



TEST REPORT

Reference No:	WTF25F05114913L
Applicant:	Mid Ocean Brands B.V.
Address:	Unit 711-716, 7/F., Tower A, 83 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.
Manufacturer:	114901
Address	White main man and the fit let let let
Product Name :: Model No. ::	Indoor garden 4 LED grow light MO2702
Test specification:	Luminaires Part 2-4: Portable general purpose luminaires IEC 60598-1:2020 IEC 60598-2-4:2017
Date of Receipt sample	2025-07-16
Date of Test	2025-07-16 to 2025-07-27
Date of Issue:	2025-07-29
Test Report Form No:	WSL-6059824I-01B
Test Result:	Pass THE TEN THE
reproduced, except in full, without	port refer only to the sample(s) tested, this test report cannot be ut prior written permission of the company. The report would be invalid stitute and the signatures of approver.
Address: No.13-19, 2/F., 2nd	Prepared By: Waltek Testing Group (Foshan) Co., Ltd. Building, Sunlink Machinery City, Xingye 4 Road, Guanglong Industrial mmittee, Chencun, Shunde District, Foshan, Guangdong, China Tel:+8 Fax:+86-757-23811381 E-mail:info@waltek.com.cn
Tested by:	Approved by:
.) . 1/	THE MILIER WHITER WHITER WHITER WHITE WHITE WHITE

Jerry Mu

Nicole He



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Test item description Portable luminaire

Trade Mark.....: MOB

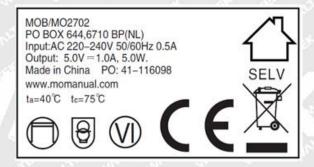
Model/Type reference....: MO2702

Ratings.....: 220-240Vac, 50/60Hz, LED 1.5W, Class II, IP20

Copy of marking plate:



On the luminaire surface



On the LED driver surface

Remark:

- 1. As declared by the applicant, the importer (and manufacturer, if it is different)'s name, registered trade name or registered trade mark and the postal address will be marked on the products before being place on the market. The contact details shall be in a language easily understood by end-users and market surveillance authorities.
- 2. Marking on the packaging or in a document accompanying the electrical equipment is only acceptable if it is not possible to place such markings on the product.

Summary of testing:

- 1. All tests were carried out on representative model MO2702, and found to comply with the requirements of the standards mentioned in page one.
- 2. EN deviation for IEC 60598-2-4:2017 and IEC 60598-1:2020 was considered and found to comply with the requirement.
- 3. The LED driver was assessed acc. to EN 61347-2-13:2014+A1:2017 and EN 61347-1:2015+A1:2021, found to comply with the requirement.
- 4. Integral LED module was assessed according to EN IEC 62031:2020+A11:2021 and found to comply with the requirement.
- 5. The integral plug was test according to EN 50075:1990 (partially) and the test result complies with the requirement.
- 6. Retinal blue light hazard was assessed according to IEC/TR 62778:2014, lamp classification group: RG1 unlimited.



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7. Assessment of lighting equipment related to human exposure to electromagnetic fields was evaluated and fulfilled the requirements of EN 62493:2015+A1:2022 and found to comply with the requirement.

8. Only the most unfavorable results are recorded in this report.

Test items particulars:

Classification of installation and use Portable

Supply Connection...... Direct plug-in LED driver for whole set;

DC connector for lamp part

Possible test case verdicts:

- test object does meet the requirement P (Pass)

- test object does not meet the requirement F (Fail)

General remarks:

"(see remark #)" refers to a remark 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.

Use of uncertainty of measurement for decisions on conformity (decision rule):

No decision rule is specified by the standard, when comparing the measurement result with the applicable limit according to the specification in that standard.

The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

General product information:

Portable general purpose luminaires. For indoor use only and suitable for mounting on the normally flammable surface.



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	IEC 60598-2-4	41. 42. 2.	
Clause	Requirement + Test	Result - Remark	Verdict
4.4 (0)	GENERAL TEST REQUIREMENTS		P
4.4 (0.3)	More sections applicable	Yes No Section/s:	3 - 3
4.4 (0.5)	Components	(see Annex 1)	372
4.4 (0.7)	Information for luminaire design in light source	ces standards	5° -5°
4.4 (0.7.2)	Light source safety standard	IEC 62031	_
aneries and	Luminaire design in the light source safety standard	WALTER WALTER WALTER WALT	P
and and	The state of the same of the s	The set of the set	Salar S
4.5 (2)	CLASSIFICATION OF LUMINAIRES	We all to	Р
4.5 (2.2)	Type of protection		Р
4.5 (2.3)	Degree of protection	IP 20	
4.5 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces	Yes ⊠ No □	in in the
4.5 (2.5)	Luminaire for normal use	Yes 🛛 No 🗌	F 150 .
41. 4	Luminaire for rough service	Yes No 🖂	· , _ ,
4.5.1 (-)	Ordinary luminaire classified "for indoor use only"	Yes ⊠ No □	an zer—n
TEK MALTER	Luminaires other than ordinary classified "for indoor use only"	Yes No 🖂	151 18 m 151
y and the	Luminaires other than ordinary classified for "outdoor use" and "for indoor use"	Yes No 🖂	EK MATER
4.5.2 (-)	Portable luminaire for outdoor use classified IPX4 or higher	at let let let	N
4.5.3 (-)	Luminaires designed for standing on a floor or table classified as suitable for direct mounting on normally flammable surfaces	TEX STEEL STEEL STEELS	P you
A S	the telescope with any and an		dr de
4.6 (3)	MARKING	of military mark supply sup	Р
4.6 (3.2)	Mandatory markings		P
They are	Position of the marking	MUTER MALTE MALLE WALL	Р
20t 56	Format of symbols/text	a a st st	Р
4.6 (3.3)	Additional information	Title Miller Miller Miller	Р
the the	Language of instructions	English	P
4.6 (3.3.1)	Combination luminaires	E WELL THE ME OF	N
4.6 (3.3.2)	Nominal frequency in Hz	50/60Hz	Р
4.6 (3.3.3)	Operating temperature	The state of the state	N



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IEC 60598-2-4				
Clause	Requirement + Test	Result - Remark	Verdic	
4.6 (3.3.5)	Wiring diagram	The state of	N N	
4.6 (3.3.6)	Special conditions	William Miles and the	N	
4.6 (3.3.7)	Metal halide lamp luminaire – warning	C A B	N.	
4.6 (3.3.8)	3.8) Limitation for semi-luminaires		N	
4.6 (3.3.9)	Power factor and supply current	t at all the	N	
4.6 (3.3.10)	Suitability for use indoors	me m. m.	N	
4.6 (3.3.11)	Luminaires with remote control	at at all	Ň	
4.6 (3.3.12)	Clip-mounted luminaire – warning	They have my	N	
4.6 (3.3.13)	Specifications of protective shields	the the star of	N	
4.6 (3.3.14)	Symbol for nature of supply	5 14 14 1	P	
4.6 (3.3.15)	Rated current of socket outlet	the life steel and	N.	
4.6 (3.3.16)	Rough service luminaire	711 711	N	
4.6 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments	MULLER MILLER MILLER	N	
4.6 (3.3.18)	Non-ordinary luminaires with PVC cable	THE LIFE STEE	N Company	
4.6 (3.3.19)	Protective conductor current in instruction if applicable		N	
4.6 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N	
4.6 (3.3.21)	Non replaceable and non-user replaceable light sources information provided	Marie Marie Marie	N	
4.6 (3.3.22)	Controllable luminaires, classification of insulation provided	MATER MATER MATE	N N	
4.6 (3.3.23)	Luminaires without controlgear provided with necessary information for selection of appropriate component	NITES WHITE WAITER W	N	
4.6 (3.3.24)	If not supplied with terminal block, information on the packaging	TER MILITE WILL MILE	N	
4.6 (3.3.25)	Luminaires employing light sources emitting UV on mains wiring, information provided	MILIER WALTER WALTER	N	
4.6 (3.3.26)	Wall mounted luminaire using external flexible cable or cord longer than 0.3 m, information provided	AMERICA WALTER WALTER	UNITED IN IN	
4.6 (3.4)	Test with water	15s	P	
et et	Test with hexane	15s	+ P	
in in	Legible after test	ER WILL AVER WHE	P	
+ & .	Label attached	4 15	Р	
4.6.1 (-)	Luminaire not suitable for outdoor application	White White white	N N	
18 S	Required symbol	4 4	N	

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IEC 60598-2-4				
Clause	Requirement + Test	Result - Remark	Verdict	
3 Et .	Information in the instructions	and the state of	.d N	
4.6.2 (-)	Outdoor use, socket outlet incorporated in the luminaire	with the the st	N	
er m	Maximum power rating marked	OUTER WITE WILL SAND	N	
et set	Position of the marking	1 1 1 1	- N	

4.7 (4)	CONSTRUCTION	a de de De
4.7 (4.2)	Components replaceable without difficulty	The The Park III N
4.7 (4.3)	Wireways smooth and free from sharp edges	. It is so P
4.7 (4.4)	Lampholders	The the to a N
4.7 (4.4.1)	Integral lampholder	At At At N
4.7 (4.4.2)	Wiring connection	No. The Try And N
4.7 (4.4.3)	Lampholder for end-to-end mounting	LET SET SET STEE SON
4.7 (4.4.4)	Positioning	N N
AND THE MILE	- pressure test (N)	t the life mile mile
LITER REFER	After test the lampholder comply with relevant standard sheets and show no damage	N Att Att NO
SEX MUTER	After test on single-capped lampholder the lampholder have not moved from its position and show no permanent deformation	N N
الحرر الم	- bending test (N)	
Sales Sales	After test the lampholder has not moved from its position and show no permanent deformation	N All N
4.7 (4.4.5)	Peak pulse voltage	The state of N
4.7 (4.4.6)	(4.4.6) Centre contact	
4.7 (4.4.7)	Parts in rough service luminaires resistant to tracking	INTER MATERIAL MEDICAL NO.
4.7 (4.4.8)	Lamp connectors	At Set Set No
4.7 (4.4.9)	Caps and bases correctly used	N ₁
4.7 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way	A MULTER WALLE WHILE MAN N
4.7 (4.5)	Starter holders	mile war we No
d d	Starter holder in luminaires other than class II	A A N
, m, ,	Starter holder class II construction	rist with the N
4.7 (4.6)	Terminal blocks	A A A N
24, 24,	Tails	N N THE THE



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	IEC 60598-2-4	241. 10. 2.	
Clause	Requirement + Test	Result - Remark	Verdict
<u> </u>	Unsecured blocks	112 211 42	A N
4.7 (4.7)	Terminals and supply connections	CALLET WATER ON	P
4.7 (4.7.1)	Contact to metal parts	W 4	Р.
4.7 (4.7.2)	Test 8 mm live conductor	RESERVED THE SHOP SHOP	N
# 6° .	Test 8 mm earth conductor	L 2 1 1 1 1	N
4.7 (4.7.3)	Terminals for supply conductors	the are and	N
4.7 (4.7.3.1)	Welded method and material	to the state of	N
	- stranded or solid conductor	The first the	N
ALTER MATER	- spot welding	it the the	N
	- welding between wires	a transfer and the	N
LITTE MALITER	- Type Z attachment	the set state and	N
	- mechanical test according to 15.6.2	4 40 40 40	N
The sh	- electrical test according to 15.6.3	F CIET ACTOR MISTER	N
NUTER MALT	- heat test according to 15.6.3.2.3 and 15.6.3.2.4	at the state	N
4.7 (4.7.4)	Terminals other than supply connection	an an an	N
4.7 (4.7.5)	Heat-resistant wiring/sleeves	at a star in	N
4.7 (4.7.6)	Multi-pole plug		N
in the 2	- test at 30 N	THE LIFE WITH MALL	N N
4.7 (4.8)	Switches	- 10 m	N.
Alexander	- adequate rating	ALTER ALTER MALIE	N S
Let Let	- adequate fixing	1 1 1	A N
Mr. Mr.	- polarized supply	Will avril and An	N
liek writek.	- compliance with IEC 61058-1 for electronic switches	Tet wifet wifet skut	at N
4.7 (4.9)	Insulating lining and sleeves		- N
4.7 (4.9.1)	Retainment	the retire white white	N
A 3	Method of fixing		N-
4.7 (4.9.2)	Insulated linings and sleeves:	THE WALL A	N N
INLIEN WALTER	Resistant to a temperature > 20 °C to the wire temperature or	LIET NITES MITES AN	N
TET WITET	a) & c) Insulation resistance and electric strength	et tet get suff	- N
	b) Ageing test. Temperature (°C)	the the the	N
4.7 (4.10)	Double or reinforced insulation	of the the the	nerge and P



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IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdic
4.7 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation	The street writes of	P
A A	Safe installation fixed luminaires		A N
aris and	Capacitors and switches	The return interest	N
4.7 (4.10.2)	Assembly gaps:		N
11/2 1	- not coincidental	THE MET WELL	N N
	- no straight access with test probe	4 11 15	N N
4.7 (4.10.3)	Retainment of insulation:	INTER WALL MARKET	Р
All Se	- fixed		JOP D
11, 21,	- unable to be replaced; luminaire inoperative	hite white white his	Р
364 364	- sleeves retained in position	a state of	Р
	- lining in lampholder	and the care	N
4.7 (4.10.4)	Protective impedance device	at all set set	N N
- 40 - 50 - 40 - 5	Basic and supplementary insulation bridged by resistor(s) or appropriate capacitor	Mrs. M. M.	N-
WELER WILLS	Double or reinforced insulation bridged by at least two separate resistors in series or appropriate capacitor(s)	and white with the	N
	Capacitors comply with IEC 60384-14		N
in The P	Resistors comply with test (a) in 14.2 of IEC 60065	Se WHITE MILITARINE	N
4.7 (4.11)	Electrical connections and current-carrying p	parts	n P
4.7 (4.11.1)	Contact pressure	The Age Age	Р
4.7 (4.11.2)	Screws:	Ter ster outer of	N
4 8	- self-tapping screws		N
er greet	- thread-cutting screws	TER SITE MITTER AND	N
4.7 (4.11.3)	Screw locking:		N
21/2 4	- spring washer	REPARE THE STATE OF THE STATE OF	N
et i	- rivets		N N
4.7 (4.11.4)	Material of current-carrying parts	NET THE SHAPE S	Р
4.7 (4.14.5)	No contact to wood or mounting surface		A √P
4.7 (4.14.6)	Electro-mechanical contact systems	LITTE WILL WILL WILL	Р
4.7 (4.12)	Screws and connections (mechanical) and gl	ands	N
4.7 (4.12.1)	Screws not made of soft metal	and made and	N
	Screws of insulating material	and the	N
2, 4,	Torque test: torque (Nm); part	They are my	N



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Clause	Requirement + Test	Result - Remark	Verdict
10, 11	A A OF ALL SECTION	and the same of the same	- 2/1-
50 50	Torque test: torque (Nm); part	and the set set	Ň
4.7 (4.12.2)	Screws with diameter < 3 mm screwed into metal	and any any and	N
4.7 (4.12.4)	Locked connections:	ALTER MALTER SUPLIE SUPLIES	N
et set	- fixed arms; torque (Nm)	·- ·- ·- ·- ·- ·- ·- ·- ·- ·- ·- ·- ·- ·	N N
21/2 1/	- lampholder; torque (Nm)	Carrier with the superior	N
Ser S	- push-button switches; torque 0,8 Nm		N
4.7 (4.12.5)	Screwed glands; force (Nm)	This show here show	N
4.7 (4.13)	Mechanical strength	at the set set	J [©] P
4.7 (4.13.1)	Impact tests:	aler aler aler ale	Р
of the south	- fragile parts; energy (Nm)	in the set of the	N.
t di	- other parts; energy (Nm)	All enclosure & lamp cover: 0.5Nm	P
A11 24	1) live parts	aning they are the	Р
Self Si	2) linings	at at at all	Р
111 14	3) protection	Merch and And	Р
Stell STO	4) covers	the state of the	ΣР
4.7 (4.13.2)	Metal parts have adequate mechanical strength	The state of the state of	Р
4.7 (4.13.3)	Straight test finger	30N	Р
4.7 (4.13.4)	Rough service luminaires		N
WILL ON	- IP54 or higher	A THE SERVICE	Ñ
1 2	a) fixed	The M. M.	N
antie antie	b) hand-held	THE STATE STATE WITE	N
4 4	c) delivered with a stand	3 Low All All All All All All All All All Al	N N
ra ann	d) for temporary installations and suitable for mounting on a stand	TER MILITER MILITER MILITER W	N
4.7 (4.13.6)	Tumbling barrel	or the set set is	Р
4.7 (4.14)	Suspensions, fixings and means of adjusting	The the table	N
4.7 (4.14.1)	Mechanical load:	- The The National	N
	A) four times the weight	The Annual Contract	N
LIZE WELL	B) torque 2,5 Nm	LIEF ALTER MATER MALTER	N
at at	C) bracket arm; bending moment (Nm)	2 Cm 1, 1, 1,	N
S. Mary	D) load track-mounted luminaires	of all the parties and the	N
t nitible and	E) clip-mounted luminaires, glass-shelve. Thickness (mm)	the set the se	N
100		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	474.

Metal rod. diameter (mm)

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IEC 60598-2-4				
Clause	Requirement + Test	Result - Remark	Verdict	
WALTER WALTE	Fixed luminaire or independent control gear without fixing devices	TEL STEE WILES STUTES	N	
4.7 (4.14.2)	Load to flexible cables		N	
per son	Mass (kg)	THE RULE WILL WHILE SH	L -7L	
it st	Stress in conductors (N/mm²)		_d N	
2115 21	Mass (kg) of semi-luminaire	the street with the same	N	
e de c	Bending moment (Nm) of semi-luminaire	a de de de	N	
4.7 (4.14.3)	Adjusting devices:	WHITE WALL MAD SHALL	N	
All JE	- flexing test; number of cycles	s of the	N	
in an	- strands broken	Principality Maria August	N	
50 50	- electric strength test afterwards	a set set set	N.	
4.7 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors	Mary Mary Aut Au	N	
4.7 (4.14.5)	Guide pulleys	with the authorized	N	
4.7 (4.14.6)	Strain on socket-outlets	a de de de	Р	
4.7 (4.15)	Flammable materials	MULL MILL MILL MILL	Р	
The City	- glow-wire test 650°C	See table 4.15c (13.3.2)	Р	
	- spacing ≥30 mm	1 Phys. 24 1	N	
THE MITTER	- screen withstanding test of 13.3.1		N	
	- screen dimensions	The the the the	N	
INLITE WAS	- no fiercely burning material	THE THE STREET	Р	
	- thermal protection	The An An An An	N	
and and	- electronic circuits exempted	THE STOR WITH SHIP	N	
4.7 (4.15.2)	Luminaires made of thermoplastic material with la	amp control gear	N	
ar and	a) construction	SER SLIED WITE WITE SI	N	
JL JL	b) temperature sensing control	4	o N	
240 24	c) surface temperature	CRETER SPECIAL	N	
4.7 (4.16)	Luminaires for mounting on normally flamma	ble surfaces	Р	
The The	No lamp control gear	(compliance with Section 12)	Р	
ANTIEK WATER	Provided with adaptor for a track meet the requirements for direct mounting on normally flammable surfaces	LIET WHITE WHITE	N	
4.7 (4.16.1)	Lamp control gear spacing:	the the state with the	N	
4	- spacing 35 mm	The the training	N_	
unit yh	- spacing 10 mm	· The Street Will March	N	
4.7 (4.16.2)	Thermal protection:	74. A. A.	N	



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	IEC 60598-2-4		
Clause	Requirement + Test	Result - Remark	Verdict
- A	in lamp central geor	71, 71, 71, 72,	N
- 11 - 12 - 12 - 12 - 12 - 12 - 12 - 12	- in lamp control gear - external	The state of the state of	N
at at	- fixed position	N. 10 11 1	N
STE SALL	- temperature marked lamp control gear	to the next with anything	N
4.7 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	N
4.7 (4.10.3)	Drain holes	(See Clause 12.0)	N
	Clearance at least 5 mm	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N
4.7 (4.18)	Resistance to corrosion	With Military August Au	N
4.7 (4.18.1)	- rust-resistance	A A SET SET	N
4.7 (4.18.2)	- season cracking in copper	the state of the s	N
4.7 (4.18.3)	- corrosion of aluminium	at the set with a	N
4.7 (4.19)	Ignitors compatible with ballast	A The The The The	N
4.7 (4.20)	Rough service vibration	- 18 5th 15th 15th	N
4.7 (4.21)	Protective shield	They allow the allowant	N
4.7 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps	Marie Marie Marie Marie	N
Marie Marie	Shield of glass if tungsten halogen lamps	att Call Million	N
4.7 (4.21.2)	Particles from a shattering lamp not impair safety		N
4.7 (4.21.3)	No direct path	the me in m	N
4.7 (4.21.4)	Impact test on shield	THE THE LITE OUT	N
	Glow-wire test on lamp compartment	See Test Table 1.15 (13.3.2)	N
4.7 (4.22)	Attachments to lamps not cause overheating or damage	NUTER MILITER WHITE	N
4.7 (4.23)	Semi-luminaires comply Class II	at all get after a	N
4.7 (4.24)	Photobiological hazards	of the the the	Р
4.7 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)	t whitek whitek whitek whi	N
4.7 (4.24.2)	Retinal blue light hazard	. 10 10 10 10 50°	Р
79 70°	Class of risk group assessed according to IEC/TR 62778	RG1 unlimited	100
the state	Luminaires with E _{thr:}	mite with one one	N
att state	a) Fixed luminaires	a state of the	N
+ 70 ₄ -	- distance x m, borderline between RG1 and RG2	ALT AND AND AND	N
and the	- marking and instruction according 3.2.23	CITE WITH WHITH WALL	N
J. 1	b) Portable and handheld luminaires	***	N



