALTER WALTER	N
	on how to maintain adequate mechanical stability when in use, during transportation, assembly, dismantling, scrapping and any other action involving the appliance	EX WHITEK WHITEK WHITEK W	N



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11. TEN	IEC 60335-2-29	Alt The The S	TER MITE
Clause	Requirement + Test	Result - Remark	Verdict
Et Muries	on the protective measures to be taken by the user, including, where appropriate, the personal protective equipment to be provided	niter white white	N
	on the operating method to be followed in the event of accident or breakdown; if a blockage is likely to occur the operating method to safely unblock the appliance		N
ITEX WILL	on the specifications on the spare parts to be used, when these affect the health and safety of the operator	HALL MALL MALL MALES	N
H LIEK	on airborne noise emissions, determined and de the relevant Part 2, which includes:	eclared in accordance with	N
	- the A-weighted emission sound pressure level at workstations, where this exceeds 70 dB(A);		N
NITER WAL	- where this level does not exceed 70 dB(A), this fact is indicated	NITEK WALTER WALTER WALT	N
MALIER	- the peak C-weighted instantaneous sound pressure value at workstations, where this exceeds 63 Pa (130 dB in relation to 20 µPa)	TEK WHITEK WHITE WHITE	N
MULTER W	- the A-weighted sound power level emitted by the machinery, where the A-weighted emission sound pressure level at workstations exceeds 80 dB(A)	whitek whitek whitek whi	N
7.12.ZE2	The instructions includes a warning to disconnect the appliance from its power source during service and when replacing parts	THE WALTER WALTER	N
WUTEX A	If the removal of the plug is foreseen, it is clearly indicated that the removal of the plug has to be such that an operator can check from any of the points to which he has access that the plug remains removed	Whitek whitek whitek w	N
nite wa	If this is not possible, due to the construction of the appliance or its installation, a disconnection with a locking system in the isolated position is provided	UNITER WHITER WHITE	N
19.11.4.8	The appliance continues to operate, without causing any hazard to the user, from the same point in its operating cycle at which the voltage fluctuation occurred, or	ter white white white	N
il.	a manual operation is required to restart it	70, 2-	N



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	IEC 60335-2-29		
Clause	Requirement + Test	Result - Remark	Verdict
20.1	Appliances and their components and fittings have adequate mechanical stability during transportation, assembly, dismantling and any other action involving the appliance	TEX MITTER MITTER	N
20.2	Dangerous moving transmission parts safeguarded either by design or guards	A sites writes whites	N
NITEK NI	When guards are used, they are fixed guards, interlocking movable guards or protective devices	TEX TEX STEEL OF	N
TEX J	Moving parts directly involved in the function of the a made completely inaccessible fitted with:	appliance which cannot be	N
X WILLER	- fixed guards or interlocking movable guards preventing access to those sections of the parts that are not used in the work, and	tek tek itek stiek	N
NALTEK	- adjustable guards restricting access to those sections of the moving parts where access is necessary	olitek voltek unitek w	N
NITEK NA	Interlocking movable guards used where frequent access is required	Alt Tet Tet N	N
21.1	Appliances and their components and fittings have adequate mechanical strength and is constructed to withstand such rough handling that may be expected in normal use, during transportation, assembly, dismantling, scrapping and any other action involving the appliance	LIER MULER MULER	N N
22.ZE.1	For appliances provided with a seat, the seat gives adequate stability	the the the	N
TEX S	The distance between the seat and the control devices capable of being adapted to the operator	Mar Mr Mr Mr	N
22.ZE.2	For appliances provided with separate devices for the start and the stop functions, the stop function is unambiguously identifiable and does always override the start function	CE A THE WALTER	N
WALTER	For appliances provided with one device performing the start and the stop function, the stop function is unambiguously identifiable and does always override the start function	MUNITER WHITER WHITER	N
22.ZE.3	Appliances designed in such a way that incorrect mounting is avoided, if this can lead to an unsafe situation	antite militarity with and	N
- WALTER	If this is not possible, information on the correct mounting is given directly on the part and/or the enclosure	EX SIEX WITEX WITEX	N
22.ZE.4	Where the weight, size or shape prevents appliances from being moved manually, they are fitted with attachments for lifting gear, or	WILER WILLER WALLER	N



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10 The 10	IEC 60335-2-29	the state of the state of	" april
Clause	Requirement + Test	Result - Remark	Verdict
	so designed that they can be fitted with such attachments, or	miter white white white	N
MUSE	be shaped in such a way that standard lifting gear can easily be used	TEK WALTER WALTE WALLY	N
MULIE 1	Appliances to be moved manually are constructed or equipped so that they can be moved easily and safely	Whitek whitek whitek wh	N
22.ZE.5	The fixing systems of fixed guards which prevent access to dangerous moving transmission parts only removable with the use of tools	WHILE MILE MILE MILE	N
MUTER	If such guards have to be removed by the user for routine cleaning or maintenance their fixing systems remain attached to the fixed guards or to the machine after removal	FER MULL MULLER MULLER	N
unlifek v	Where possible, guards are incapable of remaining in place without their fixings	TITEL DITEL WILLER	N
LIEK WAL	This does not apply if, after removal of the screws, or if the component is incorrectly repositioned, the appliance becomes inoperative	miter uniter uniter white	N
EX ITE	Movable guards are interlocked	at at all the	N
WALTEX	The interlocking devices prevent the start of hazardous appliance functions until the guards are fixed in their position, and give a stop command whenever they are no longer closed	it whitek whitek whitek on	N
INLTEK WI	Where it is possible for an operator to reach the dan hazardous appliance functions has ceased, movable guard locking device in addition to an interlocking device.	e guards associated with a	N
IE. WY	- prevents the start of hazardous appliance functions until the guard is closed and locked, and	NULLE WALTER	N
WALTER	- keeps the guard closed and locked until the risk of injury from the hazardous appliance functions has ceased	THE WALTER	N
MITE	Interlocking movable guards remain attached to the appliance when open, and	CONTEX UNITED WATER ON	N
LIEK WA	they are designed and constructed in such a way that they can be adjusted only by means of an intentional action	amirex whilek whilek amire	N
22.ZE.6	Interlocking movable guards designed in such a way that the absence or failure of one of their components prevents starting or stops the hazardous appliance functions	et jet jet jet	N
WILEK M	The guard is opened to the extent needed to cause the interlocking to operate and is then closed, the number of operations being defined in the specific Part 2	MILER MULTER MULTER MULT	N



