Test Report issued under the responsibility of:

TEST REPORT
IEC 62368-1
Audio/video, information and communication technology equipment
Part 1: Safety requirements

Report Number ..... :	PSE107-0418
Date of issue ..... :	2018-06-06
Total number of pages ..... :	85
Applicant's name ..... :	KAGA ELECTRONICS (USA) INC
Address ..... :	780 Montague Expy, Suite 403 San Jose, CA 95131 USA
Test specification:	
Standard ..... :	IEC 62368-1:2014 (Second Edition)
Test procedure ..... :	CB Scheme
Non-standard test method ..... :	N/A
Test Report Form No. ..... :	IEC62368_1B
Test Report Form(s) Originator ..... :	UL(US)
Master TRF ..... :	2014-03

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.
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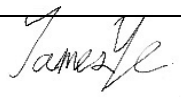
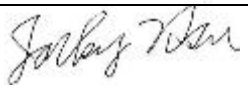
Test Item description ..... :		AC Adapter	
Trade Mark ..... :		Volgen	
Manufacturer ..... :		KAGA ELECTRONICS (USA) INC 780 Montague Expy, Suite 403 San Jose, CA 95131 USA	
Model/Type reference ..... :		1) KTPS36-xxxyyyDT-2P-VI (for Desktop Equipment) 2) KTPS36-xxxyyyzz-VI (for Direct Plug-In Equipment) xxx can be 050, 075, 085, 090, 120, 135, 150, 160, 180, 240 or 480 for output voltage; yyy can be 075, 150, 200, 225, 240, 250, 266, 300, 334, 352, 400 or 500 for output current; zz can be AU with AU plug, UK with UK plug, EU with EU plug, WA with US Plug or MP for Snap-fit plug with EU, AU, UK, CN, KR or US plug.	
Ratings ..... :		I/P: 100-240V~ 50-60Hz, 1A MAX. O/P: See Model Difference	
Testing procedure and testing location:			
☒	CB Testing Laboratory:		
Testing location/ address ..... :		PSE INC., TAIWAN / 9F-1, No.80, Sec. 2, Guang Fu Rd., San Chung Distr., New Taipei City, TAIWAN CHINESE TAIPEI	
☐	Associated CB Testing Laboratory:		
Testing location/ address ..... :			
Tested by (name + signature) .....:		James Ye Project handler	
Approved by (name + signature) .....:		Jacky Hsu Reviewer	
☐	Testing procedure: TMP/CTF Stage 1		
Testing location/ address ..... :			
Tested by (name + signature) .....:			
Approved by (name + signature) .....:			
☐	Testing procedure: WMT/CTF Stage 2		
Testing location/ address ..... :			
Tested by (name + signature) .....:			
Witnessed by (name + signature).....:			
Approved by (name + signature) .....:			
☐	Testing procedure: SMT/CTF Stage 3 or 4		
Testing location/ address .....:			

Tested by (name + signature) .....:		
Approved by (name + signature) .....:		
Supervised by (name + signature) .....:		

List of Attachments (including a total number of pages in each attachment):

1) Test result (11 pages)
2) National Differences (13 pages)
3) Enclosure Drawing (14 page)
4) Photo (16 pages)

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
- Steady force test 100N (4.4.4.2, T.4) - Steady force test 250N (4.4.4.2, T.5) - Impact tests (4.4.4.4, T.6) - Drop tests (4.4.4.3, T.7) - Stress relief test (4.4.4.7, T.8) - Torque test (direct plug-in equipment) (4.7) - Classification of electrical energy sources (5.2) - Accessible ES1 circuits separated from other ES circuits using components (5.2.1.1) - Temperature measurements (5.4.1.4, 6.3.2, 9.0, B.2.6) - Determination of working voltage (5.4.1.8) - Humidity test (5.4.8) - Electric strength tests (5.4.9) - Stored discharge on capacitors (5.5.2.2) - Earthed accessible conductive part (5.7.2.2, 5.7.4) - Input test (B.2.5) - Abnormal operating condition tests (B.3) - Fault condition tests (B.4) - Test for the permanence of markings (F.3.10) - Transformer overload test (G.5.3.3) - Limited power sources (Q.1) Test Model: KTPS36-480075DT-2P-VI, KTPS36-240150DT-2P-VI, KTPS36-160225DT-2P-VI, KTPS36-120300DT-2P-VI, KTPS36-090334DT-2P-VI, KTPS36-050500DT-2P-VI, KTPS36-480075WA-VI, KTPS36-240150WA-VI, KTPS36-160225WA-VI,	PSE INC., TAIWAN / 9F-1, No.80, Sec. 2, Guang Fu Rd., San Chung Distr., New Taipei City, TAIWAN CHINESE TAIPEI

KTPS36-120300WA-VI, KTPS36-090334WA-VI and KTPS36-050500WA-VI for represent	

Summary of compliance with National Differences:

List of countries addressed

- EU group differences, Canada and United States

  CENELEC member countries (EU group differences): Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

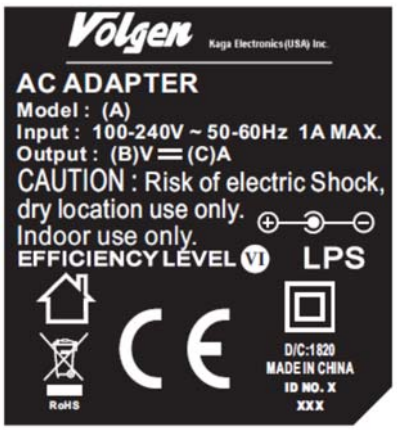
☒ **The product fulfils the requirements of CAN/CSA C22.2 No. 62368-1-14.**

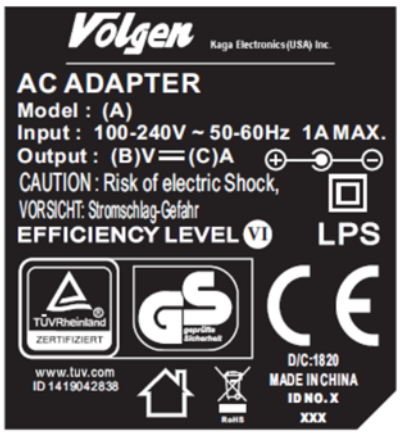
☒ **The product fulfils the requirements of EN 62368-1:2014 + A11: 2017**

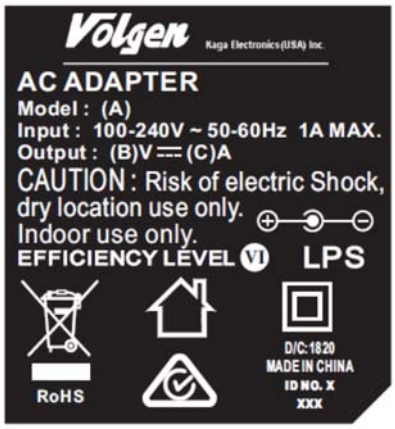
☒ **The product fulfils the requirements of UL 62368-1, Second Edition.**

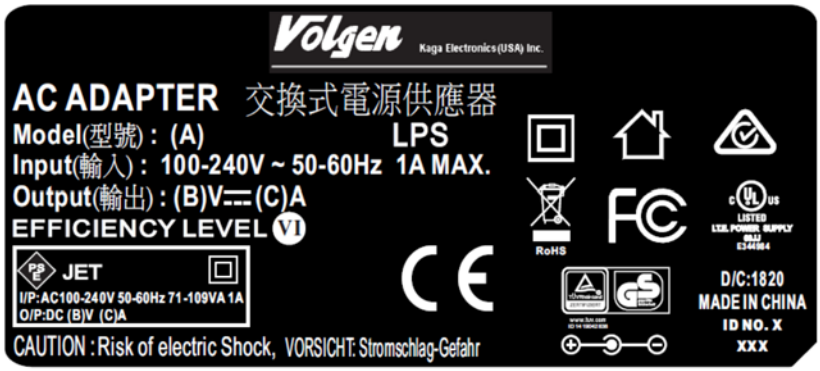
Copy of marking plate:

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









The provided marking plate is a draft where zz can be AU, UK, EU, WA or MP

The model No. (a), output voltage (b) and output current (c) where define as below table:

(A): Model No.	(B): Output Voltage	(C): Output Current
KTPS36-050500DT-2P-VI KTPS36-050500zz-VI	5	5
KTPS36-075400DT-2P-VI	7.5	4

KTPS36-075400zz-VI		
KTPS36-085352DT-2P-VI KTPS36-085352zz-VI	8.5	3.52
KTPS36-090334DT-2P-VI KTPS36-090334zz-VI	9	3.34
KTPS36-120250DT-2P-VI KTPS36-120250zz-VI	12	2.5
KTPS36-120300DT-2P-VI KTPS36-120300zz-VI	12	3
KTPS36-135266DT-2P-VI KTPS36-135266zz-VI	13.5	2.66
KTPS36-150240DT-2P-VI KTPS36-150240zz-VI	15	2.4
KTPS36-160225DT-2P-VI KTPS36-160225zz-VI	16	2.25
KTPS36-180200DT-2P-VI KTPS36-180200zz-VI	18	2
KTPS36-240150DT-2P-VI KTPS36-240150zz-VI	24	1.5
KTPS36-480075DT-2P-VI KTPS36-480075zz-VI	48	0.75

TEST ITEM PARTICULARS:	
Classification of use by ..... :	☒ Ordinary person ☐ Instructed person ☐ Skilled person ☒ Children likely to be present
Supply Connection ..... :	☒ AC Mains ☐ DC Mains ☐ External Circuit - not Mains connected ☐ ES1 ☐ ES2 ☐ ES3
Supply % Tolerance ..... :	☒ +10%/-10% ☐ +20%/-15% ☐ +____%/ -_____% ☐ None
Supply Connection – Type ..... :	☒ pluggable equipment type A - ☐ non-detachable supply cord ☒ appliance coupler ☒ direct plug-in ☐ mating connector ☐ pluggable equipment type B - ☐ non-detachable supply cord ☐ appliance coupler ☐ permanent connection ☐ mating connector ☐ other:_____
Considered current rating of protective device as part of building or equipment installation ..... :	16A or 20A (for UL and CSA) for building; 2A or 4A or 6.3A (for equipment) Installation location: ☒ building; ☒ equipment
Equipment mobility ..... :	☒ movable ☐ hand-held ☒ transportable ☐ stationary ☐ for building-in ☒ direct plug-in ☐ rack-mounting ☐ wall-mounted
Over voltage category (OVC) ..... :	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other: _____
Class of equipment ..... :	☐ Class I ☒ Class II ☐ Class III
Access location ..... :	☐ restricted access location ☒ N/A
Pollution degree (PD) ..... :	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified maxium operating ambient :	40°C
IP protection class ..... :	☒ IPX0 ☐ IP___
Power Systems ..... :	☒ TN ☐ TT ☒ IT - 230 V $_{L-L}$ for Norway
Altitude during operation (m) ..... :	☐ 2000 m or less ☒ 3100 m
Altitude of test laboratory (m) ..... :	☒ 2000 m or less ☐ _____ m
Mass of equipment (kg) ..... :	☒ 0.15 kg (max)
POSSIBLE TEST CASE VERDICTS:	
- test case does not apply to the test object..... :	N/A
- test object does meet the requirement..... :	P (Pass)
- test object does not meet the requirement ..... :	F (Fail)

TESTING:	
Date of receipt of test item..... :	2017-11-17
Date (s) of performance of tests..... :	2017-11-17 to 2017-12-06
GENERAL REMARKS:	
"(See Enclosure #)" refers to additional information appended to the report. **"(See appended table)" refers to a table appended to the report.** **Throughout this report a ☐ comma / ☒ point is used as the decimal separator.**	
Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided ..... :	☐ **Yes** ☒ **Not applicable**
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies) ..... :	Boayang Electronics Co., Ltd. Di Feng Gong Ye Qu 2 Hao Xiasha Liuwu Village, Shipai Town Dong Guan City P. R. China

GENERAL PRODUCT INFORMATION:

Report Summary –

All applicable tests according to the referenced standard(s) have been carried out.

No test conducted under this investigation due to copy of CB Test Report No.: PSE106-1062-1; CB Certification No. DK-71236-UL. All required test were carried out under the original investigation.

Report Number	Issued Date	Modification to the appliances	CB Certificate No.	Issued Date
PSE107-0418	2018-06-06	This test report is copy from PSE106-1062-1 and modify below items: 1) Change Applicant / Manufacturer to KAGA ELECTRONICS (USA) INC 2) Change Trade mark to Volgen 3) Change report number to PSE107-0418 4) Change model name. (See model difference)	--	--

Product Description –

The product is a Direct plug-in equipment for Class II intended for use with Audio/video, information and communication technology equipment, there electronic components mounted on PWB, and housed in a thermoplastic enclosure by ultrasonic welding.

The product was investigated to the following additional standards: UL62368-1 which were based on UL 1310 Class 2 Power Units (Mechanical Requirements on blades only);

Requirements on blades only);

- Direct plug-in blade securement test
- Direct plug-in security of input contacts

- Direct plug-in resistance to crushing
- Direct plug-in rod pressure test
- Direct plug-in input blade endurance
- Weight and moment determination: (direct plug-in unit)

The unit provided with difference type plug, there are for appliance to difference country used as below:

- US plug: Test conjunction in this report.
- EU plug: The plug have to be checked during national approval.
- CN Plug: The plug have to be checked during national approval.
- KR Plug: The plug have to be checked during national approval.
- JP Plug: The plug have to be checked during national approval.
- AU Plug: The plug have to be checked during national approval.
- UK Plug: The plug have to be checked during national approval.

Model Differences –

All models are identical except for model name, output rating, secondary winding of transformer and circuit and PCB on the secondary side due to U4 provided or not, is defined as SR and SBD, see as below:

Part / Models	Input Rated	Output Rated	PCB	Transformer (T1)
KTPS36-050500DT-2P-VI KTPS36-050500zz-VI	100-240V~, 50-60Hz, 1A MAX.	5V⎓5A	SR	R53S10-4490
KTPS36-075400DT-2P-VI KTPS36-075400zz-VI		7.5V⎓4A	SR	R53S10-4520
KTPS36-085352DT-2P-VI KTPS36-085352zz-VI		8.5V⎓3.52A	SR	
KTPS36-090334DT-2P-VI KTPS36-090334zz-VI		9V⎓3.34A	SR	
KTPS36-120250DT-2P-VI KTPS36-120250zz-VI		12V⎓2.5A	SBD	R53S10-4530
KTPS36-120300DT-2P-VI KTPS36-120300zz-VI		12V⎓3A	SBD	
KTPS36-135266DT-2P-VI KTPS36-135266zz-VI		13.5V⎓2.66A	SBD	
KTPS36-150240DT-2P-VI KTPS36-150240zz-VI		15V⎓2.4A	SBD	
KTPS36-160225DT-2P-VI KTPS36-160225zz-VI		16V⎓2.25A	SBD	R53S10-4540
KTPS36-180200DT-2P-VI KTPS36-180200zz-VI		18V⎓2A	SBD	
KTPS36-240150DT-2P-VI KTPS36-240150zz-VI		24V⎓1.5A	SBD	R53S10-4500
KTPS36-480075DT-2P-VI KTPS36-480075zz-VI		48V⎓0.75A	SBD	R53S10-4510

Additional application considerations – (Considerations used to test a component or sub-assembly) –

- normal conditions	**N.C**.	- single fault conditions	**S.F.C**
- functional insulation	**OP**	- basic insulation	**BI**
- double insulation	**DI**	- supplementary insulation	**SI**

- between parts of opposite polarity	**BOP**	- reinforced insulation	**RI**

Indicate used abbreviations (if any)

PRIMARY CIRCUIT: circuit that is directly connected to the AC MAINS SUPPLY It includes, for example, the means for connection to the AC MAINS SUPPLY, the primary windings of transformers, motors and other loading devices.

SECONDARY CIRCUIT: circuit that has no direct connection to a PRIMARY CIRCUIT and derives its power from a transformer, converter or equivalent isolation device, or from a battery

ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:	
(Note 1: Identify the following six (6) energy source forms based on the origin of the energy.) (Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3.	
Electrically-caused injury (Clause 5): (Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification) Example: +5 V dc input ES1	
Source of electrical energy	**Corresponding classification (ES)**
Accessible part of AC inlet / plug (X capacitor)	ES3
All circuits except for output connector	ES3
Output connector	ES1
Electrically-caused fire (Clause 6): (Note: List sub-assembly or circuit designation and corresponding energy source classification) Example: Battery pack (maximum 85 watts): PS2	
Source of power or PIS	**Corresponding classification (PS)**
All circuits except for output circuits	PS3, Arching PIS, Resistive PIS
Output connector	PS2
Injury caused by hazardous substances (Clause 7) (Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.) Example: Liquid in filled component Glycol	
Source of hazardous substances	**Corresponding chemical**
N/A	
Mechanically-caused injury (Clause 8) (Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35.) Example: Wall mount unit MS2	
Source of kinetic/mechanical energy	**Corresponding classification (MS)**
Sharp edges and corners	MS1
Equipment mass	MS1
Thermal burn injury (Clause 9) (Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.) Example: Hand-held scanner – thermoplastic enclosure TS1	
Source of thermal energy	**Corresponding classification (TS)**
Plastic enclosure	TS1
Output connector	TS1
Radiation (Clause 10) (Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product RS1	
Type of radiation	**Corresponding classification (RS)**
LED indicator	RS1

ENERGY SOURCE DIAGRAM
Indicate which energy sources are included in the energy source diagram. Insert diagram below
See "ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE" ☐ ES ☐ PS ☐ MS ☐ TS ☐ RS

OVERVIEW OF EMPLOYED SAFEGUARDS				
Clause	**Possible Hazard**			
5.1	Electrically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (ES3: Primary Filter circuit)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary	ES3: Primary circuit	N/A	N/A	Plastic enclosure, See 5.4.2, 5.4.3, 5.5.3, 5.5.4
Ordinary	ES3: Capacitor connected between L and N	N/A	N/A	See 5.5.2.2
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100 Watt circuit)	Safeguards		
		Basic	Supplementary	Reinforced
PCB	PS3	See 6.3	Min. V-1	N/A
Plastic enclosure	PS3	See 6.3	V-0	N/A
Internal wiring	PS3	N/A	N/A	See 6.5
Output wiring	PS2	N/A	N/A	See 6.5
The other components/materials	PS3	See 6.3	See 6.4.5, 6.4.6	N/A
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3:High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
N/A	N/A	N/A	N/A	N/A
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
Supplementary Information: (1) See attached energy source diagram for additional details. (2) “N” – Normal Condition; “A” – Abnormal Condition; “S” Single Fault				

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

4	GENERAL REQUIREMENTS		P
4.1.1	Acceptance of materials, components and subassemblies	See appended table 4.1.2.	P
4.1.2	Use of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	P
4.1.3	Equipment design and construction	No accessible part which could cause injury.	P
4.1.15	Markings and instructions ..... :	(See Annex F)	P
4.4.4	Safeguard robustness	See as below.	P
4.4.4.2	Steady force tests ..... :	(See Annex T.4, T5)	P
4.4.4.3	Drop tests..... :	(See Annex T.7)	P
4.4.4.4	Impact tests..... :	(See Annex T.6)	P
4.4.4.5	Internal accessible safeguard enclosure and barrier tests ..... :	No such parts.	N/A
4.4.4.6	Glass Impact tests ..... :	No such glass used.	N/A
4.4.4.7	Thermoplastic material tests ..... :	(See Annex T.8)	P
4.4.4.8	Air comprising a safeguard ..... :	(See Annex T)	P
4.4.4.9	Accessibility and safeguard effectiveness	All safeguards remain effective.	P
4.5	Explosion	No explosion occurs during normal/abnormal operation and single fault conditions	P
4.6	Fixing of conductors	See as below.	P
4.6.1	Fix conductors not to defeat a safeguard	All conductors are reliable secured.	P
4.6.2	10 N force test applied to ..... :	10 N pull test performed for all relevant conductors.	P
4.7	Equipment for direct insertion into mains socket – outlets	See as below.	P
4.7.2	Mains plug part complies with the relevant standard ..... :	US plug: The dimension complied with the requirement of ANSI/NEMA WD6 and testing complied with UL1310 as below: a) Weight and Moment test: Result: W=134.5g (≤794g) S=16.9mm X=19.0mm Y=29.5mm Z=17.9mm WY/Z=221.7g (≤1361g)	P

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict
		WY/S=234.8g (≤1361g) WX=2555.5gm (≤57104gm) b) Blade securement test Result: Blade 1: 0.01mm Blade 2: 0.01mm Blade 1 and 2: 0.01mm The blades did not loosen by more than 2.4 mm or pull out All testing repeat two samples c) Security of input contacts Result: Blade 1: 0.01mm Blade 2: 0.01mm The blades did not loosen to a degree that would introduce a risk of a fire or an electric shock All testing repeat two samples d) Resistance to crushing Result: There was no splitting, cracking or shattering of the enclosure that would expose internal wiring or hazardous live parts e) Rod pressure: Result: The equipment was connected to 264Vac, 60Hz, during this test, peak voltage or touch current were monitored between earth ground and all parts of the enclosure (the outer foil wrap). Max. voltage=38.4Vpk, No indication of dielectric breakdown	
4.7.3	Torque (Nm)..... :	Worst case by EU plug (Max), 0.082 Nm	P
4.8	Products containing coin/button cell batteries	No such coin/button batteries provided.	N/A
4.8.2	Instructional safeguard		N/A
4.8.3	Battery Compartment Construction		N/A
	Means to reduce the possibility of children removing the battery ..... :		—
4.8.4	Battery Compartment Mechanical Tests..... :		N/A
4.8.5	Battery Accessibility		N/A

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict
4.9	Likelihood of fire or shock due to entry of conductive object ..... :	(See Annex P)	P
5	**ELECTRICALLY-CAUSED INJURY**		**P**
5.2.1	Electrical energy source classifications ..... :	(See appended table 5.2)	P
5.2.2	ES1, ES2 and ES3 limits	(See appended table 5.2)	P
5.2.2.2	Steady-state voltage and current.....:	(See appended table 5.2)	P
5.2.2.3	Capacitance limits.....:	(See appended table 5.2)	P
5.2.2.4	Single pulse limits.....:	No such single pulse occur.	N/A
5.2.2.5	Limits for repetitive pulses.....:	No such repetitive pulses occur.	N/A
5.2.2.6	Ringing signals .....:	No such circuit provided.	N/A
5.2.2.7	Audio signals .....:	No such circuit provided.	N/A
5.3	Protection against electrical energy sources	See table “OVERVIEW OF EMPLOYED SAFEGUARDS”	P
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	See as below.	P
5.3.2.1	Accessibility to electrical energy sources and safeguards	No access with test probe to ES2, ES3	P
5.3.2.2	Contact requirements	No openings.	P
	a) Test with test probe from Annex V .....:		N/A
	b) Electric strength test potential (V).....:		N/A
	c) Air gap (mm) .....:		N/A
5.3.2.4	Terminals for connecting stripped wire	No such terminals provided.	N/A
5.4	Insulation materials and requirements		P
5.4.1.2	Properties of insulating material	The choice and application have taken into account as specified in this Clause 5 and Annex T except natural rubber, hygroscopic materials or asbestos are not used as insulation.	P
5.4.1.3	Humidity conditioning..... :	(See sub-clause 5.4.8)	P
5.4.1.4	Maximum operating temperature for insulating materials .....:	(See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6.)	P
5.4.1.5	Pollution degree.....:	2	—
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound		N/A
5.4.1.5.3	Thermal cycling		N/A
5.4.1.6	Insulation in transformers with varying dimensions	No such transformers provided.	N/A
5.4.1.7	Insulation in circuits generating starting pulses	No such circuits provided.	N/A
5.4.1.8	Determination of working voltage	(See appended table 5.4.1.8 in attached test result)	P

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Clause	Requirement + Test	Result – Remark	Verdict
5.4.1.9	Insulating surfaces		P
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted	See as below.	P
5.4.1.10.2	Vicat softening temperature .....:	By the ball pressure test.	N/A
5.4.1.10.3	Ball pressure.....:	(See appended table 5.4.1.10.3)	P
5.4.2	Clearances	See as below.	P
5.4.2.2	Determining clearance using peak working voltage	(See appended table 5.4.2.2)	P
5.4.2.3	Determining clearance using required withstand voltage .....:	(See appended table 5.4.2.3)	P
	a) a.c. mains transient voltage.....:	2500Vpeak	—
	b) d.c. mains transient voltage .....:	AC Mains.	—
	c) external circuit transient voltage .....:	No such external circuit provided.	—
	d) transient voltage determined by measurement:	Not applicable.	—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test	Not applicable.	N/A
5.4.2.5	Multiplication factors for clearances and test voltages.....:	1.16 for clearances.	P
5.4.3	Creepage distances .....:	(See appended table 5.4.3)	P
5.4.3.1	General		P
5.4.3.3	Material Group .....:	IIIa or IIIb.	—
5.4.4	Solid insulation	See as below.	P
5.4.4.2	Minimum distance through insulation .....:	(See appended table 5.4.4.2)	P
5.4.4.3	Insulation compound forming solid insulation	Certified sources of photo couplers used. (See appended table 4.1.2.)	P
5.4.4.4	Solid insulation in semiconductor devices	See clause 5.4.4.3.	P
5.4.4.5	Cemented joints	Certified sources of photo couplers used. (See appended table 4.1.2.)	P
5.4.4.6	Thin sheet material	See as below.	P
5.4.4.6.1	General requirements	Reinforced insulation.	P
5.4.4.6.2	Separable thin sheet material	T1 transformer two layers used, each of which complies with the required electric strength test.	P
	Number of layers (pcs) .....:	(See appended table 5.4.4.2)	P
5.4.4.6.3	Non-separable thin sheet material	No non-separable thin sheet material employed.	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	Not applicable.	N/A
5.4.4.7	Solid insulation in wound components	See G.5 and G.6.	P

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Clause	Requirement + Test	Result – Remark	Verdict
5.4.4.9	Solid insulation at frequencies >30 kHz.....:	(See appended Table 5.4.4.9)	P
5.4.5	Antenna terminal insulation	Not applicable.	N/A
5.4.5.1	General		N/A
5.4.5.2	Voltage surge test		N/A
	Insulation resistance (MΩ)..... :		—
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	Humidity treatment performed to 120hrs in condition: 93% humidity, 40°C. Electric strength test conducted after the humidity treatment.	P
	Relative humidity (%)..... :	93	—
	Temperature (°C) .....:	40	—
	Duration (h) ..... :	120	—
5.4.9	Electric strength test ..... :	(See appended table 5.4.9.)	P
5.4.9.1	Test procedure for a solid insulation type test	Method 1 is used. - Method 1: required withstand voltage: 2.5kV; test voltage for reinforced insulation according to Table 26: 4kVpeak or d.c. - Method 2: peak working voltage: 0.560kV; test voltage for reinforced insulation according to Table 27: 1.28kVpeak or d.c. - Method 3: nominal mains voltage: <250Vrms; test voltage for reinforced insulation according to Table 28: 4kVpeak or d.c.	P
5.4.9.2	Test procedure for routine tests	T1	P
5.4.10	Protection against transient voltages between external circuit	No such external circuits provided.	N/A
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test..... :		N/A
5.4.10.2.3	Steady-state test ..... :		N/A

