

#### **TEST REPORT**

#### UL 62368-1

Audio/video, information and communication technology equipment - Part 1: Safety requirements

Building, No8 Hongcheng Road,

Manufacturer ...... Nanchang Montary Industrial Co.,Ltd.

Building, No8 Hongcheng Road,

Test specification

Non-standard test method ...... N/A

Test item description ...... Makeup table

Trademark ...... N/A

W2699P345803/W2699P345804

Additional models....: N/A

Rating(s)..... : AC 100-240/50-60Hz

Date of receipt of test item...... Aug. 20, 2025

Date(s) of performance of tests...... Aug. 20, 20255 to Aug. 27, 2025

Street, Bao'an District, Shenzhen, China

Street, Bao'an District, Shenzhen, China

Test case verdicts

Test case does not apply to the test object: N/A

Test item does meet the requirement: P(ass)

Test item does not meet the requirement: F(ail)



Name and address of the testing laboratory: <u>JieKe (Shenzhen) Testing Techonlogy Co.,Ltd.</u>

4A06, No.93, Qianjin Second Road,81 District, Hexi

Community, Xixiang Street, Bao'an District,

Shenzhen, China

Test by: Signature/Report writer

Aug. 27, 2025Date

Signature/Report Reviewer

Signature/

Aug. 27, 2025Date

Approved by:

Review by:

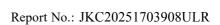
Aug. 27, 2025Date



Makeup table	
Model: W2699P345799	
Rating:input: AC 100-240/50-60Hz	
Nanchang Montary Industrial Co.,Ltd.	
DATE CODE: YYMM	
CONFORMS TO UL STD 62368-1	

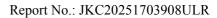


	UL 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
4	GENERAL REQUIREMENTS		p
4.1.1	Acceptance of materials, components and subassemblies		р
4.1.2	Use of components		p
4.1.15	Markings and instructions	See Annex F	p
4.4.5	Safety interlocks		N/A
4.5	Explosion	No explosion	P
5	ELECTRICALLY-CAUSED INJURY	•	P
5.2	Classification of electrical energy sources		N/A
5.2.1	Electrical energy source classifications		P
5.2.2	ES1, ES2 and ES3 limits		P
5.2.2.2	Steady-state voltage and current		P
5.2.2.3	Capacitor		N/A
5.2.2.4	Single pulses		N/A
5.2.2.5	Repetitive pulses		N/A
5.2.2.6	Ringing signals		N/A
5.2.2.7	Audio signals		N/A
5.3	Protection against electrical energy sources		P
5.3.2.2	Safeguards between ES2 and ordinary persons		N/A
5.3.2.3	Safeguards between ES3 and ordinary persons		N/A
5.3.3.2	Safeguards between ES3 and instructed persons		N/A
5.3.4.2	Safeguards between ES3 and skilled persons		N/A
5.3.5.2	Safeguard between ES1, ES2 and ES3		N/A
5.3.5.3	Protection of ES2 against ES3		N/A
5.3.6.1	Accessibility to electrical energy sources and safeguards for ordinary persons		N/A
	Accessibility to electrical energy sources and safeguards for instructed persons are prevented from access to:		N/A
5.3.6.2	Contact requirements Air gap (mm):		N/A
5.3.6.4	Terminals for connecting stripped wire		N/A
5.4	Insulation materials and requirements		N/A
5.4.1.2	Properties of insulating material		N/A
5.4.1.3	Humidity conditioning		N/A
	Relative humidity (%):		N/A
	Temperature (°C),:		N/A



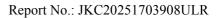


	UL 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
	Duration (h):		N/A
5.4.1.4	Maximum operating temperature for insulating materials		N/A
5.4.1.5	Pollution degree		N/A
5.4.1.6	Insulation in transformers with varying dimensions		N/A
5.4.1.7	Insulation in circuits generating starting pulses		N/A
5.4.1.8	Determination of working voltage		N/A
5.4.1.9	Insulating surfaces		N/A
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted		N/A
5.4.2	Clearances		N/A
5.4.2.3	Determining clearance using required withstand voltage		N/A
	a) a.c. mains transient voltage:		N/A
	b) d.c. mains transient voltage		N/A
	c) external circuit transient voltage:		N/A
	d) transient voltage determined by measurement		
5.4.2.4	Determining the adequacy of a clearance using an electric strength test		N/A
5.4.2.5	Multiplication factors for clearances and test voltages		N/A
5.4.2.6	Measurement of transient voltage levels		N/A
5.4.3	Creepage distances		N/A
5.4.3.1	General		N/A
5.4.4	Solid insulation		N/A
5.4.4.2	Minimum distance through insulation		N/A
5.4.4.3	Insulation compound forming solid insulation		N/A
5.4.4.4	Solid insulation in semiconductor devices		N/A
5.4.4.5	Cemented joints		N/A
5.4.4.6	Thin sheet material		N/A
5.4.4.6.1	General requirements		N/A
5.4.4.6.2	Separable thin sheet material		N/A
5.4.4.6.3	Non-separable thin sheet material		N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material		N/A
5.4.4.6.5	Mandrel test		N/A