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alter d	IEC 60335-2-29	t set set set set	The soul
Clause	Requirement + Test	Result - Remark	Verdict
ek meter	After this test any defect that may be expected in normal use is applied to the interlock system, including interruption of the supply, only one defect being simulated at a time	ITER MULTER MULTER MULTER	N
MILITER V	After these tests the interlock system is fit for further use	t lifet nitet mitet mi	N
22.ZE.7	Adjustable guards restricting access to areas of the for the work are:	moving parts strictly necessary	N
EK J	- adjustable manually or automatically, depending on the type of work involved, and	who was the state	N
70	- readily adjustable without the use of tools	The Write Mr. Mr.	N
22.ZE.8	In case of interruption, re-establishment after an interruption or fluctuation in whatever manner of the power supply, the appliance does not restart	EX WILLEY WILLEY WILLEY M	N
MULIE V	However, automatic restarting of the operation is allowed if the appliance may continue to operate, without causing any hazard to the user, from the same point in its operating cycle at which the voltage interruption or fluctuation occurred	Whitek whitek whitek white	N
22.ZE.9	Appliances fitted with means to isolate them from all energy sources	LIER OLIER WIFER WALTER	N
. LEX	Such isolators are clearly identified, and	The section of the se	N
WILL	they are capable of being locked if reconnection endanger persons	White white white wh	N
intite on	After the energy source is disconnected, it is possible to dissipate any energy remaining or stored in the circuits of the appliance without risk to persons	Whitek whitek white white	N
<u> </u>		W. A. A. A.	
ZF	ANNEX ZF (INFORMATIVE) CRITERIA APPLIED FOR THE ALLOCATION OF STANDARDS IN THE EN 60335 SERIES UNDER I		_
UNE V	List of standards under CENELEC/TC61 with the allocation under the LVD (Low Voltage Directive) or the MD (Machinery Directive):	2014/35/EU	Р
ZG	ANNEX ZG (NORMATIVE)	where were the text	
MULL	UV APPLIANCES	NITER MILIER MALTE MALLE	
WALTER	The following modifications to this standard apply to appliances having UV emitters	et stet stiet miet	N
NITEK W	This annex is not applicable to appliances covered by the scopes of IEC 60335-2-27, IEC 60335-2-59 or IEC 60335-2-109	Whitek writek whitek whi	N



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Clause	Requirement + Test	Result - Remark	Verdict
7.12.ZG	The instructions for appliances incorporating UVC emitters include the substance of the following: WARNING — This appliance contains a UV emitter. Do not stare at the light source	JEET WILLEY WALLEY ON	N N
32	For appliances incorporating UV emitters the manufacturer delivers a declaration providing evidence that the plastic material exposed to the radiation is UV resistant	THE MILITER WHITE	in N

ZZ	ANNEX ZZ (INFORMATIVE) COVERAGE OF ESSENTIAL REQUIREMENTS OF EC DIRECTIVES		
MALTEY	Description of the relation between this European standard and the LVD (Low Voltage Directive) and the MD (Machinery Directive)	EX WILEX MATER MATER	Р

Ann	ex EN 62233:2008	The wall will will will	1,,
EMF	- ELECTROMAGNETICS FIELDS	at let let liet	CLIER
	The tested product also complies with the	e requirements of EN 62233:2008	10,
	Limit100%	Measured max. 0.272%	NIP N

LIE NIE	EN 60335-1: 2012/A11: 2014				
7	MARKING AND INSTRUCTIONS (EN 60335-1/A11)				
7.1 ZF	(Replacement:) In NOTE Z1, replace "IEC 82079-1" by "EN 82079-1". ANNEX ZF (INFORMATIVE)	P			
ex whi	CRITERIA APPLIED FOR THE ALLOCATION OF PRODUCTS COVERED BY STANDARDS IN THE EN 60335 SERIES UNDER LVD OR MD(EN 60335-1/A11)	N SLIEK VIN			
WALTER	(Replacement:) In Table ZF.1 – List of standards under CLC/TC 61, replace line of EN 60335-2-38	N N			



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Releienc	e No WTO ISL	009330765	Page 76 01 6	90		
			IEC 60335-2-29	9		
Clause	Appended to	able	TEK WITTE W	in me	21/2 241	Verdict
10.1	TABLE: Pov	ver input deviation	t tek t	ER MITER	WILLER WILLER	N N
Input devi	ation of/at:	P rated (W)	P measured (W)	Dp	Required Dp	Remark
- "		- 1th - 1th	JEE - WITT	400,- 4	is we want	~

10.2 TABLE: Curr	rent deviation	TEX WITE	WILLE WILL	Mer. Mer.	Р
Input deviation of/at:	I rated (A)	I measured (A)	Di Di	Required dI	Remark
100V; 50Hz	1.8	1.457	-0.343A	+0.3A	et let
240V; 50Hz	1.8	0.684	-1.116A	+0.3A	inch mur
100V; 60Hz	1.8	1.396	-0.404A	+0.3A	CEX TEX
240V; 60Hz	1.8	0.656	-1.144A	+0.3A	in w

10.101 TABLE: Volta	age – no load	it TEX NI	EK WITE WALT	mil Pil
Current deviation of/at:	U _o rated (V)	U₀ measured (V)	Required U _o	Remark
100V; 50Hz	42.0	41.89	42.4V	MULI AND
240V; 50Hz	42.0	41.89	42.4V	EK - JEK
100V; 60Hz	42.0	41.89	42.4V	Vr. 210 M
240V; 60Hz	42.0	41.89	42.4V	CEX TEXT SI