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Clause	Requirement + Test	Result - Remark	Verdic
Clause	Requirement + Test	Result - Remark	verdic
WILLIEM WILL	- marking according 3.2.23 if RG1 exceeded at 200 mm according to IEC/TR 62778	tet stret stret state	N
inter whiter	Portable luminaires for children IEC 60598-2-10 and Mains socket outlet nightlights IEC 60598-2-12 not exceed RG1 at 200 mm according to IEC/62778	TEX MUTEX MUTEX MUTEX	N
4.7 (4.25)	Mechanical hazard	arise while while our	Р
· All S	No sharp point or edges	L 1 1 1 1	Р
4.7 (4.26)	Short-circuit protection	WILL MULT WAT MAY	N
4.7 (4.26.1)	Adequate means of uninsulated accessible SELV or PELV parts	LIFE STEE WITH WATER	J N
4.7 (4.26.2)	Short-circuit test with test chain according 4.26.3		⇒ N
in the s	Supply source ES1 PSE	feet mile while while w	N
t At	Test chain not melt through	a de de	N
The Th	Test sample not exceed values of Table 12.1 and 12.2	MULTER SHEET MICE SHE	N
4.7 (4.27)	Terminal blocks with integrated screwless pro	otective earthing contacts	N
J 3	Test according Annex V		N
Var Alex 1	Pull test of terminal fixing (20 N)	The Marin White	No.
at the	After test, resistance < 0,05 Ω		N
24. 3	Pull test of mechanical connection (50 N)	arity mrs. mrs. m	N
L SEE	After test, resistance < 0,05 Ω	at at at a	N
24 - 24.	Voltage drop test, resistance < 0,05 Ω	They are are the	N
4.7 (4.28)	Fixing of thermal sensing control	14 16t 16t 15th	N
in 1	Not plug-in or easily replaceable type	the state of the	N
LIE MILLE	Reliably kept in position	alt the tree state.	N
Et SEt	No adhesive fixing if UV radiations from a lamp can degrade the fixing	and the top of	N
10 10	Not outside the luminaire enclosure	Multi Aut Aug Au	N
NUTER IN	Test of adhesive fixing:	Let Let Set 25°	N
20 20	Max. temperature on adhesive material (°C)	me, me, me, me	_
REFER WITE	100 cycles between t _{min} and t _{max}	At the state of the	N
	Temperature sensing control still in position	in the same	N
4.7 (4.29)	Luminaires with non-replaceable light source	Et TEX STEX MITER OF	N
	Not possible to replace light source	The the ten to	N
anit an	Live part not accessible after parts have been opened by hand or tools	THE WALLE WALL AND	N



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Clause	Requirement + Test	Result - Remark	Verdict

4.7 (4.30)	Luminaires with non-user replaceable light source		ďΡ
on on	If protective cover provide protection against ele "caution, electric shock risk" symbol:	ectric shock and marked with	N
r m	At least one fixing means requiring use of tool	5VDC (SELV), no electric shock risk	N
4.7 (4.31)	Insulation between circuits		N
CLIER MAC	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3	the set set set with	N
MITER MILTE	Controllable luminaires requiring same level of insulation for all components, the insulation between control terminals and LV supply fulfil requirements according 4.31.1 – 4.31.3	WILLIAM THE MUTTER MUTTER A	N
4.7 (4.31.1)	SELV or PELV circuits	tet clet sites differ and	Р
	Used SELV or PELV source	. 4 4	Р
+ Mrs. Ca	Voltage ≤ ELV	E- LIPE RITE MILE	Р
NITE AND	Insulating of SELV or PELV circuits from LV supply	Let Let Let screet	P
16th 15th	Insulating of SELV or PELV circuits from other non SELV or PELV circuits		Р
r. 34	Insulating of SELV or PELV circuits from FELV	The sur su	N
iest whiteen	Insulating of SELV or PELV circuits from other SELV or PELV circuits	The same same	N
L INLIEK WA	SELV or PELV circuits insulated from accessible parts according Table X.1	the life street street	P
NUTER INCH	Plugs not able to make any electrical contact with socket-outlets of other voltage systems	the telestate the	N
The State	Socket outlets does not admit plugs of other voltage systems	at the left of the	N
et cet	Plugs and socket-outlets does not have protective conductor contact	C SHOW WE WE WE	N
4.7 (4.31.2)	FELV circuits	the antife white white party	N
- A 3	Used FELV source	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N
The The	Voltage ≤ ELV	with white white with the	N
TEN JES	Insulating of FELV circuits from LV supply	2 2 2 2 2	N
The Take	FELV circuits insulated from accessible parts according Table X.1	N THE WALL THE TO	N
ATTEC A	Plugs not able to make any electrical contact with socket-outlets of other voltage systems	E ER MUTE MUTE MUTE MUTE	N
AUG AU	Socket outlets does not admit plugs of other voltage systems	TO MALTER WALTER WALTER	N



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Clause	Requirement + Test	Result - Remark	Verdict
- A- A	Socket-outlets have protective conductor	The and an an	N
Mrs. Mrs.	contact	STEET WITE SHITE SHITE	3 65.1. 3
4.7 (4.31.3)	Other circuits		Р
	Other circuits insulated from accessible parts according Table X.1	The white white white	Р
en ancier a	Class II construction with equipotential bonding for contacts with live parts:	or protection against indirect	N
. ILITER IN	- conductive parts are connected together	at the the site	N
	- test according 7.2.3	the the the the	N
Marite Maria	- conductive part does not cause an electric shock in case of an insulation fault	NITER WALTER WALTER	N W
LIER WALTER	- equipotential bonding in master/slave applications	For increase sometimes against an	N
A WALLEY	- master luminaire provided with terminal for accessible conductive parts of slave luminaires	- Life wifet with the	NE
	- slave luminaire constructed as class I	74, 74, 4	N-
4.7 (4.32)	Overvoltage protective devices	THE RIPER WITH MICE	N S
# 2	Comply with IEC 61643-11		N
ing the	External to controlgear and connected to earth:	The same of the same of	N
at the	- only in fixed luminaires	1 1 1 1	- N
. Mr. 3	- only connected to protective earth	and the same of	N
4.7 (4.33)	Luminaire powered via information technology communication cabling		N
34. 34.	Requirements for Class III luminaire	with the are the	N
WILLER MULTE	Rated voltage within the range of ES1 and does not exceed maximum voltage of used connector	THE STEEL STREET STREET	N
LIER WILLER	Luminaire does not create any hazard from overvoltage	(see Annex 2)	N.
4.7 (4.34)	Electromagnetic fields (EMF)	The to	Р
11/12 11	No harmful electromagnetic fields	t with night mith and	Р
4.7 (4.35)	Protection against moving fan blades	71 T	N
The The	Test with a standard test finger	THE WITE MALL WILL	N N
MITER WALTE	Test with test probe acc. to Figure 13 (IEC 61032) for portable luminaire	THE THE STITE STITES	J STON IN
·	Blades rounded with radius ≥ 0.5 mm and:	te the the ten	N
ite william	- hardness less than D60 Shore	Et LIER ALTER ARLIER OF	N
+ #	- peripheral speed less than 15 m/s	24. 25.	N -
They the	- input power of fan ≤ 2 W at rated voltage	· ALTER MITE MILITE WAL	N
4.7 (4.36)	Track-mounted luminaires	10 1	N



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Clause	Requirement + Test	Result - Remark	Verdict
4	the state of the s	ale ale an an	
White Whi	Test in accordance with Annex A of IEC60570:2003/AMD2:2019	THEY MITEL WHITE WHITE	N
4.7.1 (-)	Insulation not damaged when moving, adjusting or placing on support	THE THE STREET STREET	IL SER P
4.7.2 (-)	Wiring fixed, to avoid rubbing	- 4n - 2n - 2	Р
Merch	Carrier or clips of insulation material or with insulating lining	ANTICE ANTICE MALL AN	Р
4.7.3 (-)	Luminaire does not overturn:	· the the time of	Р
	- at an angle of 6° for indoor use	mer have my an	Р
Willey Will	- at an angle 15° for outdoor use	The title still settle	N
4.7.4 (-)	Candlestick luminaires provided with switch	L. M. M.	N
it annit	Switch in candlestick luminaires with E5 or E10 lampholders switches all lamps on and off simultaneously	et white white white w	N
21/2 Z	Switch part of the luminaire or within 300 mm of the luminaire if with cord	MULL MUST MET MU	N
4.7.5 (-)	Voltage not exceeding 25 V for E5 lampholders	alier with with white	N
A B	E10 lampholder voltage:		N
in the	- not exceeding 60 V for series connection	The same of	N
et set	- not exceeding 250 V for parallel connection		N
24	Maximum rated wattage does not exceed 100 W	Marine Marin Mary M	N
4.7.6 (-)	Tails not provided for luminaires for outdoor use	ALTER ORLIER MALTER WAL	N
4.7.7 (-)	Not more than two cable entries for luminaires for outdoor use	ter the ster with	N
4.7.8 (-)	Portable luminaires for outdoor use, socket- outlet degree of protection at least same as the luminaire but not less than IPX4.	Tex writes mures mures	N V
ek mirek	Degree of protection maintained with or without a plug inserted into the socket-outlet.	t attek mittek mittek sint	N (
AUTER OU	Class II luminaires, mains socket-outlets comply with the standard and only allow connection to Class II luminaires	UNITED WHITE WHITE WHITE	L N
NZEK WAZ	Class I luminaires, mains socket-outlets comply with the standard and only allow connection to Class I or Class II luminaires	LIFEY MILIEY WALTEY WALTEY	N
4.7.9 (-)	Lampholders and plugs resistant to tracking for luminaires for outdoor use	See Test Table 4.16 (13.4)	N
+ 5th	Compliance to clause 13.4	and the state of	N



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Clause	Requirement + Test	Result - Remark	Verdict

4.8 (11)	CREEPAGE DISTANCES AND CLEARANCES		P
4.8 (11.2.1)	Impulse withstand category (Normal category II)	Category II ⊠ Category III □	_
Cler Ster	Category III according Annex U	at at at at	N
EEK SUITER ST	Protected against pollution, reduced creepage and clearance according Annex P of IEC 61347-1	# sizet agriet agriet	N
4.8 (11.2.2)	Creepage distances for frequency up to 30 kHz	See Test Table 4.8 (11.2) I	Р
They are	Creepage distances for frequency over 30 kHz:		N
mijek anije	- Controlgear marked with \hat{U}_{OUT} and f_{UOUT} according IEC 61347-1, clause 7.1, item w	See Test Table 4.8 (11.2) II	υÑ
State States	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	See Test Table 4.8 (11.2) II	N
4.8 (11.2.3)	Clearances for frequency up to 30 kHz	See Test Table 4.8 (11.2) I	Р
the state of	Clearances distances for frequency over 30 kHz:		N
	- Controlgear marked with $U_{ m P}$	See Test Table 4.8 (11.2) II	N
Mirite Min	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	See Test Table 4.8 (11.2) II	N

4.9 (7)	PROVISION FOR EARTHING	Str. Apr. 25 N
4.9 (7.2.1 + 7.2.3)	Accessible metal parts	WILL MUTEL MILE ON
t get	Metal parts in contact with supporting surface	A A A N
21, 20,	Resistance < 0,5 Ω	N
John Self	Self-tapping screws used	of the set of N
a_{i} a_{i}	Thread-forming screws	N
Liet River	Thread-forming screw used in a grove	N.
, ,	Protective earth makes contact first	N
White s	Terminal blocks with integrated screwless protective earthing contacts tested according Annex V	nite and and
Aug Au	Protective earthing of the luminaire not via built- in control gear	All III N
4.9 (7.2.2 + 7.2.3)	Protective earthing continuity in joints, etc.	N N
4.9 (7.2.4)	Locking of clamping means	N.
	Compliance with 4.7.3	N
4.9 (7.2.5)	Earth terminal integral part of connector socket	Set Ster Ster N
4.9 (7.2.6)	Earth terminal adjacent to mains terminals	N



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Requirement + Test	Result - Remark	Verdict		
1	The the the			
Electrolytic corrosion of the protective earth terminal	street intrest sincrest suntrest.	N		
Material of protective earth terminal	A A	N		
Contact surface bare metal	THE WITE SALL MAIL OF	N		
Class II luminaire for looping-in	1 2 A A A	N		
Double or reinforced insulation to functional earth	MULL AUG. AUG. AUG.	N		
Protective earthing core coloured green-yellow	atter still spill spill	N		
Length of protective earthing conductor	The state of	N		
PELV circuit connected to protective earth for functional purpose	Print Murit Murit Auri A	N		
	Electrolytic corrosion of the protective earth terminal Material of protective earth terminal Contact surface bare metal Class II luminaire for looping-in Double or reinforced insulation to functional earth Protective earthing core coloured green-yellow Length of protective earthing conductor PELV circuit connected to protective earth for	Requirement + Test Result - Remark Electrolytic corrosion of the protective earth terminal Material of protective earth terminal Contact surface bare metal Class II luminaire for looping-in Double or reinforced insulation to functional earth Protective earthing core coloured green-yellow Length of protective earthing conductor PELV circuit connected to protective earth for		

117	4.10 (14)	SCREW TERMINALS	20 20 A	N
	in any	Separately approved; component list	(see Annex 1)	N
J.		Part of the luminaire	(see Annex 3)	N-

4.10 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		N
in m	Separately approved; component list	(see Annex 1)	N
At Set	Part of the luminaire	(see Annex 4)	N.

4.11 (5)	(5) EXTERNAL AND INTERNAL WIRING		Р
4.11 (5.2) 4.11 (5.2.1)	Supply connection and external wiring		Р
	Means of connection	Direct plug-in LED driver for whole set; DC connector for lamp part	Р
eter whiter et whitest w	Outdoor luminaire has not PVC insulated external wiring if not Class III or SELV/PELV circuits ≤ 25 V AC/60 V DC/25 V peak interrupted DC voltage with frequency 10Hz - 200 Hz or protected from outdoor environment	n fek gjelfek gjelfek gjelfek gjelfek	N
4.11 (5.2.2)	Type of cable	see Annex 1	N
740 740	Nominal cross-sectional area (mm²)	see Annex 1	N
Jen Je	Cables equal to IEC 60227 or IEC 60245	2 2 2 2	N
4.11 (5.2.3)	Type of attachment, X, Y or Z	a real marie of a comment of the com	N
4.11 (5.2.5)	Type Z not connected to screws	at the title of	N
4.11 (5.2.6)	Cable entries:	is the me in an	N
the state of	- suitable for introduction	a set set set set	N
	- adequate degree of protection	The Mr. The M.	N



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Clause	Requirement + Test	Result - Remark	Verdict
Clause	requirement - rest	Tresuit - Tremaik	Verdict
4.11 (5.2.7)	Cable entries through rigid material have rounded edges	riet mitet mitet an	N.
4.11 (5.2.8)	Insulating bushings:	51 Z.,	, N
es and	- suitably fixed	LIEF RLIEF WALL WAL	N
et set .	- material in bushings		- N
ale an	- material not likely to deteriorate	William William	N
· Little St	- tubes or guards made of insulating material	4 1 1	N N
4.11 (5.2.9)	Locking of screwed bushings	WILL AND AND S	N
4.11 (5.2.10)	Cord anchorage:	a a ct	JP
1. 14	- covering protected from abrasion	tite also also as	Р
of the south	- clear how to be effective	st set set st	Р
	- no mechanical or thermal stress	. The me m	Р
the section and	- no tying of cables into knots etc.	the set set	Р
	- insulating material or lining	me me m	Р
4.11 (5.2.10.1)	Cord anchorage for type X attachment:	THE STATE STATES.	N
· sin	a) at least one part fixed	9 30 30 30	N
Vite aver	b) types of cable	The State and	N.V
A 34	c) no damaging of the cable		N
in the m	d) whole cable can be mounted	E LIFE INTO MALL	N N
+ 3 1	e) no touching of clamping screws	- L	N.
Aug Aug	f) metal screw not directly on cable	STATE WITH SHILL	N
et et	g) replacement without special tool		N N
me me	Glands not used as anchorage	alifer white wall out	N
Let Jet	Labyrinth type anchorages	a de de d	t N
4.11 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment	to mit in the	N
4.11 (5.2.10.3)	Tests:	White white white	N
They are	- impossible to push cable; unsafe	THE STATE OF THE	N .
A. St	- pull test: 25 times; pull (N)	4, 2, 2,	N
War Mur.	- torque test: torque (Nm)	THE REPERSE	N
at at	- displacement ≤ 2 mm	- Tu -	- N
and all	- no movement of conductors	EF CLIEF WILLER WHILE	SI N
+ 10 5	- no damage of cable or cord		N.
The the	- function independent of electrical connection	The City Will	N IS



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Clause	Requirement + Test	Result - Remark	Verdict
4.11 (5.2.10.4)	Luminaire with/designed for use with supply core	d with maximum current of 2A:	P
WITE WALTER	- Ordinary Class III luminaire supplied with SELV ≤ 25V RMS/60V DC	FIET WHITE WALTER WALTER	N. J. E. P. IV.
ek water w	- Ordinary Class III luminaire supplied with PELV ≤ 12V RMS/30V DC	THE TELL WILLIAM WILLIAM WAS	N
10 A	- Other than ordinary Class III luminaire supplied with voltage ≤ 12V RMS/30V DC	MULTER MALL MALL MALL	N
area area	Pull test of 30 N	LITER RECEIVED AND SERVICE.	P
4.11 (5.2.11)	External wiring passing into luminaire	3	Р
4.11 (5.2.12)	Looping-in terminals	HER WILLS MILL MILL AND	N
4.11 (5.2.13)	Wire ends not tinned	1 1 1 1 1	e Re
The The	Wire ends tinned: no cold flow	THE WILL MILE MILE	N
4.11 (5.2.14)	Mains plug same protection	2 2 2 2 2	Р
my m	Class III luminaire plug	Willy with Aug Aug	N
Set See	No unsafe compatibility	the state of the state of	Р
4.11 (5.2.15)	Connectors for Class III luminaires (IEC 60603 or IEC 62680)	The sale of	N
4.11 (5.2.16)	Appliance inlets (IEC 60320)	The way with the	N
t get g	Installation couplers (IEC 61535)		N
AL AL	Appliance inlet or connector systems (IEC 61984)	White war was	N
4.11 (5.2.17)	No standardized interconnecting cables properly assembled	Wite Mill Mill Mill	N
4.11 (5.2.18)	Used plug in accordance with	THE THE STREET WITE IN	Р
	- IEC 60083		N
The sh	- other standard	State with the second	Р
4.11 (5.3)	Internal wiring		Р
4.11 (5.3.1)	Internal wiring of suitable size and type	THE MITE WITH AND	Р
Jr 404	Through wiring	The second second	ωN
he are	- not delivered/ mounting instruction	LITER MITE WALL WALL TO	N ⁻¹
d d	- factory assembled		N
410 3	- socket outlet loaded (A)	the spring which capting our	N
+ 4	- temperatures		N
The The	Green-yellow for protective earth only	THE WALL WALL WALL	N