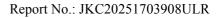


	UL 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.7	Solid insulation in wound components		N/A
5.4.4.9	Solid insulation at frequencies >30 kHz		N/A
	High frequency peak working voltage V <sub>PW</sub> (V):		N/A
	Total thickness <i>d</i> (mm)		N/A
	Breakdown electric field strength E <sub>p</sub> (kV/mm):		N/A
	Reduction Factor K <sub>R</sub> (kV/mm):		N/A
	Breakdown electric field strength E <sub>F</sub> :		N/A
	Actual electric strength $V_W$ (kV):		N/A
5.4.5	Antenna terminal insulation		N/A
	General		
5.4.5.1			N/A
5.4.5.2	Voltage surge test		N/A
	Insulation resistance (M)		N/A
5.4.6	Insulation of internal wire as part of supplementary safeguard		N/A
5.4.7	Tests for semiconductor components and for cemented joints		N/A
5.4.8	Humidity conditioning		P
	Relative humidity (%):	93	_
	Temperature (°C):	25	
	Duration (h):	48	
5.4.9	Electric strength test		N/A
5.4.11	Insulation between external circuits and earthed circuitry		N/A
5.4.11.1	Exceptions to separation between external circuits and earth		N/A
5.4.11.2	Requirements		N/A
	Rated operating voltage U <sub>op</sub> (V)		N/A
	Nominal voltage U <sub>pea</sub> (V):		N/A
	Max increase due to variation U <sub>sp</sub> :		N/A
	Max increase due to ageing U <sub>sa</sub> :		N/A
	$U_{op}=U_{peak}+U_{sp}+U_{sa}$ :		N/A
5.5	Components as safeguards	1	N/A
5.5.1	General General		N/A
5.5.2	Capacitors and RC units		N/A
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector		N/A
5.5.3	Transformers		N/A



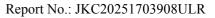


	UL 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
5.5.4	Optocouplers		N/A
5.5.5	Relays		N/A
5.5.6	Resistors		
5.5.7	SPD's		
5.6	Protective conductor		N/A
5.6.2	Requirement for protective conductors		N/A
5.6.3	Requirement for protective earthing conductors		N/A
	Protective earthing conductor size (mm2)		_
5.6.4	Requirement for protective bonding conductors		N/A
5.6.5	Terminals for protective conductors		N/A
5.6.5.1	Requirement		N/A
5.6.5.2	Fault current-carrying protective conductors		N/A
5.6.5.2.3	Protective earthing conductor size (mm <sup>2</sup> ):		N/A
	Protective bonding conductor size (mm <sup>2</sup> ):		N/A
5.6.6	Protective conductors used as supplementary safeguard		N/A
5.6.6.1	Requirement		N/A
5.6.6.2	Test Method Resistance		N/A
5.6.7	Reliable earthing		N/A
5.7	Prospective touch voltage, touch current and protective conductor current		
5.7.2	Measuring devices and networks		P
5.7.3	Equipment set-up, supply connections and earth connections		P
	System of interconnected equipment (separate connections/single connection):	Stand alone equipment	_
	Multiple connections to mains (one connection at a time/simultaneous connections):		_
5.7.4	Unearthed conductive accessible parts		N/A
5.7.5	Earthed accessible conductive parts		N/A
5.7.6	Protective conductor current		N/A
	Supply Voltage (V):		N/A
	Measured current (mA):		N/A
	Instructional Safeguard		N/A
5.7.7	Prospective touch voltage and touch current due to external circuits		N/A