10.102	TABLE: Outpu	t current deviation	r. W.	20,	7, 7	P
Current de	viation of/at:	I₀ rated (A)	I _o measured (A)	d l _o	Required d I _o	Remark
100V; 50H	z w w	1.8	1.720	-4.44%	±10%	WITE WALTE
240V; 50H	z	1.8	1.720	-4.44%	±10%	- -
100V; 60H	z	1.8	1.720	-4.44%	±10%	ALTE WALL WA
240V; 60H	z At Att	1.8	1.721	-4.39%	±10%	

11.8	TABLE: Heating test, thermoco	TABLE: Heating test, thermocouples				
Thermocouple locations:			dT	(K)	TEX LIER	Max. dT (K)
		106V		254.4V		
CEY J	er life with while wh	label up	label down	label up	label down	LET JET
Enclosure heatsink	e, outside, top of primary	20.2	22.4	24.8	25.5	75
Enclosure heatsink	e, outside, side of primary	23.6	23.8	25.9	26.9	75 m
Enclosure heatsink	e, outside, bottom of primary	18.9	19.6	19.9	21.4	75
Enclosure	e, inside, top of primary heatsink	25.8	25.9	27.7	29.8	Ref.
Enclosure, inside, side of primary heatsink		28.9	29.5	30.6	32.7	Ref.

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



Reference	e No.: WTO15D09338785	IEC 60335-2-29	et liet outed oute
Clause	Appended table	THE WALL MALL WAS MINE	Verdict

The street with the street			- 4-	A 15	
Enclosure, inside, bottom of primary heatsink	23.5	25.6	27.8	30.1	Ref.
Varistor RV1 body	29.7	29.9	31.7	33.9	T85-25=60
FL2 body	30.6	30.9	33.8	35.8	85
CX2 body	30.8	31.8	33.2	35.1	T100-25=75
CY2 body	31.0	31.7	33.7	36.2	T125-25=100
FL1 body	33.2	35.2	35.6	37.5	85
C1 body	33.5	35.0	35.1	38.3	T105-25=80
X-capacitor C2 body	34.1	34.9	35.8	38.9	T100-25=75
T1 coil	55.5	57.1	57.4	59.4	85
T1 core	53.3	55.3	55.5	58.0	Ref.
CY3 body	44.6	44.8	47.3	49.5	T125-25=100
U1 body	44.8	45.6	46.9	47.9	T110-25=85
FL3 body	48.6	49.9	50.2	53.3	85
PCB under primary heatsink	60.9	62.0	64.0	66.2	T130-25=105
PCB under secondary heatsink	55.8	57.2	57.9	59.1	T130-25=105
PCB under T1	50.4	52.6	54.1	57.0	T130-25=105
Output cord, inside	28.7	28.9	30.9	33.4	50
Test floor	17.4	17.9	18.6	19.0	65
Ambient t1 (°C):	24.0	24.3	24.6	24.5	* - * *
Ambient t2 (°C):	24.5	24.5	24.8	24.9	inite anti-

13.2	TABLE: Leakage current				
, +	Heating appliances: 1.15 x rated input	Se Mr Mi	.e-		
White	Motor-operated and combined appliances: 1.06 x rated voltage	1.06x240V=254.4V			
Leakage	current between:	I (mA)	Max. allowe	ed I (mA)	
Live/Neu	utral – Plastic enclosure	0.005 peak	0.35 p	eak	
Live/Neu	Live/Neutral – output terminal		0.35 peak		

13.3	TABLE: Electric strength	at at a	of the the
Test voltage	e applied between:	Voltage (V)	Breakdown (Yes/No)
Live/Neutra	I – eathed conductor	1000	INO WALL
Live/Neutra	I – Plastic enclosure	3000	No



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ives were now	IEC 60335-2-29	et let set	ALTER WITER WALL
ended table	LIER WALL WA	in my	Verdict
out terminals	ek jitek nitê	3000	No W
Primary to secondary winding of transformer		3000	No No
Primary winding to core of transformer			No
Core to secondary winding of transformer			No No
Two layer insulation tape of transformer			No
į	o core of transformer y winding of transformer	put terminals lary winding of transformer core of transformer y winding of transformer	put terminals 3000 dary winding of transformer 3000 o core of transformer 1000 y winding of transformer 1750

14	TABLE: Transient o	vervoltages	t aller	NITER NALTE IN	VII MULT M	√N
Clearance	e between:	CI (mm)	Required CI (mm)	Rated impulse voltage (V)	Impulse test voltage (V)	Flashover (Yes/No)
# .6	FIEL STEEL OU	ER WILLE	Mur Mu	111 211	- Z - X	, it

16.2	TABLE: Leakage current	kage current			
MITE	Single phase appliances: 1.06 x rated voltage:	1.06x240V=	254.4V	MILL	
ALTEK IN	Three phase appliances 1.06 x rated voltage divided by $\sqrt{3}$:	Mr Mr -	TEX LIE	CLIEK	
Leakage	current between:	I (mA)	Max. allowe	d I (mA)	
Live/Neut	ral – Plastic enclosure	0.002	0.25	5 LIFE	
Live/Neut	Live/Neutral – output terminal		0.25	25	

16.3	TABLE: Electric strength		Aur. Au. Bur.
Test volta	age applied between:	Voltage (V)	Breakdown (Yes/No)
Live/Neu	tral – eathed conductor	1250	No
Live/Neu	tral – Plastic enclosure	3000	No W
Live/Neutral – output terminals		3000	No
Primary t	to secondary winding of transformer	3000	No
Primary v	winding to core of transformer	1250	No.
Core to secondary winding of transformer		1750	No
Two laye	er insulation tape of transformer	3000	No No

17	TABLE: Overload	d protection, ter	mperature rise		TEX TEX		
"In	Test condition:						
t the	Test duration:						
Thermocouple locations		et jet	dT	(K) (K)	Max. dT (K)		
TEX		ic mi	106V	254.4V	t tex str		



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- INLIEE OF	IEC 60335-2-29						
Clause	Appended table	ER MILL MILL	are any an	Verdict			
Winding o	f transformer, T1	88.9	92.7	150			
Output cord (inside)		35.8	39.6	50+15=65			
Enclosure	; internal; top; near SH1	40.7	45.5	Ref.			
Enclosure	; internal; side; near SH1	42.6	47.0	Ref.			
Enclosure	; internal; bottom; near SH1	38.3	43.4	Ref.			
Test floor	and the second	36.7	40.3	150			