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Clause	Requirement + Test	Result – Remark	Verdict
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_{op} (V) ..... :		—
	Nominal voltage U_{peak} (V) ..... :		—
	Max increase due to variation U_{sp} ..... :		—
	Max increase due to ageing ΔU_{sa} ..... :		—
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$ ..... :		—
5.5	Components as safeguards		
5.5.1	General	See as below.	P
5.5.2	Capacitors and RC units	Approved X and Y capacitors provided. (See appended table 4.1.2)	P
5.5.2.1	General requirement	See as below.	P
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector ..... :	(See appended table 5.5.2.2)	P
5.5.3	Transformers	(See Annex G.5.3)	P
5.5.4	Optocouplers	(See sub-clause 5.4)	P
5.5.5	Relays		N/A
5.5.6	Resistors	(See Annex G.10)	P
5.5.7	SPD's		N/A
5.5.7.1	Use of an SPD connected to reliable earthing		N/A
5.5.7.2	Use of an SPD between mains and protective earth		N/A
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable ..... :	No such external circuits provided.	N/A
5.6	Protective conductor		N/A
5.6.2	Requirement for protective conductors	Class II equipment.	N/A
5.6.2.1	General requirements		N/A
5.6.2.2	Colour of insulation		N/A
5.6.3	Requirement for protective earthing conductors		N/A
	Protective earthing conductor size (mm^2) ..... :		—
5.6.4	Requirement for protective bonding conductors		N/A
5.6.4.1	Protective bonding conductors		N/A
	Protective bonding conductor size (mm^2) ..... :		—
	Protective current rating (A) ..... :		—
5.6.4.3	Current limiting and overcurrent protective		N/A

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Clause	Requirement + Test	Result – Remark	Verdict
	devices		
5.6.5	Terminals for protective conductors		N/A
5.6.5.1	Requirement		N/A
	Conductor size (mm^2), nominal thread diameter (mm). ..... :		N/A
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective system		N/A
5.6.6.1	Requirements		N/A
5.6.6.2	Test Method Resistance (Ω) ..... :		N/A
5.6.7	Reliable earthing		N/A
5.7	Prospective touch voltage, touch current and protective conductor current		P
5.7.2	Measuring devices and networks	Figure 4 of IEC 60990.	P
5.7.2.1	Measurement of touch current ..... :	Instrument indicating peak voltage used.	P
5.7.2.2	Measurement of prospective touch voltage		N/A
5.7.3	Equipment set-up, supply connections and earth connections	Equipment has only one mains connections.	P
	System of interconnected equipment (separate connections/single connection) ..... :	Single connection.	—
	Multiple connections to mains (one connection at a time/simultaneous connections) ..... :	N/A	—
5.7.4	Earthed conductive accessible parts ..... :	Class II equipment.	N/A
5.7.5	Protective conductor current		N/A
	Supply Voltage (V) ..... :		—
	Measured current (mA) ..... :		—
	Instructional Safeguard ..... :		N/A
5.7.6	Prospective touch voltage and touch current due to external circuits	No such external circuits provided.	N/A
5.7.6.1	Touch current from coaxial cables		N/A
5.7.6.2	Prospective touch voltage and touch current from external circuits		N/A
5.7.7	Summation of touch currents from external circuits		N/A
	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 ignition sources (PIS)	P

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Clause	Requirement + Test	Result – Remark	Verdict
6.2.2	Power source circuit classifications	See Energy source identification and classification table.	P
6.2.2.1	General		P
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 .....:	For output connector. (See appended table Q.1.)	P
6.2.2.6	PS3 .....:	All circuits are considered as PS3, except output connector.	P
6.2.3	Classification of potential ignition sources	Arcing and Resistive PIS are considered exist in all circuits.	P
6.2.3.1	Arcing PIS .....:	See 6.2.3	P
6.2.3.2	Resistive PIS .....:	See 6.2.3	P
6.3	Safeguards against fire under normal operating and abnormal operating conditions		P
6.3.1 (a)	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials..... :	(See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6.)	P
6.3.1 (b)	Combustible materials outside fire enclosure	No such materials provided.	N/A
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Safeguard Method	Method of Control fire spread used. See sub-clause 6.4.4 to 6.4.6.	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits		N/A
6.4.3.1	General		N/A
6.4.3.2	Supplementary Safeguards		N/A
	Special conditions if conductors on printed boards are opened or peeled		N/A
6.4.3.3	Single Fault Conditions .....:		N/A
	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	(See appended table Q.1.)	P
6.4.5.2	Supplementary safeguards ..... :	(See appended tables 4.1.2 and Annex G.)	P
6.4.6	Control of fire spread in PS3 circuit	Components other than PCB and wires are: - mounted on PCB rated V-1 or better, or - made of V-2/VTM-2 or better.	P

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Clause	Requirement + Test	Result – Remark	Verdict
6.4.7	Separation of combustible materials from a PIS		N/A
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	See as below.	P
6.4.8.1	Fire enclosure and fire barrier material properties	Equipment enclosure was evaluated as a fire enclosure.	P
6.4.8.2.1	Requirements for a fire barrier	No such fire barrier provided.	N/A
6.4.8.2.2	Requirements for a fire enclosure	Material for fire enclosure was made of min. V-0 material. Material for components that fill an opening in a fire enclosure is made of min. V-1 class material. (LED cover & Strain relief) (See appended table 4.1.2.)	P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier	See as below.	P
6.4.8.3.1	Fire enclosure and fire barrier openings		P
6.4.8.3.2	Fire barrier dimensions	No such fire barrier provided.	N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm).....:	No opening	P
	Needle Flame test		N/A
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm).....:	No opening	P
	Flammability tests for the bottom of a fire enclosure.....:		N/A
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c).....:	No such door or cover can be opened by ordinary.	N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating .....:	Equipment fire enclosure was made of min. V-0 material. (See appended table 4.1.2.)	P
6.5	Internal and external wiring		P
6.5.1	Requirements	The material of VW-1 on internal or external wiring were considered compliance equivalent to IEC 60332 or IEC/TS 60695-11-21 relevant standards.	P
6.5.2	Cross-sectional area (mm^2) ..... :	N/A	—
6.5.3	Requirements for interconnection to building wiring.....:		N/A
6.6	Safeguards against fire due to connection to additional equipment		P
	External port limited to PS2 or complies with Clause Q.1	(See Annex Q.1)	P

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Clause	Requirement + Test	Result – Remark	Verdict

7	INJURY-CAUSED BY HAZARDOUS SUBSTANCES		N/A
7.2	Reduction of exposure to hazardous substances		N/A
7.3	Ozone exposure		N/A
7.4	Use of personal safeguards (PPE)		N/A
	Personal safeguards and instructions.....:		N/A
7.5	Use of instructional safeguards and instructions		N/A
	Instructional safeguard (ISO 7010).....:		N/A
7.6	Batteries..... :		N/A

8	MECHANICALLY-CAUSED INJURY		P
8.1	General	See as below.	P
8.2	Mechanical energy source classifications	MS1	P
8.3	Safeguards against mechanical energy sources	See Energy source identification and classification table.	N/A
8.4	Safeguards against parts with sharp edges and corners	Accessible edges and corners of the equipment are rounded and are classified as MS1.	N/A
8.4.1	Safeguards	Same as above.	N/A
8.5	Safeguards against moving parts	No moving parts within the equipment.	N/A
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment		N/A
8.5.2	Instructional Safeguard ..... :		—
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 .....:		—
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 such lamps provided.	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	See as below.	P
8.6.1	Product classification	MS1.	P
	Instructional Safeguard .....:	N/A	—

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Clause	Requirement + Test	Result – Remark	Verdict
8.6.2	Static stability		N/A
8.6.2.2	Static stability test		N/A
	Applied Force.....:		—
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 .....:		—
8.7	Equipment mounted to wall or ceiling	Not applicable.	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	No such handles provided.	N/A
8.8.1	Classification		N/A
8.8.2	Applied Force .....:		N/A
8.9	Wheels or casters attachment requirements	No such wheels or casters provided.	N/A
8.9.1	Classification		N/A
8.9.2	Applied force.....:		—
8.10	Carts, stands and similar carriers	No such devices provided.	N/A
8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard .....:		—
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force.....:		—
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N).....:		—
8.10.6	Thermoplastic temperature stability (°C) .....:		N/A
8.11	Mounting means for rack mounted equipment	Not applicable.	N/A
8.11.1	General		N/A
8.11.2	Product Classification		N/A
8.11.3	Mechanical strength test, variable *N* .....:		N/A
8.11.4	Mechanical strength test 250N, including end stops		N/A
8.12	Telescoping or rod antennas .....:	No such devices provided.	N/A
	Button/Ball diameter (mm) .....:		—

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Clause	Requirement + Test	Result – Remark	Verdict

9	THERMAL BURN INJURY		P
9.2	Thermal energy source classifications	See Energy source identification and classification table.	P
9.3	Safeguard against thermal energy sources	Same as above.	P
9.4	Requirements for safeguards		P
9.4.1	Equipment safeguard	Plastic enclosure and output connector are used to limit the transfer of thermal energy (source temperature) under normal operating conditions, abnormal operating conditions and single fault condition.	P
9.4.2	Instructional safeguard .....:		N/A

10	RADIATION		P
10.2	Radiation energy source classification		P
10.2.1	General classification	LED indicator was RS1.	P
10.3	Protection against laser radiation		N/A
	Laser radiation that exists equipment:		—
	Normal, abnormal, single-fault .....:		N/A
	Instructional safeguard.....:		—
	Tool .....:		—
10.4	Protection against visible, infrared, and UV radiation		N/A
10.4.1	General		N/A
10.4.1.a)	RS3 for Ordinary and instructed persons ..... :		N/A
10.4.1.b)	RS3 accessible to a skilled person ..... :		N/A
	Personal safeguard (PPE) instructional safeguard ..... :		—
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1:		N/A
10.4.1.d)	Normal, abnormal, single-fault conditions.....:		N/A
10.4.1.e)	Enclosure material employed as safeguard is opaque ..... :		N/A
10.4.1.f)	UV attenuation ..... :		N/A
10.4.1.g)	Materials resistant to degradation UV..... :		N/A
10.4.1.h)	Enclosure containment of optical radiation ..... :		N/A
10.4.1.i)	Exempt Group under normal operating conditions ..... :		N/A
10.4.2	Instructional safeguard..... :		N/A
10.5	Protection against x-radiation	No such x-radiation provided.	N/A
10.5.1	X- radiation energy source that exists equipment :		N/A

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Clause	Requirement + Test	Result – Remark	Verdict
	Normal, abnormal, single fault conditions		N/A
	Equipment safeguards ..... :		N/A
	Instructional safeguard for skilled person ..... :		N/A
10.5.3	Most unfavourable supply voltage to give maximum radiation ..... :		—
	Abnormal and single-fault condition.....:		N/A
	Maximum radiation (pA/kg).....:		N/A
10.6	Protection against acoustic energy sources	No such devices provided.	N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output, dB(A) .....:		N/A
	Output voltage, unweighted r.m.s. .....:		N/A
10.6.4	Protection of persons		N/A
	Instructional safeguards.....:		N/A
	Equipment safeguard prevent ordinary person to RS2 .....:		—
	Means to actively inform user of increase sound pressure .....:		—
	Equipment safeguard prevent ordinary person to RS2 .....:		—
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.5.1	Corded passive listening devices with analog input		N/A
	Input voltage with 94 dB(A) L_{Aeq} acoustic pressure output .....:		—
10.6.5.2	Corded listening devices with digital input		N/A
	Maximum dB(A) .....:		—
10.6.5.3	Cordless listening device		N/A
	Maximum dB(A) .....:		—

B	**NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS**		**P**
B.2	Normal Operating Conditions		P
B.2.1	General requirements .....:	(See Test Item Particulars and appended test tables.)	P
	Audio Amplifiers and equipment with audio amplifiers.....:		N/A
B.2.3	Supply voltage and tolerances	+10 % and −10 % for a.c. mains.	P
B.2.5	Input test .....:	(See appended table B.2.5)	P

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Clause	Requirement + Test	Result – Remark	Verdict
B.3	Simulated abnormal operating conditions		P
B.3.1	General requirements .....:	(See appended table B.3)	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 device provided.	N/A
B.3.5	Maximum load at output terminals.....:	(See appended table B.3)	P
B.3.6	Reverse battery polarity	No battery provided.	N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.	No audio amplifiers provided.	N/A
B.3.8	Safeguards functional during and after abnormal operating conditions	All safeguards remained effectively.	P
B.4	Simulated single fault conditions		P
B.4.2	Temperature controlling device open or short-circuited:.....:	No such components provided.	N/A
B.4.3	Motor tests	No such motor provided.	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	No coated printed boards within the equipment.	N/A
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors	(See appended table B.4)	P
B.4.6	Short circuit or disconnect of passive components	(See appended table B.4)	P
B.4.7	Continuous operation of components	The equipment is intended for continuous operation.	N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions	(See appended table B.4)	P
B.4.9	Battery charging under single fault conditions....:	No batteries provided.	N/A

C	**UV RADIATION**		**N/A**
C.1	Protection of materials in equipment from UV radiation	No UV radiation provided.	N/A
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
C.2	UV light conditioning test		N/A
C.2.1	Test apparatus		N/A
C.2.2	Mounting of test samples		N/A

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Clause	Requirement + Test	Result – Remark	Verdict
C.2.3	Carbon-arc light-exposure apparatus		N/A
C.2.4	Xenon-arc light exposure apparatus		N/A
D	**TEST GENERA TORS**		**N/A**
D.1	Impulse test generators	Not applicable.	N/A
D.2	Antenna interface test generator		N/A
D.3	Electronic pulse generator		N/A
E	**TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS**		**N/A**
E.1	Audio amplifier normal operating conditions	No audio amplifiers provided.	N/A
	Audio signal voltage (V) ..... :		—
	Rated load impedance (Ω) ..... :		—
E.2	Audio amplifier abnormal operating conditions		N/A
F	**EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS**		P
F.1	General requirements		P
	Instructions – Language ..... :	Reviewed only English markings/instructions. May be provided in other languages upon request from the manufacturer.	—
F.2	Letter symbols and graphical symbols		P
F.2.1	Letter symbols according to IEC60027-1		P
F.2.2	Graphic symbols IEC, ISO or manufacturer specific		P
F.3	Equipment markings		P
F.3.1	Equipment marking locations	Equipment marking is located on the exterior surface and is easily visible.	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 ..... :	See copy of marking plate	—
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	—

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Clause	Requirement + Test	Result – Remark	Verdict
F.3.3.7	Equipment with multiple supply connections	Not multiple power sources provided.	N/A
F.3.4	Voltage setting device	No such device provided.	N/A
F.3.5	Terminals and operating devices	See as below.	P
F.3.5.1	Mains appliance outlet and socket-outlet markings .....:	No socket-outlets provided.	N/A
F.3.5.2	Switch position identification marking .....:	No such switch provided.	N/A
F.3.5.3	Replacement fuse identification and rating markings.....:	Fuse marking on PCB near fuse (F1): T2A or T4A or T6.3A /250Vac	P
F.3.5.4	Replacement battery identification marking.....:	No batteries provided.	N/A
F.3.5.5	Terminal marking location		P
F.3.6	Equipment markings related to equipment classification	See as below.	P
F.3.6.1	Class I Equipment	Class II equipment.	N/A
F.3.6.1.1	Protective earthing conductor terminal		N/A
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)	See as below.	P
F.3.6.2.1	Class II equipment with or without functional earth	The symbol "⧈" for IEC 60417-5172 symbol marked.	P
F.3.6.2.2	Class II equipment with functional earth terminal marking	No such functional earth provided.	N/A
F.3.7	Equipment IP rating marking ..... :	IPX0 declared.	—
F.3.8	External power supply output marking	The voltage rating, the current rating and the polarity are provided.	P
F.3.9	Durability, legibility and permanence of marking		P
F.3.10	Test for permanence of markings	The label was subjected to the permanence of marking test, 15 sec. for water and 15 sec. for petroleum spirit. After each test, the marking remained legible.	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		P
	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	No audio amplifiers provided.	N/A

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Clause	Requirement + Test	Result – Remark	Verdict
	accordance F.3.6.1		
	f) Protective earthing employed as safeguard	Class II equipment.	N/A
	g) Protective earthing conductor current exceeding ES 2 limits	Class II equipment.	N/A
	h) Symbols used on equipment	No such symbols provided.	N/A
	i) Permanently connected equipment not provided with all-pole mains switch	The unit is not permanently connected equipment.	N/A
	j) Replaceable components or modules providing safeguard function	The required information for fuse are marked adjacent to the fuse. (see F.3.5.3 for details)	P
F.5	Instructional safeguards		N/A
	Where “instructional safeguard” is referenced in the test report it specifies the required elements, location of marking and/or instruction		N/A
G	**COMPONENTS**		**P**
G.1	**Switches**		**N/A**
G.1.1	General requirements	No such switches provided.	N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
G.2	**Relays**		**N/A**
G.2.1	General requirements	No such relays provided.	N/A
G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supply power		N/A
G.2.4	Mains relay, modified as stated in G.2		N/A
G.3	**Protection Devices**		**P**
G.3.1	Thermal cut-offs	No such thermal cut-offs provided.	N/A
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)		N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)		N/A
G.3.1.2	Thermal cut-off connections maintained and secure		N/A
G.3.2	Thermal links		N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691	No such thermal links provided.	N/A
G.3.2.1b)	Thermal links tested as part of the equipment		N/A
	Aging hours (H).....:		—
	Single Fault Condition.....:		—
	Test Voltage (V) and Insulation Resistance (Ω) .:		—
G.3.3	PTC Thermistors	No such PTC thermistors provided.	N/A

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Clause	Requirement + Test	Result – Remark	Verdict
G.3.4	Overcurrent protection devices	All sources of fuse (F1) complied with IEC 60127. (See appended tables 4.1.2)	P
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.5		N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided	No such components provided.	N/A
G.3.5.2	Single faults conditions ..... :		N/A
G.4	**Connectors**		**P**
G.4.1	Spacings		P
G.4.2	Mains connector configuration ..... :	AC inlet is complied with IEC60320-1	P
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely	Connectors complying with IEC 60083 or IEC 60320-1 is not be used for ES1 circuit output.	P
G.5	**Wound Components**		**P**
G.5.1	Wire insulation in wound components	(See Annex J)	P
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°	Insulation tape and/or tubing provided.	P
G.5.1.2 b)	Construction subject to routine testing	Certified source of triple insulated wire used in Transformer. (see appended tables 4.1.2)	P
G.5.2	Endurance test on wound components		N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test		N/A
	Time (s) ..... :		—
	Temperature (°C) ..... :		—
G.5.2.3	Wound Components supplied by mains		N/A
G.5.3	**Transformers**		**P**
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1) ..... :	The transformer meets the requirements given in G.5.3.2 and G.5.3.3.	P
	Position ..... :	T1	—
	Method of protection ..... :	Over current protection by circuit design.	—
G.5.3.2	Insulation	Primary windings and secondary windings are isolated by double and reinforced insulation (The core is considered as primary part) (See appended table 5.4.9.1, G.5.3.2 in attached test result)	P
	Protection from displacement of windings ..... :	The end-turn of each winding is fixed by insulating tape.	—

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Clause	Requirement + Test	Result – Remark	Verdict
G.5.3.3	Overload test.....:	(See appended table B.3)	P
G.5.3.3.1	Test conditions		P
G.5.3.3.2	Winding Temperatures testing in the unit	(See appended table B.3)	P
G.5.3.3.3	Winding Temperatures - Alternative test method		N/A
G.5.4	**Motors**		**N/A**
G.5.4.1	General requirements	No such motors provided.	N/A
	Position .....:		—
G.5.4.2	Test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4	Locked-rotor overload test		N/A
	Test duration (days) .....:		—
G.5.4.5	Running overload test for d.c. motors in secondary circuits		N/A
G.5.4.5.2	Tested in the unit		N/A
	Electric strength test (V).....:		—
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h) .....:		N/A
	Electric strength test (V).....:		—
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
G.5.4.6.2	Tested in the unit		N/A
	Maximum Temperature .....:		N/A
	Electric strength test (V) .....:		N/A
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h).....:		N/A
	Electric strength test (V).....:		N/A
G.5.4.7	Motors with capacitors		N/A
G.5.4.8	Three-phase motors		N/A
G.5.4.9	Series motors		N/A
	Operating voltage .....:		—
G.6	**Wire Insulation**		**P**
G.6.1	General	Approved triple insulated wires comply with Annex J. (See appended table 4.1.2.)	P
G.6.2	Solvent-based enamel wiring insulation		N/A
G.7	**Mains supply cords**		**N/A**
G.7.1	General requirements	No power supply cord provided.	N/A
	Type .....:		—
	Rated current (A).....:		—

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Clause	Requirement + Test	Result – Remark	Verdict
	Cross-sectional area (mm^2), (AWG) .....:		—
G.7.2	Compliance and test method		N/A
G.7.3	Cord anchorages and strain relief for non-detachable power supply cords		N/A
G.7.3.2	Cord strain relief		N/A
G.7.3.2.1	Requirements		N/A
	Strain relief test force (N) ..... :		—
G.7.3.2.2	Strain relief mechanism failure		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm) ... :		—
G.7.3.2.4	Strain relief comprised of polymeric material		N/A
G.7.4	Cord Entry .....:		N/A
G.7.5	Non-detachable cord bend protection		N/A
G.7.5.1	Requirements		N/A
G.7.5.2	Mass (g) .....:		—
	Diameter (m) ..... :		—
	Temperature (°C) ..... :		—
G.7.6	Supply wiring space		N/A
G.7.6.2	Stranded wire		N/A
G.7.6.2.1	Test with 8 mm strand		N/A
G.8	**Varistors**		**P**
G.8.1	General requirements	See as below.	P
G.8.2	Safeguard against shock	Approved varistors used. (See appended table 4.1.2)	P
G.8.3	Safeguard against fire		N/A
G.8.3.2	Varistor overload test ..... :		N/A
G.8.3.3	Temporary overvoltage ..... :		N/A
G.9	**Integrated Circuit (IC) Current Limiters**		**N/A**
G.9.1 a)	Manufacturer defines limit at max. 5A.	No such IC current limiter provided.	N/A
G.9.1 b)	Limiters do not have manual operator or reset		N/A
G.9.1 c)	Supply source does not exceed 250 VA ..... :		—
G.9.1 d)	IC limiter output current (max. 5A) ..... :		—
G.9.1 e)	Manufacturers' defined drift ..... :		—
G.9.2	Test Program 1		N/A
G.9.3	Test Program 2		N/A
G.9.4	Test Program 3		N/A
G.10	**Resistors**		N/A

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Clause	Requirement + Test	Result – Remark	Verdict
G.10.1	General requirements		N/A
G.10.2	Resistor test		N/A
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable		N/A
G.10.3.1	General requirements		N/A
G.10.3.2	Voltage surge test		N/A
G.10.3.3	Impulse test		N/A
G.11	**Capacitor and RC units**		**P**
G.11.1	General requirements	X and Y-capacitor used as safeguard and complied with IEC/EN 60384-14. (See appended table 4.1.2.)	P
G.11.2	Conditioning of capacitors and RC units		P
G.11.3	Rules for selecting capacitors		P
G.12	**Optocouplers**		**N/A**
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results).....:		N/A
	Type test voltage Vini ..... :		—
	Routine test voltage, Vini,b ..... :		—
G.13	**Printed boards**		**P**
G.13.1	General requirements		P
G.13.2	Uncoated printed boards	The insulation between conductors on the outer surfaces of an uncoated printed board complied with the minimum clearance and creepage requirements. (see appended tables 5.4.2.2, 5.4.2.4 and 5.4.3)	P
G.13.3	Coated printed boards	No coated printed board provided.	N/A
G.13.4	Insulation between conductors on the same inner surface		N/A
	Compliance with cemented joint requirements (Specify construction) ..... :		—
G.13.5	Insulation between conductors on different surfaces		N/A
	Distance through insulation.....:		N/A
	Number of insulation layers (pcs) ..... :		—
G.13.6	Tests on coated printed boards		N/A
G.13.6.1	Sample preparation and preliminary inspection		N/A

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Clause	Requirement + Test	Result – Remark	Verdict
G.13.6.2a)	Thermal conditioning		N/A
G.13.6.2b)	Electric strength test		N/A
G.13.6.2c)	Abrasion resistance test		N/A
G.14	**Coating on components terminals**		**N/A**
G.14.1	Requirements .....:	No coating on component terminals.	N/A
G.15	**Liquid filled components**		**N/A**
G.15.1	General requirements	The equipment does not contain liquid.	N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
G.16	**IC including capacitor discharge function (ICX)**		**N/A**
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours	Not applicable.	N/A
b)	Impulse test using circuit 2 with Uc = to transient voltage .....:		N/A
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes		N/A
C2)	Test voltage .....:		—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer		N/A
D2)	Capacitance .....:		—
D3)	Resistance .....:		—

H	**CRITERIA FOR TELEPHONE RINGING SIGNALS**		**N/A**
H.1	General	No telephone ringing signals provided.	N/A
H.2	Method A		N/A
H.3	Method B		N/A
H.3.1	Ringing signal		N/A
H.3.1.1	Frequency (Hz) .....:		—
H.3.1.2	Voltage (V) .....:		—

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Clause	Requirement + Test	Result – Remark	Verdict
H.3.1.3	Cadence; time (s) and voltage (V) .....:		—
H.3.1.4	Single fault current (mA): .....:		—
H.3.2	Tripping device and monitoring voltage .....:		N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V).....:		—
J	**INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION**		**P**
	General requirements	Approved triple insulated wire used. (See appended table 4.1.2)	P
K	**SAFETY INTERLOCKS**		**N/A**
K.1	General requirements	No safety interlock provided within the equipment.	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	The plug of direct plug-in or appliance inlet is considered to be the disconnect device.	P
L.2	Permanently connected equipment	The unit is not permanently connected equipment.	N/A
L.3	Parts that remain energized		N/A
L.4	Single phase equipment	Mains plug disconnects both poles	P

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Clause	Requirement + Test	Result – Remark	Verdict
		simultaneously.	
L.5	Three-phase equipment	Single-phase equipment.	N/A
L.6	Switches as disconnect devices	No switch or the switch is not a disconnect device.	N/A
L.7	Plugs as disconnect devices		N/A
L.8	Multiple power sources	Not multiple power sources provided.	N/A

M	**EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS**		**N/A**
M.1	General requirements	No battery provided.	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

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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) ..... :		N/A
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		N/A
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* (m^3/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**		**N/A**
	Metal(s) used ..... :	Class II equipment.	—
O	**MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES**		**P**
	Figures O.1 to O.20 of this Annex applied..... :	Pollution degree considered.	—
P	**SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS**		**P**
P.1	General requirements	See as below.	P