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Clause	Requirement + Test	Result - Remark	Verdict
40 41	A SHE SHE WAS THE STATE OF THE SHE	THE THE THE	
4.11 (5.3.1.1)	Internal wiring connected directly to fixed wiring		P
21, 21,	Cross-sectional area (mm²)	see Annex 1	Р
John John	Insulation thickness (mm)	A 10 10 10 10	Р
	Extra insulation added where necessary	is the the the	N
4.11 (5.3.1.2)	Internal wiring connected to fixed wiring via intern	nal current-limiting device	P
	Cross-sectional area (mm²)	my me in a	Р
4.11 (5.3.1.3)	Double or reinforced insulation for class II	the the state of	P
4.11 (5.3.1.4)	Conductors without insulation	The the the	N
4.11 (5.3.1.5)	SELV or PELV current-carrying parts	THE THE STREET STREET	Р
4.11 (5.3.1.6)	Insulation thickness other than PVC or rubber	L. 74 20. 1	N
4.11 (5.3.2)	Sharp edges etc.	the state state state.	P
t 8 .	No moving parts of switches etc.	40 40	N.
THE THE	Joints, raising/lowering devices	- Riter Wille Wille M	Ň
D 1	Telescopic tubes etc.	W	, N
me me	No twisting over 360°	THE WIFE WILL AND	Р
4.11 (5.3.3)	Insulating bushings:		Р
b. 30.	- suitable fixed	The Men	P.
at the	- material in bushings		⊰ [⊁] P≾
70, 2,	- material not likely to deteriorate	when the the s	Р
LUTER NET	- cables with protective sheath	at all set is	P
4.11 (5.3.4)	Joints and junctions effectively insulated	They are the the	N
4.11 (5.3.5)	Strain on internal wiring	LEF LEF LIEF LIFE	Р
4.11 (5.3.6)	Wire carriers	in the the	N
4.11 (5.3.7)	Wire ends not tinned	the state state state	P
	Wire ends tinned: no cold flow	2/4 24 24	N
4.11 (5.4)	Test to determine suitability of conductors having a reduced cross- sectional area		Р
MULLE MULL	Under test the temperature of the luminaire wiring insulation does not exceed the limits stated in Table 12.2	(see Annex 2)	Р
NO WALL	No damage to luminaire wiring after test	THE NUTER WITH MITH	P
4.11.1 (-)	Cord anchorage of luminaire for indoor use made of glass or ceramic not fixed or integral	at the set set	↓ N
4.11.2 (-)	For Class I and Class II luminaires for indoor use	, if:	Р
STATE SALL	- mass < 1 kg (kg)	· Cet Cet Life	N
	- rated current ≤ 2,5 A (A)	24 24 24 24	N



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Clause	Requirement + Test	Result - Remark	Verdict		
200	and the state of the state of the	The May My a			
Set S	- cable length ≤ 2 m (m)	· A B B	N		
	- the nominal cross-sectional area of copper conductor ≥ 0,5 mm² (mm²)	. SELV external wiring	Р		
4.11.3 (-)	Terminals, cord anchorage and inlet opening provided for luminaire for outdoor use delivered without a flexible cable or cord and a plug.	A SER REAL PROPERTY.	N		
4.11.4 (-)	Non-detachable flexible cables or cords not lighter than type 245 IEC 57 for Class I and Class II luminaires for outdoor use.	TET STEE STEEL OF	N		

4.12 (8)	PROTECTION AGAINST ELECTRIC SHOCK	THE REFER WATER WALL TO	Р
4.12 (8.2.1)	Live parts not accessible		Р
	Basic insulated parts not used on the outer surface without appropriate protection	THE WALL WALL WALL WAS	P
MULL MU	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires	White white white white	Р
NITER WITE	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires	AND THE STATE OF THE	N
TEX SUPERFECT	Lamp and starterholders in portable and adjustable luminaires comply with double or reinforced insulation requirements	The state of the s	Р
A STATE WAS	Basic insulation only accessible under lamp or starter replacement	TER STEE STEET STEET STEET	Р
	Protection in any position	40 40 40	Р
Maria Salaria	Double-ended tungsten filament lamp	STEP STEP STEP STEEL STEEL	N
+ 5	Insulation lacquer not reliable	1 1 1 1	Ν
Car Party 1	Double-ended high-pressure discharge lamp	TEL MITTER WALL WAS	N
est and est	Relevant warning according to 3.2.18 fitted to the luminaire	the state state and the	N
4.12 (8.2.2)	Portable luminaire adjusted in most unfavourable position	A THE THE STATE OF	Р
4.12 (8.2.3.a)	Class II luminaire:	The August of the	Р
STEE WIFE	- basic insulated metal parts not accessible	ART THE STEE SLITE BUT	N
Set Set	- required insulation from live parts in compliance with Table X.1	a state of the	Р
+ 10+ 1	- glass protective shields not used as supplementary insulation	Author Phys. 2012, 2017	N
4.12 (8.2.3.b)	Metal BC lampholder in class I luminaires connected to protective earth	MILLE WALL WALL WALL ON	N



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Olavia	IEC 60598-2-4	Desuit Desuit	d 11. 10
Clause	Requirement + Test	Result - Remark	Verdict
4.12 (8.2.3.c)	SELV circuits with exposed current carrying parts);	JOF JOP
211. 121.	Ordinary luminaire:	are are all	Р
Cler Ster	- voltage under load/ no-load AC (V)	in the set of	N
. 20	- voltage under load/ no-load DC (V)	5Vdc	Р
ille nitiation	- interrupted DC voltage (V)	the set with	N
200	- touch current if applicable (mA)		N
The William	One conductive part insulated	et set set	Ň
" . · . · . · .	Other than ordinary luminaire:	200 200 200	N
Willey William	- voltage under load/ no-load AC (V)	THE THE STREET	N
	- voltage under load/ no-load DC (V)	L. 24. 24. 2.	N
de ande a	- interrupted DC voltage (V)	et lifet sitet skir	N.
4.12 (8.2.3.d)	PELV circuits with exposed current carrying parts		N
The The	Ordinary luminaire:	A STEP WITH WITH	Ň
S 1	- voltage under load/ no-load AC (V)		N-
THE THE	- voltage under load/ no-load DC (V)		N
A 18	Other than ordinary luminaire:		A AN
V. 191.	- voltage under load/ no-load AC (V)	The same	N
it sit .	- voltage under load/ no-load DC (V)	- 1 A + 10	N.
14, 14	Pole not connected to earth insulated	and the the	N
SINLTEK WAL	Class III luminaire only for connection to SELV or PELV	NATES INTES SOLIES	STATE OF N
4.12 (8.2.4)	Portable luminaire has protection independent of supporting surface	THE STEE STEE OF	if P
4.12 (8.2.5)	Compliance with the standard test finger or relevant probe	at all set s	et P
4.12 (8.2.6)	Covers reliably secured	345 Apr 24	Р
4.12 (8.2.7)	Luminaire other than below with capacitor > 0,5 μF not exceed 50 V 1 min after disconnection	A MILITER WILLIAM WILLIAM	White white
The the	Portable luminaire with capacitor $>$ 0,1 μ F (0,25) not exceed 34 V 1 s after disconnection	MUNITER MUNITER MUNITER	Р
USER ARK	Other luminaires with capacitor $>$ 0,1 μ F (0,25) with plug and track adaptors not exceed 60 V 5 s after disconnection	LIET WHITE WHITE WH	N
4.12 (-)	Class I luminaire with bayonet lampholder:	THE WALL WALL THE	N
500 3	1) cap not accessible with test finger		N
34 34	2) metal lampholder is earthed	The state of the	N



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Clause	Requirement + Test	Result - Remark	Verdict

4.13 (12)	ENDURANCE TEST AND THERMAL TEST		Р
4.13 (-)	If IP > IP 20 relevant test of (12.4), (12.5), (12.6) and (12.7) after (9.2) but before (9.3) specified in 4.14		, O'
4.13 (12.2)	Selection of lamps and ballasts		· _
Ap. 40.	Lamp used according Annex B	(Lamp used see Annex 2)	30
The State	Controlgear if separate and not supplied	(Controlgear used see Annex 2)	J. C
4.13 (12.3)	Endurance test	THE AND THE AND	Р
ALTER MATER	a) mounting-position	. As in normal used	a.
	b) test temperature (°C)	. 35 °C	
Cle Shille St	c) total duration (h)		
4 1	d) supply voltage (V)		-
mer me	d) if not equipped with controlgear, constant voltage/current (V) or (A)	White white white white	31/2
1.13 (12.3.1d)	d) Class III luminaires powered via information to	echnology communication cable:	1550
	- voltage under normal operation (V)	15 14 14	÷
	- voltage under abnormal operation (V)	The state of the state of	_
	e) luminaire ceases to operate		ļ —
in our	f) luminaire with a constant light output function	CONTRACTOR WITH WALL	N
4.13 (12.3.2)	After endurance test:		Р
The The	- no part unserviceable	With the ship the ship	Р
Set Set	- luminaire not unsafe	2 2 1 1 1	Р
24. 24.	- no damage to track system	Will they are a	N
Jet Jiet.	- marking legible	at all the title as	Р
. 40 1	- no cracks, deformation etc.	is with the the the	Р
4.13 (12.4)	Thermal test (normal operation)	(Annex 2)	Р
4.13 (12.5)	Thermal test (abnormal operation)	(Annex 2)	N
4.13 (12.6)	Thermal test (failed lamp control gear conditi	ion): Je de de de	N
4.13 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A)	and the the	50
b2n	- case of abnormal conditions	the age of the same	, - 10 , - 1
The orthography	- electronic lamp control gear	at all the the state of	N
	- measured winding temperature (°C): at 1,1 Un	The Me of the	
united white	- measured mounting surface temperature (°C) at 1,1 Un	Inter writer writer writer	Ñ



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	IEC 60598-2-4	The The The	
Clause	Requirement + Test	Result - Remark	Verdic
	- calculated mounting surface temperature (°C)	The sale of	Ñ
an and	- track-mounted luminaires	The state of the state of	N
4.13 (12.6.2)	Temperature sensing control	1 2 3 5	N
1.10 (12.0.2)	- case of abnormal conditions	The state of the state of	
# 3# S	- thermal link	e state of s	N
	- manual reset cut-out	The August August August	N
- 10 th 10 th	- auto reset cut-out	St 484 584 578	N
'n 'n	- measured mounting surface temperature (°C)	All all and and	N
NET THE STATE OF	- track-mounted luminaires	all the the the	N
4.13 (12.7)	Thermal test (failed lamp control gear in plast	ic luminaires):	N
4.13 (12.7.1)	Luminaire without temperature sensing control	the the state with the	N
	Luminaire with fluorescent lamp ≤ 70W		N O
The sale	Test method 12.7.1.1 or Annex W	The Mile Willer Will	112
A A	Test according to 12.7.1.1:	4 1	N
Mr. M.	- case of abnormal conditions	WILL MILL MILL MULT	· _
Alt All	- Ballast failure at supply voltage (V)		50-
100	- Components retained in place after the test	and the second	N
of the same	- Test with standard test finger after the test		N
	Test according to Annex W:	They are the	N
MITE JULI	- case of abnormal conditions	at the star star	1100
- 1 /s	- measured winding temperature (°C): at 1,1 Un	They are the to	-
Marie Marie	- measured temperature of fixing point/exposed part (°C): at 1,1 Un	ALTER MALTER MALTER MALTER.	s 122
LIEN WALLE W	- calculated temperature of fixing point/exposed part (°C)	THE MATTER MATTER MILITER ON	11 to -11 to
the state of	Ball-pressure test		N
4.13 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp	> 70W, transformer > 10 VA	N
INLIER WALTE	- case of abnormal conditions	top the the stop who	1000
	- measured winding temperature (°C): at 1,1 Un.	m m m	, , , , , , , , , , , , , , , , , , ,
War Mura.	- measured temperature of fixing point/exposed part (°C): at 1,1 Un	LIER WHITE WHITE WHITE	102 _21
TEE UNITE W	- calculated temperature of fixing point/exposed part (°C)	EX MILIER SUPLIFIES SUPLIFIES SUPL	
	Ball-pressure test		N
4.13 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA	Mer Mer Mer Me	N



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7	IEC 60598-2-4	is they have the the	724
Clause	Requirement + Test	Result - Remark	Verdict
4	and the state of t		73.24
	- case of abnormal conditions	at all left state	J. J. J. J.
711. 721.	- Components retained in place after the test	Will me, me, me, me,	N
STEE STEE	- Test with standard test finger after the test	at the set set is	N
4.13 (12.7.2)	Luminaire with temperature sensing control	or the the the to	N
Carried Contraction	- thermal link	Yes No No	- 11-15°
	- manual reset cut-out	Yes No	
They all of	- auto reset cut-out	Yes No	11/2
Jt	- case of abnormal conditions	The state of the s	- d-
iluria alura	- highest measured temperature of fixing point/ exposed part (°C):	Hill Milit White W	~
CIE JACK	Ball-pressure test:	See Test Table 4.15 (13.2.1)	N
4.13 (-)	Luminaire for indoor use tested in overturned position (overturns < 15°)	Not overturn	N

4.14 (9)	RESISTANCE TO DUST AND MOISTURE	Let Let Life in	JEP JULIP
4.14 (-)	If IP > IP 20 the order of tests as specified in clau	ise 4.13	N
4.14 (9.2)	Tests for ingress of dust, solid objects and moisture:		Р
at at	- classification according to IP	IP20	
The s	- mounting position during test	As in normal used	Thr. Thr
l. Jef	- fixing screws tightened; torque (Nm)	- 10 1	JF -
ans all	- tests according to clauses	9.2.0	10 11 -
50° 5	- electric strength test afterwards	a shared	A AP
16. Au	a) no deposit in dust-proof luminaire	which was any	N
Jet Jet	b) no talcum in dust-tight luminaire	at all the str	N
4 (4	c) no trace of water on current-carrying parts or on insulation where it could become a hazard	THE WAY	N
7h. 7	c.1) For luminaires without drain holes – no water entry	MULTE MUTEL MUTE	all N
ALC: AL	c.2) For luminaires with drain holes – no hazardous water entry	WHELE WHILE MUTTE ON	N
NITE WILLY	d) no water in watertight, pressure watertight, high pressure and temperature water jet-proof or high pressure and cold-water jet-proof luminaire	stek whitek whitek whi	N N
	e) no contact with live parts (IP 2X)	The The The	Р
100	e) no entry into enclosure (IP 3X and IP 4X)	· Let the the	, N



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IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
WATER WAY	e) no contact with live parts through drain holes and ventilation slots (IP3X and IP4X)	after surer and the	nite N
LIEK MALTE	f) no trace of water on part of lamp requiring protection from splashing water	Set Set Set si	N
et Jet	g) no damage of protective shield or glass envelope	t of st	N
4.14 (9.3)	Humidity test 48 h	The sail sail	Р

4.15 (10)	INSULATION RESISTANCE AND ELECTRIC ST	RENGTH	Р
4.15 (10.2.1)	Insulation resistance test	THE SER STEEL STEEL	Р
JET WET	Cable or cord covered by metal foil or replaced by a metal rod of mm \varnothing	Covered by metal foil	Р
4, 4	Insulation resistance (M Ω):	State Mr. Bur.	Р
e selection and	SELV or PELV:	of the second	Ji [®] P
is the said	- between current-carrying parts of different polarity:	A St. St.	N
Mr. 20	- between current-carrying parts and mounting surface	100 ΜΩ	Р
it in	- between current-carrying parts and metal parts of the luminaire	100 ΜΩ	Р
AUG A	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	100 ΜΩ	_N NED JP
The The	- Insulation bushings as described in Section 5	100 ΜΩ	Р
JE# 118	Other than SELV or PELV:	N N N N S	Р
n. 2n	- between live parts of different polarity	Approved LED driver	Р
I FEET RITER.	- between live parts and mounting surface	100 ΜΩ	Р
	- between live parts and metal parts	100 ΜΩ	Р
MULTER WE	- between live parts of different polarity through action of a switch	- MARTER MALTER WALTER	N and
WALTER WALT	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	MUNITER MULTER MULTER MUNI	SALE ON
Vile MULL	- Insulation bushings as described in Section 5	The life wife with	N
4.15 (10.2.2)	Electric strength test	- M. A. A.	Р
er and	Dummy lamp	et lifet mile anite	N Cons
- 2	Luminaires with ignitors after 24 h test		N
The Alex	Luminaires with manual ignitors	THE RITE WITE W	N



Ν

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140	IEC 60598-2-4		
Clause	Requirement + Test	Result - Remark	Verdict
200	A A A A A A A A A A A A A A A A A A A	34 34 34 3	
	Luminaires with ignitors provided with ballasts conforming to IEC 61347-2-9	THE MITTER WILLIAM SHALL	N
st st	SELV or PELV:		P
t in	- between current-carrying parts of different polarity	The white will when	N N
in Miles 1	- between current-carrying parts and mounting surface	500 V	P
Murrey Alle	- between current-carrying parts and metal parts of the luminaire	500 V	P P
MALTER MALTE	between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	500 V	Р
eth write	- Insulation bushings as described in Section 5	500 V	P
	Other than SELV/PELV:	74, 74, 2	Р
THE CH	- between live parts of different polarity	Approved LED driver	P
	- between live parts and mounting surface	2960 V	P-
wer we	- between live parts and metal parts	2960 V	II. P
nliek mire	- between live parts of different polarity through action of a switch		N N
TEX WILTER	between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	THE WILL WATER	ant N
t de	- Insulation bushings as described in Section 5	- 4	N N
4.15 (10.3)	Touch current (mA)	0.0196 mA	Р

4.16 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		
4.16 (13.2.1)	Ball-pressure test	. See Test Table 4.16 (13.2.1)	Р
4.16 (13.3.1)	Needle-flame test (10 s)	See Test Table 4.16 (13.3.1)	Р
4.16 (13.3.2)	Glow-wire test (650°C)	See Test Table 4.16 (13.3.2)	Р
4.16 (13.4)	Proof tracking test (IEC 60112)	See Test Table 4.16 (13.4)	Ń

Protective conductor current (mA).....



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71		IEC 60598-2-4	March March March	717
Clause	Requirement + Test	The St	Result - Remark	Verdict

4.8 (11.2)	TABLE I: C	reepage dista	ances and cle	arances			P
- S	Minimum d	istances (mn	n) for a.c. up t	o 30 kHz sir	nusoidal voltaç	jes	. ₽
C. 440	Applicable part of IEC 60598-1 Table 11.1A*, 11.1B* and 11.2*						
et set	Insulation	Measured	Requ	iired	Measured	Requir	ed
	type **	clearance	clearance	*Table	creepage	creepage	*Table
Distance 1:	LIEB RUE	The Ship	, shop .	A		- 6 1	(الله الله الله الله الله الله الله الله
Working vo	ltage (V)				11 C. Such	me an	
PTI			76. 24.		< 600 🗌	≥ 600 □	. J. O.
Pulse volta	ge if applicab	le (kV)				n n	
Supplement	tary information	on: Approved	SELV LED driv	er (5VDC m	ax.)	TER STER	12. N
Distance 2:	A- A	of the	Stell Stell	ania ani	1/2 21		
Working vo	Itage (V)				t 30th 30	or refer and	
PTI				M	< 600 🗌	≥ 600 □	-
Pulse voltag	ge if applicab	le (kV)		J	-08th 200	INCITE WEST	3/1/2
Supplement	tary information	on:	P	10		7	
Distance 3:	NVA	Y F A	The second	S.C	.00	Will There is	100
Working vo	ltage (V)		12 10			A 35	et —
PTI	71				< 600 □	<u>></u> 600 □	-70
Pulse voltag	ge if applicab	le (kV)			- 16 1	y 3 3	
Supplement	tary information	on:	4 56	TO STOR	WELL WILL		20,0



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71		IEC 60598-2-4	March March March	717
Clause	Requirement + Test	The St	Result - Remark	Verdict

4.8 (11.2)	TABLE II: C	reepage dis	tances and cle	earances			N	
m m	Minimum d	istances (mr	n) for a.c. high	ner than 30 l	kHz sinusoidal	voltages	71	
56 S	Applicable part of IEC 61347-1 Table 7 and 8* or IEC 60664-4 Table 1 and 2							
	Insulation	Measured	Requ	ired	Measured	Requir	ed	
Distances	type **	clearance	clearance	*Table	creepage	creepage	*Table	
Distance 1:	, s	- LI-	16th - 176th	anie anie	the sh	20, 20		
Working vo	Itage (V)		40	:	et st	LITER RITE	10/11	
Frequency	if applicable (kHz)		:	The the	20	, -	
						≥ 600 □	4 O _	
Peak value	of the workin	g voltage Û _{ou}	if applicable (l	⟨V⟩:	1, 1,	a ste	,t -	
Supplemen	tary information	on:	** **	All C	Tet sales as	ite min m	S 71	
Distance 2:	16th 15th	* nitei	Vite Alvert	20, 20,		+ & .	est a	
Working vo	Itage (V)				anith and	and when	2/2	
Frequency	if applicable (kHz)		· · · · · · · · · · · · · · · · · · ·		1 B	- 30	
PTI					< 600 🗌	≥ 600 □	-	
Peak value	of the workin	g voltage Û _{ou}	if applicable (l	(V):	J. (4)	D 50	300	
Supplemen	tary information	on:	15 NOF	100		ing the s		
Distance 3:	1/2 1/2	1,1		- A-		No State of	, r	
Working vo	ltage (V)				and and	70° 4	_	
Frequency	if applicable (kHz)			· The Th	RITE JOIN	11-05	
PTI		J. J.			< 600 🗌	<u>≥</u> 600 □		
Peak value	of the workin	g voltage Û _{ou}	if applicable (l	(V):	Set Stell	INLIE WILLE		
Supplemen	tary information	on:	MINE WAY	40 4		. L . L	- C+	
			lementary; R –	Reinforced.	Set Set .	Letter at the	L. 1	

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IEC 60598-2-4				
Clause	Requirement + Test	Result - Remark	Verdict	

4.16 (13.2.1)	TABLE: Ball Pres	TABLE: Ball Pressure Test of Thermoplastics				
Allowed i	mpression diameter	(mm)	.: 2	STEE STEE	315	
Object/	Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (n	nm)	
USB conta	act	See Annex 1	125	1.35	, UL	
DC conne	ctor	See Annex 1	125	1.34	~	
	ctor ntary information:	See Annex 1	125	1.34	j	