19.9	TABLE: Abnormal operation, running overload Test voltage (V)												
							Ambient, t ₂ (°C)						
							Thermocouple locations		$R_1(\Omega)$	$R_2(\Omega)$	dT (K)	T (°C)	Max. T (°C)
	LIET	ille whi	41 -41	- 	-e+	TEX TEX	CIEN TILE						

TABLE: fault conditions of electronic circuit

within the app	Test voltag	e (V):	See blow		TEK JE	the street with the the
Test component	Fault condition SC or OC	Test voltage (V)	Measured current (A)	Value A or B flowing through protective impedanc e (mA)	Duration	Observation
DB1 (1-2)	sc	240	m o m	inc	3s	F1 opened immediately, no hazard.
C1 ^m d	SC	240	0	k rek	3s	F1 opened immediately, no hazard.
R2	SC	240	0.685	,Ţ	30min	Normal operation, no hazard.
R3	sc	240	0.050	mri - mr	15min	Unit shut down immediately, no hazard.
Q1 (G-S)	SC	240	0.049	SLIEK-MIE	15min	Unit shut down immediately, no hazard.
Q1 (G-D)	SC	240	0.055	A - A	15min	Unit shut down immediately, no hazard.
Q1 (D-S)	sc.	240	0.053	121	15min	Unit shut down immediately, no hazard.
IC1 (8-2)	SC	240	0.056	17 17 18 18	15min	Unit shut down immediately, no hazard.
IC1 (6-2)	"SC "	240	0.056	T. T.	15min	Unit shut down immediately, no hazard.
D3	sc	240	0.049	Muri - Muri	15min	Unit shut down after 30s, no hazard.

19.11.2



Reference	9 NO.: WTU151	D0933878S	- 11	age 82 of 89 60335-2-29		- TEK TEK STER KI
Clause	Appended to	able	EK LIEK	NALTER WA	i uni	Verdi
U1 (1-2)	SC	240	0.055	LIEK WALTE	15min	Unit shutdown, recoverable, no hazard.
0° 10°	N .V		1/2, 2,			Unit shutdown, recoverable

U1 (3-4) 0.055 SC 240 15min no hazard. Unit shutdown, recoverable, U1 (1) OC 240 0.054 15min no hazard. Unit shutdown, recoverable, U1 (3) OC 240 0.054 15min no hazard. T1 output (7-F1 opened immediately, no SC 0 240 3s hazard. Unit shutdown, recoverable, Unit output SC 240 0.061 15min no hazard. Output Reverse Unit shutdown, recoverable, connected to 240 0.061 15min polarity no hazard. battery

Note: SC=short circuit, OC=open circuit.

19.102	Table: the connectio	ns to the batter	ry reversed	A EX	TEN TIPE	P.
Battery u	sed	70Ah		MAL	Mr. M.	10, 1
Test volta	age	240V	10,		1 x	at de
Thermoc	ouple locations:		dT (K)	TEK	Max. dT (F	() we
* *	et se t si		¥	9	_	et et
hazards.	TEX TEX	الله الله	V MV	201		L .*
19.102	Table: the connection	ons to the batte	ery reversed.	resistance met	hod	N
19.102	Table: the connection				hod	N
19.102	Table: the connection Test voltage (V) Ambient, t ₁ (°C)				hod not will the	N —
19.102	Test voltage (V)			: Marine	hod not sun the	N V
UNITER OF	Test voltage (V) Ambient, t ₁ (°C)			: Marine	hod — — — — Max. dT (K)	N — — — — Insulation class

24.1	TABLE: Components	in. Burn			
object/part No.	manufacturer/ trademark	type/model	technical data	Standard (Edition/year)	mark(s) of conformity ¹)
Plug	Hong Shan Chuan Industry (Hong Kong) Limited	HSC-402	16A, 250Vac	VDE 0620-1	VDE 40021749
Power cord	Shenzhen Baohing Electric Wire & Cable Manufacture Co., Ltd.	H03VV-F	3G0.75mm ²	EN 50525-2- 11	VDE 103727
Connector	Guangdong Xiongrun Electrical Co., Ltd.	XR-508	2.5A, 250Vac	EN 60320-1	VDE 40012075



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WITEE N	With Mur. Myr. Myr.	IEC 60335-2-29	et life miles unite
Clause	Appended table	THE WALL WALL MAN AND	Verdict