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Clause	Requirement + Test	Result – Remark	Verdict
P.2.2	Safeguards against entry of foreign object		P
	Location and Dimensions (mm) .....:	No openings.	—
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	The equipment does not contain liquid.	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 such devices provided.	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 BUILDING WIRING**		**P**
Q.1	Limited power sources	See as below.	P
Q.1.1 a)	Inherently limited output	No 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	(see appended tables Annex Q.1)	P
Q.1.1 c)	Overcurrent protective device limited output	No overcurrent protective device provided.	N/A
Q.1.1 d)	IC current limiter complying with G.9	No IC current limiter provided.	N/A
Q.1.2	Compliance and test method	(see appended tables Annex Q.1)	P
Q.2	Test for external circuits – paired conductor cable	No such circuits provided.	N/A
	Maximum output current (A) .....:		—
	Current limiting method.....:		—

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Clause	Requirement + Test	Result – Remark	Verdict

R	LIMITED SHORT CIRCUIT TEST		N/A
R.1	General requirements	Class II equipment.	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)). ..... :		N/A

S	TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W	The fire enclosure was made of rated min. V-0 material.	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)..... :		—
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A
S.5	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 (test condition), (°C)..... :		—
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A

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Clause	Requirement + Test	Result – Remark	Verdict
	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**
T.1	General requirements		P
T.2	Steady force test, 10 N .....:	(See appended table 5.4.2.2, 5.4.2.4 and 5.4.3)	P
T.3	Steady force test, 30 N .....:		N/A
T.4	Steady force test, 100 N .....:	(See appended table T.4)	P
T.5	Steady force test, 250 N .....:	(See appended table T.5)	P
T.6	Enclosure impact test	(See appended table T.6)	P
	Fall test	By fall test.	P
	Swing test	Not applicable.	N/A
T.7	Drop test .....:	(See appended table T.7)	P
T.8	Stress relief test .....:	(See appended table T.8)	P
T.9	Impact Test (glass)	No such glass provided.	N/A
T.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 .....:		N/A
T.11	Test for telescoping or rod antennas	No such antennas provided.	N/A
	Torque value (Nm) .....:		—
U	**MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFECTS OF IMPLOSION**		**N/A**
U.1	General requirements	No CRT provided within the equipment.	N/A
U.2	Compliance and test method for non-intrinsically protected CRTs		N/A
U.3	Protective Screen .....:		N/A
V	**DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)**		**P**
V.1	Accessible parts of equipment	Following the probes test specified in this annex Figure V.1, V.2 are suitable.	P
V.2	Accessible part criterion	No live parts can be accessible.	P

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Clause	Requirement + Test	Result – Remark	Verdict

4.1.2	TABLE: List of critical components				P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity[1]
1) Enclosure	Sabic Japan L L C	940(f1)	V-0, 120°C, min. 1.5 mm thick	UL 94 UL 746C	UL
(Alternate)	SABIC JAPAN L L C	945(GG)	V-0, 120°C, min. 1.5 mm thick.	UL 94 UL 746C	UL
2) Material for plug holder (for KTPS36-xxxyyyzz-VI)	Sabic Japan L L C	940(f1)	V-0, 120°C, min. 1.5 mm thick	UL 94 UL 746C	UL
3) Enclosure for LED Cover	Sabic Innovative Plastics Us L L C	945(GG)	V-0, 120°C, min. 1.5 mm thick	UL 94 UL 746C	UL
(Alternate)	Idemitsu Kosan	AZ1900(+)	V-0, 80°C, min. 1.5 mm thick	UL 94 UL 746C	UL
(Alternate)	Sabic Innovative Plastics B V	940A	V-0, 120°C, min. 3.0 mm thick	UL 94 UL 746C	UL
4) PCB	Interchangeable	Interchangeable	Min. V-1, min. 105°C	UL 796	UL
5) Appliance Inlet (CN1) (for KTPS36-xxxyyyDT-2P-VI)	Tecx-Unions	SO-222	2.5A, 250Vac (C8 type)	EN 60320-1 IEC 60320-1 UL 498	VDE, UL
(Alternate)	Inalways	0721 series	2.5A, 250Vac (C8 type)	EN 60320-1 IEC 60320-1 UL 498	ENEC16, UL
(Alternate)	Solteam	ST-02	2.5A, 250Vac (C8 type)	EN 60320-1 IEC 60320-1 UL 498	VDE, UL
(Alternate)	HCR	SK02	2.5A, 250Vac (C8 type)	EN 60320-1 IEC 60320-1 UL 498	VDE, UL
6) Fuse (F1)	Conquer	MST	T2A, 250Vac or T4A, 250Vac or T6.3A, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 ANSI/UL 248-1 ANSI/UL 248-14	VDE, UL
(Alternate)	Ever Island	2010 series	T2A, 250Vac or T4A, 250Vac or T6.3A, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 ANSI/UL 248-1 ANSI/UL 248-14	VDE, UL
7) Thermistor (NTC1) (optional)	Interchangeable	Interchangeable	3 ohm, 5A at 25°C	--	--

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Clause	Requirement + Test	Result – Remark	Verdict

8) Varistor (VAR1) (Optional)	Thinking	TVR10471, TVR10471-V, TVR10471-D, TVR14471	300Vac, 385Vdc, 85°C (flame class of body coating complied with V-0)	IEC/EN 61051-1 IEC/EN 61051-2 UL 1449 (SPD type approved)	VDE, UL
(Alternate)	Centra	CNR-10D471K	300Vac, 385Vdc, 85°C (flame class of body coating complied with V-0)	IEC/EN 61051-1 IEC/EN 61051-2 UL 1449 (SPD type approved)	VDE, UL
(Alternate)	DongGuan Littelfuse	SAS-471KD10	300Vac, 385Vdc, 85°C (flame class of body coating complied with V-0)	IEC/EN 61051-1 IEC/EN 61051-2 UL 1449 (SPD type approved)	VDE, UL
9) X-Capacitor (C1) (optional)	Cheng Tung	CTX	Max. 0.33μF, min. 250Vac, 110°C	IEC/EN 60384-14:2013 UL 60384-14	ENEC15, UL
(Alternate)	Chiefcon	CKX	Max. 0.33μF, min. 250Vac, 110°C	IEC/EN 60384-14:2013 UL 60384-14	ENEC14, UL
(Alternate)	Iskra	KNB 1560, KNB 1562, KNB 1563	Max. 0.33μF, min. 250Vac, 125°C	IEC/EN 60384-14:2013 UL 60384-14	VDE, UL
(Alternate)	Okaya	RE-Series	Max. 0.33μF, min. 250Vac, 100°C	IEC/EN 60384-14:2013 UL 60384-14	ENEC14, UL
10) Bleeder Resistor (R19, R20)	Tzai Yuan	SMD1206	1.5M ohm, 1/4W	IEC 62368-1 UL 62368-1	CB by UL UL
(Alternate)	Prosperity	FVS06	1.5M ohm, 1/4W	IEC 62368-1 UL 62368-1	CB by UL UL
(Alternate)	RALEC	RTV06	1.5M ohm, 1/4W	IEC 62368-1	CB by UL
11) Bridge Rectifier (BD1, BD2, BD3, BD4)	Interchangeable	Interchangeable	Min. 2A, min. 600V	--	--
12) Storage Capacitor (C2)	Interchangeable	Interchangeable	68μF, min. 400V, 105°C	--	--
13) Transistor (Q1)	Interchangeable	Interchangeable	Min. 7A, min. 600V	--	--
14) Bridge Capacitor (C12) (Y1 type) (for	Murata	KX	Max. 2200pF, min. 250Vac, 125°C	IEC/EN 60384-14:2013 UL 60384-14	VDE, UL

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

KTPS36-xxxyyyDT-2P-VI and KTPS36-xxxyyyzz-VI; yyy can be 050, 075, 085 and 090)					
(Alternate)	TDK	CD	Max. 2200pF, min. 250Vac, 125°C	IEC/EN 60384-14:2013 UL 60384-14	VDE, UL
(Alternate)	Walsin	AH	Max. 2200pF, min. 250Vac, 125°C	IEC/EN 60384-14:2013 UL 60384-14	VDE, UL
(Alternate)	Welson	WD	Max. 2200pF, min. 250Vac, 125°C	IEC/EN 60384-14:2013 UL 60384-14	VDE, UL
(for KTPS36-xxxyyyDT-2P-VI and KTPS36-xxxyyyzz-VI; yyy can be 120, 121, 135, 150, 160, 180, 240 and 480)	Murata	KX	Max. 1000pF, min. 250Vac, 125°C	IEC/EN 60384-14:2013 UL 60384-14	VDE, UL
(Alternate)	TDK	CD	Max. 1000pF, min. 250Vac, 125°C	IEC/EN 60384-14:2013 UL 60384-14	VDE, UL
(Alternate)	Walsin	AH	Max. 1000pF, min. 250Vac, 125°C	IEC/EN 60384-14:2013 UL 60384-14	VDE, UL
(Alternate)	Welson	WD	Max. 1000pF, min. 250Vac, 125°C	IEC/EN 60384-14:2013 UL 60384-14	VDE, UL
15) Photo Coupler (U2)	Sharp	PC123	Dti=0.4mm, Ext. dcr=8.0mm, thermal cycle test, 110°C	IEC/EN 60950-1 EN 60747-5-5 UL 1577	VDE, Fimko, UL
(Alternate)	Lite-On	LTV-817	Dti=0.6mm, Ext. dcr=7.63mm, thermal cycle test, 110°C	IEC/EN 60950-1 EN 60747-5-5 UL 1577	VDE, Fimko, UL
(Alternate)	Everlight	EL817	Dti=0.5mm, Ext. dcr=7.7mm, thermal cycle test, 100°C	IEC/EN 60950-1 EN 60747-5-5 UL 1577	VDE, Fimko, UL
(Alternate)	Cosmo	K1010	Dti=0.7mm,	IEC/EN 60950-1	VDE, Fimko,

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

			Ext. dcr=8.0mm, thermal cycle test, 100°C	EN 60747-5-5 UL 1577	UL
(Alternate)	Renesas	PS2561-1, PS2561L-1, PS2561A-1, PS2561AL-1, PS2561L1-1, PS2561AL1-1, PS2561AL2-2	Dti=0.4mm, Ext. dcr=7.0mm, thermal cycle test, 100°C	IEC/EN 60950-1 EN 60747-5-5 UL 1577	VDE, Fimko, UL
16) Choke (L3)	Mao Hsin	R55MX6-7021	130°C	--	--
(Alternate)	Newline	R55MX6-7021	130°C	--	--
(Alternate)	Dongguanshi PuHang	R55MX6-7021	130°C	--	--
(Alternate)	Dong Guan Readore	R55MX6-7021	130°C	--	--
17) Transformer (T1) (for KTPS36-050500DT-2P-VI and KTPS36-050500zz-VI)	Mao Hsin	R53S10-4490	Class B	--	--
(Alternate)	Dongguanshi PuHang	R53S10-4490	Class B	--	--
(Alternate)	Dong Guan Readore	R53S10-4490	Class B	--	--
(for KTPS36-075400DT-2P-VI, KTPS36-085352DT-2P-VI, KTPS36-090334DT-2P-VI, KTPS36-075400zz-VI, KTPS36-085352zz-VI and KTPS36-090334zz-VI)	Mao Hsin	R53S10-4520	Class B	--	--
(Alternate)	Dongguanshi PuHang	R53S10-4520	Class B	--	--
(Alternate)	Dong Guan Readore	R53S10-4520	Class B	--	--
(for KTPS36-120300DT-2P-VI, KTPS36-120250DT-2P-VI, KTPS36-1352	Mao Hsin	R53S10-4530	Class B	--	--

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Clause	Requirement + Test	Result – Remark	Verdict

66DT-2P-VI, KTPS36-150240DT-2P-VI, KTPS36-120300zz-VI, KTPS36-120250zz-VI, KTPS36-135266zz-VI and KTPS36-150240zz-VI)					
(Alternate)	Dongguanshi PuHang	R53S10-4530	Class B	--	--
(Alternate)	Dong Guan Readore	R53S10-4530	Class B	--	--
(for KTPS36-160225DT-2P-VI, KTPS36-180200DT-2P-VI, KTPS36-160225zz-VI and KTPS36-180200zz-VI)	Mao Hsin	R53S10-4540	Class B	--	--
(Alternate)	Dongguanshi PuHang	R53S10-4540	Class B	--	--
(Alternate)	Dong Guan Readore	R53S10-4540	Class B	--	--
(for KTPS36-240150DT-2P-VI and KTPS36-240150zz-VI)	Mao Hsin	R53S10-4500	Class B	--	--
(Alternate)	Dongguanshi PuHang	R53S10-4500	Class B	--	--
(Alternate)	Dong Guan Readore	R53S10-4500	Class B	--	--
(for KTPS36-480075DT-2P-VI and KTPS36-480075zz-VI)	Mao Hsin	R53S10-4510	Class B	--	--
(Alternate)	Dongguanshi PuHang	R53S10-4510	Class B	--	--
(Alternate)	Dong Guan Readore	R53S10-4510	Class B	--	--
- Bobbin (for Mao Hsin)	Sumitomo	PM-9630	V-0, 150°C, phenolic, min.	UL 94 UL 746C	UL

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Clause	Requirement + Test	Result – Remark	Verdict

			0.71mm thick.		
(for Mao Hsin, Dongguanshi PuHang and Dong Guan Readore)	Sumitomo	PM-9820	V-0, 150°C, phenolic, min. 0.71mm thick.	UL 94 UL 746C	UL
Insulations Tape (for Mao Hsin, Dong Guan Readore and Dongguanshi PuHang)	3M Company	1350F-1	Polyester Tape, 130°C	UL 510	UL
- (for Mao Hsin, Dong Guan Readore and Dongguanshi PuHang)	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT	Polyester Tape, 130°C	UL 510	UL
(for Dong Guan Readore)	Symbio	35660Y	Polyester Tape, 130°C	UL 510	UL
Triple Insulation Wire (for Mao Hsin)	Great Leoflon	TRW(B)	130°C	EN 60950-1:2006+A11+A1+A12+A2:2013 UL 60950-1	VDE, UL
- (for Dongguanshi PuHang and Dong Guan Readore)	Furukawa	TEX-E	130°C	EN 60950-1:2006+A11+A1+A12+A2:2013 UL 60950-1	VDE, UL
(for Dongguanshi PuHang)	Totoku	TIW-2	130°C	IEC 60950-1 EN 60950-1:2006+A11+A1+A12 UL 2353	TUV, UL
- Cover (for KTPS36-050500DT-2P-VI, KTPS36-075400DT-2P-VI, KTPS36-085352DT-2P-VI, KTPS36-090334DT-2P-VI, KTPS36-050500zz-VI, KTPS36-075400zz-VI, KTPS36-085352zz-VI and KTPS36-0903	Chang Chun	4130	PBT, V-0	UL 94 UL 746C	UL

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Clause	Requirement + Test	Result – Remark	Verdict

34zz-VI) - (for Mao Hsin and Dong Guan Readore)					
(for Dongguanshi PuHang)	E I Dupont De Nemours & Co Inc.	FR530	V-0	UL 94 UL 746C	UL
18) Current Resistor (R9) (for KTPS36-050500DT-2P-VI and KTPS36-050500zz-VI)	Interchangeable	Interchangeable	0.7 ohm	--	--
(for KTPS36-075400DT-2P-VI, KTPS36-085352DT-2P-VI, KTPS36-090334DT-2P-VI, KTPS36-075400zz-VI, KTPS36-085352zz-VI and KTPS36-090334zz-VI)	Interchangeable	Interchangeable	0.56 ohm	--	--
(for KTPS36-120250DT-2P-VI, and KTPS36-120250zz-VI)	Interchangeable	Interchangeable	0.43 ohm	--	--
(for KTPS36-120300DT-2P-VI, KTPS36-135266DT-2P-VI, KTPS36-150240DT-2P-VI, KTPS36-160225DT-2P-VI, KTPS36-180200DT-2P-VI, KTPS36-240150DT-2P-VI, KTPS36-480075DT-2P-VI, KTPS36-120300zz-VI, KTPS36-135266zz-VI, KTPS36-1502	Interchangeable	Interchangeable	0.39 ohm	--	--

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Clause	Requirement + Test	Result – Remark	Verdict

40zz-VI, KTPS36-160225zz-VI, KTPS36-180200zz-VI, KTPS36-240150zz-VI, KTPS36-480075zz-VI)					
19) Internal wiring	Interchangeable	Interchangeable	VW-1 or FT-1, min. 300V, 105°C. 24AWG	UL 758	UL
20) Output Wire	Interchangeable	Interchangeable	Max. 3.05m. VW-1 or FT-1, min 80°C, 60V, min. 22AWG	UL 758	UL
21) Strain Relief	Interchangeable	Interchangeable	V-1 or better	UL 94, UL 746C	UL
Supplementary information: 1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

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Clause	Requirement + Test	Result – Remark	Verdict

4.8.4, 4.8.5	**TABLE: Lithium coin/button cell batteries mechanical tests**	**N/A**

(The following mechanical tests are conducted in the sequence noted.)

4.8.4.2 TABLE: Stress Relief test —

Part	Material	Oven Temperature (°C)	Comments

4.8.4.3 TABLE: Battery replacement test —

Battery part no. ..... :		
Battery Installation/withdrawal	Battery Installation/Removal Cycle	**Comments**
	1	
	2	
	3	
	4	
	5	
	6	
	8	
	9	
	10	

4.8.4.4 Table: DROP TEST —

Impact Area	Drop Distance	Drop No.	Observations
		1	
		2	
		3	

4.8.4.5 TABLE: Impact —

Impacts per surface	Surface tested	Impact energy (Nm)	Comments

4.8.4.6 TABLE: Crush test —

Test position	Surface tested	Crushing Force (N)	Duration force applied (s)

Supplementary information:

4.8.5	**TABLE: Lithium coin/button cell batteries mechanical test result**	**N/A**

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

Test position	Surface tested	Force (N)	Duration force applied (s)
Supplementary information:			

5.2	TABLE: Classification of electrical energy sources						P
5.2.2.2 – Steady State Voltage and Current conditions							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				U (Vrms or Vpk)	I (Apk or Arms)	Hz	
1	264Vac/ 60Hz	+48V – RTN (KTPS36-48007 5DT-2P-VI)	Normal	48.1Vdc	--	--	ES1
			Abnormal (output overload)	48.1Vdc	--	--	
			Abnormal (output short)	0	--	--	
			Single fault (when shutdown)	0	--	--	
			Single fault (when CD(U1))	0	--	--	
			Single fault (when Fuse open)	0	--	--	
			Single fault-D4 SC	0	--	--	
			Single fault-C6 SC	49.6Vdc	--	--	
2	264Vac/ 60Hz	Output (+/-) - Earth (KTPS36-48007 5DT-2P-VI)	Normal	--	0.18mApk	--	ES1
			Abnormal (output overload)	--	0.18mApk	--	
			Abnormal (output short)	0	0.18mApk	--	
			Single fault (when shutdown)	0	0.18mApk	--	
			Single fault (when CD(U1))	0	0.18mApk	--	
			Single fault (when Fuse	0	0.24mApk	--	

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Clause	Requirement + Test	Result – Remark	Verdict

			open)				
3	264Vac / 60Hz	+24V – RTN (KTPS36-240150DT-2P-VI)	Normal	24.2Vdc	--	--	ES1
			Abnormal (output overload)	23.9Vdc	--	--	
			Abnormal (output short)	0	--	--	
			Single fault (when shutdown)	0	--	--	
4	264Vac / 60Hz	Output (+/-) - Earth (KTPS36-240150DT-2P-VI)	Normal	--	--	--	ES1
			Abnormal (output overload)	--	0.18mApk	--	
			Abnormal (output short)	0	0.18mApk	--	
			Single fault (when shutdown)	0	0.18mApk	--	
5	264Vac/ 60Hz	+16V – RTN (KTPS36-160225DT-2P-VI)	Normal	16.2Vdc	--	--	ES1
			Abnormal (output overload)	16.1Vdc	--	--	
			Abnormal (output short)	0	--	--	
			Single fault (when shutdown)	0	--	--	
			Single fault (when Fuse open)	0	--	--	
			Single fault- D4 SC	0	--	--	
			Single fault- C6 SC	18.3Vdc	--	--	
6	264Vac / 60Hz	Output (+/-) - Earth (KTPS36-160225DT-2P-VI)	Normal	--	--	--	ES1
			Abnormal (output overload)	--	0.18mApk	--	
			Abnormal (output short)	0	0.18mApk	--	
			Single fault (when shutdown)	0	0.18mApk	--	
7	264Vac/	+12V – RTN	Normal	12.3Vdc	--	--	ES1

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

	60Hz	(KTPS36-120300DT-2P-VI)	Abnormal (output overload)	12.3Vdc	--	--	
			Abnormal (output short)	0	--	--	
			Single fault (when shutdown)	0	--	--	
			Single fault (when Fuse open)	0	--	--	
			Single fault-D4 SC	0	--	--	
			Single fault-C6 SC	25.1Vdc	--	--	
8	264Vac / 60Hz	Output (+/-) - Earth (KTPS36-120300DT-2P-VI)	Normal	--	--	--	ES1
			Abnormal (output overload)	--	0.18mApk	--	
			Abnormal (output short)	0	0.18mApk	--	
			Single fault (when shutdown)	0	0.18mApk	--	
9	264Vac/ 60Hz	+9V – RTN (KTPS36-090334DT-2P-VI)	Normal	9.43Vdc	--	--	ES1
			Abnormal (output overload)	9.2Vdc	--	--	
			Abnormal (output short)	0			
			Single fault (when shutdown)	0			
			Single fault (when Fuse open)	0	--	--	
			Single fault-D7 SC	0			
10	264Vac / 60Hz	Output (+/-) - Earth (KTPS36-090334DT-2P-VI)	Normal	--	0.27mApk	--	ES1
			Abnormal (output overload)	--	0.27mApk	--	
			Abnormal (output short)	0	0.27mApk	--	
			Single fault (when	0	0.27mApk	--	

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

			shutdown)				
			Single fault (when Fuse open)	0	0.33mApk	--	
11	264Vac/ 60Hz	+5V – RTN (KTPS36-050500DT-2P-VI)	Normal	5.4Vdc	--	--	ES1
			Abnormal (output overload)	5.4Vdc			
			Abnormal (output short)	0	--	--	
			Single fault (when shutdown)	0			
			Single fault (when Fuse open)	0	--	--	
			Single fault-D7 SC	0	--	--	
12	264Vac / 60Hz	Output (+/-) - Earth (KTPS36-050500DT-2P-VI)	Normal	--	--	--	ES1
			Abnormal (output overload)	--	0.27mApk	--	
			Abnormal (output short)	0	0.27mApk	--	
			Single fault (when shutdown)	0	0.27mApk	--	
			Single fault (when Fuse open)	0	0.33mApk	--	
13	264Vac/ 60Hz	+48V – RTN (KTPS36-480075WA-VI)	Normal	--	--	--	ES1
			Abnormal (output overload)	47.9Vdc	--	--	
			Single fault-SC/OC	--	--	--	
14	264Vac/ 60Hz	Output (+/-) - Earth (KTPS36-480075WA-VI)	Normal	--	--	--	ES1
			Abnormal (output overload)	--	0.18mApk	--	
			Single fault-SC/OC	--	--	--	
15	264Vac / 60Hz	+24V – RTN (KTPS36-240150WA-VI)	Normal	--	--	--	ES1
			Abnormal (output	23.8Vdc	--	--	

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

			overload)				
			Single fault-SC/OC	--	--	--	
16	264Vac / 60Hz	Output (+/-) - Earth (KTPS36-240150WA-VI)	Normal	--	--	--	ES1
			Abnormal (output overload)	--	0.18mApk	--	
			Single fault-SC/OC	--	--	--	
17	264Vac/ 60Hz	+16V – RTN (KTPS36-160225WA-VI)	Normal	--	--	--	ES1
			Abnormal (output overload)	15.9Vdc	--	--	
			Single fault-SC/OC	--	--	--	
18	264Vac / 60Hz	Output (+/-) - Earth (KTPS36-160225WA-VI)	Normal	--	--	--	ES1
			Abnormal (output overload)	--	0.18mApk	--	
			Single fault-SC/OC	--	--	--	
19	264Vac/ 60Hz	+12V – RTN (KTPS36-120300WA-VI)	Normal	--	--	--	ES1
			Abnormal (output overload)	12.4Vdc	--	--	
			Single fault-SC/OC	--	--	--	
20	264Vac / 60Hz	Output (+/-) - Earth (KTPS36-120300WA-VI)	Normal	--	--	--	ES1
			Abnormal (output overload)	--	0.18mApk	--	
			Single fault-SC/OC	--	--	--	
21	264Vac/ 60Hz	+9V – RTN (KTPS36-090334WA-VI)	Normal	--	--	--	ES1
			Abnormal (output overload)	9.2Vdc	--	--	
			Single fault-SC/OC	--	--	--	
22	264Vac / 60Hz	Output (+/-) - Earth (KTPS36-09033	Normal	--	--	--	ES1
			Abnormal (output	--	0.27mApk	--	

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Clause	Requirement + Test	Result – Remark	Verdict

		4WA-VI)	overload)				
			Single fault-SC/OC	--	--	--	
23	264Vac/ 60Hz	+5V – RTN (KTPS36-050500WA-VI)	Normal	--	--	--	ES1
			Abnormal (output overload)	5.6Vdc	--	--	
			Single fault-SC/OC	--	--	--	
24	264Vac / 60Hz	Output (+/-) - Earth (KTPS36-050500WA-VI)	Normal	--	--	--	ES1
			Abnormal (output overload)	--	0.27mApk	--	
			Single fault-SC/OC	--	--	--	

5.2.2.3 – Capacitance Limits

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters		ES Class
				Capacitance, nF	Upk (V)	
1	240Vac / 60Hz	C1	Normal	C1=max. 330 (+20%)	340	ES3
			Abnormal	--	--	
			Single fault-SC/OC	--	--	

5.2.2.4 – Single Pulses

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Duration (ms)	Upk (V)	Ipk (mA)	
			Normal				
			Abnormal				
			Single fault – SC/OC				

5.2.2.5 – Repetitive Pulses

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Off time (ms)	Upk (V)	Ipk (mA)	
			Normal				
			Abnormal				
			Single fault – SC/OC				

Test Conditions:

Normal –

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Abnormal –

Supplementary information: SC=Short Circuit, OC=Short Circuit

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements					P
	Supply voltage (V) ..... :	90/60Hz	90/60Hz	264/60Hz	264/60Hz	—
	Ambient T_{min} (°C) ..... :	--	--	--	--	—
	Ambient T_{max} (°C)..... :	--	--	--	--	—
	Tma (°C) ..... :	--	--	--	--	—
Maximum measured temperature T of part/at:		T (°C)				Allowed T_{max} (°C)
Test Model: KTPS36-480075DT-2P-VI		Label on Bottom	Label on Top	Label on Bottom	Label on Top	--
Inlet body		50.4	49.9	47.3	47.3	65
VAR1 body		62.1	64.1	58.6	56.7	85
C1 body		74.3	74.6	66.3	66.4	100
L3 coil		82.4	83.1	70.4	70.6	130
PCB body near BD2		90.0	89.1	75.5	77.2	105
C2 body		82.2	82.9	75.9	76.8	105
HS body near Q1		103.4	104.6	103.2	103.1	105
U2 body		62.4	72.4	72.4	62.7	100
T1 primary side coil		98.4	99.7	104.1	104.6	110
T1 secondary side coil		96.7	98.1	104.5	105.2	110
T1 core		97.0	98.6	103.1	103.5	110
C12 body		74.5	74.4	72.4	73.4	125
HS2 body near D4		72.6	71.7	72.0	74.0	105
C8 body		65.8	66.0	66.7	67.4	105
L2 coil		60.3	63.9	64.6	61.4	105
Output wire		54.2	56.2	56.4	54.3	80
Inside of plastic enclosure near T1		64.1	64.5	65.3	63.6	120
Surface of plastic enclosure near T1		55.4	63.8	64.5	53.0	77
Ambient air		40.0	40.0	40.0	40.0	--
--		--	--	--	--	--
DC jack body		--	26.5	--	--	77
Ambient air		--	25.0	--	--	--
Test Model: KTPS36-240150DT-2P-VI		Label on Bottom	Label on Top	Label on Bottom	Label on Top	--

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Clause	Requirement + Test	Result – Remark	Verdict

Inlet body	51.6	51.3	49.9	49.6	65
VAR1 body	56.7	55.8	53.3	52.1	85
C1 body	65.0	65.1	59.8	59.1	100
L3 coil	75.7	77.1	67.0	66.6	130
PCB body near BD2	82.1	86.3	70.7	73.2	105
C2 body	74.2	75.7	69.3	69.6	105
HS body near Q1	94.4	94.7	94.6	93.8	105
U2 body	70.6	63.3	72.3	63.5	100
T1 primary side coil	97.9	99.7	105.9	106.9	110
T1 secondary side coil	95.5	97.4	103.4	104.6	110
T1 core	94.0	95.7	103.0	104.2	110
C12 body	76.7	78.4	77.3	77.5	125
HS2 body near D4	76.0	79.1	78.4	81.1	105
C8 body	66.8	68.6	69.0	70.4	105
L2 coil	62.9	61.4	64.8	62.4	105
Output wire	54.1	52.4	55.1	52.7	80
Inside of plastic enclosure near T1	62.9	64.7	64.9	67.1	120
Surface of plastic enclosure near T1	59.6	54.4	61.7	57.1	77
Ambient air	40.0	40.0	40.0	40.0	--
--	--	--	--	--	--
DC jack body	--	26.1	--	--	77
Ambient air	--	25.0	--	--	--
Test Model: KTPS36-160225DT-2P-VI	Label on Bottom	Label on Top	Label on Bottom	Label on Top	--
Inlet body	48.0	48.4	45.9	45.9	65
VAR1 body	56.0	57.1	52.6	53.2	85
C1 body	65.7	67.2	60.0	60.8	100
L3 coil	77.9	78.7	66.8	66.7	130
PCB body near BD2	84.7	84.6	71.4	70.8	105
C2 body	77.9	76.4	69.3	67.3	105
HS body near Q1	92.5	94.0	95.4	95.5	105
U2 body	68.9	64.6	69.9	64.1	100
T1 primary side coil	97.0	99.9	99.3	101.5	110
T1 secondary side coil	91.4	93.2	93.5	94.8	110
T1 core	89.4	92.0	92.2	94.3	110
C12 body	82.1	80.3	79.8	77.4	125
HS2 body near D4	87.2	85.5	86.2	84.6	105

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Clause	Requirement + Test	Result – Remark	Verdict

C8 body	72.6	72.8	72.2	72.3	105
L2 coil	65.0	64.7	65.4	64.8	105
Output wire	54.6	54.6	54.7	54.6	80
Inside of plastic enclosure near T1	60.5	66.3	61.0	65.9	120
Surface of plastic enclosure near T1	51.7	52.4	61.9	51.7	77
Ambient air	40.0	40.0	40.0	40.0	--
--	--	--	--	--	--
DC jack body	--	26.6	--	--	77
Ambient air	--	25.0	--	--	--
Test Model: KTPS36-120300DT-2P-VI	Label on Bottom	Label on Top	Label on Bottom	Label on Top	--
Inlet body	52.6	53.9	46.9	47.4	65
VAR1 body	55.4	54.5	49.5	48.5	85
C1 body	65.3	65.6	56.1	56.4	100
L3 coil	71.9	73.2	59.1	60.0	130
PCB body near BD2	87.0	88.6	70.4	72.1	105
C2 body	76.7	79.8	64.1	66.8	105
HS body near Q1	103.3	101.9	92.3	91.8	105
U2 body	79.0	83.8	73.4	78.0	100
T1 primary side coil	106.2	107.4	104.9	106.1	110
T1 secondary side coil	105.3	106.5	105.6	106.7	110
T1 core	102.5	103.2	100.8	103.4	110
C12 body	85.5	88.2	80.4	83.4	125
HS2 body near D4	91.2	93.1	87.7	90.1	105
C8 body	80.1	82.1	77.4	79.3	105
L2 coil	69.6	72.7	68.5	71.2	105
Output wire	60.2	63.4	59.7	62.1	80
Inside of plastic enclosure near T1	66.1	70.3	65.6	69.2	120
Surface of plastic enclosure near T1	57.2	67.0	57.2	65.8	77
Ambient air	40.0	40.0	40.0	40.0	--
--	--	--	--	--	--
DC jack body	--	26.3	--	--	77
Ambient air	--	25.0	--	--	--
Test Model: KTPS36-090334DT-2P-VI	Label on Bottom	Label on Top	Label on Bottom	Label on Top	--
Inlet body	56.6	57.3	51.0	52.7	65
VAR1 body	60.0	59.3	54.7	56.2	85
C1 body	67.0	66.9	61.3	62.0	100

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

L3 coil	75.8	75.8	66.5	67.3	130
PCB body near BD2	88.2	88.5	75.2	75.1	105
C2 body	79.6	79.3	71.5	71.9	105
HS body near Q1	92.8	94.0	89.1	88.9	105
U2 body	77.2	76.3	73.3	75.4	100
T1 primary side coil	87.8	88.3	87.6	87.6	110
T1 secondary side coil	84.8	84.6	84.9	85.0	110
T1 core	83.1	83.0	83.7	83.9	110
C12 body	77.7	75.9	74.3	75.4	125
HS2 body near D4	78.3	76.7	76.5	77.0	105
C8 body	70.8	69.7	69.5	69.7	105
L2 coil	62.9	64.4	63.7	62.5	105
Output wire	61.6	63.2	62.3	61.2	80
Inside of plastic enclosure near T1	58.8	58.7	58.1	58.8	120
Surface of plastic enclosure near T1	57.6	53.5	52.7	57.4	77
Ambient air	40.0	40.0	40.0	40.0	--
--	--	--	--	--	--
DC jack body	--	31.0	--	--	77
Ambient air	--	25.0	--	--	--
Test Model: KTPS36-050500DT-2P-VI	Label on Bottom	Label on Top	Label on Bottom	Label on Top	--
Inlet body	47.6	47.6	46.2	46.3	65
VAR1 body	55.0	54.5	53.9	52.9	85
C1 body	62.3	63.0	60.4	60.7	100
L3 coil	68.5	70.2	64.3	65.3	130
PCB body near BD2	80.6	83.3	73.2	75.3	105
C2 body	73.9	75.4	70.6	71.6	105
HS body near Q1	85.3	87.4	93.6	95.2	105
U2 body	70.2	69.5	71.9	70.2	100
T1 primary side coil	86.3	88.2	87.4	88.6	110
T1 secondary side coil	85.9	87.8	85.7	86.8	110
T1 core	78.5	79.4	80.6	80.8	110
C12 body	76.4	77.9	74.3	75.5	125
HS2 body near D4	83.1	85.1	80.2	81.7	105
C8 body	71.0	71.9	69.4	69.3	105
L2 coil	68.6	69.4	68.0	67.9	105
Output wire	63.3	63.6	63.2	62.7	80

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

Inside of plastic enclosure near T1	66.1	64.1	67.4	64.9	120
Surface of plastic enclosure near T1	63.3	57.8	64.2	57.9	77
Ambient air	40.0	40.0	40.0	40.0	--
--	--	--	--	--	--
DC jack body	--	29.9	--	--	77
Ambient air	--	25.0	--	--	--
Test Model: KTPS36-480075WA-VI	Horizontal	Vertical	Horizontal	Vertical	--
Input plug holder	54.8	57.7	54.5	57.2	120
Input wire	65.9	69.6	65.4	68.9	105
VAR1 body	62.3	68.8	60.2	66.0	85
C1 body	71.6	78.9	68.7	75.2	100
L3 coil	87.0	93.0	77.2	82.1	130
PCB body near BD2	98.7	101.5	81.5	84.4	105
C2 body	84.6	84.0	74.9	74.3	105
HS body near Q1	99.8	104.1	102.7	106.8	105
U2 body	64.0	65.8	65.0	66.4	100
T1 primary side coil	102.7	102.4	108.7	108.4	110
T1 secondary side coi	102.7	101.1	108.8	107.1	110
T1 core	95.6	94.6	101.2	100.6	110
C12 body	87.7	83.9	88.2	84.2	125
HS2 body near D4	86.2	82.0	88.3	83.6	105
C8 body	77.2	73.0	79.6	75.0	105
L2 coil	60.5	60.0	61.5	60.6	105
Output wire	55.3	55.6	56.0	55.7	80
Inside of plastic enclosure near T1	71.7	70.1	73.8	72.6	120
Surface of plastic enclosure near T1	59.8	58.8	60.4	59.9	77
Ambient air	40.0	40.0	40.0	40.0	--
Test ambient air	26.6	26.5	24.9	25.3	--
Test Model: KTPS36-240150WA-VI	Horizontal	Vertical	Horizontal	Vertical	--
Input plug holder	56.6	58.6	55.9	58.8	120
Input wire	69.3	72.0	67.6	71.5	105
VAR1 body	65.4	70.2	61.7	67.3	85
C1 body	72.6	78.1	68.4	74.6	100
L3 coil	84.1	89.4	76.9	83.5	130
PCB body near BD2	92.5	95.8	74.0	78.6	105
C2 body	86.6	87.7	76.7	79.7	105
HS body near Q1	99.5	103.3	98.3	103.2	105

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Clause	Requirement + Test	Result – Remark	Verdict

U2 body	65.4	66.1	65.9	67.9	100
T1 primary side coil	98.8	98.3	103.5	104.6	110
T1 secondary side coil	101.7	99.7	107.6	106.8	110
T1 core	98.8	97.6	105.9	106.2	110
C12 body	91.0	88.0	91.7	90.1	125
HS2 body near D4	93.4	88.8	96.6	92.7	105
C8 body	79.3	73.8	82.0	77.1	105
L2 coil	63.6	62.3	64.4	64.4	105
Output wire	57.9	57.0	58.0	58.6	80
Inside of plastic enclosure near T1	77.5	75.3	80.4	79.5	120
Surface of plastic enclosure near T1	57.0	54.5	58.1	56.5	77
Ambient air	40.0	40.0	40.0	40.0	--
Test ambient air	26.8	27.2	24.9	24.9	--
Test Model: KTPS36-160225WA-VI	Horizontal	Vertical	Horizontal	Vertical	--
Input plug holder	63.0	64.8	61.7	65.0	120
Input wire	66.7	68.7	64.8	68.2	105
VAR1 body	64.3	68.5	60.6	66.0	85
C1 body	74.1	78.8	69.3	75.7	100
L3 coil	84.3	88.7	74.6	80.4	130
PCB body near BD2	97.8	100.1	78.9	83.0	105
C2 body	87.2	88.3	75.8	79.0	105
HS body near Q1	97.9	101.3	94.1	99.3	105
U2 body	66.8	66.4	66.8	68.6	100
T1 primary side coil	102.3	101.1	105.2	106.2	110
T1 secondary side coil	105.5	103.2	108.7	108.3	110
T1 core	95.0	93.4	98.0	98.7	110
C12 body	94.2	91.1	93.3	91.5	125
HS2 body near D4	106.2	100.8	106.5	102.3	105
C8 body	89.0	84.6	90.0	87.5	105
L2 coil	64.7	62.2	65.0	65.0	105
Output wire	59.7	57.7	60.0	60.5	80
Inside of plastic enclosure near T1	93.7	87.6	93.9	88.7	120
Surface of plastic enclosure near T1	59.0	59.9	61.5	62.8	77
Ambient air	40.0	40.0	40.0	40.0	--
Test ambient air	24.1	25.1	23.6	25.3	--
Test Model: KTPS36-120300WA-VI	Horizontal	Vertical	Horizontal	Vertical	--
Input plug holder	60.0	62.7	55.9	59.0	120

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Clause	Requirement + Test	Result – Remark	Verdict

Input wire	69.3	72.9	64.6	68.7	75
VAR1 body	68.3	74.1	61.8	67.4	85
C1 body	75.8	82.9	67.9	74.8	100
L3 coil	88.5	94.2	73.1	78.9	130
PCB body near BD2	98.1	99.4	81.4	84.2	105
C2 body	89.1	92.1	75.5	79.8	105
HS body near Q1	100.4	105.7	91.8	97.8	105
U2 body	70.6	72.2	68.1	70.6	100
T1 primary side coil	109.0	109.4	107.8	109.5	110
T1 secondary side coil	105.7	105.0	105.1	105.5	110
T1 core	105.4	105.9	104.2	106.8	110
C12 body	99.5	99.0	95.8	96.3	125
HS2 body near D4	108.4	105.0	105.8	103.4	105
C8 body	91.2	88.6	89.1	87.6	105
L2 coil	71.4	71.3	69.8	70.2	105
Output wire	59.5	60.2	58.4	59.5	80
Inside of plastic enclosure near T1	73.5	72.1	72.2	71.6	120
Surface of plastic enclosure near T1	67.3	66.8	66.1	66.7	77
Ambient air	40.0	40.0	40.0	40.0	--
Test ambient air	28.1	28.1	30.3	27.7	--
Test Model: KTPS36-090334WA-VI	Horizontal	Vertical	Horizontal	Vertical	--
Input plug holder	57.2	60.2	56.8	60.9	120
Input wire	61.9	64.1	61.8	64.9	105
VAR1 body	63.8	68.1	62.6	67.9	85
C1 body	71.1	75.1	70.7	75.7	100
L3 coil	78.0	82.0	72.0	76.1	130
PCB body near BD2	90.5	90.3	81.6	82.0	105
C2 body	80.3	80.5	73.8	74.2	105
HS body near Q1	91.8	93.6	98.0	100.5	105
U2 body	65.3	65.6	65.9	66.6	100
T1 primary side coil	84.3	84.0	87.2	87.5	110
T1 secondary side coil	83.3	82.6	85.4	85.5	110
T1 core	80.6	80.1	83.2	83.5	110
C12 body	81.7	80.7	80.5	80.3	125
HS2 body near D4	80.4	78.9	79.3	78.6	105
C8 body	72.6	71.3	72.2	71.5	105
L2 coil	66.8	66.1	67.2	67.0	105

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Clause	Requirement + Test	Result – Remark	Verdict

Output wire	58.8	58.7	59.0	59.3	80
Inside of plastic enclosure near T1	65.6	64.0	66.1	65.2	120
Surface of plastic enclosure near T1	56.9	55.3	56.8	56.0	77
Ambient air	40.0	40.0	40.0	40.0	--
Test ambient air	27.4	27.3	29.9	27.3	--
Test Model: KTPS36-050500WA-VI	Horizontal	Vertical	Horizontal	Vertical	--
Input plug holder	54.5	56.6	54.4	54.5	120
Input wire	64.4	67.5	65.0	66.6	105
VAR1 body	61.4	64.8	60.7	62.5	85
C1 body	70.2	74.0	70.6	72.8	100
L3 coil	77.9	80.8	73.1	73.4	130
PCB body near BD2	95.7	95.1	86.6	83.3	130
C2 body	83.6	83.9	79.5	77.4	105
HS body near Q1	86.1	88.4	90.4	90.8	130
U2 body	69.8	68.7	70.5	67.5	100
T1 primary side coil	91.3	90.5	93.2	90.1	110
T1 secondary side coil	96.4	93.9	97.2	92.2	110
T1 core	84.5	80.4	83.3	77.3	110
C12 body	90.4	87.0	88.3	82.2	125
HS2 body near D4	93.0	88.1	90.9	83.4	130
C8 body	88.2	87.5	90.2	86.8	105
L2 coil	79.7	76.7	80.4	75.6	105
Output wire	62.5	61.4	63.1	60.1	80
Inside of plastic enclosure near T1	72.8	71.1	74.0	69.7	120
Surface of plastic enclosure near T1	51.2	50.2	51.4	48.6	77
Ambient air	40.0	40.0	40.0	40.0	--
Test ambient air	23.8	25.1	23.4	29.0	--

Supplementary information:

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class

Supplementary information:
Note 1: Tma should be considered as directed by appliable requirement
Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

5.4.1.10.2	TABLE: Vicat softening temperature of thermoplastics	N/A

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Clause	Requirement + Test	Result – Remark	Verdict

Penetration (mm).....:			—
Object/ Part No./Material		Manufacturer /trademark	T softening (°C)
Supplementary information:			

5.4.1.10.3	TABLE: Ball pressure test of thermoplastics		P
Allowed impression diameter (mm).....:		2 mm	—
Object/Part No./Material	Manufacturer/trademark	Test temperature (°C)	Impression diameter (mm)
Plug holder / 940(f1)	Sabic Japan L L C	125	1.43
Supplementary information:			

5.4.2.2, 5.4.2.4 and 5.4.3	TABLE: Minimum Clearances/Creepage distance						P
Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (kHz)[1]	Required cl (mm)	cl (mm)[2]	Required[3] cr (mm)	cr (mm)
Model: KTPS36-050500DT-2P-VI, PCB type SR	--	--	--	--	--	--	--
Basic/supplementary:	--	--	--	--	--	--	--
Line trace → Neutral trace Before F1	420	250	--	1.8 (1.5x1.16)	4.8	2.5	4.8
Between the trace of fuse (F1)	420	250	--	1.8 (1.5x1.16)	3.0	2.5	3.0
Reinforced insulation:	--	--	--	--	--	--	--
T1 core with tape → C7 body (10N)	560	290	65.6	3.5 (3.0x1.16)	6.3	5.8	6.3
T1 core with tape → HS2 body (10N)	560	290	65.6	3.5 (3.0x1.16)	5.9	5.8	5.9
Primary trace → Secondary trace	420	250	65.6	3.5 (3.0x1.16)	See below	5.0	See below
Under T1 trace	560	290	65.6	3.5 (3.0x1.16)	6.2	5.8	6.2
Under U2 trace	420	250	65.6	3.5 (3.0x1.16)	6.8	5.0	6.8
Under C12 trace	420	250	65.6	3.5 (3.0x1.16)	7.8	5.0	7.8
C16 trace → R24 trace	420	250	65.6	3.5 (3.0x1.16)	6.3	5.0	6.3

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Clause	Requirement + Test	Result – Remark	Verdict

C2 body with glue (10N) → Accessible part	420	250	65.6	3.5 (3.0x1.16)	5.2	5.0	5.2
model: KTPS36-480075DT-2P-VI, PCB type SBD	--	--	--	--	--	--	--
Basic/supplementary:	--	--	--	--	--	--	--
Line trace → Neutral trace Before F1	420	250	--	1.8 (1.5x1.16)	4.8	2.5	4.8
Between the trace of fuse (F1)	420	250	--	1.8 (1.5x1.16)	3.0	2.5	3.0
Reinforced insulation:	--	--	--	--	--	--	--
T1 core with tape → C7 body (10N)	560	290	65.6	3.5 (3.0x1.16)	7.4	5.8	7.4
T1 core with tape → HS2 body (10N)	560	290	65.6	3.5 (3.0x1.16)	8.0.	5.8	8.0
Primary trace → Secondary trace	420	250	65.6	3.5 (3.0x1.16)	See below	5.0	See below
T1 trace → U2 trace	560	290	65.6	3.5 (3.0x1.16)	6.8	5.8	6.8
Under U2 trace	420	250	65.6	3.5 (3.0x1.16)	6.7	5.0	6.7
Under C12 trace	420	250	65.6	3.5 (3.0x1.16)	7.5	5.0	7.5
C2 body with glue (10N) → Accessible part	420	250	65.6	3.5 (3.0x1.16)	5.2	5.0	5.2
Model: KTPS36-050500WA-VI, PCB type SR	--	--	--	--	--	--	--
Basic/supplementary:	--	--	--	--	--	--	--
Line trace → Neutral trace Before F1	420	250	--	1.8 (1.5x1.16)	5.6	2.5	5.6
Between the trace of fuse (F1)	420	250	--	1.8 (1.5x1.16)	3.3	2.5	3.3
Reinforced insulation:	--	--	--	--	--	--	--
T1 core with tape → C8 body (10N)	560	290	65.6	3.5 (3.0x1.16)	6.7	5.8	6.7
T1 core with tape → HS2 body (10N)	560	290	65.6	3.5 (3.0x1.16)	5.9	5.8	5.9
Input plug → Accessible edge	420	250	65.6	3.5 (3.0x1.16)	10.8	5.0	10.8
Primary trace → Secondary trace	420	250	65.6	3.5 (3.0x1.16)	See below	5.0	See below
Under T1 trace	560	290	65.6	3.5 (3.0x1.16)	6.5	5.8	6.5

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Clause	Requirement + Test	Result – Remark	Verdict

Under U2 trace	420	250	65.6	3.5 (3.0x1.16)	6.8	5.0	6.8
Under C12 trace	420	250	65.6	3.5 (3.0x1.16)	7.3	5.0	7.3
C16 trace → R24 trace	420	250	65.6	3.5 (3.0x1.16)	7.5	5.0	7.5
C2 body with glue (10N) → Accessible part	420	250	65.6	3.5 (3.0x1.16)	6.0	5.0	6.0
Inside of Plug → Accessible part	420	250	65.6	3.5 (3.0x1.16)	5.5	5.0	5.5
Model: KTPS36-480075WA-VI, PCB type SBD	--	--	--	--	--	--	--
Basic/supplementary:	--	--	--	--	--	--	--
Line trace → Neutral trace Before F1	420	250	--	1.8 (1.5x1.16)	5.6	2.5	5.6
Between the trace of fuse (F1)	420	250	--	1.8 (1.5x1.16)	3.3	2.5	3.3
Reinforced insulation:	--	--	--	--	--	--	--
T1 core with tape → C8 body (10N)	560	290	65.6	3.5 (3.0x1.16)	6.2	5.8	6.2
T1 core with tape → HS2 body (10N)	560	290	65.6	3.5 (3.0x1.16)	10.2	5.8	10.2
Input plug → Accessible edge	420	250	65.6	3.5 (3.0x1.16)	10.8	5.0	10.8
Primary trace → Secondary trace	420	250	65.6	3.5 (3.0x1.16)	See below	5.0	See below
T1 trace → U2 trace	560	290	65.6	3.5 (3.0x1.16)	7.5	5.8	7.5
Under U2 trace	420	250	65.6	3.5 (3.0x1.16)	6.7	5.0	6.7
Under C12 trace	420	250	65.6	3.5 (3.0x1.16)	7.3	5.0	7.3
C2 body with glue (10N) → Accessible part	420	250	65.6	3.5 (3.0x1.16)	6.0	5.0	6.0
Inside of Plug → Accessible part	420	250	65.6	3.5 (3.0x1.16)	5.5	5.0	5.5
Transformer type: R53S10-4500, R53S10-4530, R53S10-4540, R53S10-4510	--	--	--	--	--	--	--
T1 Primary to Secondary	560	290	65.6	3.5 (3.0x1.16)	6.2	5.8	6.2
T1 Core to Secondary	560	290	65.6	3.5	6.2	5.8	6.2

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Clause	Requirement + Test	Result – Remark	Verdict

				(3.0x1.16)			
Transformer type: R53S10-4490, R53S10-4520	--	--	--	--	--	--	--
T1 Primary to Secondary	560	290	65.6	3.5 (3.0x1.16)	10.6	5.8	10.6
T1 Core to Secondary	560	290	65.6	3.5 (3.0x1.16)	14.5	5.8	14.5

Supplementary information:

Note 1: Only for frequency above 30 kHz
Note 2: See table 5.4.2.4 if this is based on electric strength test
Note 3: Provide Material Group

- Specified the equipment to be operated up to 3100m above sea level, the required clearance is multiplied by the altitude correction factor 1.14 according to Table 17.

5.4.2.3	**TABLE: Minimum Clearances distances using required withstand voltage**	**P**
	Overvoltage Category (OV):	II
	Pollution Degree:	2

Clearance distanced between:	Required withstand voltage	Required cl (mm)	Measured cl (mm)
Basic/supplementary[1)]	2500	1.8 (1.5x1.16)	[1)]
Reinforced[1)]	2500	3.5 (3.0x1.16)	[1)]

Supplementary information:

[1)] See appended table 5.4.2.2, 5.4.2.4 and 5.4.3 for measurements.

5.4.2.4	**TABLE: Clearances based on electric strength test**	**N/A**

Test voltage applied between:	Required cl (mm)	Test voltage (kV) peak/ r.m.s. / d.c.	Breakdown Yes / No

Supplementary information:

5.4.4.2, 5.4.4.5 c) 5.4.4.9	**TABLE: Distance through insulation measurements**	**P**

Distance through insulation di at/of:	Peak voltage (V)	Frequency (kHz)	Material	Required DTI (mm)	DTI (mm)
Photo Coupler (U2) (Reinforced Insulation)	420	65.6	[1)]	0.4	[1)]
Insulation tape (T1) (Reinforced Insulation)	560	65.6	[1)]	2 layers	2 layers
Enclosure	560	65.6	[1)]	0.4	[1)]

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Clause	Requirement + Test	Result – Remark	Verdict

(Reinforced Insulation)					
Cover (Reinforced Insulation) (around T1)	560	65.6	1)	0.4	1)

Supplementary information:

1) See appended table 4.1.2.