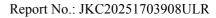


	UL 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
	a) Equipment with earthed external circuits Measured current (mA)		N/A
	B) Equipment whose external circuits are not referenced to earth. Measured current (mA):		N/A
6	ELECTRICALLY- CAUSED FIRE		P
6.2	Classification of power sources (PS) and potential igniti	on sources (PIS)	N/A
6.2.2	Power source circuit classifications		N/A
6.2.2.1	General		N/A
6.2.2.2	Power measurement for worst-case load fault		N/A
6.2.2.3	Power measurement for worst-case power source fault		N/A
6.2.2.4	PS1		N/A
6.2.2.5	PS2		P
6.2.2.6	PS3		N/A
6.2.3	Classification of potential ignition sources		N/A
6.2.3.1	Arcing PIS		N/A
6.2.3.2	Resistive PIS		N/A
6.3	Safeguards against fire under normal operating condition conditions	ns and abnormal operating	Р
6.3.1	Requirements		P
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Protection Method	Method of "control of fire spread" is used.	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		P
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits		Р
6.4.3.1	General		P
6.4.3.2	Supplementary Safeguards		P
	Special conditions if conductors on printed boards are opened or peeled		N/A
6.4.3.3	Single Fault Conditions		P
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits		N/A
6.4.5	Control of fire spread in PS2 circuits		P
6.4.5.2	Supplementary safeguards		P
6.4.6	Control of fire spread in PS3 circuit		P
6.4.7	Separation of combustible materials from a PIS		P



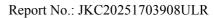


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Clause	Requirement + Test	Result - Remark	Verdict
6.4.7.1	General		N/A
6.4.7.2	Separation by distance		N/A
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers		P
6.4.8.1	Fire enclosure and fire barrier material properties		N/A
6.4.8.1.1	Requirements for a fire barrier		N/A
6.4.8.1.2	Requirements for a fire enclosure		N/A
6.4.8.2	Constructional requirements for a fire enclosure and a fire barrier		N/A
6.4.8.2.1	Fire enclosure and fire barrier openings		N/A
6.4.8.2.2	Fire barrier dimensions		N/A
6.4.8.2.3	Fire Enclosure dimensions, top openings (mm):		N/A
	Needle Flame test		N/A
6.4.8.2.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c): dimensions (mm):		N/A
6.4.8.2.5	Integrity of the fire enclosure, condition met: a), b) or c): dimensions (mm):		N/A
6.4.8.3	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating:		N/A
6.5	Internal and external wiring		P
6.5.1	General		P
6.5.2	Cross-sectional area (mm <sup>2</sup> ):		
6.5.3	Requirements for interconnection to building wiring		P
6.6	Safeguards against fire due to connection to additional equipment		P
	External port limited to PS2 or complies with Clause Q.1		P
7	INJURY CAUSED BY HAZARDOUS SUBSTANCE	ES	P
7.2	Reduction of exposure to hazardous substances		P
7.5	Use of instructional safeguards and instructions		P
	Instruction Safeguard (ISO 7010)		N/A
8	MECHANICALLY-CAUSED INJURY		P
8.1	General		P
8.2	Mechanical energy source classifications		P
8.3	Protection against mechanical energy sources		P
8.4	Safeguards against parts with sharp edges and corners		P
8.4.1	Safeguards		P
8.5	Safeguards against moving parts		N/A



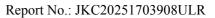


UL 62368-1				
Clause	Requirement + Test	Result - Remark	Verdict	
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment		N/A	
8.5.2	Instructional Safeguard:		N/A	
8.5.4	Special categories of equipment comprising moving parts		N/A	
8.5.4.1	Large data storage equipment		N/A	
8.5.4.2	Equipment having electromechanical device for destruction of media		N/A	
8.5.4.2.1	Safeguards and Safety Interlocks		N/A	
8.5.4.2.2	Instructional safeguards against moving parts		N/A	
	Instructional Safeguard:		N/A	
8.5.4.2.3	Disconnection from the supply		N/A	
8.5.4.2.4	Probe type and force (N):		N/A	
8.5.5	High Pressure Lamps	No high pressure lamps	N/A	
8.5.5.1	Energy Source Classification		N/A	
8.5.5.2	High Pressure Lamp Explosion Test		N/A	
8.6	Stability		N/A	
8.6.1	Product classification		N/A	
	Instructional Safeguard:		N/A	
8.6.2	Static stability for floor standing equipment		N/A	
8.6.2.2	Static stability test		N/A	
	Applied Force:		N/A	
8.6.2.3	Downward Force Test		N/A	
8.6.3	Relocation stability test		N/A	
	Unit configuration during 10° tilt			
8.6.4	Glass slide test		N/A	
8.6.5	Horizontal force test (Applied Force):		N/A	
	Position of feet or movable parts		N/A	
8.7	Equipment mounted to wall or ceiling		N/A	
8.7.1	Mounting Means (Length of screws (mm) and mounting surface):		N/A	
8.7.2	Direction and applied force:		N/A	
8.8	Handles strength		N/A	
8.8.1	Classification		N/A	
8.8.2	Applied Force:		N/A	