Appliance Inlet	Zhe Jiang Bei Er Jia Electronic Co., Ltd.	ST-A04-001	2.5A, 250Vac	EN 60320-1	VDE 40016045
Fuse (F1)	Dong guan Better Electronic Technology Co., Ltd.	523-series	3.15A, 250V	EN 60127-1 EN 60127-2	VDE 40025669
(Alternative)	Suzhou Littelfuse OVS Ltd.	216.XXX	3.15A, 250V	EN 60127-1 EN 60127-2	VDE 40013834
(Alternative)	Sun Electric Co. O/B Heroday Ltd.	5C - Serie(s)	3.15A, 250V	EN 60127-1 EN 60127-2	VDE 40007751
(Alternative)	Shenzhen Lanson Electronics Co., Ltd.	5M-Series	250V; 3,15A	EN 60127-1 EN 60127-2	VDE 40016332
Heat shrinkable tube used on F1	DONGGUAN QUANTAI INDUSTRIAL CO LTD	T-2	600V, 125°C, VW-1	EN 60335-1 EN 60335-2- 29	UL / Tested with appliance
(Alternative)	Shenzhen Woer Heat- Shrinkable Material Co., Ltd.	RSFR, RSFR- H	300V, 125°C, VW-1	EN 60335-1 EN 60335-2- 29	UL / Tested with appliance
Varistor (RV1)	Hongzhi Enterprises Ltd.	HEL-7D471K	AC 2500V, T85	IEC 61051-1 IEC 61051-2	VDE 40008621
(Alternative)	Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	STE-07D471K	AC 2500V, T85	IEC 61051-1 IEC 61051-2	VDE 40023049
(Alternative)	Nanjing Shagon Electronic Co., Ltd.	MYG07K471	AC 2500V, T85	IEC 61051-1 IEC 61051-2	TUV SUD Z1 12 03 79712 001
X-Capacitor (CX2)	Tenta Electric Industrial Co., Ltd.	MEX	0.68uF, 275Vac, 40/100/21, X2	EN 60384-14	VDE 119119
(Alternative)	Farad Electronics Co., Ltd.	PXK	0.68uF, 275Vac, 40/100/21, X2	EN 60384-14	VDE 40030152
(Alternative)	Wuxi Tongrong Electronics Co., Ltd.	MKP	0.68uF, 275Vac, 40/085/21, X2	EN 60384-14	VDE 40018989
X-Capacitor (C2)	Tenta Electric Industrial Co., Ltd	MEX	0.1uF, 275Vac, 40/100/21, X2	EN 60384-14	VDE 119119
(Alternative)	Farad Electronics Co., Ltd.	PXK	0.1uF, 275Vac, 40/100/21, X2	EN 60384-14	VDE 40030152
(Alternative)	Wuxi Tongrong Electronics Co., Ltd.	MKP	0.1uF, 275Vac, 40/085/21, X2	EN 60384-14	VDE 40018989
Y-Capacitor (CY1, CY2, CY3, CY4)	Success Electronics Co., Ltd.	SE ITE	2200pF, 250Vac, 30/125/56, Y1	EN 60384-14	VDE 40008996



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Reference	e 110 W1013D03330703	IEC 60335-2-29	t let let liet sliet mi	7
Clause	Appended table	LITER WALTER WALTER	Verdic	t

(Alternative)	Kunshan Micro Capacitors Electronic Co., Ltd.	B-Series	2200pF, 250Vac, 25/125/21, Y1	EN 60384-14	VDE 40016537
(Alternative)	Yinan Don's Electronic Components Co., Ltd.	CT81	2200pF, 250Vac, 25/125/21, Y1	EN 60384-14	VDE 135256
(Alternative)	Hsuan Tai Electronic Co., Ltd.	CY at and	2200pF, 400Vac, 40/125/21, Y1	EN 60384-14	VDE 40008912
Photo coupler (U1)	Sharp Corporation Electronic Components and Devices Group	PC817	Int. cr: > 7.6 mm, Ext. cr: > 7.6 mm, Dti: > 0.4 mm, T110	EN 60747-5-2	VDE 40008087
(Alternative)	Lite-On Technology Corporation	LTV-817	Int. cr: > 7 mm, Ext. cr: > 7 mm, Dti: > 0.4 mm, T110	EN 60747-5-2	VDE 40015248
(Alternative)	Everlight Electronics Co., Ltd.	EL817 V	Int. cr: > 7.6 mm, Ext. cr: > 7.6 mm, Dti: > 0.4 mm, T110	EN 60747-5-2	VDE 132249
Line choke (FL1)	BORUNElectronics factory	SSL-21	Winding: (Pin 1-2), 45Ts, Φ:0.22mm Winding: (Pin 3-4), 45Ts, Φ:0.22mm	EN 60335-1 EN 60335-2- 29	Tested with appliance
Line choke (FL2)	BORUNElectronics factory	SSL-22	Winding: (Pin 1-2), 26Ts, Φ:0.5mm Winding: (Pin 3-4), 26Ts, Φ:0.5mm, 105°C.	EN 60335-1 EN 60335-2- 29	Tested with appliance
Transformer (T1)	Wuxi HAOPUWEI Electronics Co., Ltd.	SSB076V42- BD A2	Winding(Pin 2-3) Φ:0.10*2, 20Ts; Winding(Pin 7-8) Φ:0.20*2, 15Ts; Winding(Pin 9-10) Φ:0.20*2, 8Ts;	EN 60335-1 EN 60335-2- 29	Tested with appliance
	MILER WHILE WHILE	Whitek whitek	Winding(Pin11-12) Φ:0.25*2, 8Ts; Winding(Pin 3-4) Φ:0.10*2, 20Ts. Winding(Pin 6-5) Φ:0.25*2, 8Ts. Winding(Pin 1-2) Φ:0.25*2, 7Ts.	LIEK WHITEK	IEX MULTER
Bobbin	CHANG CHUN PLASTICS CO LTD	T375J	PF, V-0, 150°C, min. Thickness: 0.5mm	EN 60335-1 EN 60335-2- 29	UL / Tested with appliance
Magnet wire	WUXI JUFENG COMPOUND LINE CO LTD	xUEWN*	130°C	EN 60335-1 EN 60335-2- 29	UL / Tested with appliance



Clause	Appended table	OLIER WALL WALL	my my	Verdict
MALTE N	with Mer Mer Mer	IEC 60335-2-29	· TER TER TER	ALTER WALTER
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Tube	Dah Jin Technology Co., Ltd	TLW-B	Min. 600V, 200°C, VW-1	EN 60335-1 EN 60335-2- 29	UL / Tested with appliance
(Alternative)	Fluo Tech Industries Co., Ltd	TFL JOH	Min. 600V, 200°C, VW-1	EN 60335-1 EN 60335-2- 29	UL / Tested with appliance
Barrier Tape	Jing Jiang YaHua Pressure Sensitive Glue Co., Ltd.	WF	130°C	EN 60335-1 EN 60335-2- 29	UL / Tested with appliance
Insulation Tape	Jing Jiang YaHua Pressure Sensitive Glue Co Ltd	PZ	130°C	EN 60335-1 EN 60335-2- 29	UL / Tested with appliance
Output Cord	ZhenJiang Huayin Instrument And Electrical Equipment Co., Ltd.	H03VV-F	2*0.75mm²	EN 50525-2- 11	VDE 116312
(Alternative)	Shenzhen Dongju Wire & Cable Co., Ltd.	H03VV-F	2*0.75mm²	EN 50525-2- 11	VDE 129988
(Alternative)	Shenzhen Bao Hing Electric Wire & Cable Manufacture Co. Ltd.	H03VV-F	2*0.75mm²	EN 50525-2- 11	VDE 131689
(Alternative)	Shangyu Jintao Electron Co., Ltd.	H03VV-F	2*0.75mm²	EN 50525-2- 11	VDE 40013419
PCB	CHANGZHOU SHUANGJIN ELECTRONIC CO LTD	CCEM-1	V-0, 130°C	EN 60335-1 EN 60335-2- 29	UL / Tested with appliance
(Alternative)	CHANGZHOU ZIYIN ELECTRONIC CIRCUIT CO LTD	CY-10	V-0, 130°C	EN 60335-1 EN 60335-2- 29	UL / Tested with appliance
Enclosure	SABIC INNOVATIVE PLASTICS B V	945(GG)	PC, V-0, 120°C, Min. 1.5mm thickness	EN 60335-1 EN 60335-2- 29	UL / Tested with appliance