2) According to clause 5.4.4.9:

For Optical Isolator (Reinforced Insulation) :

Kr=0.35, Vpw=420Vp. Required electric strengh test voltage: 1.2*2*420/0.35=2880Vpeak

For Insulation tape (Reinforced Insulation):

Kr=0.46, Vpw=560Vp. Required electric strengh test voltage: 1.2*2*560/0.46=2922Vpeak

For Cover and plastic enclosure (Reinforced Insulation):

Kr=0.35, Vpw=560Vp. Required electric strengh test voltage: 1.2*2*560/0.35=3840Vpeak

5.4.9	TABLE: Electric strength tests		P
Test voltage applied between:	Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No
Functional:			
--	--	--	--
Basic/supplementary:			
Reinforced:			
Unit: primary to secondary	DC	4000	No
Unit: primary to Enclosure with foil	DC	4000	No
Photo Coupler (U2) (see appended tables 4.1.2)	AC (peak)	4000	No
Enclosure (see appended tables 4.1.2)	DC	4000	No
One layer insulation tape (around T1) (see appended tables 4.1.2)	AC (peak)	4000	No
T1 cover (see appended tables 4.1.2)	AC (peak)	4000	No
T1 Primary to Secondary	AC (peak)	4000	No
T1 Core to Secondary	AC (peak)	4000	No
Routine Tests:			
--	--	--	--

Supplementary information:

1. By applying an d.c. voltage in one polarity and then repeat it in reverse polarity.
2. See supplementary information of appended table 5.4.4.9.

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Clause	Requirement + Test	Result – Remark	Verdict

3. All testing Including after Humidity required of clause 5.4.8, there are including unit, transformer and all material of transformer, see appended tables 4.1.2

5.5.2.2	**TABLE: Stored discharge on capacitors**				**P**
Supply Voltage (V), Hz	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Classification
264, 60	Phase to Neutral	N	--	36Vdc	ES1
264, 60	Phase to Neutral	S (R22 open)	--	38Vdc	ES1

Supplementary information:

X-capacitors installed for testing are: C1=0.33μF

☒ bleeding resistor rating: R19, R20= 1.5M ohm

☐ ICX:

Notes:

A. Test Location:

Phase to Neutral; Phase to Phase; Phase to Earth; and/or Neutral to Earth

B. Operating condition abbreviations:

N – Normal operating condition (e.g., normal operation, or open fuse); S –Single fault condition

5.6.6.2	**TABLE: Resistance of protective conductors and terminations**			**N/A**
Accessible part	Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)

Supplementary information:

5.7.2.2, 5.7.4	**TABLE: Earthed accessible conductive part**	**N/A**
Supply voltage.....:		—
Location	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)
Line/Neutral to metal enclosure	1	
	2*	
	3	
	4	
	5	

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Clause	Requirement + Test	Result – Remark	Verdict

	6	
	8	

Supplementary Information:

Notes:
[1] Supply voltage is the anticipated maximum Touch Voltage

[2] Earthed neutral conductor [Voltage differences less than 1% or more]

[3] Specify method used for measurement as described in IEC 60990 sub-clause 4.3

[4] IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable.

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

6.2.2	TABLE: Electrical power sources (PS) measurements for classification				N/A
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s*)	PS Classification
A		Power (W) :			
		V_A (V) :			
		I_A (A) :			
B		Power (W) :			
		V_A (V) :			
		I_A (A) :			
C		Power (W) :			
		V_A (V) :			
		I_A (A) :			
D		Power (W) :			
		V_A (V) :			
		I_A (A) :			

Supplementary Information:

(*) Measurement taken only when limits at 3 seconds exceed PS1 limits

All circuits within the equipment are considered as PS3. For output circuits see appended table Q.1.

6.2.3.1	TABLE: Determination of Potential Ignition Sources (Arcing PIS)			N/A
Location	Open circuit voltage After 3 s (Vp)	Measured r.m.s current (Irms)	Calculated value (V_p x I_{rms})	Arcing PIS? Yes / No

Supplementary information:

An Arcing PIS requires a minimum of 50 V (peak) a.c. or d.c. An Arcing PIS is established when the product of the open circuit voltage (V_p) and normal operating condition rms current (I_{rms}) is greater than 15.

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Clause	Requirement + Test	Result – Remark	Verdict

All components in the equipment are considered as arcing PIS.

6.2.3.2	TABLE: Determination of Potential Ignition Sources (Resistive PIS)				N/A
Circuit Location (x-y)	Operating Condition (Normal / Describe Single Fault)	Measured wattage or VA During first 30 s (W / VA)	Measured wattage or VA After 30 s (W / VA)	Protective Circuit, Regulator, or PTC Operated? Yes / No (Comment)	Resistive PIS? Yes/No

Supplementary Information:

All components in the equipment are considered as arcing resistive.

A combination of voltmeter, VA and ammeter IA may be used instead of a wattmeter.

If a separate voltmeter and ammeter are used, the product of (VA x IA) is used to determine Resistive PIS classification.

A Resistive PIS: (a) dissipates more than 15 W, measured after 30 s of normal operation, or (b) under single fault conditions has either a power exceeding 100 W measured immediately after the introduction of the fault if electronic circuits, regulators or PTC devices are used, or has an available power exceeding 15 W measured 30 s after introduction of the fault.

8.5.5	TABLE: High Pressure Lamp	N/A
Description	Values	Energy Source Classification
Lamp type .....:		—
Manufacturer.....:		—
Cat no.....:		—
Pressure (cold) (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						P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
--	--	--	--	--	--	--	Test Model KTPS36-480075DT-2 P-VI
90	0.77	--	40.3	--	F1	0.77	48V⎓0.75A / 50Hz
100	0.71	1	40.0	--	F1	0.71	48V⎓0.75A / 50Hz
240	0.44	1	40.0	--	F1	0.44	48V⎓0.75A / 50Hz

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Clause	Requirement + Test				Result – Remark		Verdict

254	0.43	--	40.0	--	F1	0.43	48V⎓0.75A / 50Hz
264	0.42	--	40.0	--	F1	0.42	48V⎓0.75A / 50Hz
90	0.79	--	40.3	--	F1	0.79	48V⎓0.75A / 60Hz
100	0.74	1	40.0	--	F1	0.74	48V⎓0.75A / 60Hz
240	0.43	1	40.0	--	F1	0.43	48V⎓0.75A / 60Hz
254	0.42	--	40.0	--	F1	0.42	48V⎓0.75A / 60Hz
264	0.41	--	40.0	--	F1	0.41	48V⎓0.75A / 60Hz
--	--	--	--	--	--	--	Test Model: KTPS36-240150DT-2 P-VI
90	0.79	--	41.4	--	F1	0.79	24V⎓1.5A / 50Hz
100	0.72	1	41.2	--	F1	0.72	24V⎓1.5A / 50Hz
240	0.44	1	39.0	--	F1	0.44	24V⎓1.5A / 50Hz
254	0.42	--	39.0	--	F1	0.42	24V⎓1.5A / 50Hz
264	0.41	--	39.0	--	F1	0.41	24V⎓1.5A / 50Hz
90	0.81	--	41.5	--	F1	0.81	24V⎓1.5A / 60Hz
100	0.75	1	41.2	--	F1	0.75	24V⎓1.5A / 60Hz
240	0.43	1	39.0	--	F1	0.43	24V⎓1.5A / 60Hz
254	0.41	--	39.0	--	F1	0.41	24V⎓1.5A / 60Hz
264	0.40	--	38.0	--	F1	0.40	24V⎓1.5A / 60Hz
--	--	--	--	--	--	--	Test Model: KTPS36-160225DT-2 P-VI
90	0.80	--	41.5	--	F1	0.80	16V⎓2.25A / 50Hz
100	0.73	1	41.3	--	F1	0.73	16V⎓2.25A / 50Hz
240	0.45	1	40.0	--	F1	0.45	16V⎓2.25A / 50Hz
254	0.43	--	40.0	--	F1	0.43	16V⎓2.25A / 50Hz
264	0.43	--	41.0	--	F1	0.43	16V⎓2.25A / 50Hz
90	0.81	--	41.5	--	F1	0.81	16V⎓2.25A / 60Hz
100	0.76	1	41.3	--	F1	0.76	16V⎓2.25A / 60Hz
240	0.44	1	40.0	--	F1	0.44	16V⎓2.25A / 60Hz
254	0.43	--	40.0	--	F1	0.43	16V⎓2.25A / 60Hz
264	0.41	--	41.0	--	F1	0.41	16V⎓2.25A / 60Hz
--	--	--	--	--	--	--	Test Model: KTPS36-150240DT-2 P-VI
90	0.79	--	41.0	--	F1	0.79	15V⎓2.4A / 50Hz
100	0.73	1	40.8	--	F1	0.73	15V⎓2.4A / 50Hz
240	0.45	1	40.0	--	F1	0.45	15V⎓2.4A / 50Hz

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Clause	Requirement + Test				Result – Remark		Verdict

254	0.44	--	40.0	--	F1	0.44	15V⎓2.4A / 50Hz
264	0.42	--	40.0	--	F1	0.42	15V⎓2.4A / 50Hz
90	0.81	--	41.0	--	F1	0.81	15V⎓2.4A / 60Hz
100	0.76	1	40.8	--	F1	0.76	15V⎓2.4A / 60Hz
240	0.44	1	40.0	--	F1	0.44	15V⎓2.4A / 60Hz
254	0.43	--	40.0	--	F1	0.43	15V⎓2.4A / 60Hz
264	0.41	--	40.0	--	F1	0.41	15V⎓2.4A / 60Hz
--	--	--	--	--	--	--	Test Model: KTPS36-120300DT-2 P-VI
90	0.80	--	41.9	--	F1	0.80	12V⎓3A / 50Hz
100	0.73	1	41.5	--	F1	0.73	12V⎓3A / 50Hz
240	0.48	1	40.0	--	F1	0.48	12V⎓3A / 50Hz
254	0.45	--	40.0	--	F1	0.45	12V⎓3A / 50Hz
264	0.43	--	40.0	--	F1	0.43	12V⎓3A / 50Hz
90	0.81	--	41.9	--	F1	0.81	12V⎓3A / 60Hz
100	0.76	1	41.6	--	F1	0.76	12V⎓3A / 60Hz
240	0.45	1	40.0	--	F1	0.45	12V⎓3A / 60Hz
254	0.44	--	40.0	--	F1	0.44	12V⎓3A / 60Hz
264	0.43	--	40.0	--	F1	0.43	12V⎓3A / 60Hz
--	--	--	--	--	--	--	Test Model: KTPS36-090334DT-2 P-VI
90	0.67	--	34.1	--	F1	0.67	9V⎓3.34A / 50Hz
100	0.63	1	34.0	--	F1	0.63	9V⎓3.34A / 50Hz
240	0.39	1	33.0	--	F1	0.39	9V⎓3.34A / 50Hz
254	0.37	--	33.0	--	F1	0.37	9V⎓3.34A / 50Hz
264	0.36	--	33.0	--	F1	0.36	9V⎓3.34A / 50Hz
90	0.71	--	34.1	--	F1	0.71	9V⎓3.34A / 60Hz
100	0.65	1	34.0	--	F1	0.65	9V⎓3.34A / 60Hz
240	0.38	1	33.0	--	F1	0.38	9V⎓3.34A / 60Hz
254	0.36	--	33.0	--	F1	0.36	9V⎓3.34A / 60Hz
264	0.35	--	33.0	--	F1	0.35	9V⎓3.34A / 60Hz
--	--	--	--	--	--	--	Test Model: KTPS36-050500DT-2 P-VI
90	0.60	--	29.7	--	F1	0.60	5V⎓5A / 50Hz
100	0.56	1	29.6	--	F1	0.56	5V⎓5A / 50Hz
240	0.35	1	29.0	--	F1	0.35	5V⎓5A / 50Hz

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Clause	Requirement + Test	Result – Remark	Verdict

254	0.33	--	29.0	--	F1	0.33	5V⎓5A / 50Hz
264	0.32	--	29.0	--	F1	0.32	5V⎓5A / 50Hz
90	0.62	--	29.8	--	F1	0.62	5V⎓5A / 60Hz
100	0.58	1	29.5	--	F1	0.58	5V⎓5A / 60Hz
240	0.34	1	29.0	--	F1	0.34	5V⎓5A / 60Hz
254	0.32	--	29.0	--	F1	0.32	5V⎓5A / 60Hz
264	0.31	--	29.0	--	F1	0.31	5V⎓5A / 60Hz
Supplementary information: Equipment may be have rated current or rated power or both. Both should be measured							

B.3	TABLE: Abnormal operating condition tests							P
Ambient temperature (°C) ..... :					40 (Tma) / 25 (Tamb)			—
Power source for EUT: Manufacturer, model/type, output rating..... :					--			—
Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
Model: KTPS36-480075 DT-2P-VI	--	--	--	--	--	--	--	--
T1 pin (8) after D4	Overload	240Vac	3h:02m	F1	0.46	T1 coil Tma	110 40	CT at 0.1A, (output: 0.75A total 0.85A) increased to 0.2A, unit shutdown
+48V – RTN	Overload	240Vac	2h:29m	F1	0.46	T1 coil Tma	110.3 40	CT at 0.8A increased to 1.0A, unit shutdown
+48V – RTN	Short	240Vac	30min	F1	0.03	--	--	1)
Model: KTPS36-240150 DT-2P-VI	--	--	--	--	--	--	--	--
T1 pin (8) after D4	Overload	240Vac	3h:02m	F1	0.48	T1 coil Tma	119.8 40	CT at 0.2A, (output: 1.5A total 1.7A) increased to 0.3A, unit shutdown
+24V – RTN	Overload	240Vac	2h:29m	F1	0.48	T1 coil Tma	118.3 40	CT at 1.7A increased to 2.0A, unit shutdown
+24V – RTN	Short	240Vac	30min	F1	0.03	--	--	1)
Model:	--	--	--	--	--	--	--	--

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Clause	Requirement + Test	Result – Remark	Verdict

KTPS36-160225 DT-2P-VI								
T1 pin (8) after D4	Overload	240Vac	3h:02m	F1	0.48	T1 coil Tma	133.8 40	CT at 0.3A, (output: 2.25A total 2.55A) increased to 0.5A, unit shutdown
+16V–RTN[3)]	Overload	240Vac	2h:29m	F1	0.47	T1 coil Tma Enclosure[)] DC jack Tamb	129.3 40 56 32 25	CT at 2.5A increased to 2.7A, unit shutdown
+16V–RTN	Short	240Vac	30min	F1	0.03	--	--	1)
Model: KTPS36-120300 DT-2P-VI	--	--	--	--	--	--	--	--
T1 pin (8) after D4	Overload	240Vac	3h:41m	F1	0.49	T1 coil Tma	129.9 40	CT at 0.2A, (output: 3.0A total 3.2A) increased to 0.5A, unit shutdown
+12V–RTN	Overload	240Vac	2h:55m	F1	0.49	T1 coil Tma	128.9 40	CT at 3.2A increased to 3.5A, unit shutdown
+12V–RTN	Short	240Vac	30min	F1	0.03	--	--	1)
Model: KTPS36-090334 DT-2P-VI	--	--	--	--	--	--	--	--
+9V–RTN	Overload	240Vac	2h:55m	F1	0.44	T1 coil Tma	128.9 40	CT at 4.0A increased to 4.2A, unit shutdown
+9V–RTN	Short	240Vac	30min	F1	0.03	--	--	2)
Model: KTPS36-050500 DT-2P-VI	--	--	--	--	--	--	--	--
+5V–RTN	Overload	240Vac	2h:29m	F1	0.43	T1 coil Tma	108.3 40	CT at 6.0A increased to 6.5A, unit shutdown
+5V–RTN	Short	240Vac	30min	F1	0.03	--	--	2)
Model: KTPS36-480075	--	--	--	--	--	--	--	--

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

WA-VI								
T1 pin (8) after D4	Overload	240Vac	1h:56m	F1	0.46	T1 coil Tma	120.1 40	CT at 0.1A, (output: 0.75A total 0.85A) increased to 0.2A, unit shutdown
+48V – RTN	Overload	240Vac	2h:35m	F1	0.46	T1 coil Tma	113.4 40	CT at 0.8A increased to 1.0A, , unit shutdown
+48V – RTN	Short	240Vac	30min	F1	0.03	--	--	1)
Model: KTPS36-240150 WA-VI	--	--	--	--	--	--	--	--
T1 pin (8) after D4	Overload	240Vac	1h:56m	F1	0.48	T1 coil Tma	120.1 40	CT at 0.2A, (output: 1.5A total 1.7A) increased to 0.3A, unit shutdown
+24V – RTN	Overload	240Vac	2h:35m	F1	0.48	T1 coil Tma	118.4 40	CT at 1.7A increased to 2.0A, unit shutdown
+24V – RTN	Short	240Vac	30min	F1	0.03	--	--	1)
Model: KTPS36-160225 WA-VI	--	--	--	--	--	--	--	--
T1 pin (8) after D4	Overload	240Vac	1h:56m	F1	0.48	T1 coil Tma	122.1 40	CT at 0.3A, (output: 2.25A total 2.55A) increased to 0.5A, unit shutdown
+16V–RTN	Overload	240Vac	2h:35m	F1	0.47	T1 coil Tma	121.4 40	CT at 2.5A increased to 2.7A, unit shutdown
+16V–RTN	Short	240Vac	30min	F1	0.03	--	--	1)
Model: KTPS36-120300 WA-VI	--	--	--	--	--	--	--	--
T1 pin (8) after D4	Overload	240Vac	3h:41m	F1	0.49	T1 coil Tma	122.3 40	CT at 0.2A, (output: 3.0A total 3.2A) increased to 0.5A, unit

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

								shutdown
+12V–RTN	Overload	240Vac	2h:55m	F1	0.49	T1 coil Tma	121.8 40	CT at 3.2A increased to 3.5A, unit shutdown
+12V–RTN	Short	240Vac	30min	F1	0.03	--	--	1)
Model: KTPS36-090334 WA-VI	--	--	--	--	--	--	--	--
+9V–RTN	Overload	240Vac	2h:55m	F1	0.44	T1 coil Tma	102.8 40	CT at 4.0A increased to 4.2A, unit shutdown
+9V–RTN	Short	240Vac	30min	F1	0.03	--	--	2)
Model: KTPS36-050500 WA-VI	--	--	--	--	--	--	--	--
+5V–RTN	Overload	240Vac	3h:48m	F1	0.43	T1 coil Tma	102.5 40	CT at 6.0A increased to 6.5A, unit shutdown
+5V–RTN	Short	240Vac	30min	F1	0.03	--	--	2)

Supplementary information:

Test table is provided to record abnormal and fault conditions for all applicable energy sources including Thermal burn injury. Column “Abnormal/Fault.” Specify if test condition by indicating “Abnormal” then the condition for a Clause B.3 test or “Single Fault” then the condition for Clause B.4.

Abbreviations used:
NC: Cheesecloth remain intact
NT: Tissue paper remains intact
NB: No indication of dielectric breakdown
IP: Internal protection operated (list component)
CT: Constant temperatures were obtained
CD: Components damaged (list damaged components)

ASRE: All safeguards remained effectively

1) After 1 sec unit shutdown, NT, NB, NC, ASRE
2) After 1 sec unit shutdown, NT, NB, NC, ASRE
3) Heating was waived due to T1 coil (Xfmr & Output O/L) was considered the worst case condition

B.4	TABLE: Fault condition tests							P
Ambient temperature (°C) .....:			40 (Tma) / 25 (Tamb)					—
Power source for EUT: Manufacturer, model/type, output rating :			--					—
Component No.	Fault Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
Model: KTPS36-480075 DT-2P-VI	--	--	--	--	--	--	--	--

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

T1 (2-3)	Short	240Vac	30 min	F1	0.03	--	--	1)
T1 (4-6)	Short	240Vac	1 sec	F1	0	--	--	3)
T1 (7-8)	Short	240Vac	30 min	F1	0.03	--	--	1)
BD1	Short	240Vac	1 sec	F1	0	--	--	3)
C2	Short	240Vac	1 sec	F1	0	--	--	3)
Q1 (G-D)	Short	240Vac	1 sec	F1	0	--	--	3)
Q1 (G-S)	Short	240Vac	30 min	F1	0.03	--	--	1)
Q1 (D-S)	Short	240Vac	1 sec	F1	0	--	--	3)
U2 (1-2)	Short	240Vac	30 min	F1	0.03	--	--	1)
U2 (3-4)	Short	240Vac	30 min	F1	0.03	--	--	1)
U2 (1)	Open	240Vac	30 min	F1	0.03	--	--	1)
U1 (5-2)	Short	240Vac	30 min	F1	0.03	--	--	CD(U1), RF, ASRE TC: 0.18mAVpk.
Model: KTPS36-160225 DT-2P-VI	--	--	--	--	--	--	--	--
T1 (2-3)	Short	240Vac	30 min	F1	0.03	--	--	1)
T1 (4-6)	Short	240Vac	1 sec	F1	0	--	--	3)
T1 (7-8)	Short	240Vac	30 min	F1	0.03	--	--	1)
Model: KTPS36-120300 DT-2P-VI	--	--	--	--	--	--	--	--
T1 (2-3)	Short	240Vac	30 min	F1	0.03	--	--	1)
T1 (4-6)	Short	240Vac	1 sec	F1	0	--	--	3)
T1 (7-8)	Short	240Vac	30 min	F1	0.03	--	--	1)
Model: KTPS36-090334 0DT-2P-VI	--	--	--	--	--	--	--	--
T1 (1-2)	Short	240Vac	30 min	F1	0.03	--	--	2)
T1 (4-6)	Short	240Vac	1 sec	F1	0	--	--	4)
T1 (W-B)	Short	240Vac	30 min	F1	0.03	--	--	2)
T1 (B-R)	Short	240Vac	30 min	F1	0.03	--	--	2)
Model: KTPS36-050500 DT-2P-VI	--	--	--	--	--	--	--	--
T1 (1-2)	Short	240Vac	30 min	F1	0.03	--	--	2)
T1 (4-6)	Short	240Vac	1 sec	F1	0	--	--	4)
T1 (W-B)	Short	240Vac	30 min	F1	0.03	--	--	2)
T1 (B-R)	Short	240Vac	30 min	F1	0.03	--	--	2)

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

Supplementary information:

Abbreviations used:

NC: Cheesecloth remain intact

NT: Tissue paper remains intact

NB: No indication of dielectric breakdown

IP: Internal protection operated (list component) repeat all fuse see as below, result were same

Manufacturer/ trademark	Type / model	Technical data	Test times
Conquer	MST	T6.3A, 250Vac	1
Ever Island	2010 series	T6.3A, 250Vac	1
Walter Electronic Co Ltd	2010	T6.3A, 250Vac	3

TC: Touch current (Supply voltage, 264Vac/60Hz)

CT: Constant temperatures were obtained

CD: Components damaged (list damaged components)

ASRE: All safeguards remained effectively.

RF: Repeat all fuse, results were the same.

1) After 1 sec unit shutdown, NT, NB, NC, ASRE
2) After 1 sec unit shutdown, NT, NB, NC, ASRE
3) IP (F1), NT, NB, NC, ASRE
4) IP (F1), NT, NB, NC, ASRE

Annex M	**TABLE: Batteries**								**N/A**
The tests of Annex M are applicable only when appropriate battery data is not available									
Is it possible to install the battery in a reverse polarity position? :									
	Non-rechargeable batteries			Rechargeable batteries					
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. current during normal condition									
Max. current during fault condition									
Test results:									Verdict
- Chemical leaks									
- Explosion of the battery									
- Emission of flame or expulsion of molten metal									

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

- Electric strength tests of equipment after completion of tests		
Supplementary information:		

Annex M.4	**TABLE: Additional safeguards for equipment containing secondary lithium batteries**	**N/A**

Battery/Cell No.	Test conditions	Measurements			Observation
		U	I (A)	Temp (C)	
	Normal				
	Abnormal				
	Single fault –SC/OC				
	Normal				
	Abnormal				
	Single fault – SC/OC				

Supplementary Information:

Battery identification	Charging at T_{lowest} (°C)	Observation	Charging at $T_{highest}$ (°C)	Observation

Supplementary Information:

Annex Q.1	**TABLE: Circuits intended for interconnection with building wiring (LPS)**	**P**

Note: Measured UOC (V) with all load circuits disconnected: (Test model: KTPS36-480075DT-2P-VI)

Output Circuit	Components	U_{oc} (V)	I_{sc} (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
+48V	Normal condition	48.1	0.86	≤3.11	40.7	100
+48V	R12 Oc	--	0	≤3.11	0	100
+48V	U2 (1-2) Sc	--	0	≤3.11	0	100
+48V	U3 (A-R) Sc	--	0	≤3.11	0	100
+48V	R14 Sc	--	0	≤3.11	0	100
+48V	R15 Sc	--	0	≤3.11	0	100
+48V	R9 Sc	--	0	≤3.11	0	100
Note: Measured UOC (V) with all load circuits disconnected: (Test Model: KTPS36-160225DT-2P-VI)						
+16V	Normal condition	16.2	3.2	8	49.4	100
+16V	R12 Oc	--	0	8	0	100
+16V	U2 (1-2) Sc	--	0	8	0	100
+16V	U3 (A-R) Sc	--	0	8	0	100
+16V	R14 Sc	--	0	8	0	100

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

+16V	R15 Sc	--	0	8	0	100
+16V	R9 Sc	--	0	8	0	100
Note: Measured UOC (V) with all load circuits disconnected: (Test Model: KTPS36-120300DT-2P-VI)						
+12V	Normal condition	12.17	3.6	8	42.1	100
+12V	R12 Oc	--	0	8	0	100
+12V	U2 (1-2) Sc	--	0	8	0	100
+12V	U3 (A-R) Sc	--	0	8	0	100
+12V	R14 Sc	--	0	8	0	100
+12V	R15 Sc	--	0	8	0	100
+12V	R9 Sc	--	0	8	0	100
Note: Measured UOC (V) with all load circuits disconnected: (Test Model: KTPS36-090334DT-2P-VI)						
+9V	Normal condition	9.43	4.5	8	39.7	100
+9V	R12 Oc	--	0	8	0	100
+9V	U2 (1-2) Sc	--	0	8	0	100
+9V	U3 (A-R) Sc	--	0	8	0	100
+9V	R14 Sc	--	0	8	0	100
+9V	R15 Sc	--	0	8	0	100
+9V	R9 Sc	--	0	8	0	100
Note: Measured UOC (V) with all load circuits disconnected: (Test Model: KTPS36-050550DT-2P-VI)						
+5V	Normal condition	5.23	6.8	8	32.5	100
+5V	R12 Oc	--	0	8	0	100
+5V	U2 (1-2) Sc	--	0	8	0	100
+5V	U3 (A-R) Sc	--	0	8	0	100
+5V	R14 Sc	--	0	8	0	100
+5V	R15 Sc	--	0	8	0	100
+5V	R9 Sc	--	0	8	0	100
Supplementary Information: SC=Short circuit, OC=Open circuit Input Voltage: 264Vac, 60Hz						

T2, T3 T4, T5	TABLE: Steady force test				P
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation
Test Model: KTPS36-480075DT-2P-VI	--	--	--	--	--
Enclosure / Top	1)	1)	250	5	2)

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

Enclosure / Side	1)	1)	250	5	2)
Enclosure / Bottom	1)	1)	250	5	2)
Test Model: KTPS36-480075WA-VI	--	--	--	--	--
Enclosure / Top	1)	1)	100	5	2)
Enclosure / Side	1)	1)	100	5	2)
Enclosure / Bottom	1)	1)	100	5	2)

Supplementary information:

1) See appended table 4.1.2

2) No cracking, class 3 energy sources did not become accessible and all safeguards remain effective, No indication of dielectric breakdown

T6, T9	TABLE: Impact tests				P
Part/Location	Material	Thickness (mm)	Vertical distance (mm)	Observation	
--	--	--	--	Test Model: KTPS36-480075DT-2P-VI	
Top enclosure/Near inlet	1)	1)	1300	2)	
Bottom enclosure/Near inlet	1)	1)	1300	2)	
Side enclosure/Near inlet	1)	1)	1300	2)	

Supplementary information:

1) See appended table 4.1.2

2) No cracking, class 3 energy sources did not become accessible and all safeguards remain effective, No indication of dielectric breakdown

T7	TABLE: Drop tests				P
Part/Location	Material	Thickness (mm)	Drop Height (mm)	Observation	
--	--	--	--	Test Model: KTPS36-480075DT-2P-VI, KTPS36-480075WA-VI	
Enclosure/Top	1)	1)	1000	2)	
Enclosure/Side	1)	1)	1000	2)	
Enclosure/Bottom	1)	1)	1000	2)	

IEC 62368-1			
Clause	Requirement + Test	Result – Remark	Verdict

Supplementary information:

1) See appended table 4.1.2

2) No cracking, class 3 energy sources did not become accessible and all safeguards remain effective, No indication of dielectric breakdown

T8	TABLE: Stress relief test					P
Part/Location	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation	
enclosure (Reinforced Insulation)	1)	1)	104	7	No shrinkage, warpage, or other distortion of the thermoplastic materials. All other safeguards remain effective.	
Cover (around T1) (Reinforced Insulation)	1)	1)	120	7	No shrinkage, warpage, or other distortion of the thermoplastic materials. All other safeguards remain effective.	
Supplementary information: 1) See appended table 4.1.2						

List of test equipment used:

A completed list of used test equipment shall be provided in the Test Reports when a Manufacturer Testing Laboratory according to TMP/CTF stage 1 or WMT/CTF stage 2 procedure has been used.