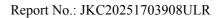


	UL 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
8.9	Wheels or casters attachment requirements		N/A
8.9.1	Classification		N/A
8.9.2	Applied force:		N/A
8.10	Carts, stands and similar carriers		P
8.10.1	General		P
8.10.2	Marking and instructions		P
	Instructional Safeguard:		P
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force:		N/A
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N):		N/A
8.10.6	Thermoplastic temperature stability (°C):		N/A
8.11	Mounting means for rack mounted equipment		N/A
8.11.2	Product Classification		N/A
8.11.3	Mechanical strength test, variable N		N/A
8.12	Mechanical strength test 250N, including end stops		N/A
	Telescoping or rod antennas		N/A
9	THERMAL BURN INJURY		P
9.2	Thermal energy source classifications	Refer to Energy Source identification and classification table for thermal energy source	P
9.3	Protection against thermal energy sources		P
9.4	Requirements for safeguards		N/A
9.4.1	Equipment safeguard		P
9.4.1.2	Temperatures on Accessible Surfaces		P
9.4.2	Instructional safeguard:		N/A
В	NORMAL OPERATING CONDITION TESTS, ABNORMAL AND SINGLE FAULT CONDITION TESTS	L OPERATING CONDITION TESTS	P
B.2	Normal Operating Conditions		P
B.2.1	General requirements		P
	Audio Amplifiers and equipment with audio amplifiers	Not such equipment.	N/A
B.2.3	Supply voltage and tolerances	Rated voltage 10 %	P



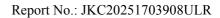


	UL 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
B.2.5	Input test		N/A
B.3	Simulated abnormal operating conditions		P
B.3.1	General requirements		P
B.3.2	Covering of ventilation openings		N/A
B.3.3	D.C. mains polarity test		N/A
B.3.4	Setting of voltage selector	No such voltage selector	N/A
B.3.5	Maximum load at output terminals		P
B.3.6	Reverse battery polarity	No batteries used	N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.		N/A
B.3.8	Safeguards functional during and after abnormal operating conditions	All safeguards remained effective.	Р
B.4	Simulated single fault conditions		P
B.4.2	Temperature controlling device open or short-circuited	No such controlling device	N/A
B.4.3	Motor tests	No motors used	N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature		N/A
B.4.4	Short circuit of functional insulation		P
B.4.4.1	Short circuit of clearances for functional insulation		P
B.4.4.2	Short circuit of creepage distances for functional insulation		P
B.4.4.3	Short circuit of functional insulation on coated printed boards		N/A
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors		P
B.4.6	Short circuit or disconnect of passive components		P
B.4.7	Continuous operation of components	Not intermittent or short-time operation equipment	N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions		N/A
B.4.9	Battery charging under single fault conditions	No batteries used	N/A
D	TEST GENERATORS		N/A
D.1	Impulse test generators		N/A
D.2	Antenna interface test generator		N/A
D.3	Electronic pulse generator		N/A





CI	UL 62368-1	D 1/ D 1	X7 1° :
Clause	Requirement + Test	Result - Remark	Verdict
E	TEST CONDITIONS FOR EQUIPMENT CONTAINING AU	IDIO AMPLIFIERS	N/A
E.1	Audio amplifier normal operating conditions		N/A
	Audio signal voltage (V)		
	Rated load impedance (Ω)		
E.2	Audio amplifier abnormal operating conditions		N/A
F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTR	UCTIONAL SAFEGUARDS	P
F.1	General requirements		P
	Instructions – Language	Instructions in English are checked	
F.2	Letter symbols and graphical symbols		P
F.2.1	Letter symbols according to IEC60027-1	Letter symbols for quantities andunits are compliance with IEC60027-1	Р
F.2.2	Graphic symbols IEC, ISO or manufacturer specific	Graphic symbols are compliancewith IEC 60417 or ISO 3864-2 orISO 7000	P
F.3	Equipment markings		P
F.3.1	Equipment marking locations	Located on the enclosure surface	P
F.3.2	Equipment identification markings		P
F.3.2.1	Manufacturer identification	See copy of marking plate	_
F.3.2.2	Model identification		_
F.3.3	Equipment rating markings		P
F.3.3.1	Equipment with direct connection to mains		P
F.3.3.2	Equipment without direct connection to mains		N/A
F.3.3.3	Nature of supply voltage	See copy of marking plate	_
F.3.3.4	Rated voltage	See copy of marking plate	_
F.3.3.4	Rated frequency	See copy of marking plate	
F.3.3.6	Rated current or rated power	See copy of marking plate	
F.3.3.7	Equipment with multiple supply connections	No multiple supply connection	N/A
F.3.4	Voltage setting device	No such device	N/A
F.3.5	Terminals and operating devices	See below.	P
F.3.5.1	Mains appliance outlet and socket-outlet markings	No such devices on the equipment.	N/A
F.3.5.2	Switch position identification marking	No such switch on the equipment	N/A
F.3.5.3	Replacement fuse identification and rating markings		P