(13.3.1)	Needle-flame test (IE		Lundstein au	Dunatian at	P P
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
USB contact	See Annex 1	10	No	0	Р
DC connector	See Annex 1	10	No	0.5	Р

4.16 (13.3.2) TABLE: Glow-wire test (IEC 60695-2-11)				
Glow wire temperature	: 650°C	THE ME MAN	71, 7,	
Object/ Part No./ Material	Manufacturer/ trademark	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
Plastic cover for LED (gray)	See Annex 1	No	0	Р
Plastic base (white)	See Annex 1	No	0	P

4.16 (13.4) TABLE: Proof tracking test (IEC 60112)				
Test voltage PTI 175 V		: 175 V	100	
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 drops without failure on three places or on three specimens		
16. M. O. A.	at set si	A STILL MAY WHILE ARE MAN AND	. 3	
Supplementary information:	ner an an	The state of the state of	Ser S	



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IEC 60598-2-4				
Clause	Requirement + Test	Result - Remark	Verdict	

NATER WALL	ANNEX 1 components	No. 10.	"	et set s	P. P.
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity
Output wire of LED driver	YUYAO DONGHAI SPECIAL WIRE FACTORY	2464/2468	300VAC; 80°C; 22-26AWG	THE THE	UL E212811
Plastic material of USB port	YUYAO TENGLONG PLASTICS &CHEMICAL CO LTD	GF30	PBT; V-0	ite vet	UL E227661
DC connector	KINGFA SCI & TECH CO LTD	PA66-G50 (f1)	PA66; HB	- m, m	UL E171666
Lead wire to LED	Yuyao Xin Riyue Wire & Cable Industry Co., Ltd	1007	300VAC; 80°C; 24AWG	- WITE WALT	UL E256446
Alternative	YUYAO DONGHAI SPECIAL WIRE FACTORY	1007	300VAC; 80°C; 24AWG	White white	UL E212811
LED	Shenzhen Xuyu Optoelectronics Co., Ltd	SMD-2835	IF=60mA; 3073K	IEC/TR 62778	Tested with appliance
LED board	GOLDENMAX INTERNATIONAL TECHNOLOGY (ZHUHAI) LTD	GDM-R1	V-0; 130°C; Al.	et willet an	UL E330731
Plastic cover for LED (gray)	CHI MEI CORPORATION	PC-110	PC; V-2	MULTER MALT	UL E56070
Plastic base (white)	FORMOSA CHEMICALS & FIBRE CORP PLASTICS DIV	AG15E1	ABS; HB	united whites	UL E162823
Heat- shrinkable tube	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR-H	600V; 125°C	TEK WITEK W	UL E203950
Alternative	Dongguan Yongchao New Material Co Ltd	YC-DWT	600V; 125°C		UL E484474
Sleeving	DONGGUAN YONGCHAO INSULATION MATERIAL CO LTD	YC-15-25-40- 70	VW-1	Whitek Multer	UL E325767
Components f	or LED driver	at a	- Jet Stet	NIFE WITTE	MUCLE ANDER
Plastic enclosure	YUYAO TENGLONG PLASTICS &CHEMICAL CO LTD	GF30	PBT; V-0	TEX WITER	UL E227661
Pin	Jiang Lingxiang Electronics Co., Ltd.	2.1	Cu:59%	5E* .51	Tested with appliance
PCB	KINGBOARD LAMINATES HOLDINGS LTD	KB-5150	V-0; 130°C	-64, An	ÜL E123995
Fuse resistor	Shenzhen Great Electronics Co. Ltd.	RXF	2W; 18Ω	IEC 62368-1	VDE 40026608
Y1 capacitor	JYH HSU (JEC) ELECTRONICS LTD	JD	440VAC; 1000pF; T125	IEC 60384-14	VDE 40038642



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	IEC	C 60598-2-4	
Clause	Requirement + Test	Result - Remark	Verdict

Insulation tape	JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD	JY25-A(b)	130°C	and the annual an	UL E246950
Bobbin	Chang Chun Plastics Co Ltd	T375J	150°C	STER - STER OUT	UL E59481
Magnet wire	ZHEJIANG HONGBO TECHNOLOGY CO LTD	UEW/130	130°C	T 74 174	UL E221719
Triple insulated winding wires for transformer	Shenzhen Darun Science and Technology Co., Ltd	DRTIW-B	130°C	IEC 62368-1	VDE 40032470
Teflon tube for transformer	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-TT-S	200°C	white - white whi	UL E180908

WALTER



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IEC 60598-2-4				
Clause	Requirement + Test	Result - Remark	Verdict	

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12		
	Type reference	MO2702	25
20 Mar.	Lamp used		200
er set	Lamp control gear used:	, , , , , , , , , , , , , , , , , , ,	J
	Mounting position of luminaire:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Jri d	Supply wattage (W)	itel site nite sail	11/2
, t	Supply current (A):	The state of	J. C-
View Silve	Calculated power factor	THE WILL MUTE WALL	400-
St St	Table: measured temperatures corrected for ta = 25	5 °C:	e P
400	- abnormal operating mode	to mer mer and	16 70
L. Little	- test 1: rated voltage	E st. st. st. st.	50° .E
20	- test 2: 1,06 times rated voltage or 1,05 times rated wattage	1.06 times rated voltage	t set
n n	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage		
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage		an =
ST. WILL	Through wiring or looping-in wiring loaded by a	THE NAME OF THE PARTY OF	, (1)

Temperature measurements, (°C)

Doub A	Amabiant	the state of	Clause 12	D 30	Clause 12.	5 – abnormal	
Part	Ambient	test 1	test 2	test 3	limit	test 4	limit
The plug interface of LED driver	25.0	anur <mark>e,</mark> an	29.0	and the second	70	est Test	MALTER MALT
tc of LED driver	25.0		35.4	, 7n	75	4 t-	d+ - d
USB contact	25.0		29.0	et -3et	Ref.	Mr M	770
Output wire of driver	25.0		27.2	- 11 - 1	80		Tel Television
DC connector	25.0		26.7	We are	Ref.	-12.	
Varistor	25.0	4 - A	42.6	10 ⁵	Ref.	JEE - LIE	arite an
Lead wire to LED	25.0	36 <u>*</u> 30	29.9	11 - 24 - 24 - 24 - 2	80	7	
Plastic cover for LED (gray)	25.0	- A	31.2	SER - SER	Ref.	Company of	Britis - Albert
Plastic base (white)	25.0	LTP SOUTH	25.2	الر " ي	Ref.	r gar	15EF - 15EF
LED board	25.0	* -	31.9	12	Ref.	39, - 3	

current of A during the test



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20	IEC 60598-2-4							
Clause	Requ	uirement +	Test	the a	4	Result - Remark	· John S	Verdict
4, ,	2		الحري الم		, 'N	and the	B. 2.	1923
Mounting s	urface	25.0	WILL .	26.4		90	20t 30	
Illuminated surface (0.1	lm)	25.0	niteth at	26.6	JUNETE .	90	A 74	10 T
Plastic enclinside	osure,	25.0		33.0	ricies N	Ref.	N. Mar.	311 31.
PCB	"LOCK	25.0	4 - Aug	35.5	-	Ref.		The Turk
Y1 capacito	r	25.0	d - d	32.3		125	30 20	
Primary wir of TR4	nding	25.0	270	36.1	اه <u>ی</u> د	120	unii ^{ek} uni	AUTE.
Secondary winding of	Fight No.	25.0	ONITE V	34.0	7 -	120	_d+d#	- Land
Bobbin of T		25.0	÷.	35.5	METER .	Ref.	77,	
E-cap EC1	" ALLE	25.0	74 ₁₇₅ 21 ₁₅₇	33.9	<u>-</u> -	105	# - 1 #	CLIFER - JOHN
E-cap EC2		25.0	di - di	34.1	See All	105	10,	
E-cap C2	15/10	25.0	~ 74c.	34.3	A - A	105	- J <u>O</u>	The Miles





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		IEC 60598-2-4	the way we	24, 24
Clause	Requirement + Test	741	Result - Remark	Verdict

ANNEX 3	Screw terminals (part of the luminaire)	N N
(14)	SCREW TERMINALS	et set sen
(14.2)	Type of terminal	40 40 -0
Carlo	Rated current (A)	· LITER RITER
(14.3.2.1)	One or more conductors	N
(14.3.2.2)	Special preparation	N N
(14.3.2.3)	Terminal size	N
Willey Mrs.	Cross-sectional area (mm²)	itie mit in it
(14.3.3)	Conductor space (mm)	, N
(14.4)	Mechanical tests	No No
(14.4.1)	Minimum distance	- N
(14.4.2)	Cannot slip out	And And AN
(14.4.3)	Special preparation	N N
(14.4.4)	Nominal diameter of thread (metric ISO thread) M	N Maria Maria
Cler Life	External wiring	N SON
10. 20.	No soft metal	N
(14.4.5)	Corrosion	t of or N
(14.4.6)	Nominal diameter of thread (mm)	N
N. C. C. C. C.	Torque (Nm)	N°
(14.4.7)	Between metal surfaces	N
arter art	Lug terminal	TEL N
- A	Mantle terminal	N
Life Mark	Pull test; pull (N)	N.
(14.4.8)	Without undue damage	N



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100		IEC 60598-2-4	
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 4	Screwless terminals (part of the luminaire)	SET STEEL SON
(15)	SCREWLESS TERMINALS	N
(15.2)	Type of terminal:	The sale of the sa
at at	Rated current (A)	- J J J.
(15.3.1)	Material	arii arii a
(15.3.2)	Clamping	N ⁺
(15.3.3)	Stop	N N
(15.3.4)	Unprepared conductors	JE JE SKN
(15.3.5)	Pressure on insulating material	N
(15.3.6)	Clear connection method	- A N
(15.3.7)	Clamping independently	The Apr N
(15.3.8)	Fixed in position	Nº
(15.3.10)	Conductor size	N
all the last	Type of conductor	Str. Str. SN
(15.5)	Terminals and connections for internal wiring	N
(15.5.1)	Mechanical tests	N N N
(15.5.1.1.1)	Pull test spring-type terminals (4 N, 4 samples):	N
(15.5.1.1.2)	Pull test pin or tab terminals (4 N, 4 samples):	N ^o
a sub-	Insertion force not exceeding 50 N	N
(15.5.1.2)	Permanent connections: pull-off test (20 N)	N III
(15.5.2)	Electrical tests	N
Mary Aver	Voltage drop (mV) after 1 h (4 samples):	N S
at all	Voltage drop of two inseparable joints	⊥ JE JEN
in any	Number of cycles:	They are The
est mitest	Voltage drop (mV) after 10th alt. 25th cycle (4 samples)	INCIENT THE WAY
INLIEN AIN	Voltage drop (mV) after 50th alt. 100th cycle (4 samples)	Set Set N
Set St	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples):	N N
the set	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples):	N
(15.6)	Terminals and connections for external wiring	an N
(15.6.1)	Conductors	N N
211 31	Terminal size and rating	N and an I
15.6.2	Mechanical tests	J- N



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	IEC 60598-2-4	res the the man	3
Clause	Requirement + Test	Result - Remark	Verdict
(15.6.2.1)	Pull test spring-type terminals or welded connection (4 samples); pull (N)		N N
(15.6.2.2)	Pull test pin or tab terminals (4 samples); pull (N)	: 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TEL N
(15.6.3)	Electrical tests	the the the	N
NO.	Tests according 15.6.3.1 + 15.6.3.2 in IEC 60598-	-16t 36t 36t site	N

(15.6.3.1) (15.6.3.2)	TABL	E: Contac	t resistar	nce test	/ Heating	g tests					N
alifet mi	Volta	ge drop (m	V) after 1	h	٠,,		j.	200	Set .	5° .	J. O.
terminal		1.+	2	3	4	5	6	7	8	9	10
voltage dro	p (mV)	340	m d	1197		J.	et .	<i>*</i> (A 160	×
	.,.	Voltage dr	op of two	insepara	able joints	3 11	10	30	18.97		
all Life	12.00	Voltage dr	op after 1	0th alt. 2	25th cycle	+ 4	+ 4	t 50	- 50	1025	13/20
AL.	<i>A</i>	Max. allow	ed voltag	e drop (r	nV)		AL.	-20,	4,		
terminal	3	1	2	3	4	5	6	7	8	9	10
voltage dro	p (mV)	e ⁴ 1.56		100	3	-110				26	-6t-
in ma	1	Voltage dr	op after 5	0th alt. 1	00th cyc	le	- 67°	200	in all	20	
et elle		Max. allow	ed voltag	e drop (r	nV)	:			S4 3	<i>*</i> - 4	步 —
terminal	60	1	2	3	4	5	6	7	8	9	10
voltage dro	p (mV)	110 at			-33			٠,	26	400	
41, 4		Continued	ageing: v	oltage d	rop after	10th alt.	25th cyc	le	They	-7/2	τ_{η}
de d		Max. allow	ed voltag	e drop (r	nV)	:	*	3	Col.	56th	
terminal		1	2	3	4	5	6	7	8	9	10
voltage dro	p (mV)	11/10	ethor .	37			J.	er.	et s	, et	
		Continued	ageing: v	oltage d	rop after	50th alt.	100th cy	cle	- 70		
· No.	aren.	Max. allow	ed voltag	e drop (r	nV)	:	<i>y</i> 1	t st		e garde	24,5
terminal	4	J-1	2	3	4	5	6	7	8	9	10
voltage dro	p (mV)	no m	20			J.F	100	Cler.	N. C. C.	200	100
_				100		200	3/1/2		3.0		



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4,	a de de de	EN 60598-2-4	in the me the	20 20
Clause	Requirement + Test	The state of	Result - Remark	Verdict

ANNEX 5	National Differences for (country name) or Group Differences	JE JE
46° 51	CENELEC COMMON MODIFICATIONS (EN)	Р

ATTACHMENT TO TEST REPORT IEC 60598-2-4 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

Luminaires

Part 2: Particular Requirements:

SECTION 4: PORTABLE GENERAL PURPOSE LUMINAIRES

Differences according to.....: EN 60598-2-4:2018 used in conjunction with

EN IEC 60598-1:2021+A11:2022

Annex Form No.....: -
Annex Form Originator....: -
Master Annex Form...: --

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CENELEC COMMON MODIFICATIONS (EN)	Р

4.5 (3)	MARKING	N
4.5 (3.3.101)	For luminaires not supplied with terminal block: Adequate warning on the package	Ñ

4.6 (4)	CONSTRUCTION	Р
4.6 (4.11.6)	Electro-mechanical contact systems	Р

4.10 (5)	EXTERNAL AND INTERNAL WIRING	THE NUTER WITTER WAS F	Р
4.10 (5.2.1)	Connecting leads	All An I	1
alon A	- without a means for connection to the supply	THE REP WITH WHITE WALL AND	٧
d 4	- terminal block specified	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
They are	- relevant information provided	the wife with the August	1
NITER WALTER	- compliance with 4.6, 4.7.1, 4.7.2, 4.10.1, 11.2, 12 and 13.2 of Part 1	+ itel state settle is set N	1
4.10 (5.2.2)	Cables equal to EN 50525	_ L N	٧
and the same	Replace table 5.1 – Supply cord	15th 15th 15th 15th 1	1



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317	2 12 18 18 A	EN 60598-2-4	the sure, and, sur,	The The
Clause	Requirement + Test	41.	Result - Remark	Verdict

4.12 (12)	ENDURANCE TESTS AND THERMAL TESTS		N
	Thermal test (normal operation) see footnote c to table 12.2 relating to unsleeved fixed wiring	and war war will a	N

ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS	S (EN)	N
(3.3)	DK: power supply cords of class I luminaires with label	the state of the	N
(4.5.1)	DK: socket-outlets	write mi me me .	N
(5.2.1)	CY, DK, FI, GB: type of plug	at the the the	N

ZC Ø	ANNEX ZC, NATIONAL DEVIATIONS (EN)	N
(4 & 5)	FR: Shuttered socket-outlets 10/16A	N
WALTER WE	FR: Safety requirements for high buildings (Arrêté du 30 décembre 2011 portant règlement de sécurité pour la construction des immeubles de grande hauteur et leur protection contre les risques d'incendie et de panique; Section VIII; Article GH 48, Eclairage) Glow-wire test for outer parts of luminaires:	N
et set	- 850°C for luminaires in stairways and horizontal travel paths	N
An.	- 650°C for indoor luminaires	N
(13.3)	GB: Requirements according to United Kingdom Building Regulation	Ñ



	IEC 61347-2-13	Mr. Mr. M. 2.	
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 6	Lamp controlgear - Part 2-13: Particular requirent electronic controlgear for LED modules IEC 6134 61347-2-13:2014+A1:2016		Р
4 (4)	GENERAL REQUIREMENTS	ret white mails write an	Р
- (4)	Insulation materials according requirements in Annex N of IEC 61347-1 (see Annex N)		Р
- (4)	Compliance of independent controlgear enclosure with IEC 60598-1		Р
- (4)	Built-in electronic controlgear with double or reinforced insulation comply with Annex O of IEC 61347-1 (see Annex O)		N N
4 (4)	SELV controlgear comply with Annex I of this part 2 and Annex L of IEC 61347-1	(see Annex L)	P
4 (-)	Transformer comply with IEC 61558	1 d d 1	P.
741. 7.	Dielectric strength test of insulated winding wires is limited to 3 kV if input voltage ≤ 300 V	WHITE SHIP SHIP SHIP	Р
Much Au	All the television of the television	CALLER MALLER SHALL MALL	3/1/2
6 (6)	CLASSIFICATION		.⊘P
in the	Built-in controlgear:	Yes □ No ⊠	_
fit state	Independent controlgear:	Yes ⊠ No □	_
30	Integral controlgear:	Yes □ No ⊠	_
6 (-)	Auto-wound controlgear:	Yes No 🖂	_
	Separating controlgear:	Yes □ No ⊠	_
meter and	Isolating controlgear:	Yes 🛛 No 🗌	_
	SELV controlgear:	Yes ⊠ No □	_
- (-)	Interior	ter antice mer ance an	-
7 (7)	MARKING	the state of the state of	P
7.1 (7.1)	Mandatory markings		Р
The Table	a) mark of origin	See copy of marking plate	Р
40.	b) model number or type reference	See copy of marking plate	Р
INITER WALK	c) symbol for independent controlgear, if applicable	Tex Miles Miles Miles of	NITE P
TER WILLER	d) correlation between interchangeable parts and controlgear marked	t tiet stiet miteit mai	N
	e) rated supply voltage (V)	24, 24, 27,	Р

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

supply frequency (Hz)

supply current (A)

See copy of marking plate

Ρ



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30	IEC 61347-2-13	e the the the th	
Clause	Requirement + Test	Result - Remark	Verdict
	An at the state of	alue alue alue alue	1 4
-11-5° 11	f) earthing symbol	and the second	N
24.	k) wiring diagram	an an an	Р
JE WILL	I) value of tc	See copy of marking plate	Р
	m) symbol for declared temperature	is the the the	N
LER METER	t) LUM earthing symbol	or the tree street in	N
- 4	u) if not SELV maximum working voltage Uout betw	reen:	N
and the	- output terminals (V)	CLER MILE MILE MALE	N
	- output terminals and earth (V)	The second second	N
7.1 (-)	Constant voltage type:	Yes □ No ⊠	40 740.
	- rated output power P _{rated} (W)	- 1	ob N ⊲
in the	- rated output voltage U _{rated} (V)	E THE MET WALL W	N
t Set	Constant current type:	Yes ⊠ No □	(e
The.	- rated output power P _{rated} (W)	: See copy of marking plate	Р
150° 3	- rated output current I _{rated} (A)	: See copy of marking plate	Р
10, 10	Indication if for LED modules only	bry mr m. m.	Р
7.1 (7.2)	Marking durable and legible	et lifet sitet	P
ett still	Rubbing 15 s water, 15 s petroleum; marking legible	- The state of the	Р
7.2 (7.1)	Information to be provided, if applicable	the same same sail	Р
y printer v	h) declaration of protection against accidental contact	STEE WITE MATER WATER	N N
d.	i) cross-section of conductors (mm²)	1 2 A A	Р
ne in	j) number, type and wattage of lamp(s)	Wife white white with	Р
The State	s) SELV symbol	at at at at	P S
7.2 (-)	- declaration of mains connected windings	and the a	N

8 (10)	PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS		Р
- (10.1)	Controlgear protected against accidental contact with live parts	accidental contact Rely on plastic enclosure	
- (A2)	Voltage measured with 50 k Ω	(see Annex A)	√°P "
- (A3)	Voltage > 35 V peak or > 60 V d.c. or protective impendance device	(see Annex A)	Р
- (10.1)	Lacquer or enamel not used for protection or insulation	MULT MULT MAN AN	Р
Aller A	Adequate mechanical strength on parts providing protection	MILITER WILLES WILL WILL	Р