¹) An asterisk indicates a mark which assures the agreed level of surveillance.

28.1 TABLE: Threade	TABLE: Threaded part torque test				
Threaded part identification	Diameter of thread (mm)	Column number (I, II, or III)	Applied torque (Nm)		
For enclosure	3.0	TEX TIES STEE	nite un 0.5 mili		
the set set	LIEK WALL WALL	mer mr - m	1 1 A- 1 1		

29.1	TABLE: Clearances	the write with wine wine will the	Р
WALTE	Overvoltage category	TEX TIEK STIEK MUTEK WHITEK WHITEK WHITE	Wille
LIEK .	LIFE WITE ONLIE WILL	Type of insulation:	NITEK .



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WITE WY	it with the the	C 60335-2-29
Clause	Appended table	Verdict

Rated impulse voltage (V):	Min. cl (mm)	Basic	Functional	Supplementary	Reinforced	Verdict / Remark
The M	0,2* / 0,5 / 0,8**	- ,		et set s	JEH MITE	N N
. J. S.	0,2* / 0,5 / 0,8**	mile.	" Variety of the	- 1/2 An	- 2	N
mir mir	0,2* / 0,5 / 0,8**		- A	- JEK JI	- WITE OF	SUN SUL
et let	0,5 / 0,8** / 1,0***	JE. J	VII MUL	-tu. 12,	- 4	L N
AUT. AUT.	1,5 / 2,0***	>1,5	>1,5	>1,5	Thire was	WL B W
LET LEX	3,0 / 3,5***	- WI	-111.	$\overline{\eta_L}$, η_L	>3,0	A-P
r. Myr. M	5,5 / 6,0***	-	- Tex	TEN STEEL	The Wille	Mr. Nu.
it let is	8,0 / 8,5***	-nite	41/2 41	- 20, 2	I A	N. O.
Mr. Mr.	11,0 / 11,5***	- 1	-#	ST COLOR		L N N

^{*)} For tracks on printed circuit boards if pollution degree 1 and 2;

^{***)} If the construction is affected by wear, distortion, movement of the parts or during assembly.

29.2 T.	ABLE:	Creep	age dis	tances,	basic, sup	plemen	tary and	reinforced	l insula	ition	*	P-
Working voltage (V)		VILER	Ex		reepage di (mm) Pollution de		, TE	WALTER	WALLE	WAI	* v	nti v
me m	1			<u>2</u>	TEK		3	White W	Туре	of insu	ulation	111
LIEK CLIER	ناماد		N	Material group		N	Material group			et let le		
1. 20.			L I	↓ II	Illa/IIIb			IIIa/IIIb	B*)	S*)	R*)	Verdict
≤50	NO TE	0,2	0,6	0,9	1,2	1,5	1,7	1,9		e L	CEL	N
≤50	A	0,2	0,6	0,9	1,2	1,5	1,7	1,9	The.	70	_	N
≤50		0,4	1,2	1,8	2,4	3,0	3,4	3,8	TEV.		EF (I	√ N
>50 and ≤1	125	0,3	0,8	1,1	1,5	1,9	2,1	2,4	<i>y</i>	4		N
>50 and ≤1	125	0,3	0,8	1,1	1,5	1,9	2,1	2,4	JEK	NITE:	1111	N
>50 and ≤1	125	0,6	1,6	2,2	3,0	3,8	4,2	4,8				N
>125 and ≤	250	0,6	1,3	1,8	2,5	3,2	3,6	4,0	>2,5	<u> </u>	UT.	WP.
>125 and ≤	250	0,6	1,3	1,8	2,5	3,2	3,6	4,0		>2,5	.ct	Р
>125 and ≤	250	1,2	2,6	3,6	5,0	6,4	7,2	8,0	المالية	<u> </u>	>5,0	Р
>250 and ≤	400	1,0	2,0	2,8	4,0	5,0	5,6	6,3	_;_		<u>. </u>	N
>250 and ≤	400	1,0	2,0	2,8	4,0	5,0	5,6	6,3		MUL	-alr	N
>250 and ≤	400	2,0	4,0	5,6	8,0	10,0	11,2	12,6	.+	754		N
>400 and ≤	500	1,3	2,5	3,6	5,0	6,3	7,1	8,0	1		The same	N
>400 and ≤	500	1,3	2,5	3,6	5,0	6,3	7,1	8,0	<u>, </u>	EK-	- Com-	N

^{**)} For pollution degree 3;