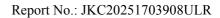


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Clause	Requirement + Test	Result - Remark	Verdict		
F.3.5.4	Replacement battery identification marking	No batteries.	N/A		
F.3.5.5	Terminal marking location				
F.3.6	Equipment markings related to equipment classification		P		
F.3.6.1	Class I Equipment		N/A		
F.3.6.1.1	Protective earthing conductor terminal		P		
F.3.6.1.2	Neutral conductor terminal		N/A		
F.3.6.1.3	Protective bonding conductor terminals		N/A		
F.3.6.2	Class II equipment (IEC60417-5172)		N/A		
F.3.6.2.1	Class II equipment with or without functional earth		N/A		
F.3.6.2.2	Class II equipment with functional earth terminal marking		N/A		
F.3.7	Equipment IP rating marking				
F.3.8	External power supply output marking	See copy of marking plate.	P		
F.3.9	Durability, legibility and permanence of marking	Marking label is tested in appliance	P		
F.3.10	Test for permanence of markings	After test, the marking remain legible, it was not possible to remove marking plate and no curling observed.	P		
F.4	Instructions		P		
	a) Equipment for use in locations where children not likely to be present - marking		N/A		
	b) Instructions given for installation or initial use		N/A		
	c) Equipment intended to be fastened in place		N/A		
	d) Equipment intended for use only in restricted access area		N/A		
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1		N/A		
	f) Protective earthing employed as safeguard		N/A		
	g) Protective earthing conductor current exceeding ES 2 limits		N/A		
	h) Symbols used on equipment		P		
	i) Permanently connected equipment not provided with all-pole mains switch		N/A		



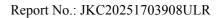
UL 62368-1						
Clause	Requirement + Test Result - Remark					
	j) Replaceable components or modules providing safeguard function		N/A			
F.5	Instructional safeguards	Instructional safeguard is not required.	N/A			
	Where "instructional safeguard" is referenced in the test report it specifies the required elements, location of marking and/or instruction		N/A			

J	INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION				
	General requirements		P		
К	SAFETY INTERLOCKS				
K.1	General requirements	No safety interlocks inside the EUT	N/A		
K.2	Components of safety interlock safeguard mechanism		N/A		
K.3	Inadvertent change of operating mode		N/A		
K.4	Interlock safeguard override		N/A		
K.5	Fail-safe		N/A		
	Compliance		N/A		
K.6	Mechanically operated safety interlocks		N/A		
K.6.1	Endurance requirement		N/A		
K.6.2	Compliance and Test method		N/A		
K.7	Interlock circuit isolation		N/A		
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location)		N/A		
K.7.2	Overload test, Current (A)		N/A		
K.7.3	Endurance test		N/A		
K.7.4	Electric strength test		N/A		
L	DISCONNECT DEVICES		P		
L.1	General requirements		P		
L.2	Permanently connected equipment		N/A		
L.3	Parts that remain energized  No accessible parts on the supply side of the disconnect device.				
L.4	Single phase equipment	Disconnect device disconnects all poles simultaneously.	P		
L.5	Three-phase equipment		N/A		



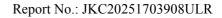


	UL 62368-1		
Clause	Requirement + Test	Result - Remark	Verdict
L.6	Switches as disconnect devices		N/A
L.7	Plugs as disconnect devices	See instruction for details	P
L.8	Multiple power sources		N/A
М	EQUIPMENT CONTAINING BATTERIES AND THEIR PROT	TECTION CIRCUITS	N/A
M.1	General requirements		N/A
M.2	Safety of batteries and their cells		N/A
M.2.1	Requirements		N/A
M.2.2	Compliance and test method (identify method)		N/A
M.3	Protection circuits		N/A
M.3.1	Requirements		N/A
M.3.2	Tests		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
M.3.3	Compliance		N/A
M.4	Additional safeguards for equipment containing secondary lithium battery		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A
M.4.2.2a)	Charging voltage, current and temperature		_
M.4.2.2 b)	Single faults in charging circuitry		_
M.4.3	Fire Enclosure		N/A
M.4.4	Endurance of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation		N/A
M.4.4.3	Drop and charge/discharge function tests		N/A
	Drop		N/A
	Charge		N/A
	Discharge		N/A
M.4.4.4	Charge-discharge cycle test		N/A
M.4.4.5	Result of charge-discharge cycle test		N/A