Clause	Measurement / testing	Testing / measuring equipment / material used	Range used	Calibration date

Test result

5.4.1.8 Determination of working voltage

Table: Working Voltage Meansurement				
Test voltage / Frequency..... :	240Vac / 60Hz			
Location	Measured Voltage/frequency			Comments
	RMS voltage (V)	Peak voltage (V)	Hz	
--	--	--	--	Test Model: KTPS36-480075DT-2P-VI
T1 (2-7, RTN)	188	432	65.6k	--
T1 (2-8)	190	380	65.6k	--
T1 (3-7,RTN)	184	356	65.6k	--
T1 (3-8)	201	404	65.6k	--
T1 (4-7,RTN)	238	360	65.6k	--
T1 (4-8)	**290**	**560**	65.6k	Max. Vrms & Peak
T1 (6-7,RTN)	251	416	65.6k	--
T1 (6-8)	252	484	65.6k	--
U2 (3-1)	199	376	65.6k	--
U2 (3-2)	198	376	65.6k	--
U2 (4-1)	197	376	65.6k	--
U2 (4-2)	196	376	65.6k	--
C12 (P-S)	181	356	65.6k	--
--	--	--	--	Test Model: KTPS36-160225DT-2P-VI
T1 (2-7,RTN)	181	352	62.8k	--
T1 (2-8)	184	416	62.8k	--
T1 (3-7,RTN)	183	364	62.8k	--
T1 (3-8)	181	348	62.8k	--
T1 (4-7,RTN)	238	420	62.8k	--
T1 (4-8)	**267**	**512**	62.8k	Max. Vrms & Peak
T1 (6-7,RTN)	238	488	62.8k	--
T1 (6-8)	236	352	62.8k	--
--	--	--	--	Test Model: KTPS36-120300DT-2P-VI
T1 (2-7,RTN)	182	432	63.4k	--
T1 (2-8)	178	372	63.4k	--
T1 (3-7,RTN)	177	344	63.4k	--
T1 (3-8)	180	356	63.4k	--
T1 (4-7,RTN)	242	364	63.4k	--
T1 (4-8)	**287**	**512**	63.4k	Max. Vrms & Peak
T1 (6-7,RTN)	243	424	63.4k	--

Test result				
T1 (6-8)	274	496	63.4k	--
--	--	--	--	Test Model: KTPS36-090334DT-2P-VI
T1 (1-W)	196	356	62.8k	--
T1 (1-R)	197	364	62.8k	--
T1 (1-B)	197	388	62.8k	--
T1 (1-RTN)	189	344	62.8k	--
T1 (2-W)	207	476	62.8k	--
T1 (2-R)	197	408	62.8k	--
T1 (2-B)	200	436	62.8k	--
T1 (2-RTN)	193	428	62.8k	--
T1 (4-W)	225	360	62.8k	--
T1 (4-R)	225	352	62.8k	--
T1 (4-B)	227	384	62.8k	--
T1 (4-RTN)	233	360	62.8k	--
T1 (6-W)	**288**	508	62.8k	Max. Vrms
T1 (6-R)	280	496	62.8k	--
T1 (6-B)	287	**524**	62.8k	Max. Peak
T1 (6-RTN)	283	520	62.8k	--
C12 (P)-R24 trace	200	360	62.8k	--
--	--	--	--	Test Model: KTPS36-050500DT-2P-VI
T1 (1-W)	199	352	63.3k	--
T1 (1-R)	201	368	63.3k	--
T1 (1-B)	199	372	63.3k	--
T1 (1-RTN)	195	348	63.3k	--
T1 (2-W)	202	428	63.3k	--
T1 (2-R)	199	376	63.3k	--
T1 (2-B)	204	448	63.3k	--
T1 (2-RTN)	199	424	63.3k	--
T1 (4-W)	221	344	63.3k	--
T1 (4-R)	222	396	63.3k	--
T1 (4-B)	221	348	63.3k	--
T1 (4-RTN)	225	352	63.3k	--
T1 (6-W)	280	508	63.3k	--
T1 (6-R)	265	484	63.3k	--
T1 (6-B)	**287**	**512**	63.3k	Max. Vrms & Peak
T1 (6-RTN)	285	512	63.3k	--
C12 (P)- R24 trace	200	360	63.3k	--
Supplementary information:				

Test result
The following terminals were connected to earth: RTN

Test result

5.2.1.1 Accessible ES1 circuits separated from other ES circuits using components

TABLE: Evaluation of voltage limiting components in ES circuits			
Test voltage / Frequency..... :	240Vac / 60Hz		
Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components
	V peak	V d.c.	
Test Model: KTPS36-480075DT-2P-VI	--	--	--
T1 (8-RTN)	222	--	--
C6	--	60.4	--
R10A	--	49.6	R10A, D4
Test Model: KTPS36-160225DT-2P-VI	--	--	--
T1 (8-RTN)	71.6	--	--
C6	--	18.3	C6
D4	--	18.0	D4
Test Model: KTPS36-120300DT-2P-VI	--	--	--
T1 (8-RTN)	65.2	--	--
C6	--	25.1	C6
D4	--	14.4	D4
Test Model: KTPS36-090334DT-2P-VI	--	--	--
T1 (W-RTN)	10.0	--	--
T1 (R-RTN)	50.2	--	--
D7	--	18.8	D7
T1 (B-RTN)	24.8	--	--
Test Model: KTPS36-050500DT-2P-VI	--	--	--
T1 (W-RTN)	6.16	--	--
T1 (R-RTN)	50	--	--
D7	--	20	D7
T1 (B-RTN)	27.8	--	--
supplementary information: The following terminals were connected to earth: RTN			

Test result

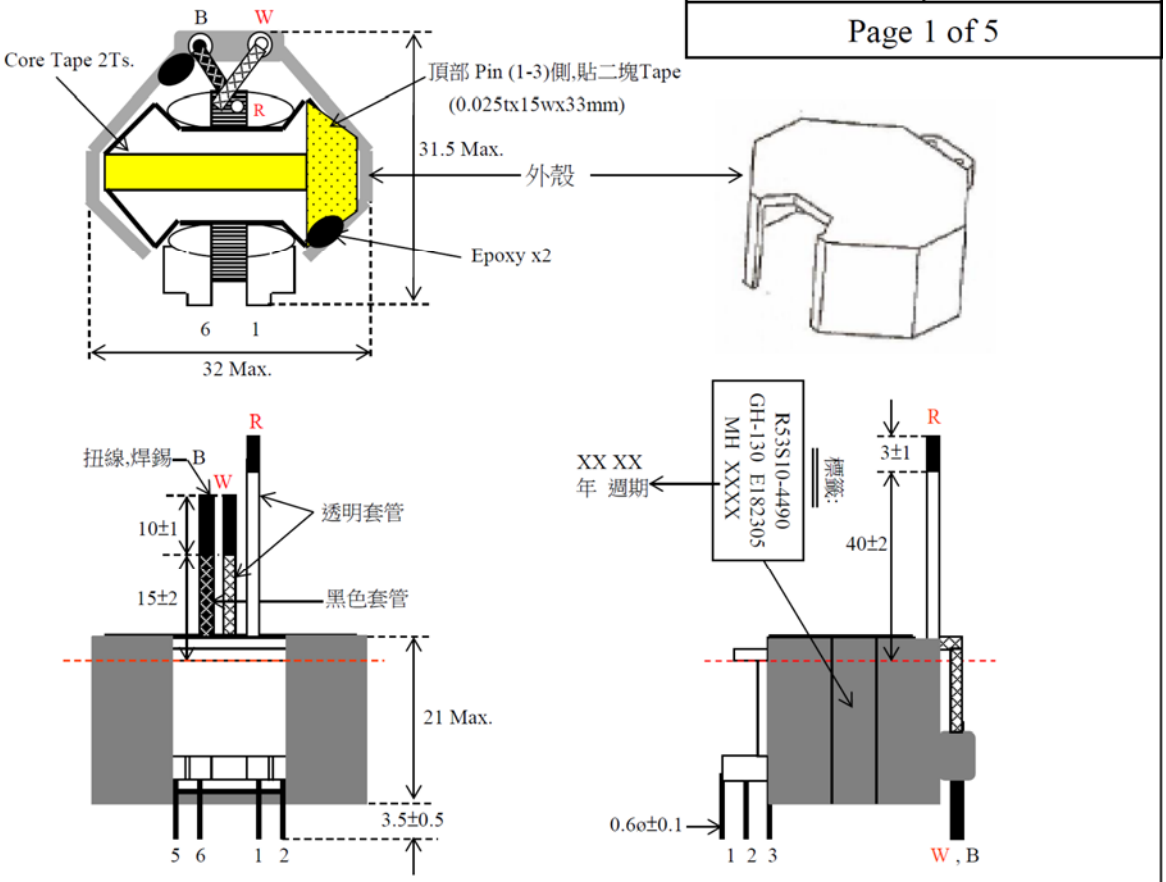
G.5.3.2	TABLE: Transformer

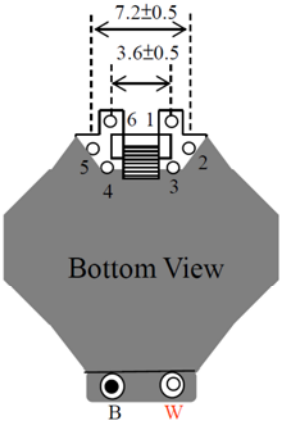
T1 all manufacturer Mao Hsin, Dong Guan Readore, Dongguanshi PuHang and Newline (Mao Hsin spec for represent)

R53S10-4490, R53S10-4520

1.Outline Dim. Dwg. (Unit: m/m) 外型尺寸圖

Model No.	MH-10769
Page 1 of 5	





Note:

1. Pin 3 Cut Off, Pin 5 Cut Off 2/3, (须先剪Pin2再套外壳).
2. 繞線方向:底視反時針.
3. 鐵心須研磨, 研磨鐵心置於頂部,Core Tape 2Ts.
4. 頂部 Pin (1-3)側,貼二塊Tape(0.025tx15wx33mm)多餘部份往下折,如上視圖示,
   再線包外圍包Tape 2Ts固定 .
5. R,W&B為飛線出線方式及長度如下:
(1) R線 → 由Bobbin 無Pin端,頂部中間凹槽進,出線,加透明套管.
(2) B線 → 由Bobbin 無Pin端,頂部中間凹槽出線,加黑色套管,(B線三條需扭線再焊錫).
(3) W線 → 由Bobbin 無Pin端,頂部中間凹槽進線,加透明套管,(W1線二條需扭線再焊錫).
(4) W&B線 → 長度由頂部线包处量起約15±2,不含焊錫10±1.
(5) R線 → 長度由Bobbin 頂部线包处量起40±2,不含焊錫3±1. (出線位置需在W線旁).
(6) 產品完成後須組裝外殼, 再將W1&B線穿過外殼固定,如上圖所示.
(7) 成品須整腳,實體Pin距以PCB板為主.
6. 產品須点胶固定, (点在Pin1脚顶部与斜对角两点)如左圖一示.
7. 產品須使用環保材料.

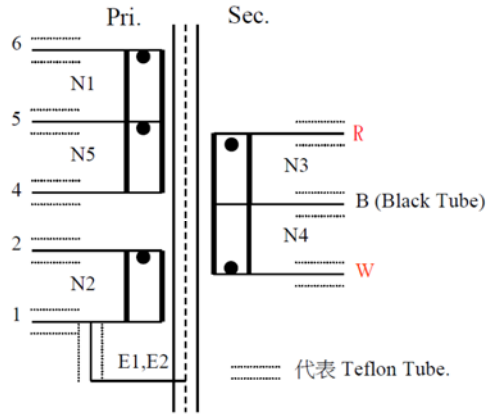
茂薪電子股份有限公司 Mao Hsin Electronic Co.,Ltd	
Customer	阿達特
Type	RM-10 6P +外殼
Customer P/N	R53S10-4490

Test result

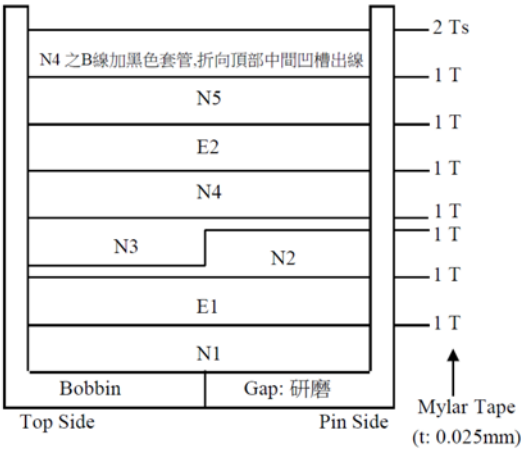
R53S10-4520

Model No.	MH-10847
Page 2 of 5	

2. Schematic: (線路圖)



3. Winding: (剖面圖)



4. Winding Table: (繞線結構)

Step	Symbol	Winding Detail					Margin Tape Pin Side / Top Side	Mylar Tape
		Start Pin	Finish Pin	Wire m/m	Turns	M		
1	N1	6	5	0.35ø	24	密繞	0	1
2	E1	1	-	Copper Foil (0.025t x 8w)	1	背膠	0	1
3	N2	2	1	0.35ø	12	密下	0	1
4	N3	R	B	0.3ø (TRW-B)	9	密上	0	1
5	N4	W	B	0.75øx2 (TRW-B)	5	密繞	0	1
6	E2	1	-	Copper Foil (0.025t x 8w)	1	背膠	0	1
7	N5	5	4	0.35ø	24	密繞	0	1
8	N4 之 B 線加黑色套管,折向頂部中間凹槽出線							2

Note:

1. 繞線方向:底視反時針.
2. Pin 加 Teflon Tube.
3. 繞線需平整,同層不可疊繞
4. E1,E2 使用背膠銅箔,繞制時,E1背膠朝上,E2背膠朝下.
5. N2,N3同層密繞,N2由底部起繞,N3由頂部起繞.
6. N3 使用三層絕緣線,繞線方式如下:
   (1) R線 → 由Bobbin 無Pin端,頂部中間凹槽入線,加透明套管.
   (2) B線 → 由Bobbin 無Pin端,頂部中間凹槽出線,加黑色套管.
7. N4 使用三層絕緣線,繞線方式如下:
   (1) W線 → 由Bobbin 無Pin端,頂部中間凹槽入線,加透明套管.
   (2) B線 → 由Bobbin 無Pin端,底部中間凹槽出線.先不加套管,待N5繞線完成後,加黑色套管,
   反折至頂部中間凹槽出線,包Tape 2Ts.

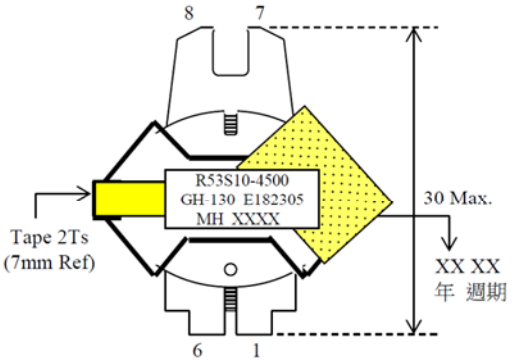
茂薪電子股份有限公司 Mao Hsin Electronic Co.,Ltd	Customer	阿達特
	Type	RM-10 6P +外殼
	Customer P/N	R53S10-4520

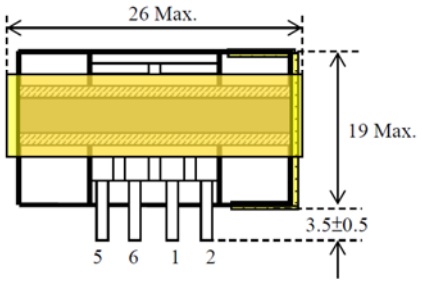
Test result

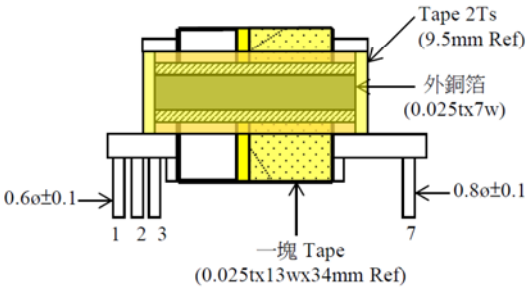
R53S10-4500, R53S10-4510, R53S10-4530, R53S10-4540

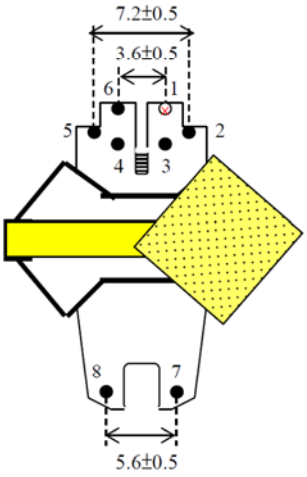
1.Outline Dim. Dwg. (Unit: m/m) 外型尺寸圖

Model No.	MH-10793
Page 1 of 5	









Bottom View

Note:

1. Pin 1 Cut off.
2. Pin 5 Cut Off 2/3.
3. 繞線方向 : 底視反時針.
4. 研磨Core 置於頂部,Core Tape 2Ts.
5. Pin 7 端鐵心的側邊貼膠帶包覆(一塊0.025tx13wx34mm Ref).
6. 鐵心組合後,沿線包處,包Tape 2Ts,加背膠銅箔 (0.025tx7wx1T),銅箔引線加套管,接Pin 3,包Tape 2Ts.
7. 產品須使用環保材料.

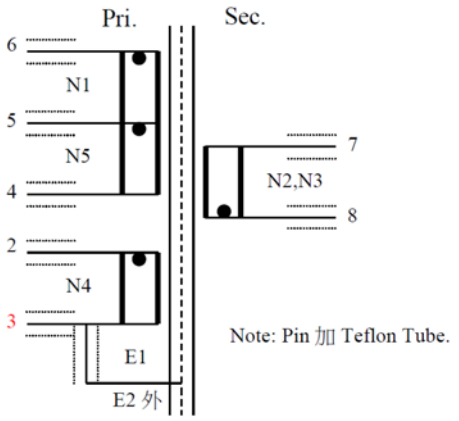
茂薪電子股份有限公司 Mao Hsin Electronic Co.,Ltd	Customer	阿達特
	Type	RM-8 8P
	Customer P/N	R53S10-4500

Test result

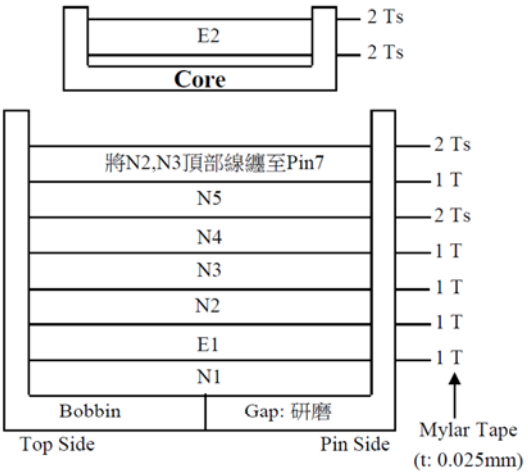
R53S10-4500

Model No.	MH-10793
Page 2 of 5	

2. Schematic: (線路圖)



3. Winding: (剖面圖)

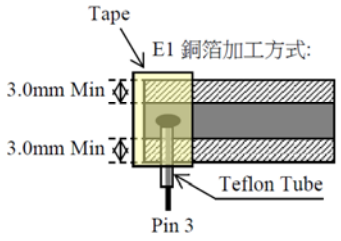


4. Winding Table: (繞線結構)

Step	Symbol	Winding Detail					Margin Tape Pin Side / Top Side	Mylar Tape
		Start Pin	Finish Pin	Wire m/m	Turns	M		
1	N1	6	5	0.32ø	25	密繞	0	1
2	E1	3	-	Copper Foil (0.025t x 7w)	1	背膠	0	1
3	N2	8	7	0.45ø (TRW-B)	13	密繞	0	1
4	N3	8	7	0.45ø (TRW-B)	13	密繞	0	1
5	N4	2	3	0.32ø	11	疏繞	0	2
6	N5	5	4	0.32ø	25	密繞	0	1
7	將 N2,N3 頂部線纏至 Pin7							2
8	E2	3	-	Copper Foil (0.025t x 7w)	1	背膠	沿成品外圍線包	2

Note:

1. 繞線方向:底視反時針.
2. Pin 加 Teflon Tube.
3. 繞線需平整,同層不可疊繞
4. N2,N3 使用三層絕緣線,結束於頂部,
   待N5線包完成後,將頂部線纏至Pin7包2Ts Tape固定.
5. E1,E2 使用背膠銅箔,E1繞制時背膠朝上,背膠反折需3mm Min.



茂薪電子股份有限公司
Mao Hsin Electronic Co.,Ltd

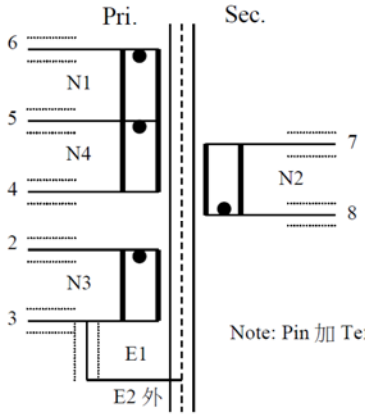
Customer	阿達特
Type	RM-8 8P
Customer P/N	R53S10-4500

Test result

R53S10-4510

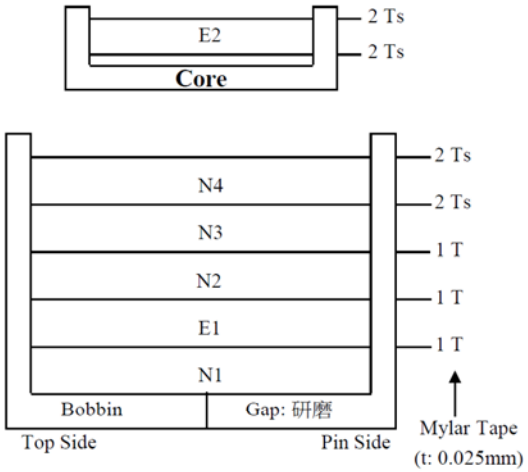
2. Schematic: (線路圖)

Model No.	MH-10845
Page 2 of 5	



Note: Pin 加 Teflon Tube.

3. Winding: (剖面圖)

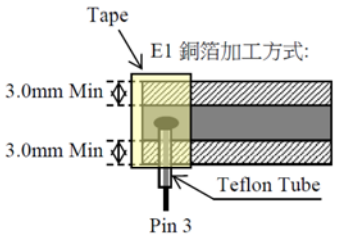


4. Winding Table: (繞線結構)

Step	Symbol	Winding Detail					Margin Tape Pin Side / Top Side	Mylar Tape
		Start Pin	Finish Pin	Wire m/m	Turns	M		
1	N1	6	5	0.32ø	25	密繞	0	1
2	E1	3	-	Copper Foil (0.025t x 7w)	1	背膠	0	1
3	N2	8	7	0.45ø (TRW-B)	26	密繞	0	1
4	N3	2	3	0.32ø	11	疏繞	0	2
5	N4	5	4	0.32ø	25	密繞	0	2
6	E2	3	-	Copper Foil (0.025t x 7w)	1	背膠	沿成品外圍線包	2

Note:

1. 繞線方向:底視反時針.
2. Pin 加 Teflon Tube.
3. 繞線需平整,同層不可疊繞
4. N2 使用三層絕緣線.
5. E1,E2 使用背膠銅箔,E1繞制時背膠朝上,背膠反折需3mm Min.



茂薪電子股份有限公司 Mao Hsin Electronic Co.,Ltd	Customer	阿達特
	Type	RM-8 8P
	Customer P/N	R53S10-4510

Test result

R53S10-4530

2. Schematic: (線路圖)

Model No.	MH-10772
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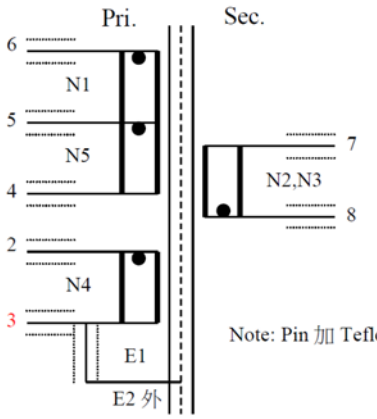
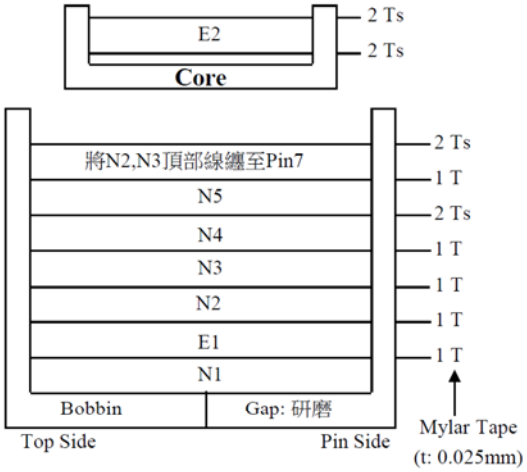


Note: Pin 加 Teflon Tube.