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	IEC 61347-2-13		
Clause	Requirement + Test	Result - Remark	Verdict
- (10.2)	Capacitors > 0,5 μF: voltage after 1 min (V):	Max. 4V	Р
- (10.3)	Controlgear providing SELV		.⊘P
ilit nitilit	Accessible conductive parts are insulated from live parts by double or reinforced insulation in SELV controlgear	of the text of the same	P
- John	No connection between output circuit and the body or protective earthing circuit	Mr. Mr. All St.	Р
outek our	No possibility of connection between output circuit and the body or protective earthing circuit through other conductive parts		P
STEP SLIFE	SELV outputs separated by at least basic insulation	the state of the state of	Р
4	ELV conductive parts insulated as live parts	the me in in	N
A CALLED	Tests according Annex L of IEC 61347-1	(see Annex L)	Р
- (10.4)	Accessible conductive parts in SELV circuits		
Willes All	Output voltage under load \leq 25 V r.m.s. or \leq 60 V d.c.	BUTER WHITE WHITE WHITE	N
Prities Maries	If output voltage > 25 V r.m.s. or > 60 V d.c.; No load output ≤ 35 V peak or ≤ 60 V d.c and touch current does not exceed 0,7 mA (peak) or 2 mA d.c.	The Constitute shirter of	N N
A SUNTER	One conductive part is insulated if output voltage or current exceeding the values above and withstand test voltage 500 V	MALIER MALTER MALTER	N. N.
WUTER AU	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor	Approved Y1 capacitor use	Р
lifer and	Y1 or Y2 capacitors comply with IEC 60384-14	of the state state of	Р
et Jet	Resistors comply with test (a) in 14.1 of IEC 60065	and the second	N

9 (8)	TERMINALS Screw terminals according section 14 of IEC 60598-1:		P
			Р
Willey W	Separately approved; component list	(see Annex 1)	Р
.4	Part of the controlgear	(see Annex 2)	L N
the Miles	Screwless terminals according section 15 of I	EC 60598-1:	N
+ 3	Separately approved; component list	(see Annex 1)	N
File p.	Part of the controlgear	(see Annex 3)	W SIN



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Pri)	a de de a	IEC 61347-2-13	THE PARTY PARTY PARTY	715 711
Clause	Requirement + Test	41.	Result - Remark	Verdict

10 (9)	PROVISION FOR PROTECTIVE EARTHING	N	
- (9.1)	Provisions for protective earthing		
Jet NI	Terminal complying with clause 8	N	
er ser	Locked against loosening and not possible to loosen by hand	N	
- Cal	Not possible to loosen clamping means unintentionally on screwless terminals	N	
-1112 -11 -1	All parts of material minimizing the danger of electrolytic corrosion	N	
Will SILL	Made of brass or equivalent material	N	
ال الماد	Contact surface bare metal	N	
The Colores	Test according 7.2.3 of IEC 60598-1	N	
- (9.2)	Provision for functional earthing	l N	
They	Comply with clause 8 and 9.1	N	
all title k	Functional earth insulated from live parts by double or reinforced insulation	k N	
- (9.3)	Lamp controlgear with conductors for protective earthing by tracks on printed circuit board		
EF MUTER	Test with a current of 25 A between earthing terminal or earthing contact and each of the accessible metal parts; measured resistance (Ω) at \geq 10 A according 7.2.3 of IEC 60598-1: < 0,5 Ω :	N	
- (9.4)	Earthing of built-in lamp controlgear	N	
uniter vin	Earth by means of fixing to earthed metal of luminaire in compliance of 7.2 of IEC 60598-1	N N	
TIER AUTIF	Earthing terminal only for earthing the built-in controlgear	IL S	
- (9.5)	Earthing via independent controlgear	N	
- (9.5.1)	Earth connection to other equipment	N	
SUPERENT SU	Looping or through connection, conductor min. 1,5 mm² and of copper or equivalent	, N	
NITEK WAL	Protective earthing wires in line with 5.3.1.1 and clause 7 of IEC 60598-1	N	
- (9.5.2)	Earthing of the lamp compartments powered via the independent lamp controlgear	N	
WINTER V	Test with a current of 25 A between input and output earth terminals; measured resistance (Ω) between earthing terminal or earthing contact and each of the accessible metal parts at \geq 10 A according 7.2.3 of IEC 60598-1: $<$ 0,5 Ω :	N	



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IEC 61347-2-13			
Clause	Requirement + Test	Result - Remark	Verdict
WILLER WI	Output earthing terminal marked as in 7.1 t) of IEC 61347-1	The state with	miter Joseph and

11 (11)	MOISTURE RESISTANCE AND INSULATION		Р
- (11)	After storage 48 h at 91-95% relative humidity and 20-30 °C measuring of insulation resistance:		Pare
	For basic insulation \geq 2 M Ω	>100 MΩ (between different polarities of input, fuse open); (between fuse in and out)	P
anifek anife	For double or reinforced insulation \geq 4 M Ω :	>100 MΩ (between input and output circuit), >100 MΩ (between live parts and enclosure)	P
et white	Between primary and secondary circuits in controlgear providing SELV, values in Annex L in IEC 61347-1	THE MILE WALLES WALLE	P

12 (12)	ELECTRIC STRENGTH	CTRIC STRENGTH	
- (12)	Immediately after clause 11 electric strength test for 1 min	the state of the state of	P
A S	Basic insulation for SELV, test voltage 500 V		Р
24	Working voltage ≤ 50 V, test voltage 500 V	F INTE WILL WALL WALL	N
the of the	Working voltage > 50 V ≤ 1000 V, test voltage (V)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Р
anter als	Basic insulation, 2U + 1000 V	Between L & N (remove fuse): 1480V (Working voltage: 240V)	P Lifeth
	Supplementary insulation, 2U + 1000 V	to the the	N
et united	Double or reinforced insulation, 4U + 2000 V	Between input circuit and output circuit: 2960V Between live parts and enclosure: 2960V (working voltage: 240V)	Pin
INSTER SI	No flashover or breakdown	the title title title	P
unitek suni	Solid or thin sheet insulation for double or reinforced insulation fulfil the requirements in Annex N in IEC 61347-1	TET SUITE WITH SE	P

14 (14)	FAULT CONDITIONS	
- (14.1)	When operated under fault conditions the controlgear:	Р
30. 1	- does not emit flames or molten material	Р



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	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	IEC 61347-2-13	e, they then the	-2"
Clause	Requirement + Test	Sur T	Result - Remark	Verdict

		47 .5 .7 .0	-6-17/19/
- A-	- does not produce flammable gases	The The Angelow	Р
ALT THE	- protection against accidental contact not impaired	LITT WILL WILL AND	N
المان ال	Thermally protected controlgear does not exceed the marked temperature value	the market white with	N
WALTER WA	Fault conditions: capacitors, resistors or inductors without proof of compliance with relevant specifications have been short-circuited or disconnected	(see appended table)	P
- (14.2)	Short-circuit of creepage distances and clearances if less than specified in clause 16 in Part 1 (after any reduction in 14.2 - 14.5)	(see appended table)	N
- (14.3)	Short-circuit or interruption of semiconductor devices	(see appended table)	P
- (14.4)	Short-circuit across insulation consisting of lacquer, enamel or textile	(see appended table)	- N
- (14.5)	Short-circuit across electrolytic capacitors	(see appended table)	Р
14 (-)	Reversed voltage polarity if d.c. supplied control gear	(see appended table)	N
- (14.6)	After the tests has been carried out on three samp	les:	Р
A 14	The insulation resistance \geq 1 M Ω :	>100 MΩ	Р
They	No flammable gases	The Way Will a	Р
+	No accessible parts have become live	30 7	P
Aug All	During the tests, a five-layer tissue paper, where the test specimen is wrapped, does not ignite	MUTTER MUTTER MUTTER MAN	Р
- (14.7)	Relevant fault condition tests with high-power a.c. supply	LIER MILIER MILIER MILIT	1000
14 (-)	Temperature declared thermally protected lamp controlgear fulfil requirements in Annex C	EF MUTEL WALTER SHUTTER	N N

15 (-)	TRANSFORMER HEATING	
15.1	General	Alt Sur P
The state of	Transformer comply with clause L.6 and L.7 of IEC 61347-1	P
iler Wiler	Output voltage of SELV controlgear not exceed limits in 10.4 of IEC 61347-1 during the test of 15.1 and 15.2	P
15.2 (-)	Normal operation	Р
11/10	Comply with clause L.6 of IEC 61347-1	P P
15.3 (-)	Abnormal operation	P



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IEC 61347-2-13				
Clause	Requirement + Test	Result - Remark	Verdict	
Set.	Comply with clause L.7 of IEC 61347-1	the sale sale	Р	
STER SHEE	Double LED modules or equivalent load connected in parallel to the output terminals of constant voltage type	and and and other	N	
TEK MILTER	Double LED modules or equivalent load connected in parallel to the output terminals of constant current type	in silet in fet in telt sini	Р	
15 (-)	During and at the end of the tests no defect imp flammable gases produced	airing safety, nor any smoke or	P	

16 (15)	CONSTRUCTION	P
- (15.1)	Wood, cotton, silk, paper and similar fibrous material	P P
- 11 m	Wood, cotton, silk, paper and similar fibrous material not used as insulation	Mr. M. P.
- (15.2)	Printed circuits	and and alp
antrek and	Printed circuits used as internal connections complies with clause 14	STEEL STEEL STUTE
- (15.3)	Plugs and socket-outlets used in SELV or ELV circuits	N
ALT WALTER	No dangerous compatibility between output socket-outlet and a plug for socket-outlets for input circuit in relation to installation rules, voltages and frequencies	Mariet mi
INLTER SH	Plugs and socket-outlets for SELV comply with IEC 60906-3 and IEC 60884-2-4	No.
Mriter Mri	Plugs and socket-outlets for SELV \leq 3 A, \leq 25 V r.m.s. or \leq 60 V d.c. and \leq 72 W comply with IEC 60906-3 and IEC 60884-2-4 or:	TEK MITTEK MITTER
LIEK WALTER	- plugs not able to enter socket-outlets of other standardised system	A THE WAY
et milet	- socket-outlets not admit plugs of other standardised system	N.
	- socket-outlets without protective earth	N
- (15.4)	Insulation between circuits and accessible parts	ITE MITE ME
- (15.4.2)	SELV circuits	Р
La Mer	Source used to supply SELV circuits:	P.
TEK UNLTEK	- safety isolating transformer in accordance with relevant part 2 of IEC 61558	N de la
+ Light	- controlgear providing SELV in accordance with relevant part 2 of IEC 61347	P
400	- another source	N



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Clause	Demiliament / Test	Docult Domonic	Monalina
Clause	Requirement + Test	Result - Remark	Verdict
50 3	Voltage in the circuit not higher than ELV	1 1 1	.ob oN
The the	SELV circuits insulated from LV by double or reinforced insulation	Harry Mary 1	Р
e all	SELV circuits insulated from non SELV circuits by double or reinforced insulation	A the man was	P
S. P. C.	SELV circuits insulated from FELV circuits by supplementary insulation	E WALTER WALTER WALTE	N N
anize al	SELV circuits insulated from other SELV circuits by basic insulation	INCIDE WALTER WALTER	unite uniN
intek int	SELV circuits insulated from accessible conductive parts according Table 6 in 15.4.5	o itest intiest untiest as	of N
- (15.4.3)	FELV circuits		A N
r. Alex	Source used to supply FELV circuits:	TET WILL WILL WALL	N
AND TEN	- separating transformer in accordance with relevant part 2 of IEC 61558	d right wright wright	MULTE - N. C.
water wa	- separating controlgear providing basic insulation between input and output circuits in accordance with relevant part 2 of IEC 61347	Miles whites whites	INTER JALEN
JEE ST	- another source	# 1 A .	AN ON S
et di	- source in circuits separated by the LV supply by basic insulation	-	N
741	Voltage in the circuit not higher than ELV	in the man when	N
ANTER SI	FELV circuits insulated from LV supply by at least basic insulation	L STEEL WITE SHITE	N N N N N N N N N N N N N N N N N N N
anie zavi	FELV circuits insulated from other FELV circuits it functional purpose	TET STEEL STEEL S	NITED NITEN
LIEN MITE	FELV circuits insulated from accessible conductive parts according Table 6 in 15.4.5	at the set of	SEL N
	Plugs and socket-outlets for FELV system comply	with:	N
MULLE	- plugs not able to enter socket-outlets of other voltage systems	A MULTER WALTER WALTER	N N
WILLIEM ON	- socket-outlets not admit plugs of other voltage systems	SUTER UNITED SUBJECT.	AND THE MAN TO SHEET WAS A
INCIEN WALF	- socket-outlets have a protective conductor contact	Tet alter alter so	TEX STEN
- (15.4.4)	Other circuits	L. (4)	, P
k Tilk	Insulation between circuits other than SELV or FELV and accessible conductive parts in according Table 6 in 15.4.5.	I THE WALTER WALTER WALTER	IIIV P
- (15.4.5)	Insulation between circuits and accessible conduc	ctive parts	N N



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IEC 61347-2-13				
Clause	Requirement + Test	Result - Remark	Verdict	
WINITES WI	Accessible conductive parts insulated from active parts of electric circuits by insulating according Table 6	a tiret white white	N	
NITE WAL	Requirements for Class II construction with equip against indirect contact with live parts:	otential bonding for protection	N	
1 Jan	- all conductive parts are connected together	or let the the the	N	
- All	- conductive parts are reliably connected together according test of IEC 60598-1 cl. 7.2.3	the the the	N	
2H2 - 4	- conductive parts comply with requirements of Annex A in case of insulation fault	THE SHIP WAY SHIP	N	

17 (16)	CREEPAGE DISTANCES AND CLEARANCES		P
- (16)	Creepage distances and clearances according to 16.2 and 16.3	MILL MILL MILL M	Р
Aur. 2	Controlgears providing SELV comply with additional requirements in Annex L	MATTER MILITE MILITER MILITERS	Р
INCHE THE	Insulating lining of metallic enclosures	THE SHE WITH MITH	Р
TEE STA	Controlgear protected against pollution comply with Annex P	(see Annex P)	N
- (16.2)	Creepage distances	Creepage distances	
- (16.2.2)	Minimum creepage distances for working voltages	and the state of	Р
	Creepage distances according to Table 7	(see appended table)	Р
- (16.2.3)	Creepage distances for working voltages with frequencies above 30 kHz		Ñ
	Creepage distances according to Table 8	(see appended table)	N
- (16.3)	Clearances		Р
- (16.3.2)	Clearances for working voltages	T 74	←P
in and	Clearances distances according to Table 9	(see appended table)	P
- (16.3.3)	Clearances for ignition voltages and working voltages with higher frequencies		- N
AL.	Clearances distances for basic or supplementary insulation according to Table 10	(see appended table)	N
Mrs. M	Clearances distances for reinforced insulation according to Table 11	(see appended table)	N N

18 (17)	SCREWS, CURRENT-CARRYING PARTS AND CONNECTIONS	, P
The Willy	Screws, current-carrying parts and connections in compliance with IEC 60598-1 (clause numbers between parentheses refer to IEC 60598-1)	
(4.11)	Electrical connections	
(4.11.1)	Contact pressure	Р



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IEC 61347-2-13				
Clause	Requirement + Test	Result - Remark	Verdict	
3,	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The The Sh	20, 12	
(4.11.2)	Screws:	and the set	J. O. N.	
21, 21,	- self-tapping screws	and the state of the state of	N	
Ster NIT	- thread-cutting screws	the state of	N	
(4.11.3)	Screw locking:	in the the the	N	
The Water	- spring washer	e tek tek kil	N. T	
	- rivets	The the to	N	
(4.11.4)	Material of current-carrying parts	- Self Ster Riller	mir nP	
(4.11.5)	No contact to wood or mounting surface		Р	
(4.11.6)	Electro-mechanical contact systems	THE STEEL STEEL OF	Р	
(4.12)	Mechanical connections and glands		A N	
(4.12.1)	Screws not made of soft metal	The market something while	N° N°	
the second	Screws of insulating material		- N	
Mr.	Torque test: torque (Nm); part	THE WALL WILL	AL AN	
and the same	Torque test: torque (Nm); part	: - + + #	N N	
the to	Torque test: torque (Nm); part	Price and a sure of	N	
(4.12.2)	Screws with diameter < 3 mm screwed into metal		JON S	
(4.12.4)	Locked connections:	- 1 Sur. 34.	N	
Carlo Carlo	- fixed arms; torque (Nm)		N	
	- lampholder; torque (Nm)	The man	N	
The state of	- push-button switches; torque 0,8 Nm	to the tier of the	N N	
(4.12.5)	Screwed glands; force (Nm)	· 1/2 - 2/2 - 2/2	N	

19 (18)	RESISTANCE TO HEAT, FIRE AND TRACKING		P	
- (18.1)	Ball-pressure test:	See Test Table 19 (18.1)	P	
- (18.2)	Test of printed boards:	See Test Table 19 (18.2)	P	
- (18.3)	Glow-wire test:	See Test Table 19 (18.3)	Р	
- (18.4)	Needle flame test:	See Test Table 19 (18.4)	Р	
- (18.5)	Tracking test:	See Test Table 19 (18.5)	₹ _{II} . b	

20 (19)	RESISTANCE TO CORROSION	The A B
	- test according 4.18.1 of IEC 60598-1	ret ret a Part
7.	- adequate varnish on the outer surface	n P

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IEC 61347-2-13				
Clause	Requirement + Test	The state of	Result - Remark	Verdict

21 (-)	MAXIMUM WORKING VOLTAGE (Uout) IN ANY LOAD CONDITION	P
The Th	Not exceed declared maximum working voltage U _{out} in any load condition	Р

14	TABLE: tests of fault condition	at at PS
Part	Simulated fault	Hazard
BD	Test voltage: 240Vac, Short circuit	YES/NO
U1	Test voltage: 240Vac, Short circuit	YES/NO
E-cap, EC1	Test voltage: 240Vac, Short circuit	YES/NO
E-cap, EC2	Test voltage: 240Vac, Short circuit	YES/NO
E-cap, C2	Test voltage: 240Vac, Short circuit	YES/NO

17 (16)	TABLE:	clearance a	nd creepage o	distance mea	surements (m	im)	Р
	A A	Applic	able part of IE	C 61347-1 T	able 7 – 11*		+ +
Distances	Insulation	Measured	Requ	uired	Measured	Requ	ired
A 3	type **	clearance	clearance	*Table	creepage	creepage	*Table
Distance 1:	В	2.51	1.5	9	2.51	2.5	30° 7 30°
Working voltage (V):					240VAC	Set 18	4 - d
Frequency i	f applicable (kHz)			Third will	a men	15 Th.
PTI:					< 600 ⊠	≥ 600 □	d d
Peak value	of the workin	g voltage Û _{ou}	t if applicable (kV):	With the	Apr. Apr.	2,,
Pulse voltag	ge if applicabl	le (kV)	10, 0,	:	- 15 15	SER SER	1 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Supplement	ary information	on: Two pins	of fuse on PCE	3 Jack	ne m	24, 24,	
Distance 2:	В	2.6	1.5	9	2.6	2.5	7 7
Working vol	tage (V)				240VAC		· - +
Frequency i	f applicable (kHz)			- Jill Ji	The sales	N 340
PTI	<u></u>				< 600 ⊠	≥ 600 □	at at
Peak value	of the workin	g voltage Û _{ou}	t if applicable (kV):	TIER WILL	STATE STATE	211 - 2
Pulse voltag	ge if applicabl	le (kV)		:	4 4	A 18	(d)
Supplement	ary information	on: L to N	S. S.	the state of	NOTE MINUTE.	are are	The Me
Distance 3:	R	6.0	4.7	13 of IEC 61558-1	6.0	5.0	13 of IEC 61558-1
Working vol	tage (V)	<u> </u>		2/2	240VAC		10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -
Frequency i	f applicable (kHz)			- NITE SALT	CALLY CAL	210
PTI				:	< 600 ⊠	≥ 600 □	+ 2

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4.			IEC 6	1347-2-13			
Clause	Requireme	ent + Test	2, 71,	4 4	Result - Remar	k of the	Verdict
4, 3		.4.	de de	J. 10.	The alle	20, 20,	
Peak value o	of the workin	g voltage Û _{ou}	t if applicable	(kV)	: - +	Cot State	3 <u>100</u>
Pulse voltage	e if applicab	le (kV)			in the same	The The	
Supplementa	ary information	on: Primary w	inding/core to	secondary w	vinding	30 30 S	NITE STOP
Distance 4:	R	7.0	3.0	9	7.0	5.0	7
Working voltage (V):					: 240VAC	iek sitek mi	100
Frequency if	applicable (kHz)	£ 5		-140 -240	30 3	
PTI		7/1			: < 600 ⊠	≥ 600 □	71/2 1
Peak value o	of the workin	g voltage Û _{ou}	if applicable	(kV)		1 1	10 m
Pulse voltage	e if applicab	le (kV)			: Carle and the	Write Week	1 - 2 m
Supplementa	ary information	on: Primary ci	rcuit to secon	dary circuit (F	PCB under CY1)	* *	TEN TE
Distance 5:	R	5.5	3.0	9	5.5	5.0	7
Working volt	age (V)		72	70	: 240VAC	4 × ×	ee/t