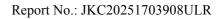


	UL 62368-1				
Clause	Requirement + Test	Result - Remark	Verdict		
M.5	Risk of burn due to short circuit during carrying		N/A		
M.5.1	Requirement		N/A		
M.5.2	Compliance and Test Method (Test of P.2.3)		N/A		
M.6	Prevention of short circuits and protection from other effects of electric current		N/A		
M.6.1	Short circuits		N/A		
M.6.1.1	General requirements		N/A		
M.6.1.2	Test method to simulate an internal fault		N/A		
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method)				
M.6.2	Leakage current (mA)		N/A		
M.7	Risk of explosion from lead acid and NiCd batteries		N/A		
M.7.1	Ventilation preventing explosive gas concentration				
M.7.2	Compliance and test method		N/A		
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A		
M.8.1	General requirements		N/A		
M.8.2	Test method		N/A		
M.8.2.1	General requirements		N/A		
M.8.2.2	Estimation of hypothetical volume Vz (m3/s)		_		
M.8.2.3	Correction factors		_		
M.8.2.4	Calculation of distance d (mm)		_		
M.9	Preventing electrolyte spillage		N/A		
M.9.1	Protection from electrolyte spillage		N/A		
M.9.2	Tray for preventing electrolyte spillage		N/A		
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing)		N/A		
N	ELECTROCHEMICAL POTENTIALS	I	N/A		
	Metal(s) used		_		
0	MEASUREMENT OF CREEPAGE DISTANCES AND CLEAR	ANCES	P		
	Figures O.1 to O.20 of this Annex applied	Measurement is in accordance with applicable figures.	_		



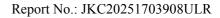


	UL 62368-1	1				
Clause	Requirement + Test	Result - Remark	Verdict			
P	SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS					
P.1	General requirements	No opening.	P			
P.2.2	Safeguards against entry of foreign object		P			
	Location and Dimensions (mm)		_			
P.2.3	Safeguard against the consequences of entry of foreign object		N/A			
P.2.3.1	Safeguards against the entry of a foreign object		N/A			
	Openings in transportable equipment		N/A			
	Transportable equipment with metalized plastic parts		N/A			
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard)		N/A			
P.3	Safeguards against spillage of internal liquids	No internal liquids.	N/A			
P.3.1	General requirements		N/A			
P.3.2	Determination of spillage consequences		N/A			
P.3.3	Spillage safeguards		N/A			
P.3.4	Safeguards effectiveness		N/A			
P.4	Metallized coatings and adhesive securing parts	No metallized coatings or adhesive securing parts.	N/A			
P.4.2 a)	Conditioning testing		N/A			
	Tc (°C)		_			
	Tr (°C)		_			
	Ta (°C)		_			
P.4.2 b)	Abrasion testing		N/A			
P.4.2 c)	Mechanical strength testing		N/A			
Q	CIRCUITS INTENDED FOR INTERCONNECTION WITH BU	ILDING WIRING	P			
Q.1	Limited power sources		P			
Q.1.1 a)	Inherently limited output		N/A			
Q.1.1 b)	Impedance limited output		P			
	- Regulating network limited output under normal operating and simulated single fault condition		P			
Q.1.1 c)	Overcurrent protective device limited output		N/A			





	UL 62368-1		1					
Clause	Requirement + Test	Result - Remark	Verdict					
Q.1.1 d)	IC current limiter complying with G.9		N/A					
Q.1.2	Compliance and test method		P					
Q.2	Test for external circuits – paired conductor cable	N/A						
	Maximum output current (A)		_					
	Current limiting method		_					
R	LIMITED SHORT CIRCUIT TEST	N/A						
R.1	General requirements		N/A					
R.2	Determination of the overcurrent protective device and circuit	N/A						
R.3	Test method Supply voltage (V) and short- circuit current (A)):							
S	TESTS FOR RESISTANCE TO HEAT AND FIRE							
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A					
	Samples, material		_					
	Wall thickness (mm)		_					
	Conditioning ( C)		_					
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A					
	- Material not consumed completely		N/A					
	- Material extinguishes within 30s		N/A					
	- No burning of layer or wrapping tissue		N/A					
S.2	Flammability test for fire enclosure and fire barrier integrity		N/A					
	Samples, material		_					
	Wall thickness (mm)		_					
	Conditioning ( C)		_					
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A					
	Test specimen does not show any additional hole		N/A					
S.3	Flammability test for the bottom of a fire enclosure		N/A					
	Samples, material		_					
	Wall thickness (mm)							