3. Winding: (剖面圖)

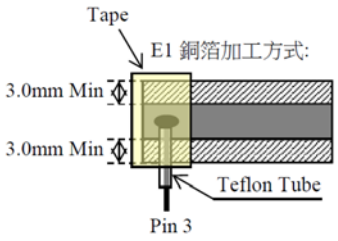


4. Winding Table: (繞線結構)

Step	Symbol	Winding Detail					Margin Tape Pin Side / Top Side	Mylar Tape
		Start Pin	Finish Pin	Wire m/m	Turns	M		
1	N1	6	5	0.32ø	25	密繞	0	1
2	E1	3	-	Copper Foil (0.025t x 7w)	1	背膠	0	1
3	N2	8	7	0.6ø (TRW-B)	9	密繞	0	1
4	N3	8	7	0.6ø (TRW-B)	9	密繞	0	1
5	N4	2	3	0.32ø	13	疏繞	0	2
6	N5	5	4	0.32ø	25	密繞	0	1
7	將 N2,N3 頂部線纏至 Pin7							2
8	E2	3	-	Copper Foil (0.025t x 7w)	1	背膠	沿成品外圍線包	2

Note:

1. 繞線方向:底視反時針.
2. Pin 加 Teflon Tube.
3. 繞線需平整,同層不可疊繞
4. N2,N3 使用三層絕緣線,結束於頂部,
   待N5線包完成後,將頂部線纏至Pin7包2Ts Tape固定.
5. E1,E2 使用背膠銅箔, E1繞制時背膠朝上,背膠反折需3mm Min.



茂薪電子股份有限公司 Mao Hsin Electronic Co.,Ltd	Customer	阿達特
	Type	RM-8 8P
	Customer P/N	R53S10-4530

Test result

R53S10-4540

Model No.	MH-10846
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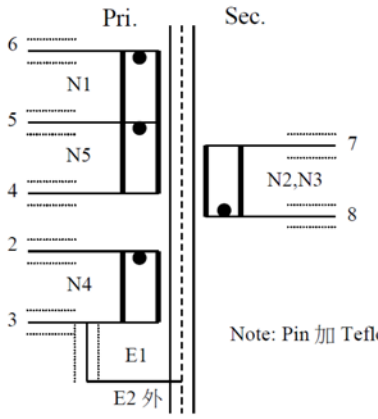
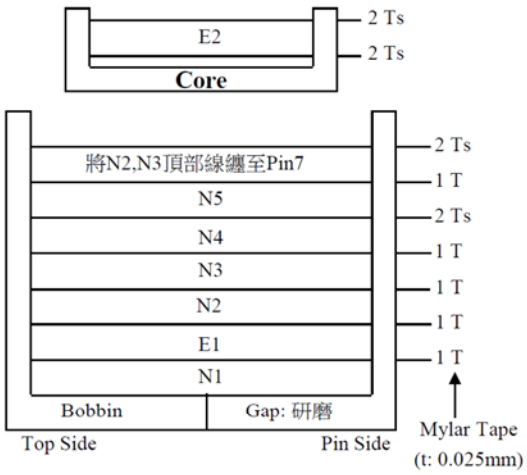
2. Schematic: (線路圖)



3. Winding: (剖面圖)

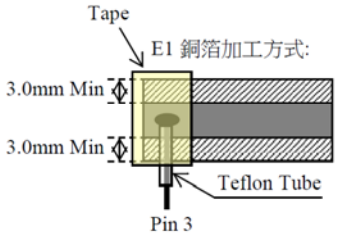


4. Winding Table: (繞線結構)

Step	Symbol	Winding Detail					Margin Tape Pin Side / Top Side	Mylar Tape
		Start Pin	Finish Pin	Wire m/m	Turns	M		
1	N1	6	5	0.32ø	25	密繞	0	1
2	E1	3	-	Copper Foil (0.025t x 7w)	1	背膠	0	1
3	N2	8	7	0.6ø (TRW-B)	10	密繞	0	1
4	N3	8	7	0.6ø (TRW-B)	10	密繞	0	1
5	N4	2	3	0.32ø	11	疏繞	0	2
6	N5	5	4	0.32ø	25	密繞	0	1
7	將 N2,N3 頂部線纏至 Pin7							2
8	E2	3	-	Copper Foil (0.025t x 7w)	1	背膠	沿成品外圍線包	2

Note:

1. 繞線方向:底視反時針.
2. Pin 加 Teflon Tube.
3. 繞線需平整,同層不可疊繞
4. N2,N3 使用三層絕緣線,結束於頂部,
   待N5線包完成後,將頂部線纏至Pin7包2Ts Tape固定.
5. E1,E2 使用背膠銅箔,E1繞制時背膠朝上,背膠反折需3mm Min.



茂薪電子股份有限公司 Mao Hsin Electronic Co.,Ltd	Customer	阿達特
	Type	RM-8 8P
	Customer P/N	R53S10-4540

IEC 62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 62368-1
EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

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

Differences according to.....:	EN 62368-1:2014+A11:2017
Attachment Form No.....:	EU_GD_IEC62368_1B_II
Attachment Originator. .....:	Nemko AS
Master Attachment.....:	Date 2017-09-22

	CENELEC COMMON MODIFICATIONS (EN)		**P**
	Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2014 are prefixed “Z”.		P
CONTENTS	**Add** the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations Annex ZD (informative) IEC and CENELEC code designations for flexible cords		P
	Delete all the “country” notes in the reference document (IEC 62368-1:2014) according to the following list:		P
	For special national conditions, see Annex ZB.		
1	**Add** the following note: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2011/65/EU.	Added.	P

0.2.1	Note	1	Note 3	4.1.15	Note
4.7.3	Note 1 and 2	5.2.2.2	Note	5.4.2.3.2.2 Table 13	Note c
5.4.2.3.2.4	Note 1 and 3	5.4.2.5	Note 2	5.4.5.1	Note
5.5.2.1	Note	5.5.6	Note	5.6.4.2.1	Note 2 and 3
5.7.5	Note	5.7.6.1	Note 1 and 2	10.2.1 Table 39	Note 2, 3 and 4
10.5.3	Note 2	10.6.2.1	Note 3	F.3.3.6	Note 3

IEC 62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
4.Z1	**Add** the following new subclause after 4.9: To protect against excessive current, short-circuits and earth faults in circuits connected to an a.c. **mains**, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of B.3.1 and B.4 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for **pluggable equipment type B** or **permanently connected equipment**, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for **pluggable equipment type A** the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.	Protective devices are integrated in the equipment.	P
5.4.2.3.2.4	**Add** the following to the end of this subclause: The requirement for interconnection with **external circuit** is in addition given in EN 50491-3:2009.	No such external circuit provided.	N/A
10.2.1	Add the following to [c] and [d] in table 39: For additional requirements, see 10.5.1.	Not applicable.	N/A
10.5.1	**Add** the following after the first paragraph: *For RS 1 compliance is checked by measurement under the following conditions:* *In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or presets which are not locked in a reliable manner, are adjusted so as to give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.* NOTE Z1 Soldered joints and paint lockings are examples of adequate locking. *The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm², at any point 10 cm from the outer surface of the apparatus.* *Moreover, the measurement shall be made under fault conditions causing an increase of the high-voltage, provided an intelligible picture is maintained for 1 h, at the end of which the*	No such x-radiation provided.	N/A

IEC 62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
	measurement is made. *For RS1, the dose-rate shall not exceed 1 µSv/h taking account of the background level.* NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.		
10.6.1	**Add** the following paragraph to the end of the subclause: EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.	No such devices provided.	N/A
10.Z1	**Add** the following new subclause after 10.6.5. **10.Z1 Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz** The amount of non-ionizing radiation is regulated by European Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz). For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz). For hand-held and body-mounted devices, attention is drawn to EN 50360 and EN 50566	No such devices provided.	N/A
G.7.1	**Add** the following note: NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.	No power supply cord provided.	N/A
Bibliography	**Add** the following standards: **Add** the following notes for the standards indicated: IEC 60130-9 NOTE Harmonized as EN 60130-9. IEC 60269-2 NOTE Harmonized as HD 60269-2. IEC 60309-1 NOTE Harmonized as EN 60309-1. IEC 60364 NOTE some parts harmonized in HD 384/HD 60364 series. IEC 60601-2-4 NOTE Harmonized as EN 60601-2-4. IEC 60664-5 NOTE Harmonized as EN 60664-5. IEC 61032:1997 NOTE Harmonized as EN 61032:1998 (not modified). IEC 61508-1 NOTE Harmonized as EN 61508-1. IEC 61558-2-1 NOTE Harmonized as EN 61558-2-1. IEC 61558-2-4 NOTE Harmonized as EN 61558-2-4. IEC 61558-2-6 NOTE Harmonized as EN 61558-2-6. IEC 61643-1 NOTE Harmonized as EN	Added.	P

IEC 62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
	61643-1. IEC 61643-21 NOTE Harmonized as EN 61643-21. IEC 61643-311 NOTE Harmonized as EN 61643-311. IEC 61643-321 NOTE Harmonized as EN 61643-321. IEC 61643-331 NOTE Harmonized as EN 61643-331.		

ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		P
4.1.15	**Denmark, Finland, Norway** and **Sweden** To the end of the subclause the following is added: **Class I pluggable equipment type A** intended for connection to other equipment or a network shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and **accessible** parts, have a marking stating that the equipment shall be connected to an earthed **mains** socket-outlet. The marking text in the applicable countries shall be as follows: In **Denmark**: “Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord.” In **Finland**: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In **Norway**: “Apparatet må tilkoples jordet stikkontakt” In **Sweden**: “Apparaten skall anslutas till jordat uttag”	Class II equipment.	N/A
4.7.3	**United Kingdom** To the end of the subclause the following is added: The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex	Not applicable.	N/A
5.2.2.2	**Denmark** After the 2nd paragraph add the following: A warning (marking **safeguard**) for high **touch current** is required if the **touch current** exceeds the limits of 3,5 mA a.c. or 10 mA d.c.	The touch current not exceeds the limits of 3.5 mA a.c. or 10 mA d.c..	N/A
5.4.11.1 and Annex G	**Finland and Sweden** To the end of the subclause the following is added: For separation of the telecommunication network from earth the following is applicable: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either • two layers of thin sheet material, each of which	No such external circuits provided.	N/A

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Clause	Requirement + Test	Result – Remark	Verdict
	shall pass the electric strength test below, or • one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition • passes the tests and inspection criteria of 5.4.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 5.4.9 shall be performed using 1,5 kV), and • is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5kV. It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2. A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions: • the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11; • the additional testing shall be performed on all the test specimens as described in EN 60384-14; the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14.		
5.5.2.1	**Norway** After the 3rd paragraph the following is added: Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).	Class II equipment.	N/A
5.5.6	**Finland, Norway** and **Sweden** To the end of the subclause the following is added: Resistors used as **basic safeguard** or bridging **basic insulation** in **class I pluggable equipment type A** shall comply with G.10.1 and the test of G.10.2.	Class II equipment.	N/A
5.6.1	**Denmark** **Add** to the end of the subclause Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment.	Class II equipment.	N/A

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Clause	Requirement + Test	Result – Remark	Verdict
	Justification: In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.		
5.6.4.2.1	**Ireland and United Kingdom** After the indent for **pluggable equipment type A**, the following is added: – the **protective current rating** is taken to be 13 A, this being the largest rating of fuse used in the **mains** plug.	Class II equipment.	N/A
5.6.5.1	To the second paragraph the following is added: The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm^2 to 1,5 mm^2 in cross-sectional area.	Class II equipment.	N/A
5.7.5	**Denmark** To the end of the subclause the following is added: The installation instruction shall be affixed to the equipment if the **protective conductor current** exceeds the limits of 3,5 mA a.c. or 10 mA d.c.	Class II equipment.	N/A
5.7.6.1	**Norway and Sweden** To the end of the subclause the following is added: The screen of the television distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation needs to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example. The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in: "Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system therefore has to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)" NOTE In Norway, due to regulation for CATV-installations, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min. Translation to Norwegian (the Swedish text will also	No such external circuits provided.	N/A

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Clause	Requirement + Test	Result – Remark	Verdict
	be accepted in Norway): “Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.” Translation to Swedish: ”Apparater som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet.”.		
5.7.6.2	**Denmark** To the end of the subclause the following is added: The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA .	No such external circuits provided.	N/A
B.3.1 and B.4	**Ireland and United Kingdom** The following is applicable: To protect against excessive currents and short-circuits in the primary circuit of **direct plug-in equipment**, tests according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying with EN 60898-1, Type B, rated 32A. If the equipment does not pass these tests, suitable protective devices shall be included as an integral part of the **direct plug-in equipment**, until the requirements of Annexes B.3.1 and B.4 are met	Complied check.	P
G.4.2	**Denmark** To the end of the subclause the following is added: Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2. Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a. Other current rating socket outlets shall be in	Direct plug-in equipment.	N/A

IEC 62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
	compliance with Standard Sheet DKA 1-3a or DKA 1-1c. Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a *Justification:* Heavy Current Regulations, Section 6c		
G.4.2	**United Kingdom** To the end of the subclause the following is added: The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.	Not applicable.	N/A
G.7.1	**United Kingdom** To the first paragraph the following is added: Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations. NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.	Power supply cord suitable for application and subject to country's national code and regulations to be provided by the manufacturer.	N/A
G.7.1	**Ireland** To the first paragraph the following is added: Apparatus which is fitted with a flexible cable or cord shall be provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use Regulations: 1997. S.I. 525 provides for the recognition of a standard of another Member State which is equivalent to the relevant Irish Standard	Power supply cord suitable for application and subject to country's national code and regulations to be provided by the manufacturer.	N/A
G.7.2	**Ireland and United Kingdom** To the first paragraph the following is added: A power supply cord with a conductor of 1,25 mm^2 is allowed for equipment which is rated over 10 A and up to and including 13 A.	Power supply cord suitable for application and subject to country's national code and regulations to be provided by the manufacturer.	N/A

ZC	**ANNEX ZC, NATIONAL DEVIATIONS (EN)**		**N/A**
10.5.2	**Germany** The following requirement applies: For the operation of any cathode ray tube intended for the display of visual images operating at an acceleration voltage exceeding 40 kV, authorization	No such radiation provided.	N/A

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Clause	Requirement + Test	Result – Remark	Verdict
	is required, or application of type approval (Bauartzulassung) and marking. *Justification:* German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM. **NOTE** Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int +49-531-592-6320, Internet: http://www.ptb.de		

ATTACHMENT TO TEST REPORT IEC 62368-1 2th Ed.
U.S.A. NATIONAL DIFFERENCES

Audio/video, information and communication technology equipment –

Part 1: Safety requirements

Differences according to.....:	CSA/UL 62368-1:2014
Attachment Form No.....:	US&CA_ND_IEC623681B
Attachment Originator. .....:	UL(US)
Master Attachment.....:	Date 2015-06

IEC 62368-1 - US and Canadian National Differences Special National Conditions based on Regulations and Other National Differences			
1.1	All equipment is to be designed to allow installation according to the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2. Also, for such equipment marked or otherwise identified, installation is allowed per the Standard for the Protection of Information Technology Equipment, ANSI/NFPA 75.	Complied check.	P
1.4	Additional requirements apply to some forms of power distribution equipment, including sub-assemblies.	Complied check.	P
4.1.17	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the NEC.	The requirements have to be checked during national approval.	N/A
	For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the NEC generally are required to have special construction features and identification markings.	Complied check.	P
4.8	Lithium coin / button cell batteries have modified special construction and performance	No such coin/button batteries	N/A

IEC 62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
	requirements.	provided.	
5.6.3	Protective earthing conductors comply with the minimum conductor sizes in Table G.5, except as required by Table G.7ADV.1 for cord connected equipment, or Annex DVH for permanently connected equipment	Class II equipment.	N/A
5.7.7	Equipment intended to receive telecommunication ringing signals complies with a special touch current measurement tests.	No such external circuits provided.	N/A
6.5.1	PS3 wiring outside a fire enclosure complies with single fault testing in B.4, or be current limited per one of the permitted methods.	Output circuit are considered as PS2.	N/A
Annex F (F.3.3.8)	Output terminals provided for supply of other equipment, except mains, supply are marked with a maximum rating or references to which equipment it is permitted to be connected.	Complied check.	P
Annex G (G.7.1)	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.	The unit is not permanently connected equipment.	N/A
Annex G (G.7.3)	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.	Power supply cord suitable for application and subject to country's national code and regulations to be provided by the manufacturer.	N/A
	Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		N/A
Annex G (G.7.5)	Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement. Power supply cords are required to be no longer than 4.5 m in length if used in ITE Rooms.	Power supply cord suitable for application and subject to country's national code and regulations to be provided by the manufacturer.	N/A
Annex H.2	Continuous ringing signals under normal operating conditions up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.	No telephone ringing signals provided.	N/A
Annex H.4	For circuits with other than ringing signals and with voltages exceeding 42.4 Vpeak or 60 V d.c., the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.		N/A
Annex M	Battery packs for stationary applications comply with special component requirements.	No battery provided.	N/A
Annex DVA (1)	Equipment intended for use in spaces used for environmental air are subjected to special flammability requirements for heat and visible smoke release.	Not applicable.	N/A

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Clause	Requirement + Test	Result – Remark	Verdict
	For ITE room applications, automated information storage systems with combustible media greater than 0.76 m3 (27 cu ft) have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.		N/A
	Consumer products designed or intended primarily for children 12 years of age or younger are subject to additional requirements in accordance with U.S. & Canadian Regulations.		N/A
	Baby monitors additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.		N/A
Annex DVA (5.6.3)	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.	Complied check.	P
Annex DVA (6.3)	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30.	The equipment does not contain liquid.	N/A
Annex DVA (6.4.8)	For ITE room applications, enclosures with combustible material measuring greater than 0.9 m2 (10 sq ft) or a single dimension greater than 1.8 m (6 ft) have a flame spread rating of 50 or less. For equipment with the same dimensions for other applications, an external surface that is not a fire enclosure requires a min. flammability classification of V-1.	Not applicable.	N/A
Annex DVA (10.3.1)	Equipment with lasers meets the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No laser provided.	N/A
Annex DVA (10.5.1)	Equipment that produces ionizing radiation complies with the U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No ionizing radiation provided.	N/A
Annex DVA (F.3.3.3)	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings. Additional considerations apply for voltage ratings that exceed the attachment cap rating or are lower than the “Normal Operating Condition” in Table 2 of CAN/CSA C22.2 No. 235.”	Only single-phase equipment.	N/A
Annex DVA (F.3.3.5)	Equipment identified for ITE (computer) room installation is marked with the rated current	Not applicable.	N/A
Annex DVA (G.1)	Vertically-mounted disconnect switches and circuit breakers have the "on" position indicated by the handle in the up position	No such switches provided.	N/A
Annex DVA (G.3.4)	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is required for all standard supply outlets and receptacles (such as		N/A

IEC 62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
	supplied in power distribution units) if the supply branch circuit protection is not suitable.		
Annex DVA (G.4.2)	Equipment with isolated ground (earthing) receptacles complies with NEC 250.146(D) and CEC 10-112 and 10-906(8).	Class II equipment.	N/A
Annex DVA (G.4.3)	Where a fuse is used to provide Class 2 or Class 3 current limiting, it is not operator-accessible unless it is non- interchangeable.	Not applicable.	N/A
Annex DVA (G.5.3)	Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require special transformer overcurrent protection.	Not applicable.	N/A
Annex DVA (G.5.4)	Motor control devices are required for cord-connected equipment with a mains-connected motor if the equipment is rated more than 12 A, or if the equipment has a nominal voltage rating greater than 120 V, or if the motor is rated more than 1/3 hp (locked rotor current over 43 A).	No such motors provided.	N/A
Annex DVA (Annex M)	For ITE room applications, equipment with battery systems capable of supplying 750 VA for five minutes have a battery disconnect means that may be connected to the ITE room remote power-off circuit.	No battery provided.	N/A
Annex DVA (Q)	Wiring terminals intended to supply Class 2 outputs according to the NEC or CEC Part 1are marked with the voltage rating and “Class 2” or equivalent; marking is located adjacent to the terminals and visible during wiring.	Not applicable.	N/A
Annex DVB (1)	Additional requirements apply for equipment used for entertainment purposes intended for installation in general patient care areas of health care facilities.	Not applicable.	N/A
Annex DVC (1)	Additional requirements apply for equipment intended for mounting under kitchen cabinets.	Not applicable.	N/A
Annex DVE (4.1.1)	Some equipment, components, sub-assemblies and materials associated with the risk of fire, electric shock, or personal injury have component or material ratings in accordance with the applicable national (U.S. and Canadian) component or material requirements. Components required to comply include: appliance couplers, attachment plugs, battery back-up systems, battery packs, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), power supply cords, direct plug-in equipment, electrochemical capacitor modules (energy storage modules with ultra-capacitors), enclosures (outdoor), flexible cords and cables, fuses (branch circuit), ground-fault current interrupters, interconnecting cables, data storage equipment, printed wiring, protectors for communications circuits, receptacles, surge	Complied check.	P

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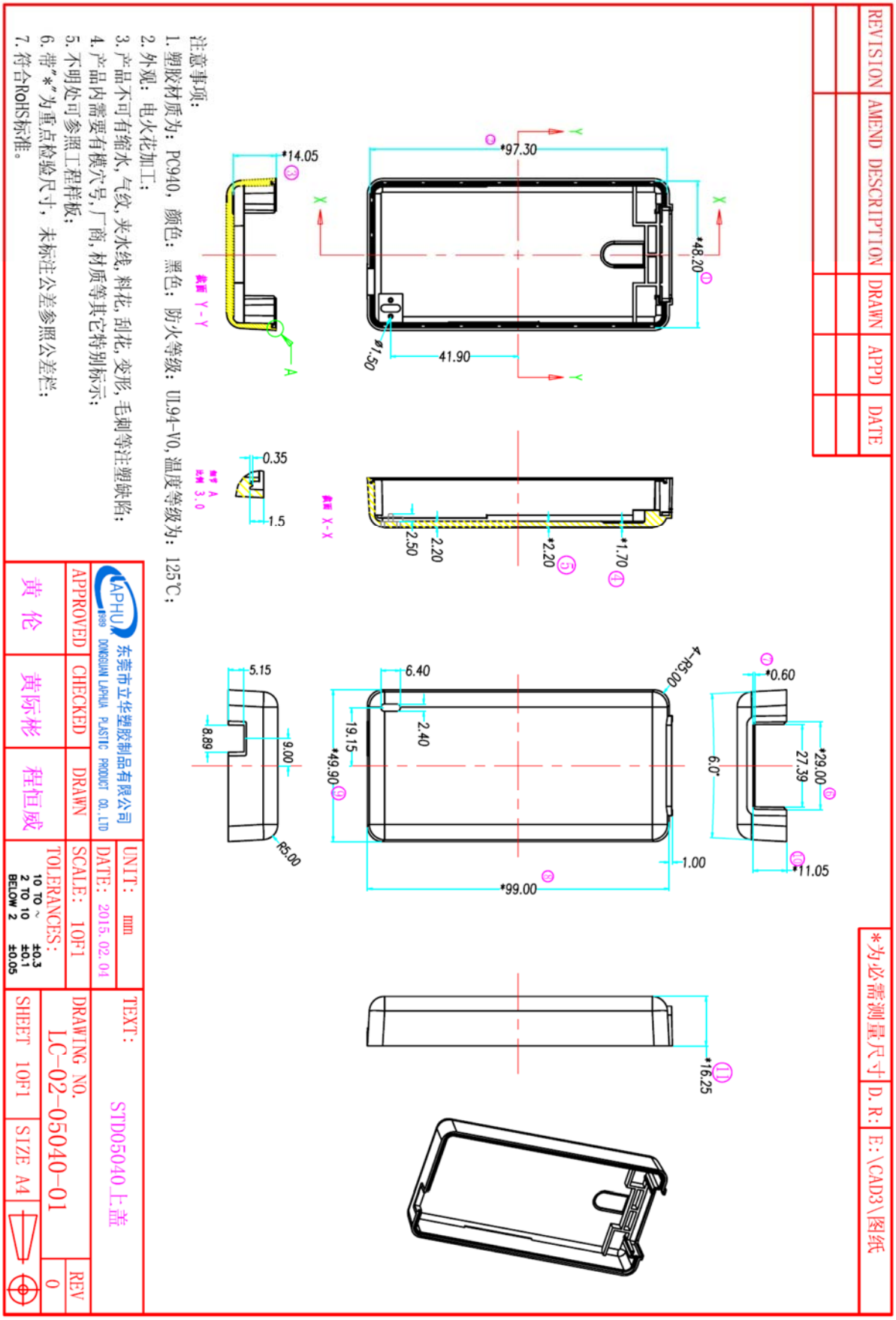
Clause	Requirement + Test	Result – Remark	Verdict
	protective devices, vehicle battery adapters, wire connectors, and wire and cables.		
Annex DVH	Equipment for permanent connection to the mains supply is subjected to additional requirements.	The unit is not permanently connected equipment.	N/A
Annex DVH (DVH.1)	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains are in accordance with the NEC/CEC.		N/A
Annex DVH (DVH.3.2)	Terminals for permanent wiring, including protective earthing terminals, are suitable for U.S./Canadian wire gauge sizes, rated 125 percent of the equipment rating, and are specially marked when specified.		N/A
Annex DVH (DVH.3.2)	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm^2).		N/A
Annex DVH (DVH.4)	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.		N/A
Annex DVH (DVH 5.5)	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment, complies with special earthing, wiring, marking and installation instruction requirements.	The equipment is connected to AC mains supply.	N/A
Annex DVI (6.7)	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses.	No such external circuits provided.	N/A
Annex DVJ (10.6.1)	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.	No such external circuits provided.	N/A