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Thrie alver, Alve	_m	- 4	, s	IEC 60	335-2-29	et.	J. College	Steller .	N. C. C.	100	all his
Clause Append	ed table	е	<u> </u>	TEL M	in all	211	- 40	7			Verdict
>400 and ≤500	2,6	5,0	7,2	10,0	12,6	14,2	16,0	200	-1		N
>500 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	26		et_	.≪N
>500 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	11/2	m	_3	N
>500 and ≤800	3,6	6,4	9,0	12,6	16,0	18,0	20,0	A. Colonia	-(e)		N
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	<i>t</i>	0	20	N
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	, <u>-</u>	TEL	NITE OF	N
>800 and ≤1000	4,8	8,0	11,2	16,0	20,0	22,0	25,0	100	_	الد	N
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0			J.	N
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	70		_	N
>1000 and ≤1250	6,4	10,0	14,2	20,0	25,0	28,0	32,0	NICE TO	أثلالها	, w	Non
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0			_	⊢ N
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0		VII	1111	N
>1250 and ≤1600	8,4	12,6	18,0	25,0	32,0	36,0	40,0			, EX	N
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	W)			N
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0		Ļ .	E.L.	N
>1600 and ≤2000	11,2	16,0	22,0	32,0	40,0	44,0	50,0	Min	w,	3	N
>2000 and ≤2500	7,5	10,0	14,0	20,0	25, 0	28,0	32,0	TEX			N
>2000 and ≤2500	7,5	10,0	14,0	20,0	25, 0	28,0	32,0	_	W		N
>2000 and ≤2500	15,0	20,0	28,0	40,0	50,0	56,0	64,0	TEX.	C.E.	, LIFE	N
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	10			N
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0		()		N
>2500 and ≤3200	20,0	25,0	36,0	50,0	64,0	72,0	80,0		_	عاد ا	N
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	A. C.	<u> </u>		N
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	_	, ,		+ N
>3200 and ≤4000	25,0	32,0	44,0	64,0	80,0	90,0	100,0	V—,	In Lite	W	N
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	.+	- C-	- X	N
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	41	7		an N
>4000 and ≤5000	32,0	40,0	56,0	80,0	100,0	112,0	126,0		<u>+</u>	TEX	N
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	Wir	<u> </u>	_	N
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	- C+			N
>5000 and ≤6300	40,0	50,0	72,0	100,0	126,0	142,0	160,0		m.	70,	N
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	EL	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TO THE PERSON NAMED IN COLUMN T		N
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0			2,,	N
>6300 and ≤8000	50,0	64,0	90,0	126,0	160,0	180,0	200,0				N

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				IEC 60	335-2-29						
Appende	ed tabl	е	Catha S	[[] [] []	التي يانا	ice an	2. 24	. 4		20,	Verdict
≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	4	-1		N
≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	-0		e.t.	- N
≤10000	64,0	80,0	112,0	160,0	200,0	220,0	250,0	West.	41/2	2.7	N
≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	All the	-d	_	N
≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0		m.	10	N
l ≤12500	80,0	100,0	142,0	200,0	250,0	280,0	320,0	(** <u></u>	TEX	LIFE	N
	Appende ≤10000 ≤10000 ≤10000 1≤12500 1≤12500 1≤12500	≤10000 32,0 ≤10000 32,0 ≤10000 64,0 1≤12500 40,0 1≤12500 40,0	≤10000 32,0 40,0 ≤10000 64,0 80,0 1≤12500 40,0 50,0 1≤12500 40,0 50,0	≤10000 32,0 40,0 56,0 ≤10000 32,0 40,0 56,0 ≤10000 64,0 80,0 112,0 1≤12500 40,0 50,0 71,0 1≤12500 40,0 50,0 71,0	Appended table ≤10000 32,0 40,0 56,0 80,0 ≤10000 32,0 40,0 56,0 80,0 ≤10000 64,0 80,0 112,0 160,0 1≤12500 40,0 50,0 71,0 100,0 1≤12500 40,0 50,0 71,0 100,0	Appended table ≤10000 32,0 40,0 56,0 80,0 100,0 ≤10000 32,0 40,0 56,0 80,0 100,0 ≤10000 64,0 80,0 112,0 160,0 200,0 1≤12500 40,0 50,0 71,0 100,0 125,0 1≤12500 40,0 50,0 71,0 100,0 125,0	Appended table ≤10000 32,0 40,0 56,0 80,0 100,0 110,0 ≤10000 32,0 40,0 56,0 80,0 100,0 110,0 ≤10000 64,0 80,0 112,0 160,0 200,0 220,0 1≤12500 40,0 50,0 71,0 100,0 125,0 140,0 1≤12500 40,0 50,0 71,0 100,0 125,0 140,0	Appended table ≤10000 32,0 40,0 56,0 80,0 100,0 110,0 125,0 ≤10000 32,0 40,0 56,0 80,0 100,0 110,0 125,0 ≤10000 64,0 80,0 112,0 160,0 200,0 220,0 250,0 1≤12500 40,0 50,0 71,0 100,0 125,0 140,0 160,0 1≤12500 40,0 50,0 71,0 100,0 125,0 140,0 160,0	Appended table ≤10000 32,0 40,0 56,0 80,0 100,0 110,0 125,0 ≤10000 32,0 40,0 56,0 80,0 100,0 110,0 125,0 — ≤10000 64,0 80,0 112,0 160,0 200,0 220,0 250,0 — 1≤12500 40,0 50,0 71,0 100,0 125,0 140,0 160,0 — 1≤12500 40,0 50,0 71,0 100,0 125,0 140,0 160,0 —	Appended table ≤10000 32,0 40,0 56,0 80,0 100,0 110,0 125,0 — ≤10000 32,0 40,0 56,0 80,0 100,0 110,0 125,0 — ≤10000 64,0 80,0 112,0 160,0 200,0 220,0 250,0 — — 1≤12500 40,0 50,0 71,0 100,0 125,0 140,0 160,0 — 1≤12500 40,0 50,0 71,0 100,0 125,0 140,0 160,0 —	Appended table ≤10000 32,0 40,0 56,0 80,0 100,0 110,0 125,0 — — ≤10000 32,0 40,0 56,0 80,0 100,0 110,0 125,0 — — ≤10000 64,0 80,0 112,0 160,0 200,0 220,0 250,0 — — 1≤12500 40,0 50,0 71,0 100,0 125,0 140,0 160,0 — — 1≤12500 40,0 50,0 71,0 100,0 125,0 140,0 160,0 — —