Supplementary information: Live part and accessible part

Frequency if applicable (kHz).....:

19 (18.1)	TABLE: Bal	Pressure Test				
Allowed impression diameter (mm):		≤2.0				
Object/ Part No./ Material		Manufacturer/ trademark	Test temperature (°C)	Impression diameter (
PCB	+	See Annex 1	125.0	1.1		
Bobbin	with white	See Annex 1	125.0	1.2	JA LITE	
Plastic enclo	osure	See Annex 1	75.0	1.4		
Supplement	ary information:	- Th.	at all set is	TER NITER WATER AND		

19 (18.2)	TABLE: Test of p	rinted boards		and the same of	P.J
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (s)	Ignition of specified layer Yes/No	Duration of burning (s)	Verdict
PCB	See Annex 1	30	No	0 + 0°	Р

≥ 600 □

< 600 ⊠

^{**} Insulation type: B – Basic; S – Supplementary; R – Reinforced



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Clause	Requirement + Test	41	Result - Remark	Verdict	

19 (18.3)	TABLE: Glow-wire test			
Glow wire ter	nperature:	650°C	√ ⁶⁸ — . °	
Object/ Part No./ Material	Manufacturer/ trademark	Ignition of specified layer Yes/No	Duration of burning (s)	Verdict
Plastic enclosure	See Annex 1	No	0	P

19 (18.4)	TABLE: Needle-fla	ame test			Р
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (s)	Ignition of specified layer Yes/No	Duration of burning (s)	Verdict
PCB	See Annex 1	10	No	~ ~ ~ 0	Р
Bobbin	See Annex 1	10	No	. 0	Р

19 (18.5)	TAB	LE: Proof tracking test				Р	
Test voltage	PTI		:	175 V	A	ALLER AND	- 10 CE 1
Object/ Part No./ Manufacturer/ Withstand 50 drops without failure on three specimens			Verdict				
Bobbin		See Annex 1	. S	50	50	50	Р
PCB	40	See Annex 1		50	50	50	P
Supplementa	ary infor	mation:	SEE MIL	in only	The Man	a se	

(A)	ANNEX A - TEST TO ESTABLISH WHETHER A CONDUCTIVE PART IS A LIVE PART WHICH MAY CAUSE AN ELECTRIC SHOCK	
(A.1)	Comply with A.2 or A.3	N
(A.2)	Voltage ≤ 35 V peak or ≤ 60 V d.c:	Ň
(A.3)	If voltage measured according Clause A.2 exceeds the limit value; touch current does not exceed 0,7 mA (peak)	N STEEN
THE WITE	or 2 mA d.c	ar N



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Pri)	IEC 61347-2-13						
Clause	Requirement + Test	41.	Result - Remark	Verdict			

(C)	ANNEX C – PARTICULAR REQUIREMENTS FOR ELECTRONIC LAMP CONTROLGEAR WITH MEANS OF PROTECTION AGAINST OVERHEATING		
(C3)	GENERAL REQUIREMENTS	J JN	
(C3.1)	Thermal protection means integral with the convertor, protected against mechanical damage	N N	
are .	Renewable only by means of a tool	N.	
MALTER OF	If function depending on polarity, for cord- connected equipment protection means in both leads	N. M. M.	
State N	Thermal links comply with IEC 60691	SOF SON	
1. 2.	Electrical controls comply with IEC 60730-2-3	N	
(C3.2)	No risk of fire by breaking (clause C7)	N.	
(C5)	CLASSIFICATION	N	
S WITE.	a) automatic resetting type	A SINGLE SHILL	
A+	b) manual resetting type	A 70	
West and	c) non-renewable, non-resetting type	ante ante	
et s	d) renewable, non-resetting type	J. J.	
in the	e) other type of thermal protection; description:	L. 24 -7	
(C6)	MARKING		
(C6.1)	Symbol for temperature declared thermally protected ballasts	N N	
(C6.2)	Declaration of the type of protection provided	The Child	
(C7)	LIMITATION OF HEATING	A SIN	
(C7.1)	Preselection test:	N. A. N.	
itek watt	Test sample placed for at least 12 h in an oven having temperature (t _c - 5) K	THE WAY SH	
+ 1	No operation of the protection device	, N	
(C7.2)	Functioning of protection means:	N	
WILLIEM W	Normal operation of the sample in a test enclosure according to Annex D at an ambient temperature such that $(t_c +0; -5)$ °C is obtained	THE TOP WE N	
riter wri	No operation of the protection device	N.	
The Little	Introducing of the most onerous test condition determined during test of clause 14.2 to 14.5	N N	
t milet	Output of windings connected to the mains supply short-circuited, and other part of the controlgear operated under normal conditions	N	



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10	IEC 61347-2-13	a the the the the	
Clause	Requirement + Test	Result - Remark	Verdict
WALTER WI	Increasing of the current through the windings continuously until operation of the protection means	THE WALLEY WALLEY	N
NUTE WHIL	Continuous measuring of the highest surface temperature	LEX MILES MILES MILES AND	N
SER WINLIES	Ballasts according to C5 a) or C5 e) operated until stable conditions are achieved	a cutter writer writer write	N
. MALTER	Automatic-resetting thermal protectors working 3 times	STEP STEP STEP STEP	N
J.	Ballasts according to C5 b) working 6 times		N
ing an	Ballasts according to C5 c) and C5) d) working once	I TE WILL WALL MALL W	N
TIE MUTT	Highest temperature does not exceed the marked value	White white white was	N
est Maires	Any overshoot of 10% over the marked value within 15 min	MILES WATER WALTER WATER	N. N.
a det	After 15 min value not exceed marked value	1 1 1 1 1	N
1/1 2	the state of the state of the	Mercy and the same	61) Za
(D)	ANNEX D - REQUIREMENTS FOR CARRY OUT THERMALLY PROTECTED LAMP CONTROLGE		TE N IN
TEK MITE	Tests in C7 performed in accordance with Annex D, if applicable	E I I I I I I I I I I I I I I I I I I I	* New
4 5	THE THE THE STEE WAS SHOWN AND	30 30 30	13
(F)	ANNEX F - DRAUGHT-PROOF ENCOSURE	RETER OFFICE SHEET SHEET	JIP -
UNITEK JUN	Draught-proof enclosure in accordance with the description	TER STER STER STEELS	P UT
	Dimensions of the enclosure		P
organ Albert	Other design; description	OF MITTER METER METER ME	N
at at	The The Willer Will Man and and		t to
(H)	ANNEX H - TESTS	A THE MALLE MALL MALL	N
. WALTER W	All tests performed in accordance with the advice given in Annex H, if applicable	Set Stet wifet writer	N ⁴
34-	LEK TEK LIEK RITER BURLL WIFE BURL	the the second	John .
I (L)	ANNEX I IN THIS PART 2 – PARTICULAR ADDI SELV D.C. OR A.C. SUPPLIED ELECTRONIC C		P

Class II Yes ⊠ No ☐

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MODULES

Class I

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Classification

(L.3)

No 🖂

Yes

P



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Clause	Requirement + Test	Result - Remark	Verdict
10	Class III	Yes □ No ⊠	
My M	non-inherently short circuit proof controlgear	Yes ⊠ No □	
State St.	inherently short circuit proof controlgear	Yes ☐ No ☒	# _3 ⁶ 0
	fail safe controlgear	Yes ☐ No ☒	. – .
cet and the	non-short-circuit proof controlgear	Yes ☐ No ☒	Will Street
(L.4)	Marking	The True and	P
-11-12 A	Adequate symbols are used	Step Step Wite 1	Р
(L.5)	Protection against electric shock		, P
entre and	Comply with clause 9.2 of IEC 61558-1	atter mitter uniter uni	Р
(L.6)	Heating		P of
S 300	No excessive temperatures in normal use	LE MILLE MUEL MUEL	P
th 50th	Value if capacitor t _c marked:	See Annex 1	Sept. Sept.
40	Winding insulation classified as Class:	Class B	n. 2,
WINTER ON	Comply with tests of clause 14 of IEC 61558-1 with adjustments	BUTER MILITER WALTER ON	LITER MILE W
(L.7)	Short-circuit and overload protection	A 10 10 1	de de P
it in	Comply with tests of clause 15 of IEC 61558-1 with adjustments	- Fare and	Р
(L.8)	Insulation resistance and electric strength	THE WALL WALL	10 P
(L.8.1)	Conditioned 48 h between 91 % and 95 %	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	P P
(L.8.2)	Insulation resistance	They are the s	Р
antites an	Between input- and output circuits not less than 5 MΩ:	>100 MΩ	P
LIFE'S WILLY	Between metal parts of class II convertors which are separated from live parts by basic insulation only and the body not less than 5 M Ω :	S WALTER WALTER WILL	MA TO A NOTE
or white	Between metal foil in contact with the inner and outer surfaces of enclosures of insulating materia not less than 2 $M\Omega$:		Р
(L.8.3)	Electric strength	CALLER THIS THEY	P P
initek wat	Between live parts of input circuits and live parts of output circuits:	3000V	EF JULIE P
الدر الد	2) Over basic or supplementary insulation between	en:	P
y Alex	a) live parts having different polarity:	1500V	P
* uniter	b) live parts and body if intended to be connected to protective earth		Not supplied



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	IEC 61347-2-13		
Clause	Requirement + Test	Result - Remark	Verdict
MATER ON	c) accessible metal parts and a metal rod of the same diameter as the flexible cable or cord:	The sile of the states	Ñ
	d) live parts and an intermediate metal part:	- 1	J-N
her and	e) intermediate metal parts and the body:	Jet niter militari mi	N
d d	f) each input circuit and all other input circuits:	- 1 1 1 1 1	N
- Cal	3) Over reinforced insulation between the body and live parts	3000V	Р
(L.9)	Construction	atter directions in the spirit	Р
(L.9.1)	Transformer comply with 19.12 of IEC 61558-1 and 19 of IEC 61558-2-6	THE STATE STATES STATES AND	UT P
	HF transformer comply with 19 of IEC 61558-2-16		νР
(L.10)	Components	ter cuter and the wall was	Р
et whiteh	Protective devices comply with 20.6 – 20.11 of IEC 61558-1	the state with which	Press
(L.11)	Creepage distances, clearances and distances through insulation		
Mer M	Creepage distances and clearances not less than in Clause 16	BELLE MALLE MALLE MALL	Р
NETER JAL	Distance through insulation according Table L.5 in IEC 61347-1		
	1) Basic distance through insulation		
il white	Required distance (mm):	- I'm Jilly with with	100
4 24	Measured (mm):	_W WW	N
Alexa .	Supplementary information	NUTER OF THE SPAIN SPAIN	711/2
28 ^t	2) Supplementary distance through insulation	a state	P
240 24	Required distance (mm):	e of the same to the same to	S
LIER WALL	Measured (mm)	At least 3 layer insulation tape used in transformer, totally thick. 0.15mm	Р
e shirt	Supplementary information	the country market and the	300
	3) Reinforced distance through insulation		
SILES SI	Required distance (mm):	0.83mm	u -
J.	Measured (mm):	Min. 1.0mm for enclosure	νP
are are	Supplementary information	STEP MITTER SHIP SHIP SH	- "d)

J (-)	ANNEX J IN THIS PART 2 – PARTICULAR ADDITIONAL SAFETY REQUIREMENTS FOR A.C., A.C./D.C. OR D.C. SUPPLIED ELECTRONIC CONTROLGEAR FOR EMERGENCY LIGHTING	N N
J.1	General	N



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Clause	Requirement + Test	Result - Remark	Verdict
	the state of the state of the state of	The The A	
	Intended for centralized emergency power supply	Yes No No	3 ^{CT} , 3 ^{CC} , 3
J.2	Marking	to the the se	N
J.2.1	Mandatory markings	the till till till	N
	a) symbol EL	and the same	N
ELE SIVERE	b) rated emergency supply voltage (V)	Secretary Secretary	N
J.2.2	Information to be provided if applicable	Mr. M. M.	N
10,12	a) Limits of ambient temperature	Steff Steff Steff St	N
	b) Emergency output factor (EOF _X)	10. 44	N
ilura uni	c) Information if intended for use in luminaires for high-risk task area lighting	TER MATTER WATER MAL	N
J.3	General notes on tests	et stet stet mile	N
	Length of output cable in tests:	14. 24. 2	N
THE ST.	Load instead of LED lamps/modules:	the still site.	N
J.4	Starting conditions	N-	
Mires M	Start rated load in emergency mode without adversely affecting the performance	PILLER MUTTER MUTTER AND	N
J.5	Operating condition	att and	N
FEX WALTER	Comply with the requirements of 7.2 of IEC 62384 at 90% and 110% of rated emergency supply voltage	The writer while	white white
J.6	Emergency supply current		
"h" 1	Emergency supply current not differ more than ±15 %	With Auth Aug A	N
me, m	Supply of low impedance and low inductance	ater mite mile wh	N
J.7-	EMC immunity		- N
a m	Comply with the requirements of IEC 61547	Continue Marie Marie	N ₁
J.8	Pulse voltage from central battery systems	and the state	N.
1,	Withstand pulses according Table J.1	They was the	N
J.9	Tests for abnormal conditions	at at the	or N
40 20	Comply with the requirements of 12 of IEC 62384	They are the to	N
J.10	Comply with the requirements of 13 of IEC 62384	10 10 10 10 S	N N
J.11	Functional safety (EOF _x)	or the man	N
TE WILTE	Declared emergency output factor (EOF _x) achieved during emergency operation	et white white phills	N.V.

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	10	A A	IEC	61347-2-13	THE WALLET WATER	ang me	
Claus	e Red	quirement + Test	The s	4 3	Result - Remark	Cler Street	Verdict

(N)	ANNEX N: REQUIREMENTS FOR INSULATION MATERIALS USED FOR DOUBLE OR REINFORCED INSULATION		
(N.4)	General requirements		P
(N.4.1)	Material comply with IEC 60085 and IEC 60216 series		
(N.4.2)	Solid insulation	- LITER MITTER WITTER WAY	N
on lifeth out	Electric strength test at least 5 kV or 1,35 x test voltage in Table N.1	tet stet stret stret	N
nitek wati	If not classified according IEC 60085 and IEC 60216 series: Electric strength test increased 10 % of 5,5 kV or 1,5 x test voltage in Table N.1	THE WHITE WALTER WALTER	N
(N.4.3)	Thin sheet insulation		P
(N.4.3.1)	Thickness and composition of thin sheet insulation	and the wall when wh	P
AUTLEY A	Inside the ballast and not subjected to handling or abrasion during the production and during maintenance	MULTER MULTER MULTER MULT	Р
water and	- Non-separated layers: Min. 3 layers and fulfil mandrel test of 150N	LIER MILIER WILLES WHILE	N
NETER WALTE	- Separated layers: Min. 2 layers and each layer fulfil mandrel test of 50N	Et Millet Millet	J P
EK WALTER	- Separated layers (alternative): Min. 3 layers and 2/3 of the layers fulfil mandrel test of 100N	THE NUMBER OF THE TABLE	N
(N.4.3.2)	Mandrel test (electric strength test during mechani	cal stress)	P
ALEX M	Electric strength test after mandrel test:	STEE WITE SILL SING	Р
unit ^{ek} mni	- Non-separated layers: min. 5 kV or 1,35 x test voltage in Table N.1	Tet sifet milet milet	N
ITEH TATES	- 2/3 of min. 3 separated layers: min. 5 kV or 1,25 x test voltage in Table N.1	5000 V	D P
in the	- one of 2 separated layers: min. 5 kV or 1,25 x test voltage in Table N.1	All All All All	N
2/11 1	No flashover or breakdown occurred	TUTLE PARTY PARTY SALE	N

(O)	ANNEX O: ADDITIONAL REQUIREMENTS FOR BUILT-IN ELECTRONIC CONTROLGEAR WITH DOUBLE OR REINFORCED INSULATION		N
(O.6)	Marking		N ³
TEN SE	Marking according clause 7 (7)	See clause 7	N
4,	Special symbol	KILL MILL PART MAY A	N
WALTER.	Meaning of the special symbol explained in catalogue	THE MITTER SHITTER SHITTER SHIT	N
(O.7)	Protection against accidental contact with li	ive parts	N



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- 2	IEC 61347-2-13	aller aller all	2
Clause	Requirement + Test	Result - Remark	Verdic
- A	Requirements of clause 8 (10)	See clause 8	N N
an star and		See clause o	N
	Test finger not possible to make contact with basic insulated metal parts		ot St.
(O.8)	Terminals	THE MALTER WALL MAN	N
et set	Clause 9 (8)	See clause 9	⊦ √ N≺
(O.9)	Provision for earthing	MULTER WILL WATER	N N
MARTER W	Functional earthing terminals comply with clause 9 of part 1	siret whiret whilet	STREET STREET
ist i	No protective earthing terminal		At AN
(O.10)	Moisture resistance and insulation	ratific arrive arrive wh	N
AN SE	Clause 11 (11)	See clause 11	of N
(O.11)	Electric strength	the the the	N
£ 550	Clause 12 (12)	See clause 12	N°
(O.13)	Fault conditions		
N. C. C.	Clause 14 (14)	See clause 14	N
MITER WALL	End of test, between live part and accessible metal parts or external parts of insulating material in contact with the supporting surface comply with dielectric strength test reduced to 35 % of values according Table 1 in part 1		N Start W
PIPLITER 3	Insulation resistance according to 0.10 between live part and accessible metal parts or external parts of insulating material in contact with the supporting surface not less than 4 $M\Omega$	MULTER MULTER MULTER	WALTER SANCTER
(O.14)	Construction	alt alt set	JOS N.
	Clause 17 (15)	See clause 17	N
THE MUTTE	Accessible metal parts insulated from live parts by double or reinforced insulation	Set white white whi	N.
	Live part insulated from supporting surface in contact with external faces by double or reinforced insulation	MINITER WILLER WILLE	N
(O.15)	Creepage distances and clearances	THE RUPE WITE	ur N
. At .	Clause 18 (16)	See clause 18	N
Les Mes	Comply with corresponding values for luminaries in IEC 60598-1	The write write on	N S
(O.16)	Screws, current-carrying parts and connection	ns the time with	N
	Clause 19 (17)	See clause 19	N
(O.17)	Resistance to heat and fire	CIET MITE ONLY	SALE SALE
ad.	Clause 20 (18)	See clause 20	N



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7"	IEC	61347-2-13	w 5
Clause	Requirement + Test	Result - Remark	Verdict
(0.18)	Posistance to corresion	The state of the s	A- AT

(O.18)	Resistance to corrosion		Ñ
1, 1,	Clause 21 (19)	See clause 21	N

(P)	Creepage distances and clearances and distance through isolation (DTI) for lamp controlgear which are protected against pollution by the use of coating or potting	
(P.1)	General	N
The th	P.2 applies if creepage distances less than the minimum in Table 7 and 8	N
inite white	P.3 applies if clearance less than the minimum in Table 9, 10 and 11	N
(P.2)	Creepage distances	N
(P.2.2)	Minimum creepage distances for working voltages and rated voltages with frequencies up to 30 kHz (Table P.1)	N
40. 20	Basic or supplementary insulation:	N
NUTER IN	Required creepage:	WILL.
20 20	Measured:	N
NETER SINCE	Supplementary information	20 - IL
	Reinforced insulation:	N
Contraction of	Required creepage:	400
L St	Measured:	N
ALE AL	Supplementary information	Mr.
(P.2.3)	Creepage distances for working voltages with frequencies above 30 kHz (Table P.2)	, STEEN S
A St	Voltage Û _{out} kV	J+
er aller	Frequency:	7113
et est	Required distance:	(
240, 1	Measured:	N
State St	Supplementary information	- 1
(P.2.4)	Compliance with the required creepage distances	N
(P.2.4.1)	Compliance in accordance with 16.3.3 and test according P.2.4.2	IT N
(P.2.4.3)	Electrical tests after conditioning	N
(P.2.4.3.1)	Insulation resistance and electric strength according Clause 11 and 12	N
(P.3)	Distance through isolation	S N
(P.3.4)	Electrical tests after conditioning	N



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	IEC 61347-2-13		
Clause	Requirement + Test	Result - Remark	Verdict
(P.3.4.1)	Insulation resistance and electric strength according Clause 11 and 12	Tex with some	N
(P.3.4.2)	Impulse voltage dielectrical test	10°	A AN
n 740	Basic or supplementary insulation:	MITTER WILL THE THE	N
et et	Working/rated voltage	and the second	* <u> </u>
2/1	Impulse voltage	I will and any	N
- 55	Supplementary information	e de de de	The state of
40, 20	Reinforced insulation:	Murra Aller Aller	N
alie and	Working/rated voltage	ii jak jak jak	STEE 1 STEE 11
	Impulse voltage	The the the to	N
cie ancie	Supplementary information	at the state of	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1





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	The state of the s	N 61347-2-13	
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 7	EN deviation	The transfer of the same of the	р

ATTACHMENT TO TEST REPORT IEC 61347-2-13 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules

Differences according to EN 61347-2-13:2014+A1:2017 used in conjunction with

EN 61347-1:2015+A1:2021

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- 44	CENELEC COMMON MODIFICATIONS (EN)	A SP
J. J.	No Common modifications	P W





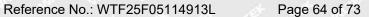
in the	an all E	N 50075	They are
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 8	Partial of EN 50075	NUTTER STATE STATE STATE	P

6	Marking	N
15 M	Requirements not applicable to the evaluated product	10 TO

7	Dimensions			JEK JE	Р
200	Plug shall comply with Standar	rd Sheet 1	me me m	-2)	Р
" INTER	Between two pins (pin base)	18.0 – 19.2 mm	18.96	mm	Р
100	Between two pins (pin top)	17.0 – 18.0 mm	17.89	mm	Р
10 T	Diameter of pin (metallic part)	4 ^{± 0.06} mm	4.0	mm	Р
<i>J</i> -	Diameter of pin (pin base)	max. 4.0 mm	4.0	mm	, P
3. "11.	Diameter of pin (middle part)	max. 3.8 mm	3.39	mm	Р
ļ ,	Pin length	19 ^{± 0.5} mm	18.64	mm	Р
THE.	Length of pin except metal part	10 ^{+ 1.0} mm	10.26	mm	Р
N.C.	Shape of pin top	- Lik - Silb	Round shape	100	Р
	Length of plug base	35.3 ^{± 0.7} mm	35.38	mm	P
in "11	Width of plug base	13.7 ^{± 0.7} mm	14.29	mm	Р
ek yni	Diagonal dimension of plug base within a distance of 18mm	<26.1 ^{± 0.5} mm <26.1 ^{± 0.5} mm	26.39 26.27	40.00	* P

8	Protection against electric shock		Р
8.1	Live parts of the plug not accessible (standard test finger)	SANITER WHITE WHITE WHITE W	Р
8.2	No connection between one plug-pin and socket outlet	SLIEF MATER MATER MA	Р
8.3	External parts of insulating material	a state of	Р

9	Construction	a st set set set	Р
9.1	Plugs are not replaceable	to the and an	Р
9.2	Switches, fuse, lampholder not incorporated	the set of the	Р
9.3	Solid pins	See clause 13	Р
TER RET	Adequate mechanical strength	At 1th 1th street street	N
9.4	Pins locked against rotation	See clause 13.1 & 13.4	Р
and the	Adequate fixed into the body	It let liet sile with	P
9.5	Kind of connection	n m m	Р



			7	7
1	A		A	1
Į.		V		
		•		

3 Mrs	EN 50	0075	They are
Clause	Requirement + Test	Result - Remark	Verdict
9.6	Easily to be withdrawn from socket-outl	et Incorporated with adaptor	P

10	Resistance to humidity	
the the	Humidity treatment for 48 hours	P ₁

11	Insulation resistance and electric strengt	th riter retire and which w	P
11.1	Insulation resistance (500V, min 5MΩ)	10ΜΩ	P P
11.2	Electric strength (2000V)	(see appended table)	Р

13	Mechanical strength		Р
13.1	Pressed with 150N for 5 min	at the set set is	P
13.2	Tumbling barrel according to EN Number of cycles:25	Number of cycles: 25 (50 falls)	Р
-0"	No damages after the test	i the the the the	Р
10 Little 18	Requirements of clause 7 and 8.2 still fulfilled	of the test attention	P
13.3	Rubbing test of plug-pins: 10000 cycles, 4N	Mr. Mr. Mr. An.	Р
NETER SINE	No damage of the pins	THE STATE MATE ST	Р
13.4	Pull test at 70°C with 40N		Р
anes.	Pins not more than 1 mm displaced	The the state with the	Р

14	Resistance to heat and to aging	et aller outer walth wall	3 P
14.1	Sufficient resistant to heat	3 A A A	_C P
14.1.1	After 1 h in heating cabinet at 100°C no damage shown	Tested with adaptor	Р
14.1.2	After 1 h in heating cabinet at 80°C and a force of 20N through the jaws no damage shown	NUTER WALTER WALTER WALTER WA	Р
14.2	Aging test	of the the state and	Р
	-at 70°C for 168h	The The Asset	P
aner al	-at room temperature for 96h	to the still still smile	Р
.,\-	No traces of cloth at a force of 5N	W W T	P
William Mary	No damage leads to non-compliance	of the said mark and a	P

15	Current-carrying parts and connections resistance to heat and to aging	
15.1	Connections withstand the mechanical stresses occurring in normal use	A PARTER SHAPE
15.2	Contact pressure not through isolating material	P

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	4			y	9
1	A		Ú		1
Į.	P	V	٧	1	

	EN 50075				
Clause	Requirement + Test	Result - Remark	Verdict		
15.3	Current carrying parts of copper		Р		
mer, m	No electroplated coating when part is subjected to mechanical wear	MINITED WILLIES WILLIES WILLIES	Р		
STEET WILL	Other metals having a mechanical strength, an electrical conductivity and a resistance to corrosion	INLIER WALTER WALTER WALTER OF	N N		

16	Creepage distances, clearances and distances through insulation	
200	Live parts of different polarity: 3mm	P P
MITER IN	Through insulation between live parts and accessible surfaces: 1.5mm	MITEL MITEL WEEP

17	Resistance of insulation material to abnormal heat and fire		an' P
	Insulating material not unduly affected by abnormal heat and by fire	(see appended table)	P

11.1 TABLE: Insulation resistance measurements		P	
Measured	between:	Result	
Pins connected together and the body (≥ 5MΩ)		10ΜΩ	Р
Each pins in turn and the other, the latter being connected to the body ($\geq 5 M \Omega$)		Р	
Note:	at the left wife with white	The Mr. M.	a

11.2	TABLE: electric strength measurements		Р
Test voltag	ge applied between:	Test voltage (V)	Break down
Pins connected together and the body		2000	No
Each pins in turn and the other, the latter being connected to the body		2000	No
Note:	We will state the state with the	THE SELECTION OF	30

17.3	TABLE: Resistance of insulating material to abnormal heat and to fire	
Parts that retain current-carrying parts in position: 750°C		Р
Other parts: 650°C		Р
Other par	ts: 650°C	- LT-14



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Clause	Dequirement L Test	Result - Remark	Verdic
Clause	Requirement + Test	Result - Remark	verdic
ANNEX 9	LED modules for general lighting – Safety specifiEN IEC 62031:2020+A11:2021	ications	Y P
4	GENERAL REQUIREMENTS	e instel apricel apricel	P
4.4	Integral modules treated as part of luminaires defined in clause 0.5 of IEC 60598-1	a tel liter sites	TINIT THE
4.5	Independent modules complies with requirements in IEC 60598-1	the state of the	N. N.
300	the state of the state with	ales ales all a	
5	GENERAL TEST REQUIREMENTS	A Strait Strait	
5.5	SELV-operated LED modules comply with Annex I of IEC 61347-2-13	(see Annex 1)	N
	General conditions for tests in Annex A	(see Annex A)	N
2 M 2 C	OLA COLFIGATION	t of the other	STEEL STEEL
6	CLASSIFICATION	V D V D	* -
31 To 31	Built-in module	Yes No No	CLE WITE
	Independent module:	Yes No No	
Vice along	Integral module:	Yes ⊠ No □	" " <u>" "</u> "
TEN STEP	For Integral module; Note to 1.2.1 in IEC 60598-1 applies.		
7	MARKING	ALL ALL ALL	N
4/2	Requirements not applicable to the evaluated produc	-1-1/2 N 12 WILL W	ies in
J 2	Trequirements not applicable to the evaluated produc	J.	The Street
8	TERMINALS	West Aller Burk My	N
STEE STATE	Screw terminals according section 14 of IEC 60598-1	Carlo Clay Miles Will	N°
4 4	Separately approved; component list	(see Annex 2)	N
July 1	Part of the luminaire	(see Annex 3)	N
At .	Screwless terminals according section 15 of IEC 60598-1:		
31, 31	Separately approved; component list	(see Annex 2)	N
A .	Part of the luminaire	(see Annex 4)	o ^t √N
11. A.	Connectors according IEC 60838-2-2:	ALTE WALL WALL WAS	N
Tek ate	Separately approved; component list	(see Annex 2)	N
	THE THE THE MITTER WATER MATERIAL	The The M	
9 (9)	PROVISION FOR PROTECTIVE EARTHING		N

Requirements not applicable to the evaluated product.



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		EN 62031		
Clause	Requirement + Test	3/10	Result - Remark	Verdict

10 (10)	PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS	
211. 2	Requirements not applicable to the evaluated product.	

11 (11)	MOISTURE RESISTANCE AND INSULATION	and the same	Р
The White	After storage 48 h at 91-95% relative humidity and 20-30 °C measuring of insulation resistance with d.c. 500 V (M Ω):		Р
· Life	For basic insulation \geq 2 M Ω	100ΜΩ	Р
3.	For double or reinforced insulation \geq 4 M Ω :	the Alexander	N
ing an	Between primary and secondary circuits in controlgear providing SELV, values in Annex L in IEC 61347-1	THE WATER WATER WATER A	N si

12 (12)	ELECTRIC STRENGTH	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	P
-7112	Immediately after clause 11 electric strength test for 1 min	MULL MAN MAN MAN	₩P
The A	Basic insulation for SELV, test voltage 500 V	NUTE WITE WITE WITE	Р
A STATE OF	Working voltage ≤ 50 V, test voltage 500 V		N
in the	Working voltage > 50 V ≤ 1000 V, test voltage (V):	The ship of	N
Cott Life	Basic insulation, 2U + 1000 V		N
3,	Supplementary insulation, 2U + 1000 V	The the the	N
NOTE S	Double or reinforced insulation, 4U + 2000 V	the state state as the	N
4.	No flashover or breakdown	the also all an	Р
MUTE M	Solid or thin sheet insulation for double or reinforced insulation fulfil the requirements in Annex N in IEC 61347-1		N st

13 (14)	FAULT CONDITIONS		- P.
- (14)	When operated under fault conditions the controlgear:		Р
Cart.	- does not emit flames or molten material	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	P
711.	- does not produce flammable gases	with they they the	Р
Jan 1	- protection against accidental contact not impaired	A A B B	P
alik A	Thermally protected controlgear does not exceed the marked temperature value	And the sale	N
s whites	Fault conditions: capacitors, resistors or inductors without proof of compliance with relevant specifications have been short-circuited or disconnected	(see appended table)	P



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	EN 62031		
Clause	Requirement + Test	Result - Remark	Verdict
4.	and the second of the second	The Me M. M. M.	
- (14.1)	Short-circuit of creepage distances and clearances if less than specified in clause 16 in Part 1 (except between live parts and accessible metal parts)	(see appended table)	Р
siri et 18	Creepage distances on printed boards less than specified in clause 16 in Part 1 provided with coating according to IEC 60664-3	LEK WHITEK WHITE WHITE	N
- (14.2)	Short-circuit or interruption of semiconductor devices	(see appended table)	Р
- (14.3)	Short-circuit across insulation consisting of lacquer, enamel or textile	(see appended table)	TEX N.
- (14.4)	Short-circuit across electrolytic capacitors	(see appended table)	, N
- (14.5)	After the tests has been carried out on three samples:		1/L P 3/1
at s	The insulation resistance \geq 1 M Ω :	100 ΜΩ	P
200	No flammable gases	C MILL MALL WALL	P.
J. J. 18	No accessible parts have become live	1 1 1 1	of P. [™]
-111.	During the tests, a five-layer tissue paper, where the test specimen is wrapped, does not ignite	Will My My M	Р
- (14.6)	Relevant fault condition tests with high-power supply	RUTE WALL WALL WITE	"1/L" - 1
13.2	Module withstands overpower condition >15 min.	1 1 1 A	Р
n yn Stad	Module with automatic protective device or power limiter, test performed 15 min. at limit.	- Che m	N
2 Taller	During the tests, tissue paper, spread below module, does not ignite	White will with	Р

15	CONSTRUCTION	P
mur and	Wood, cotton, silk, paper and similar fibrous material not used as insulation	In the later of the Paul

16	CREEPAGE DISTANCES AND CLEARANCES	Р
S. Callette	Creepage and distances and clearances in compliance with IEC 60598-1	Р

17 (17)	SCREWS, CURRENT-CARRYING PARTS AND CONNECTIONS	y P
	Screws, current-carrying parts and connections in compliance with IEC 60598-1 (clause numbers between parentheses refer to IEC 60598-1)	NITE P

18 (18)	RESISTANCE TO HEAT, FIRE AND TRACKING	N
* nitt	Resistance to Heat, Fire and Tracking in compliance with IEC 61347-1 (clause numbers between parentheses refer to IEC 61347-1)	N of
(18.1)	Ball-pressure test:	N



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EN 62031			
Clause	Requirement + Test	Result - Remark	Verdict
A.	The state of the s	The Physics of	50 0
50	- part tested; temperature (°C):	- A At At	N
(18.2)	Test of printed boards	White Minn Mun A	N
Step W	- part tested	the the state is	N
(18.3)	Glow-wire test (650°C):	her the the the	N
See Shirt	- part tested	ed - get stet mite	N N
(18.4)	Needle flame test (10 s):	The ship is	N
Chris.	- part tested	F - Jet Ster Mile	N N
(18.5)	Tracking test:	70. 20. 2	L N
are all	- part tested	of the state of the state of	N N

19 (19)	RESISTANCE TO CORROSION	while sheet the New
de L	Rust protection:	
The	- test according 4.18.1 of IEC 60598-1	Les Alles Alba AlV
	- adequate varnish on the outer surface	A DE COLON

20	INFORMATION FOR LUMINAIRE DESIGN		
J. 7	Information in Annex D		

21	HEAT MANAGEMENT		
21.1	General		
	Exchangeability is safeguarded by cap or base	N	
21.2	Heat-conducting foil and paste		
TARK OF	Heat-conducting foil delivered with the module if necessary	THE NUTE OF SHALL	
21.4	Construction		
ALL T	Electrical connection and mechanical holding are separate	N	

22	Photobiological safety		
22.1	UV radiation	THE CHE WITH MITHE	N
22.2	Blue light hazard		
ar ances	RG at 200 mm according to IEC/TR 62778	Set alter alter antico	Р
22.3	Infrared radiation		N -



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Clause	Requirement + Test	Result - Remark	Verdict
A 30	ANNEX A - TESTS		
en en	All tests performed in accordance with the advice given in Annex H of IEC 61347-1, if applicable	The state of the state of	Р

SELV-operated LED modules in compliance with Annex I of IEC 61347-2-13

WALTEK

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5.77		_th _th	IEC/TR 62778	to me, me, m	2.
Clause	Requirement +	+ Test	Mr. Jak	Result - Remark	Verdic
Annex 10	Retinal blue lig	ht hazard Of	Lamps And Lamp S	ystems IEC/TR 62778:2014	P
14. 14.	4, 4,		St St 50	merch and and and	
d s	TABLE: Spectroradiometric measurement				P
NE WALLES	Measurement performed on: Model number			□ LED package□ LED module□ Lamp☑ Luminaire	STEEL SHEET
all the				MO2702	
	Test voltage	(V)		240V	y
are are	Test current (mA):			The mitter wall wall	71/2 B
d l	Test frequence	cy (Hz)	:	- L A A	<u></u>
er the	Ambient, t (°C	;)	:	25.3	4 - 44
EX WILLER	27 20	T. C. V. J. V.	::	⊠ 20 cm □ cm	DIEN WILE
WALTER W	Source size:			⊠ Non-small ☐ Small : mm	SEP MUSTER.
mitek unit	Field of view	A		☐ 100 mrad ☑ 11 mrad ☐ 1,7 mrad (for small sources)	Aller Me
	Item	Symbol	Units	Result	Remark
Correlated colour temperature		ССТ	Col K of my	I white white white we	E. Marie
x/y colour c	coordinates	-12	<u> </u>	1 1 1 10 10 10	O
Blue light hazard radiance		L _B	W/(m ² •sr ¹)	1.580e+002	
Blue light hazard irradiance		E _B	W/m ²	lot the the the	12 July 201
Luminance		At S	cd/m ²	5.646e+005	J
Illuminance		E 2/2	lx	A 1 10 50 50 50 .	10 TO TO

Lamp classification group: RG1 unlimited

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24	EN 62493	UTL PUTT MUT MUT MUT	-31		
Clause	Requirement + Test	Result - Remark	Verdict		
ANNEX 11	Assessment Of Lighting Equipment Related To Human Exposure To Electromagnetic Fields according to standard EN 62493:2015+A1:2022				
4	LIMITS	The after sates seated as	P		
4.1	General				
WALLEY.	Comply with Van der Hoofden test limit in 4.2.3 or inherently compliant in 4.2.2 and pass assessment procedure for intentional radiators in 4.3	TER MILIER MILIER MILIER MILIER	P		
4.2	Unintentional radiating part of lighting equipment				
4.2.2	Lighting equipment deemed to comply with the Van der Hoofden test without testing				
Jet 10	1) electronic controlgear	Yes No	ek - 06		
c in	2) incandescent-lamp technology	Yes No No	711.		
at The	3) LED-light-source technology	Yes ⊠ No □	500		
-7/1	4) OLED-light-source technology	Yes No			
WALTER WA	5) high-pressure discharge lamp LED-light-source technologies	Yes No	ini te di		
MITEL WALK	6) low-pressure discharge lamp technologies with exposure distance ≥ 50 cm	Yes No	TE K		
	7) independent auxiliary	Yes No D	# - e		
y, The	Not fulfil any of 1-7 above subject to 4.2.3	LIFE MITE MILL WILL WILL	- in		
4.2.3	Applications of limits	and the state of	N		
2400 A	Not fulfil any of 1-7 in 4.2.2 but the compliance factor <i>F</i> is ≤ 1	White must must any	N		
4.3	Intentional radiating part of lighting equipment	LITER MITTER MITTER MINISTER OF	N		
atek wate	Comply with one of methods in Clause 7 if intentional radiator	fet fet elfet milet at	N		
6 3	MEASUREMENT PROCEDURE FOR THE VAN D	DER HOOFDEN TEST	N		
6.1	General				
White M	Measurements carried out under conditions according Clause 6.1 – 6.6				
7 W	ASSESSMENT PROCEDURE INTENTIONAL RAI	DIATORS	N		
7.2	Low-power exclusion method	The same of the sa	N S		
7.2.1	Input P _{int,rad}				
+ 5th	Exclusion level P_{max}	a at at the the	200		
30	Input power $P_{\text{int,rad}}$ < exclusion level P_{max}	They are, my my	N		



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		EN 62493	my my my
Clause	Requirement + Test	Result - Remark	Verdict

7.3	Application of the EMF product standard for body worn-equipment		
16g	If not Clause 7.2 is met and expose distance ≤ 0.05 m, comply with IEC 62209-2	N	
7.4	Application of the EMF product standard for base stations	N	
sell wit	If not Clause 7.2 is met and if intentional radiator is base station, comply with IEC 62232	N	
7.5	Application of another EMF standard	N	
VIII.	If not Clause 7.2 is met and if intentional radiator cannot be considered as in Clause 7.3 or 7.4, comply with IEC 62311	N	

6	TABLE: Measurement results with Van der Hoofden test head					J N.J
Location of	EUT	Test model	Measuring distance	Result(F)	Limit(F)	Verdict
Reference / EN 62493:2	Annex B of 2015+A1:2022	TER NUTER WHITE	A AU TER AUTE	They are	≤1.0	N

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

W

Photo Documentation

Model: MOB



Photo 1

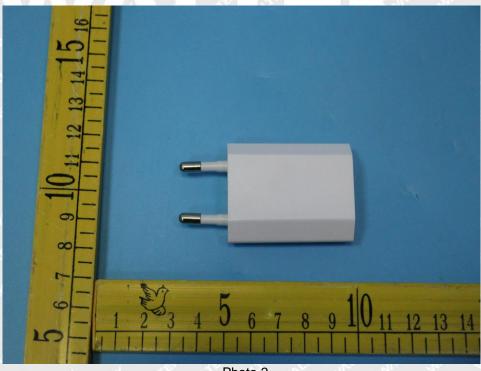


Photo 2





Photo 3

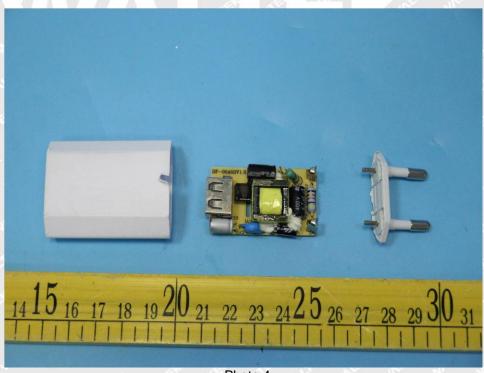


Photo 4

Reference No.: WTF25F05114913L

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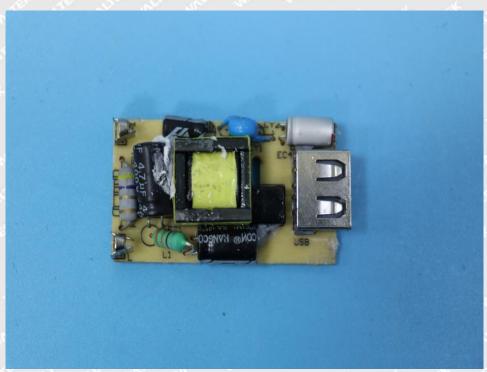


Photo 5

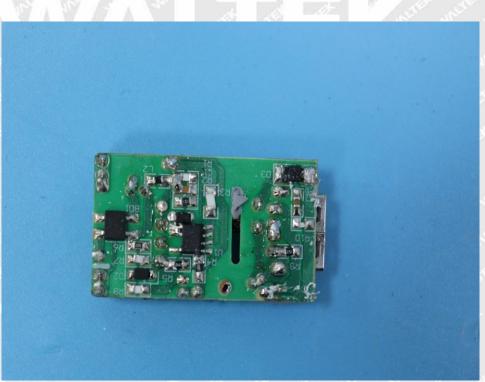


Photo 6

Reference No.: WTF25F05114913L

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Photo 7



Photo 8





Photo 9



Photo 10





Photo 11

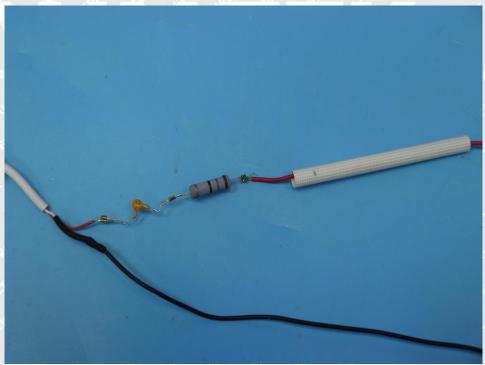


Photo 12



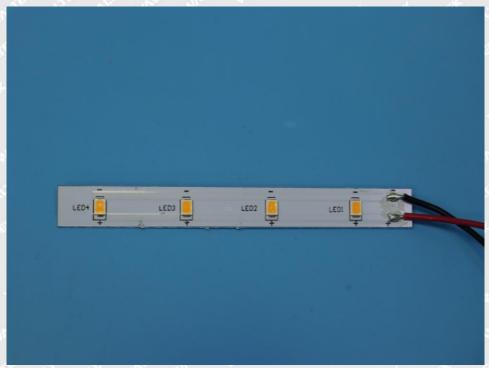


Photo 13

===== End of Photo ======





TEST REPORT

Reference No	= 3	WTF25F05115218N

Applicant.....: Mid Ocean Brands B.V.