Clause	Requirement + Test	Result - Remark	Verdict
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A
S.5	Flammability test for fire enclosures materials of equipment with a steady-state power - exceeding 4 000 W		N/A
	Samples, material		_
	Wall thickness (mm)		_
	Conditioning (test condition), ( C)		_
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A
	After every test specimen was not consumed completely		N/A
	After fifth flame application, flame extinguished within 1 min		N/A
T	MECHANICAL STRENGTH TESTS		P
Г.1	General requirements		P
Т.2	Steady force test, 10 N		P
Т.3	Steady force test, 30 N		N/A
T.4	Steady force test, 100 N		P
Т.5	Steady force test, 250 N		N/A
Г.6	Enclosure impact test		N/A
	Fall test		N/A
	Swing test		N/A
Т.7	Drop test		N/A
Т.8	Stress relief test		P
Т.9	Impact Test (glass)		N/A
Т.9.1	General requirements		N/A
T.9.2	Impact test and compliance		N/A
	Impact energy (J)		_
	Height (m)		
T.10	Glass fragmentation test	No glass.	N/A
T.11	Test for telescoping or rod antennas		N/A
	Torque value (Nm)		_
V	DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PRO	BES AND WEDGES)	P



	UL 62368-1					
Clause	Requirement + Test	Result - Remark	Verdict			
V.1	Accessible parts of equipment		P			
V.2	Accessible part criterion		P			



4.1.2	TABLE	ABLE: List of critical components						
' ' '		Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity1		
Enclosure		Various	Various	V-0		VDE		
Supplementary information:								

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Thermal requirements							Р	
	Supply voltage (V):			: 12V				_	
	Ambient T <sub>min</sub> (°C):			See below				_	
	Ambient T <sub>max</sub> (°C)							_	
Maximum measured temperature T of part/at::			:::	T (°C)				Allowed T <sub>max</sub> (°C)	
Enclosure	Enclosure				37.2				75
Ambient				24.6					
Supplement	tary information:								
Temperature T of winding: $t_1$ (°C) $R_2$			R <sub>1</sub> (Ω	2)	t <sub>2</sub> (°C)	R <sub>2</sub> (Ω)	T (°C)	Allowed T <sub>max</sub> (°C)	Insulation class
Supplement	tary information:								

5.4.1.10.3	TABLE: Ball p	TABLE: Ball pressure test of thermoplastics				
Allowed impression diameter (mm)			≤ 2 mm			
Object/Part No./Material Manufacturer/trade		Manufacturer/trademark	Test temperature (°C)	Test temperature (°C) Impression dia		
Plastic enclo	sure	See table 4.1.2	75	1.0	1	
PCB See table 4.		See table 4.1.2	125	1.0	)	
Supplement	ary informatio	n:				

5.4.2.2, 5.4.2.4 and 5.4.3	TABLE: Minimum Clearances/ Creepage distance							
	and creepage at/of/between:	Up (V)	U r.m.s. (V)	Frequenc y (kHz) <sup>1</sup>	Required cl (mm)	cl (mm) <sup>2</sup>	Required 3 cr (mm)	cr (mm)
Between L an	d N				1.5	3.0	2.5	3.0
Between live housing	parts and contact				4.0	5.2	5.0	5.2



Supplementary information:

Note 1: Only for frequency above 30 kHz

Note 2: See table 5.4.2.8 if this is based on electric strength test (5.4.2.8) Note 3:

Provide Material Group

Note 4: BI: basic insulation; SI: supplementary insulation; DI: double insulation; RI: reinforced insulation.

5.4.2.8 TABLE: Clearances based on electric strength test				
Test voltage ap	pplied between:	Required cl (mm)	Test voltage (kV) peak/ r.m.s. / d.c.	Breakdown Yes / No
Between the pol the metal foil to	les of the power supply and the housing		1000Vrms 1min	No
Supplementary	information:			

5.4.4.2, 5.4.4.5c), 5.5.2.7	TABLE Distance through insulation measurements				
Distance thro	ough insulation di at/of:	Up (V)	Test voltage (V)	Required di (mm)	di (mm)
				0.4	*
Supplementa	ary information:				

5.6.6.4 TABLE: Resistance of protective conductors and terminations					
Ac	cessible part	Test current (A)	Duration (min)	Voltage drop (V)	Resistance ( $\Omega$ )
Supplementar	ry information:				