29.2 TA	DEE. GICC	Jage dis	tarices,	functional	iiisuiaiic	The same	70,		Р
Working volta (V)	ge			reepage di (mm) Pollution de			adulitek on	LIFE WALTER W	
WALTE WALT	w 14	1	<u>2</u>	4	LEX .	3	TEX J	et wife wil	, N
it et	10	N	/laterial o	group	М	aterial g	roup	- 1 .M	
ILT WALL	in an	I	II	IIIa/IIIb*	9 I ,	II	IIIa/IIIb*	Verdict / Ren	mark
≤50	0,2	0,6	0,8	1,1	1,4	1,6	1,8	N_	
>50 and ≤12	5 0,3	0,7	1,0	1,4	1,8	2,0	2,2	nlite Mrlin	ME
>125 and ≤2	50 0,4	1,0	1,4	2,0	2,5	2,8	3,2	A P	TEX
>250 and ≤40	0,8	1,6	2,2	3,2	4,0	4,5	5,0	MUL. NOW	
>400 and ≤50	00 1,0	2,0	2,8	4,0	5,0	5,6	6,3	L A N	*
>500 and ≤80	00 1,8	3,2	4,5	6,3	8,0	9,0	10,0	W. W.	'm
>800 and ≤10	00 2,4	4,0	5,6	8,0	10,0	11,0	12,5	Next Next	
>1000 and ≤12	250 3,2	5,0	7,1	10,0	12,5	14,0	16,0	Mr. M.N	4,
>1250 and ≤10	600 4,2	6,3	9,0	12,5	16,0	18,0	20,0	TEX TN	LIE
>1600 and ≤20	5,6	8,0	11,0	16,0	20,0	22,0	25,0	N	
>2000 and ≤2	500 7,5	10,0	14,0	20,0	25,0	28,0	32,0	Et Nai	ie.
>2500 and ≤32	200 10,0	12,5	18,0	25,0	32,0	36,0	40,0	N	
>3200 and ≤40	000 12,5	16,0	22,0	32,0	40,0	45,0	50,0	NITE NATE	Jul.
>4000 and ≤50	000 16,0	20,0	28,0	40,0	50,0	56,0	63,0	, N ₊	, de
>5000 and ≤63	300 20,0	25,0	36,0	50,0	63,0	71,0	80,0	INTE WINN	NUC
>6300 and ≤80	000 25,0	32,0	45,0	63,0	80,0	90,0	100,0	N	TEX
>8000 and ≤10	000 32,0	40,0	56,0	80,0	100,0	110,0	125,0	THE WALL NOW	
>10000 and ≤1	2500 40,0	50,0	71,0	100,0	125,0	140,0	160,0	∠	E.K



Reference i	NO WTO 13D09330765	Page 69 01 69		
WILL WILL	in and man and	IEC 60335-2-29	TEN TEN	ITER ONLIER MALIE
Clause	Appended table	LIFE NALL WALL	me me m	Verdict
Jiause	Appended table	action of the	10. 1	ابر ہے

30.1 TABLE: Ball pre	ssure	in the write wal	W. W. A
Part	Test temperature (°C)	Impression diameter (mm)	Allowed impression diameter (mm)
Plastic enclosure	75.0	0.3	≤2.0
PCB material	125	0.6	≤2.0
Transformer bobbin	125	0.4	≤2.0

30.2-1 TABLE: resista	ance to heat, fire and	tracking, glov	w-wire test			7	Р
Part whitek whitek	Test temperature (550 / 650 / 750 / 850 / 960)	Ignition of test sample (Y/N)	Ignition of tissue paper (Y/N)	Ti (s)	te (s)	h _f (mm)	Result
Plastic enclosure	550	N	The N Rel	- 4	2		Р
The standard habit	850	N	N	E* J	EX ~		P
Transformer bobbin	750	MN	Non	7/1	70,	- ,	Р
Wife Will Mill My	850	Y	N	30	35	13	P
Plastic of output conector	750	N	N	n.	70,	,	P

Remark: Ti = the time between glow wire touched the material and the material ignited; Te = the time between glow wire touched the material and the flame extinguished.

30.2-2	TABLE: resista	TABLE: resistance to heat, fire and tracking, needle-flame test							
Part	The Murit M	Application time	Ignition of sample Yes / No	t _b	Ignition of wrapping tissue Yes / No	Result			
ITEL IN	" while with	100			+ JEY JER LIER	WITE.			

Remark: tb – Duration of burning.

The duration of burning (tb) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s.

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



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Photo Documentation

Reference No.: WTU15D0933878S

Model: SSLC076V42BD



Photo 1 overall view



Photo 2 overall view

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Photo Documentation

Reference No.: WTU15D0933878S



Photo 3 overall view



Photo 4 appliance inlet view



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Photo Documentation

Reference No.: WTU15D0933878S



Photo 5 internal view



Photo 6 internal view



Page 4 of 4

Photo Documentation

Reference No.: WTU15D0933878S

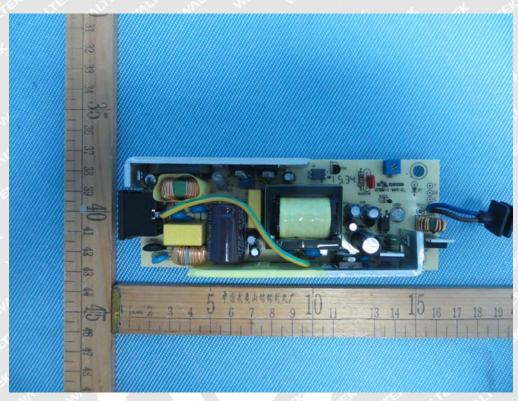


Photo 7 internal PCB top view

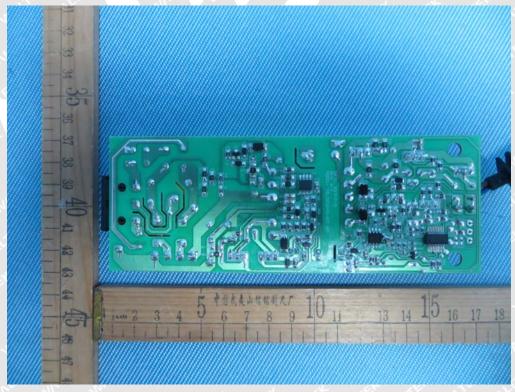


Photo 8 internal PCB bottom view