Address: Unit 711-716, 7/F., Tower A, 83 King Lam Street, Cheung Sha Wan,

Kowloon, Hong Kong.

Manufacturer: 114901

Address.....: 114901

Product Name : AC/DC ADAPTER

Model No.....: MO2702

Test specification.....: COMMISSION REGULATION (EU) 2019/1782

Laying down ecodesign requirements for external power supplies pursuant to Directive 2009/125/EC of the European Parliament

EN 50563:2011+A1:2013

External a.c. - d.c. and a.c. - a.c. power supplies - Determination of

no-load power and average efficiency of active modes

Date of Receipt sample : 2025-06-04

Date of Test.....: 2025-06-04 to 2025-06-12

Date of Issue : 2025-06-13

Test Report Form No. : WPA-20191782A-01A

Test Result.....: See following pages

Remarks:

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

Prepared By:

Waltek Testing Group (Foshan) Co., Ltd.

Address: No.13-19, 2/F., 2nd Building, Sunlink Machinery City, Xingye 4 Road, Guanglong Industrial Park, Chihua Neighborhood Committee, Chencun, Shunde District, Foshan, Guangdong, China Tel:+86-757-23811398 Fax:+86-757-23811381 E-mail:info@waltek.com.cn

Tested by:

Finn Yu I

Approved by:

Jerry Mu



Energy Test Instruction for no-load condition electric power consumption and average active efficiency of external power supplies

Definitions:

EUT - equipment under test;

Nameplate output power (Po) - the maximum output power as specified by the manufacturer;

No-load condition – the condition in which the input of an external power supply is connected to the mains power source, but the output is not connected to any primary load;

Active mode – a condition in which the input of an external power supply is connected to the mains power source and the output is connected to a load;

Active mode efficiency – the ratio of the power produced by an external power supply in active mode, to the input power required to produce it;

Average active efficiency – the average of the active mode efficiencies at 25%, 50%, 75% and 100% of the nameplate output power.

General conditions for measurements:

Test condition parameter:	
Air speed close to the EUT	≤0.5m/s
Ambient temperature	23°C±5°C
Humidity	60%RH
Test voltage and frequency	115V±1%/60Hz±1% and 230V±1%/50Hz±1%
Total harmonic content of the test current at the EUT	≤0.1% (up to and including the 50th harmonic)
Crest factor of test voltage	1.34 – 1.49
Power measurement accuracy	0.022%
Resolution of power meter	0.01W

Remark:

Use of uncertainty of measurement for decisions on conformity (decision rule):

No decision rule is specified by the standard, when comparing the measurement result with the applicable limit according to the specification in that standard.

The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

When determining for test conclusion, measurement uncertainty of tests has been considered, see above table.

The equipment is set to root mean square (r.m.s.) mode.

All 'verdicts' in this test report based on test voltage as 230V, 50Hz, other test voltages were not considered according to client's requirement.

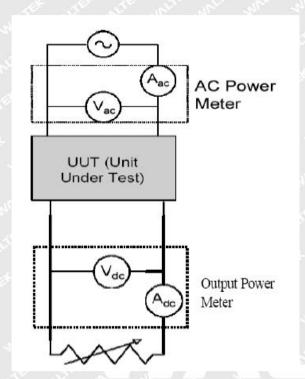


Preparation of EUT & Measuring equipment

EUT preparation:

The EUT shall be operated at 100% of nameplate current output for at least 30 minutes immediately prior to conducting efficiency measurements.

Measuring equipment preparation:



Procedure:

Monitor ac input power for a period of 5 minutes to assess the stability of the EUT. If the power level does not drift by more than 5% from the maximum value observed, the EUT can be considered stable and the measurements can be recorded at the end of the 5 minute period. Subsequent load conditions (see below) can then be measured under the same 5 minute stability guidelines.

If ac input power is not stable over a 5 minute period, connect the EUT to the metering equipment and select the mode to be measured. Monitor the power. Average power is determined using either the average power or accumulated energy approaches outlined below.

- a) Average power approach: where the power meter can record a true average power over a user selected period, the period selected shall not be less than 5 min (except if there is an operating cycle see below).
- **b)** Accumulated energy approach: where the power meter can accumulate energy over a user selected period, the period selected shall not be less than 5 min (except if there is an operating cycle see below). The integrating period shall be such that the total recorded value for energy and time is more than 200 times the resolution of the meter for energy and time. Determine the average power by dividing the accumulated energy by the time for the monitoring period.

If the power varies over a cycle (i.e. a regular sequence of power states that occur over several minutes or hours), the period selected to average power or accumulate energy shall be one or more complete cycles in order to get a representative average value.

Efficiency measurements shall be conducted in sequence from Load Condition 1 to Load Condition 6 as indicated in follow table.

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



Percentage of Nameplate Output Current			
Load Condition 1	100%±2%		
Load Condition 2	75%±2%		
Load Condition 3	50%±2%		
Load Condition 4	25%±2%		
Load Condition 5	10%±1%		
Load Condition 6	0%		

Product Information:

Model:	MO2702
Product Powered (if known):	Unknown
Integral Input Power Switch	Not Present
Input Cord Length (cm)	Not Present
Output Cord Length (cm)	Not Present

Nameplate Specifications	Input (AC)	Output (DC)
Voltage (V)	100-240	5
Current (mA)	Not Stated	1000
Power (W)	Not Stated	5
Frequency (Hz)	50/60	Not Present

Possible test case verdicts:

- test case does not apply to the test object: N(/A) (Not applicable)

- test object does meet the requirement..... P (Pass)

- test object does not meet the requirement: F (Fail)



		OMMISSION REGULATION (EU) 20 Ecodesign requirements for external		
Clause	Requirement + Test	Loodesign requirements for external	Result – Remark	Verdic
1. 🐬	Energy officionay r	aguiromonto.		205
.,**	Energy efficiency re		Charles and the short	1000
(a)	From 1 April 2020, the no-load condition power consumption shall not exceed the following values:		2 2 2	P
		er supplies, except low voltage and ut external power supplies	and any and	N
1/2	0.21 W	a state of the state	ALTER MALTER WALL WAS	N
MALTER		er supplies, except low voltage and ut external power supplies	et with night spire	Р
*	Po ≤ 49.0 W	0.10 W	, A 25	N
10 m	Po > 49.0 W	0.21 W	militar while while	N
et .	Low voltage external	power supplies	4 4 4	N
ر الله الله الم	Po ≤ 49.0 W	0.10 W	0.04 W (115V), 0.07 W (230V).	Р
The	Po > 49.0 W	0.21 W	Life with while with	N
J.St	Multiple voltage outp	ut external power supplies	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N
Me :	0.30 W	the state of the state of	White will were	N
(b)	From 1 April 2020, the not less than the follow	ne average active efficiency shall be owing values:	miret antiret	Р
ek anif		er supplies, except low voltage and ut external power supplies	The state of	N
NETER		ower supplies, except low voltage output external power supplies	let tet stet sit	Р
.,	Po ≤ 1.0 W	0.5 × P ₀ /1W + 0.160	The the the	N
intro 4	1 W < P ₀ ≤ 49.0 W	$0.071 \times \ln(\text{Po/1W}) - 0.0014 \times \text{Po/1W} + 0.67$	Whitek whitek whiteh	N
Jet ni	Po > 49.0 W	0.880	THE SHIP STEEL	√ N
	Low voltage external	power supplies	any and any	N
Jack B.	Po ≤ 1.0 W	0.517 × Po/1W + 0.087	THE STEE STEEL WITH	N
MALTER.	1 W < P ₀ ≤ 49.0 W	0.0834 × In(Po/1W) – 0.0014 × Po/1W + 0.609	Average active efficiency: 76.73% (115V), 74.35% (230V). Limit: 73.62%	AND PER
1. Tell	P _O > 49.0 W	0.870	· At St. St.	N
	Multiple voltage outp	ut external power supplies	any any	N
ier and	P ₀ ≤ 1.0 W	0.497 × Po/1W + 0.067	The The Street of	N
	1 W < P ₀ ≤ 49.0 W	0.075 × ln(Po/ 1W) + 0.561	the top the second	N
"ALC.	Po > 49.0 W	0.860	THE RUTER BUTE WALT	N



		MISSION REGULATION	. ,		
Clause	Requirement + Test	odesign requirements fo	r external	Result – Remark	Verdic
Clause	Requirement + Test			Result – Remark	Verdic
(a)	from 1 April 2020, the national following information:	ex white white white	P		
	Nameplate information	Value and precision	Unit	a state	Till s
	Output power	X.X	W	5.0V, 1.0A, 5.0W	Р
	Output voltage	X.X	V	5.0V, 1.0A, 5.0VV	ندي. على ت
	Output current	X.X	Α	the same of the	
VIDETER.	Notes: In cases where note than one output volumeasured, the sets of a Output current – Output	oltage at load condition vailable Output voltage	are	E TEL STEE STEE	N
(b)	From 1 April 2020, instruction manuals for end-users (where applicable), and free access websites of manufacturers, importers or authorised representatives shall include the information of attachment 1, in the order as set out:			See attachment 1	Р
~ ~	The relevant load condit	ions are as follows:	the a	i, 'm, 'm, 'm,	Р
allete d	Percentage of nameplate output current			CONTRACTOR OF THE STATES	ale Car
	Load condition 1 100 % ± 2 %			1	
	Load condition 2	oad condition 2 75 % ± 2 %		Santie Milit	gh ^{ar} s
	Load condition 3	50 % ± 2 %	6	The state	P
	Load condition 4	25 % ± 2 %	6	petite white white wil	in the
	Load condition 5	10 % ± 1 %	6	at at all s	er ste
the.	Load condition 6	0 % (no-load cor	ndition)	and the same	33.7
(c)	From 1 April 2020, the to purposes of conformity a shall contain the following	assessment pursuant to		Whitek whitek whitek	P
(1)	For external power supplies with a nameplate output power greater than 10 watts:			difficulty white white	N
	In cases where more that than one output voltage measured, the relevant specified for each meas	at load condition 1 are reported quantities shall		LETER MILITER MILITER MIN	N
(2)		for external power supplies with a nameplate output power of 10 watts or less:			Р
EK WALTE	In cases where more that than one output voltage measured, the relevant specified for each meas	at load condition 1 are reported quantities shall			N
3.	Measurements and cal	culations	J.C.	LIEF MITER WALTER WAL	in the
STEE.	For the purposes of com			EN 50563: 2011+ A1: 2013	Р



	COMMISSION REGULATION (EU) 20 Annex II Ecodesign requirements for external		
Clause	Requirement + Test	Result – Remark	Verdict
SHULLER SHU	measurements and calculations shall be made using harmonised standards the reference numbers of which have been published for this purpose in the Official Journal of the European Union, or other reliable, accurate and reproducible methods, which take into account the generally recognised state of the art.	Test Method for Calculating the Energy Efficiency of Single Voltage External Ac-Dc and Ac-Ac Power Supplies (August 13, 2004)	antic a





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Appendix-Test Data Sheet

Test Result:

Test item	Tested at 115V, 60Hz	Tested at 230V, 50Hz	Efficiency requirements
No load power (W)	0.043	0.068	≤ 0.100
Efficiency of 10% full load (%)	73.47%	66.79%	The Mr. The A
Average efficiency (%)	76.73%	74.35%	≥ 73.62%
Complies with performance mark	COMMI	SSION REGULATION (EU) 2019/1782

Measurement and calculation:

Input Voltage, Frequency	115VAC, 60Hz Description						
Reported Quantity							
	6	5	4	3	2	1	
Load condition	0%	10 % ± 1 %	25 % ± 2 %	50 % ± 2 %	75 % ± 2 %	100 % ± 2 %	
Output current (mA)	L 0,-	100	250	500	750	1000	
Output voltage (V)	5.134	5.145	5.183	5.235	5.247	5.226	
Active output power (W)	0.000	0.515	1.296	2.618	3.935	5.226	
Input power (W)	0.043	0.700	1.683	3.400	5.127	6.858	
Total harmonic distortion THDi (%)	404.12%	246.58%	204.53%	164.60%	142.21%	127.73%	
True power factor	0.2218	0.3725	0.4313	0.5000	0.5420	0.5696	
Power consumed (W)	0.043	0.186	0.387	0.783	1.192	1.632	
Active mode efficiency		73.47%	76.99%	76.99%	76.76%	76.20%	
Average active efficiency	Carlo	J. W	540 - 140	76.7	73%	N 15	

Calculation information:

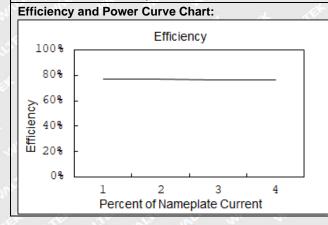
True Power Factor = Input Power / (Input Voltage * Input current)

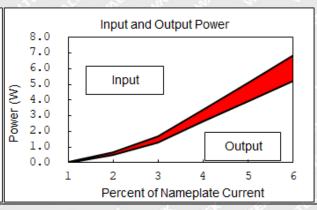
Power consumed = Input Power - Active Output Power

Efficiency = Active Output Power / Input Power

Average Efficiency = (Efficiency 1 + Efficiency 2 + Efficiency 3 + Efficiency 4) / 4

No Load Power consumption = Load condition at 0% load







Input Voltage, Frequency	230VAC, 50Hz Description						
Reported Quantity							
	6	5	4 4	3	2	1	
Load condition	0%	10 % ± 1 %	25 % ± 2 %	50 % ± 2 %	75 % ± 2 %	100 % ± 2 %	
Output current (mA)	0	100	250	500	750	1000	
Output voltage (V)	5.131	5.116	5.154	5.187	5.192	5.152	
Active output power (W)	0.000	0.512	1.289	2.594	3.894	5.152	
Input power (W)	0.068	0.766	1.760	3.462	5.204	6.921	
Total harmonic distortion THDi (%)	464.32%	302.10%	279.59%	247.41%	227.56%	206.33%	
True power factor	0.1894	0.3119	0.3350	0.3704	0.3959	0.4264	
Power consumed (W)	0.068	0.254	0.472	0.869	1.310	1.769	
Active mode efficiency	10 -10	66.79%	73.21%	74.91%	74.83%	74.44%	
Average active efficiency	J J	10 mil	11 M	74.3	35%		

Calculation information:

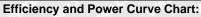
True Power Factor = Input Power / (Input Voltage * Input current)

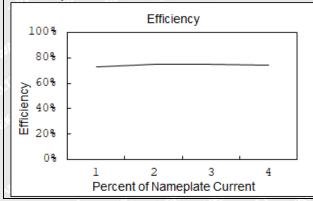
Power consumed = Input Power - Active Output Power

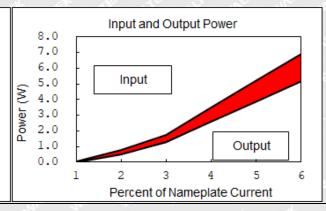
Efficiency = Active Output Power / Input Power

Average Efficiency = (Efficiency 1 + Efficiency 2 + Efficiency 3 + Efficiency 4) / 4

No Load Power consumption = Load condition at 0% load







Reference No.: WTF25F05115218N



Attachment 1: Information in instruction manuals for end-users (where applicable), and free access websites

The user manual also can be accessed via internet: N/A

Information published	Value and precision	Unit	Notes
Manufacturer's name or trade mark, commercial registration number and address	N/A	INLITER.	ANTIER MUTER ANTIER MUTER ANTIER MUTER ANT
Model identifier	MO2702	set .	THE PART WAS AND
Input voltage	100-240	V	Specified by the manufacturer. Shall be a value or a range.
Input AC frequency	50/60	Hz	Specified by the manufacturer. Shall be a value or a range.
Output voltage	5.0	V	Nameplate output voltage. Shall indicate whether is AC or DC. In cases where more than one physical output or more than one output voltage at load condition 1 are measured, the sets of available Output voltage — Output current — Output power shall be published.
Output current	1.0	A	Nameplate output current. In cases where more than one physical output or more than one output voltage at load condition 1 are measured, the sets of available Output voltage — Output current – Output power shall be published.
Output power	5.0	W	Nameplate output power. In cases where more than one physical output or more than one output voltage at load condition 1 are measured, the sets of available Output voltage — Output current – Output power shall be published.
Average active efficiency	74.4	%	Declared by the manufacturer based on the value calculated as arithmetical mean of efficiency at load conditions 1-4. In cases where multiple average active efficiencies are declared for multiple output voltages available at load condition 1, the value published shall be the average active efficiency declared for the lowest output voltage.
Efficiency at low load (10 %)	66.8	%	Declared by the manufacturer based on the value calculated at load condition 5. External power supplies with a nameplate output power of 10 W or less shall be exempted from this requirement. In cases where multiple average active efficiencies are declared for multiple output voltages available at load condition 1, the value published shall be the value declared for the lowest output voltage.
No-load power consumption	0.07	W	Declared by the manufacturer based on the value measured for load condition 6.



Attachment 1: Equipment List

Equipment	Model/Type	Internal ID	Cal. Due. Date	
Temperature & Humidity Datalogger	Testo 608-H1	WTFN1009A1-002	2026-01-06	
AC power source	Ainuo AN60002H	WTFN1005A1-005	2026-01-06	
Digital power meter	EVERFINE PF2010A	WTFN1004A1-002	2026-01-06	
Digital power meter	YOKOGAWA WT310E	WTFL1003A1-003	2026-01-06	
DC Electronic Load	ITECH IT8513B	WTFN1025A1-001	2026-01-06	



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Attachment 2: Photo document

Model: MO2702

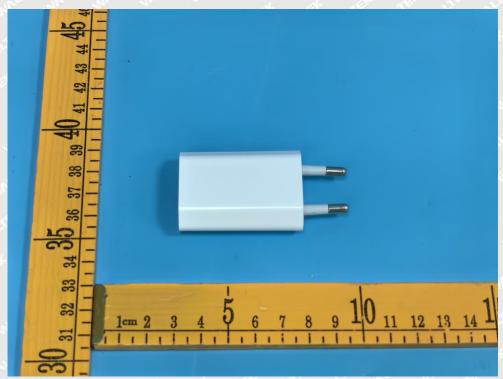


Photo 1

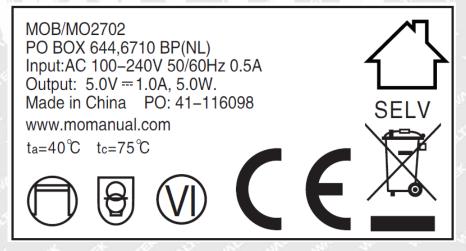


Photo 2

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