5.7.4.1 TABLE: Unearthed conductive parts accessible for ordinary person							
Supply volta	Supply voltage (V):						
Earthed neutral conductor [Voltage differences less than 1% or more]::							
	Specify method used for measurement as described in IEC60990, sub-clause 4.3::		_				
5.7.4.1a)	TABLE: Unearthed conductive parts ac	cessible (for ordinary person)		N/A			
Unearthed a	ccessible part	Prospective touch voltage (V) Touch cur		ent (mA)			
After fault o	f the applicable basic safeguard						
After fault of the applicable supplementary safeguard							



		1		1			
Supplementa	ry Information:						
For fault conditi	ons, identify the safeguard that was faulted e.g., -Access	sible Part	/basic insulation.l				
5.7.4.1b)	TABLE: Unearthed conductive parts ac	cessible	e (>ES2 voltage limits)			N/A	
	ecessible part, at which the prospective toucheds the ES2 limits	1	Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7		Tou	ch current (mA)	
			1				
			2				
			3				
			4				
			5				
			6				
			8				
Supplementa	ry Information:						
If touch current measurements are not needed, indicate -N/Al in the space provided.							
IEC60990, sub-	IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable.						
If the touch curr	ent did not exceed ES2 limits, indicate, -PASS.I						
	I .					1	

5.7.4.2 TABLE: Unearthed conductive parts accessible to instructed persons							
Supply voltage (V):				_			
Earthed neutral conductor [Voltage differences less than 1% or more]::			_				
Specify method used for measurement as described in IEC60990, sub-clause 4.3:				_			
5.7.4.2 a)	TABLE: Unearthed conductive parts ac	ccessible to instructed persons		N/A			
Unearthed a	ccessible part	Prospective touch voltage (V) Touch cur		rent (mA)			
			•				

5.6.6.2	TABLE: Resistance of protective conductors and terminations					
Acc	essible part	Test current	Duration	Voltage drop	Re	sistance
		(A)	(min)	(V)		(Ω)
Supplementary information:						



5.4.7.2 b)	TABLE: Unearthed conductive parts accessible (>ES2 voltage limits)				
			uch current (mA)		
		1			
		2			
		3			
		4			
		5			
		6			
		8			

## Supplementary Information:

If touch current measurements are not needed, indicate -N/Al in the space provided.

IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable.

If the touch current did not exceed ES2 limits, indicate, -PASS.I

5.7.5	TABLE: Earthed accessible conductive part		N/A
Supply volta	ge:		_
Earthed neutral conductor [Voltage differences less than 1% or more]:			_
Specify method used for measurement as described in IEC60990, sub-clause 4.3:			_
Earthed acce	essible conductive part	Test conditions specified in 6.1 of IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7	Touch current (mA)
		1	
		2	
		3	
		4	
		5	
		6	
		8	

## Supplementary Information:

IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable.

(\*) IEC60990, sub-clause 6.2.2.2 is not applicable if switch or disconnect device (e.g., appliance coupler) provided.



8.5	TABLE: Fan Blade	Classification			N/A	
Variable		Value				
Mass, m		kg				
Fan blade rad	lius, r	mm				
Rotational spo	eed, N	rpm				
K factor (figure 47), K						
Classification	formula	N 115,000	<i>K</i> 2,400		N K 122,000 3,600	
Classification	calculation					
Classification	: MS					
Supplementar	ry information:					

8.5.5.2.1 TABLE: Rotating Solid Media				N/A
Variable			alue	
Media thickn	ness (mm):			
Total media	mass, M (kg):			
Constant, S	······································	0,250 (no deflector)	0,125 (deflector	)
Velocity, v (r	m/s)			
Media outer	radius, R <sub>o</sub> (m):			
Force {F =S	x (mv <sup>2</sup> )/R <sub>o</sub> } (N):			
Smallest dia	of media, X (mm):			
Test Result	<del>.</del>			
Supplementa	ry information:			

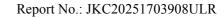
8.5.5.2.2	TABLE: High Pressure Lamp			N/A
Description		Values Energy Source Classif		assification
Lamp type				
Manufacture				
Cat no	······································			
Pressure (cole	d) (MPa)		MS_	
Pressure (	operating) (MPa)		MS_	
Operating	time (minutes):			
Explosion	method:		_	



Max particle length escaping enclosure (mm):	MS_						
Max particle length beyond 1 m (mm):	MS_						
Overall result	·						
Supplementary information:							

B.2.5	TABLE: Input test							N/A	
U(V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status		
Supplementary information:									

Equipment may be have rated current or rated power or both. Both should be measured



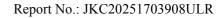


# Sample Pictures:







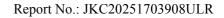




# **Sample Pictures:**









# **Sample Pictures:**





 $^{***}End\, of\, Report ^{***}$