Enclosure Drawing



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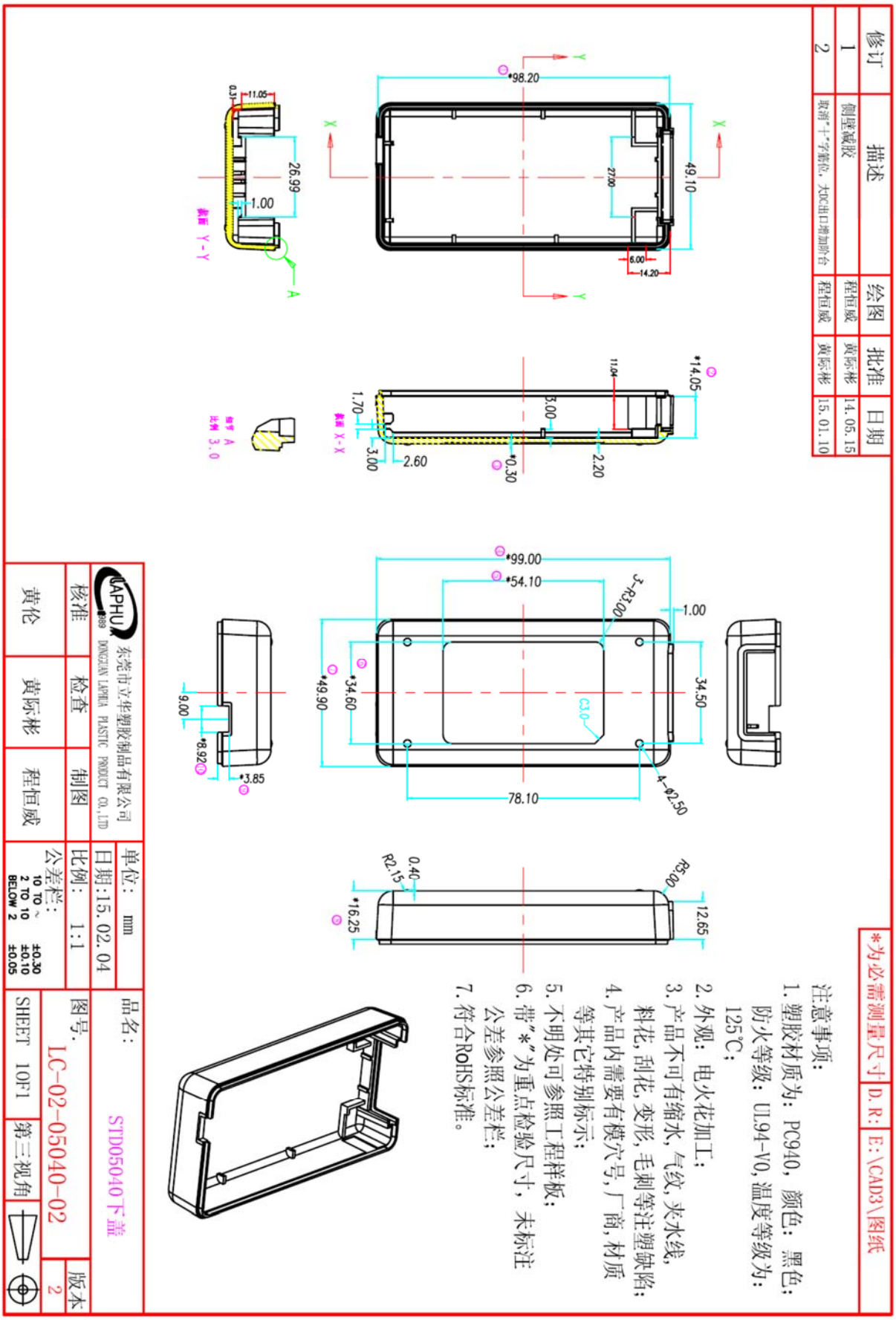

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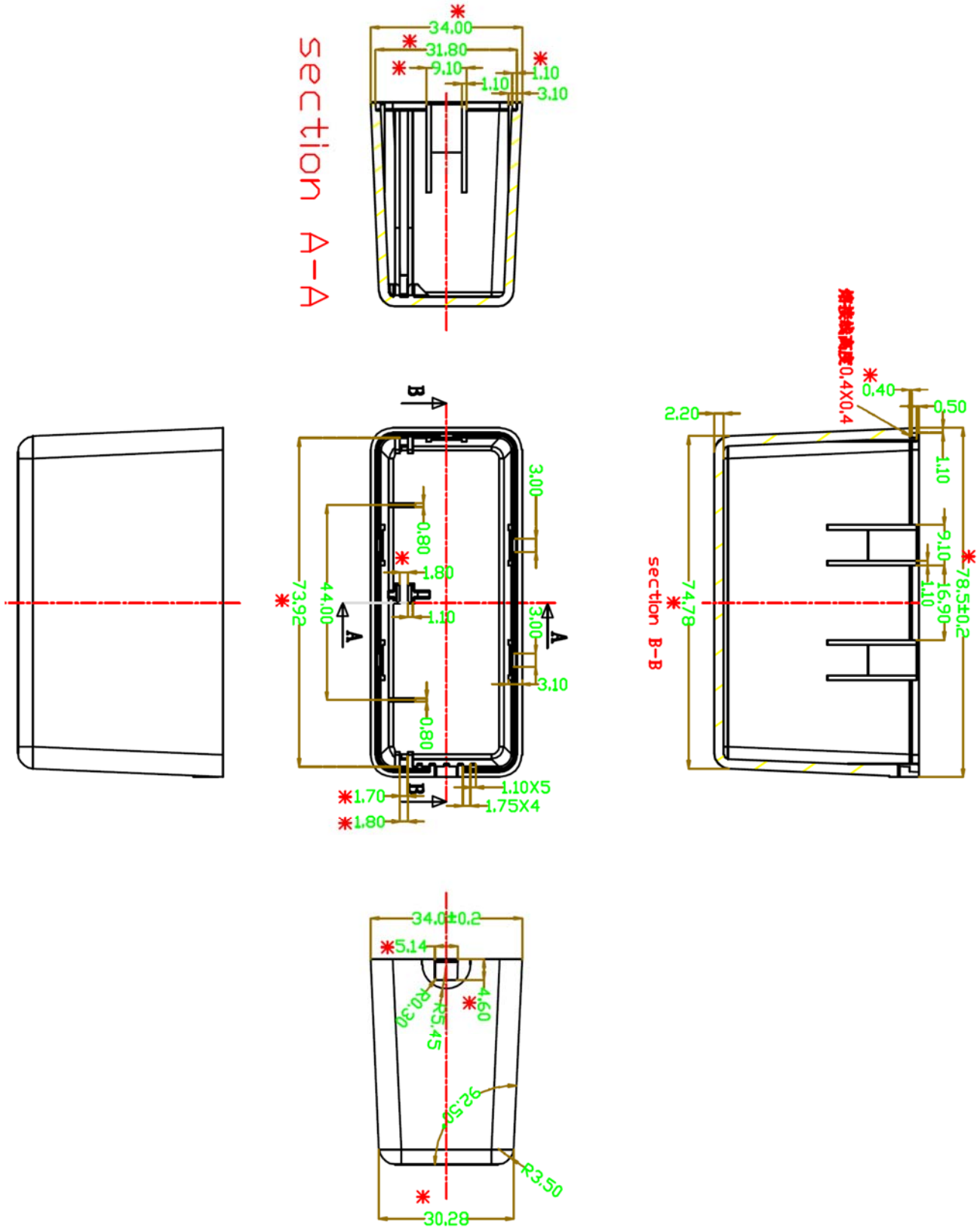

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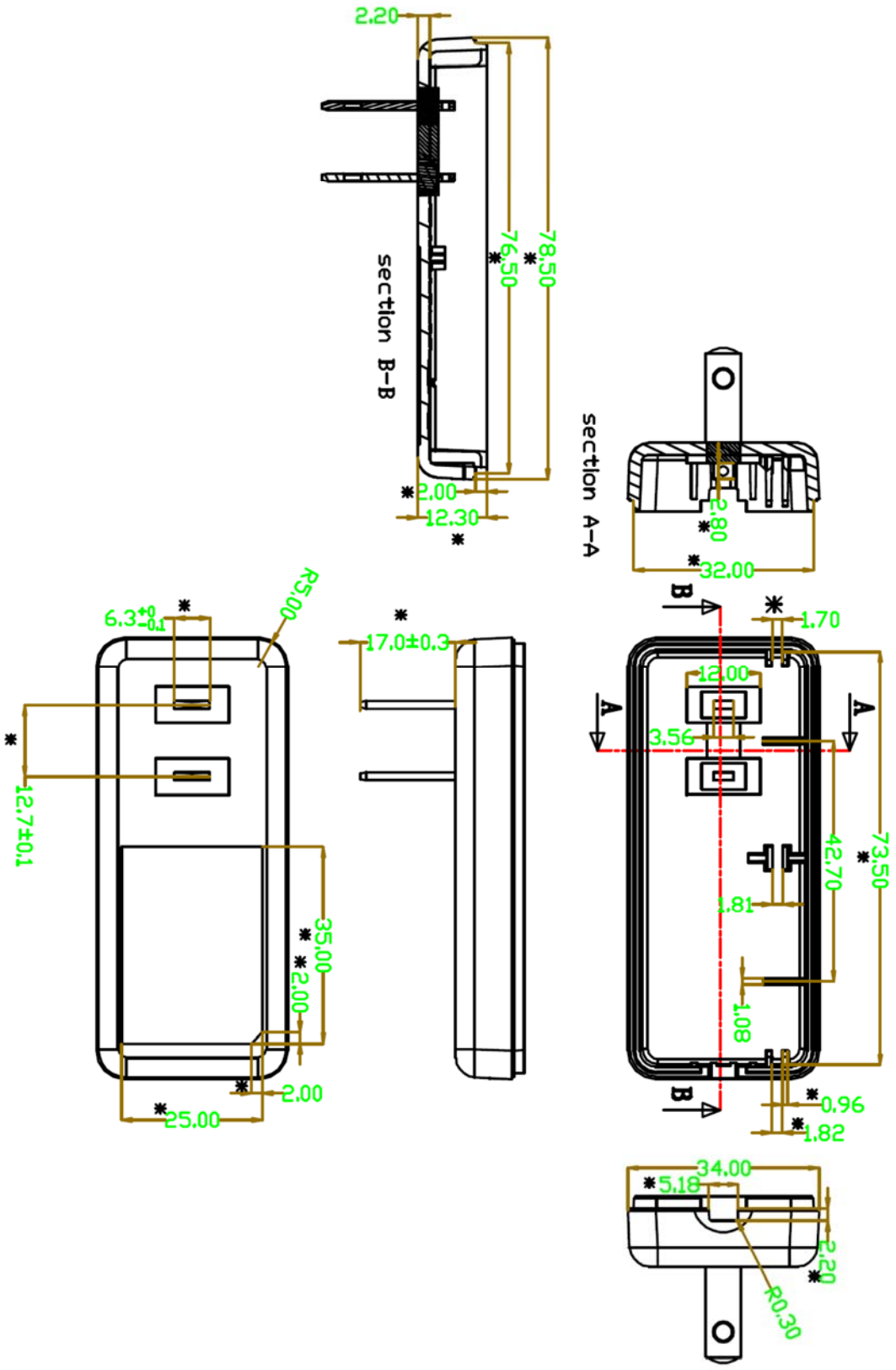
Enclosure Drawing



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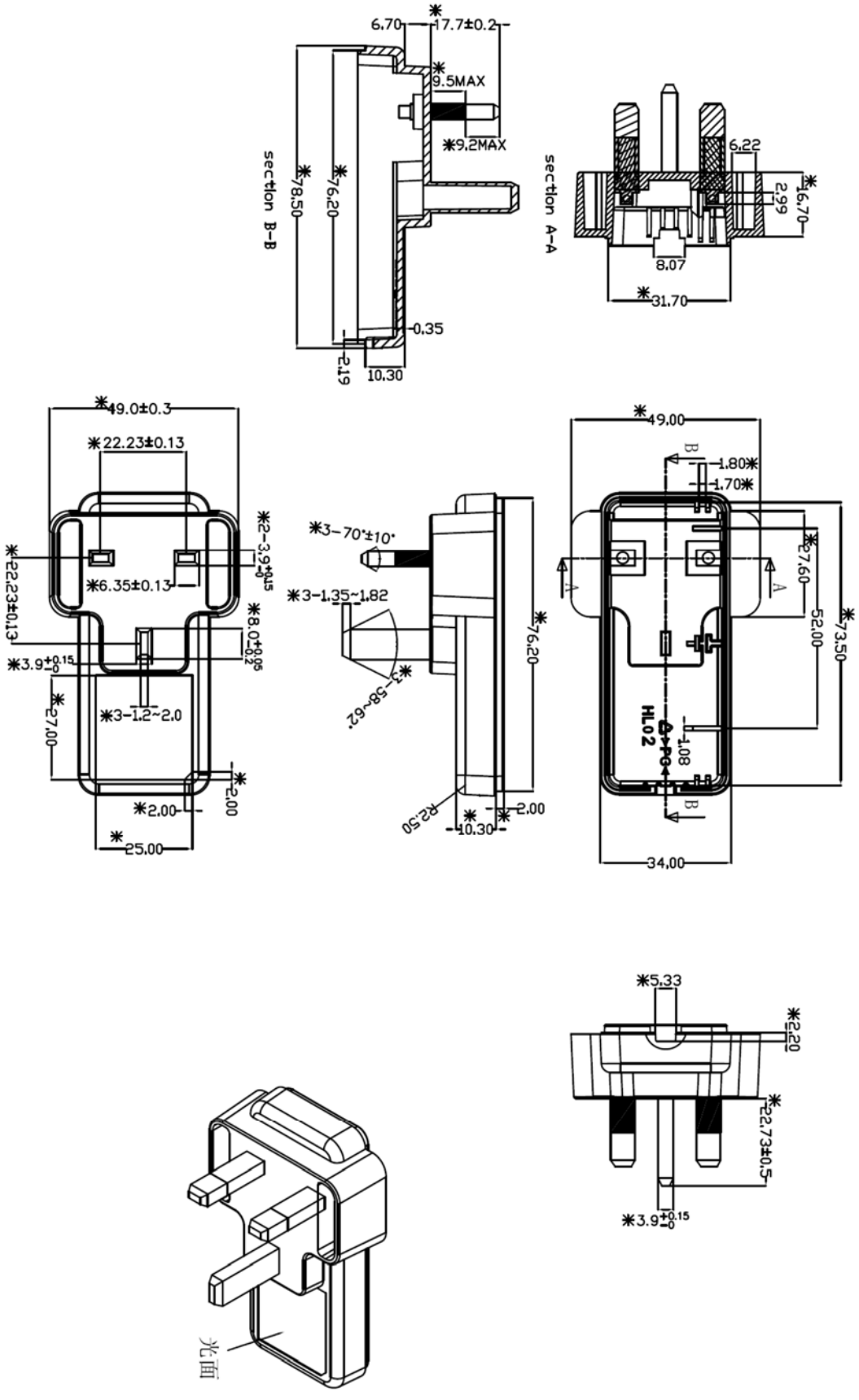
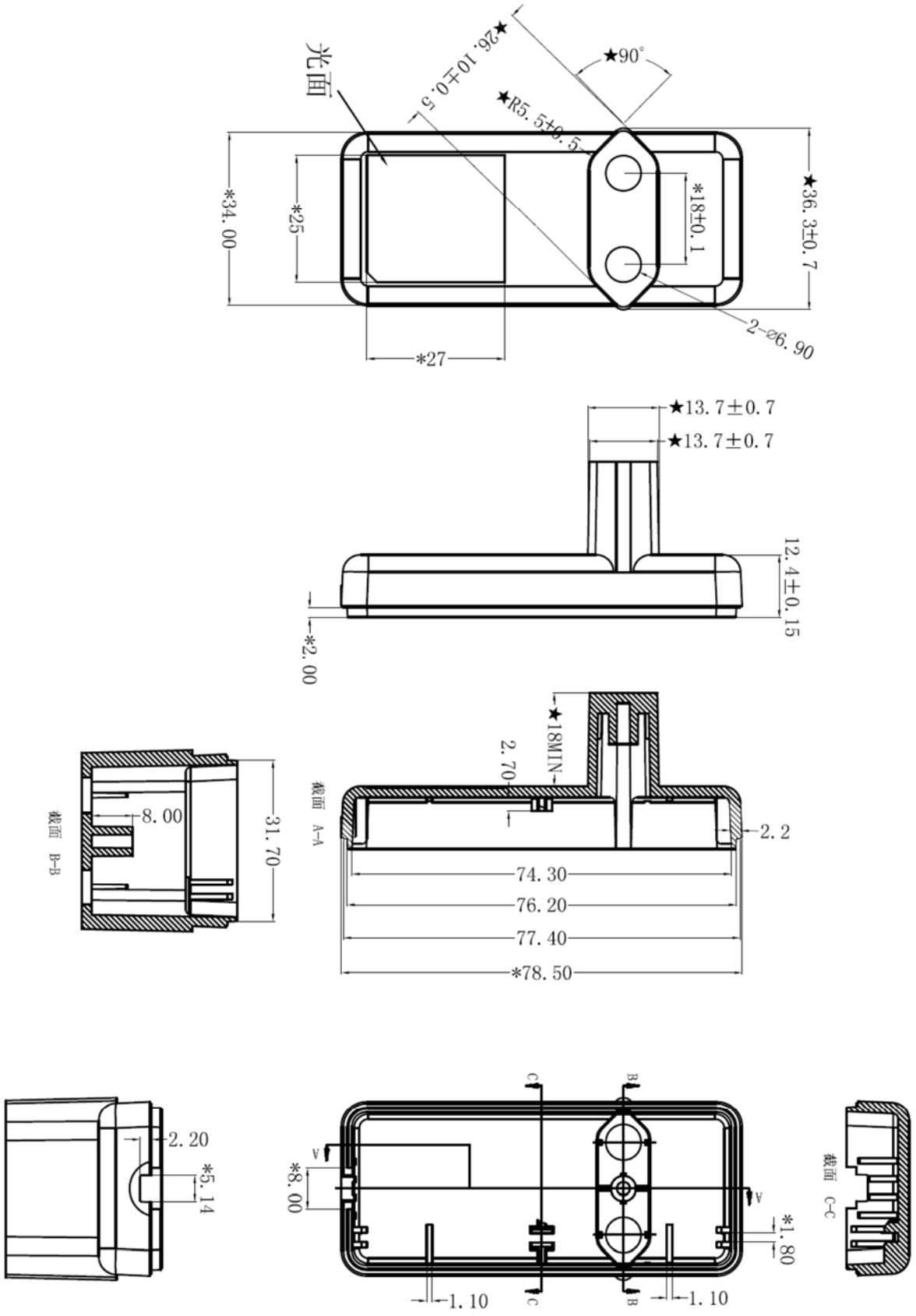


KTPS36-xxxyyyUK-VI

Enclosure Drawing



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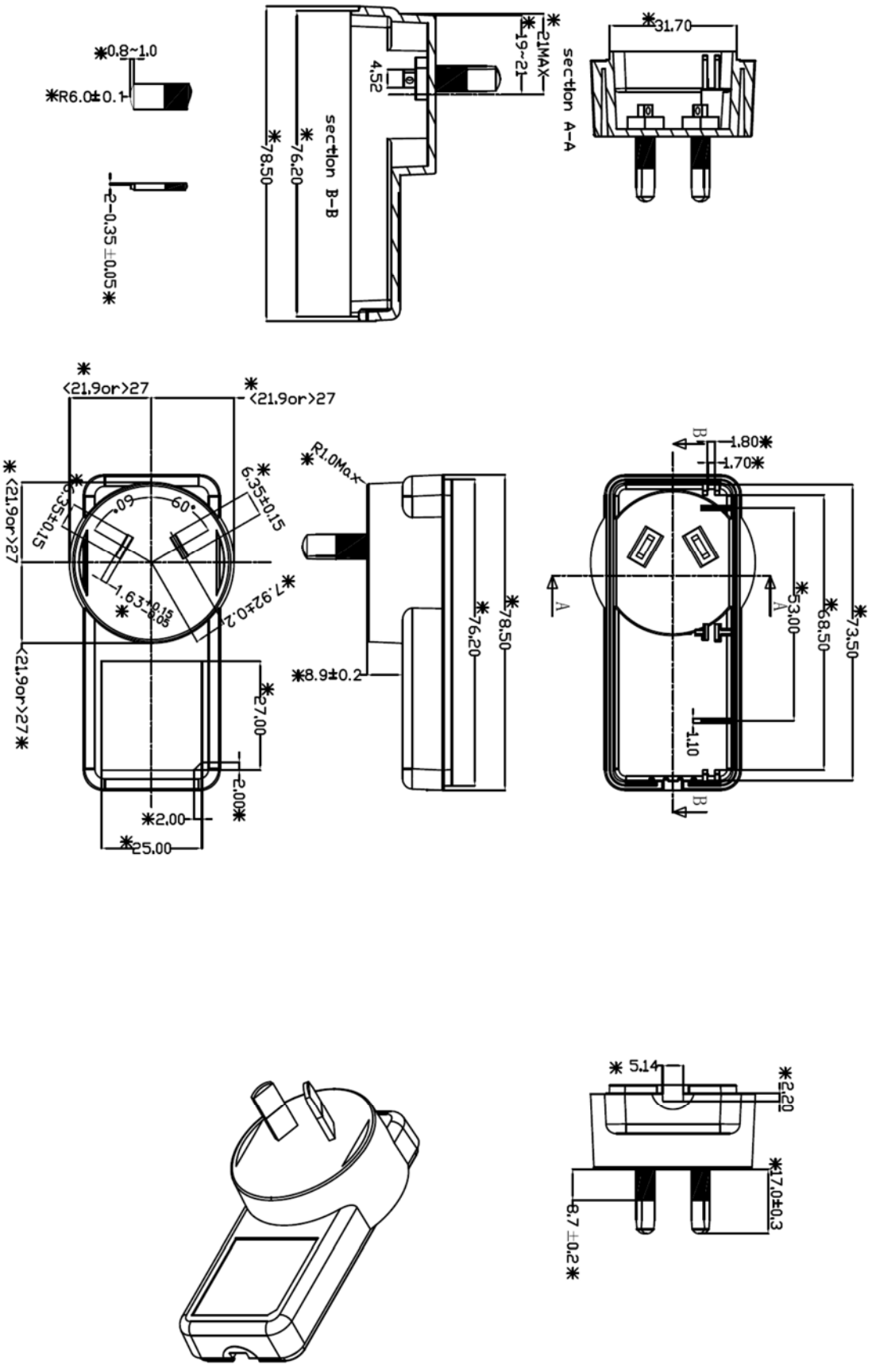

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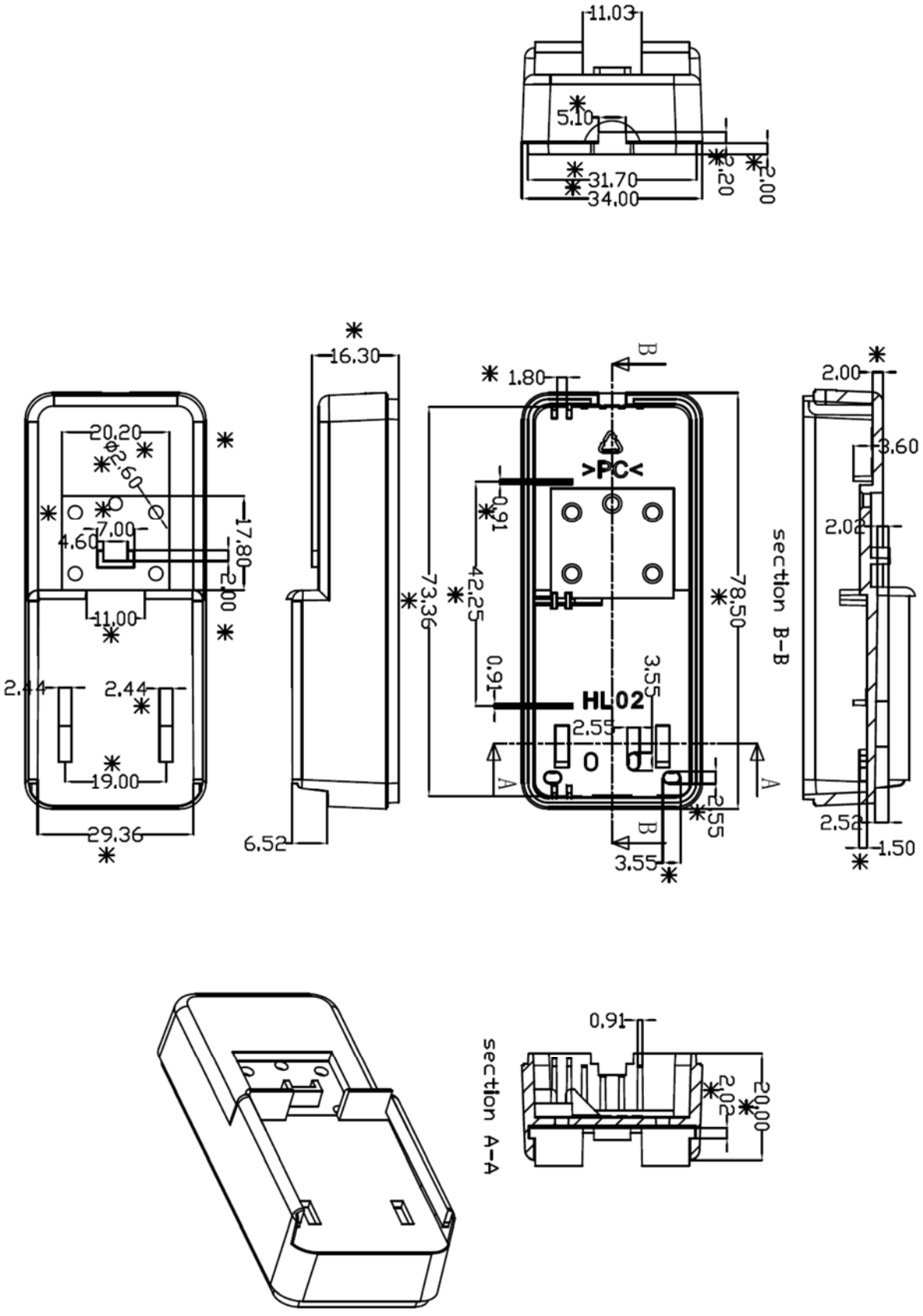
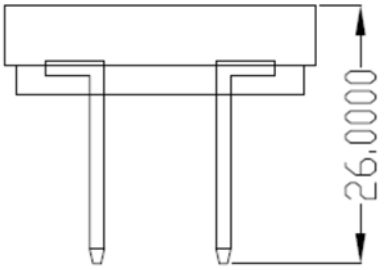
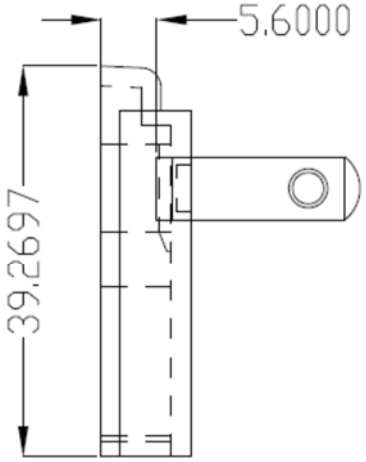
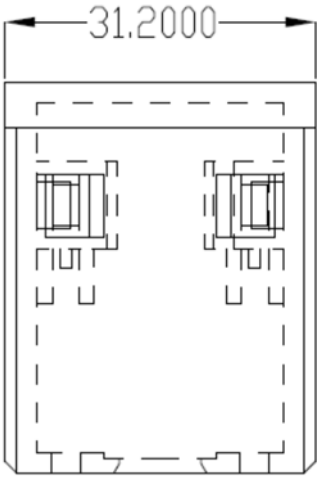


KTPS36-xxxyyyMP-VI

Enclosure Drawing

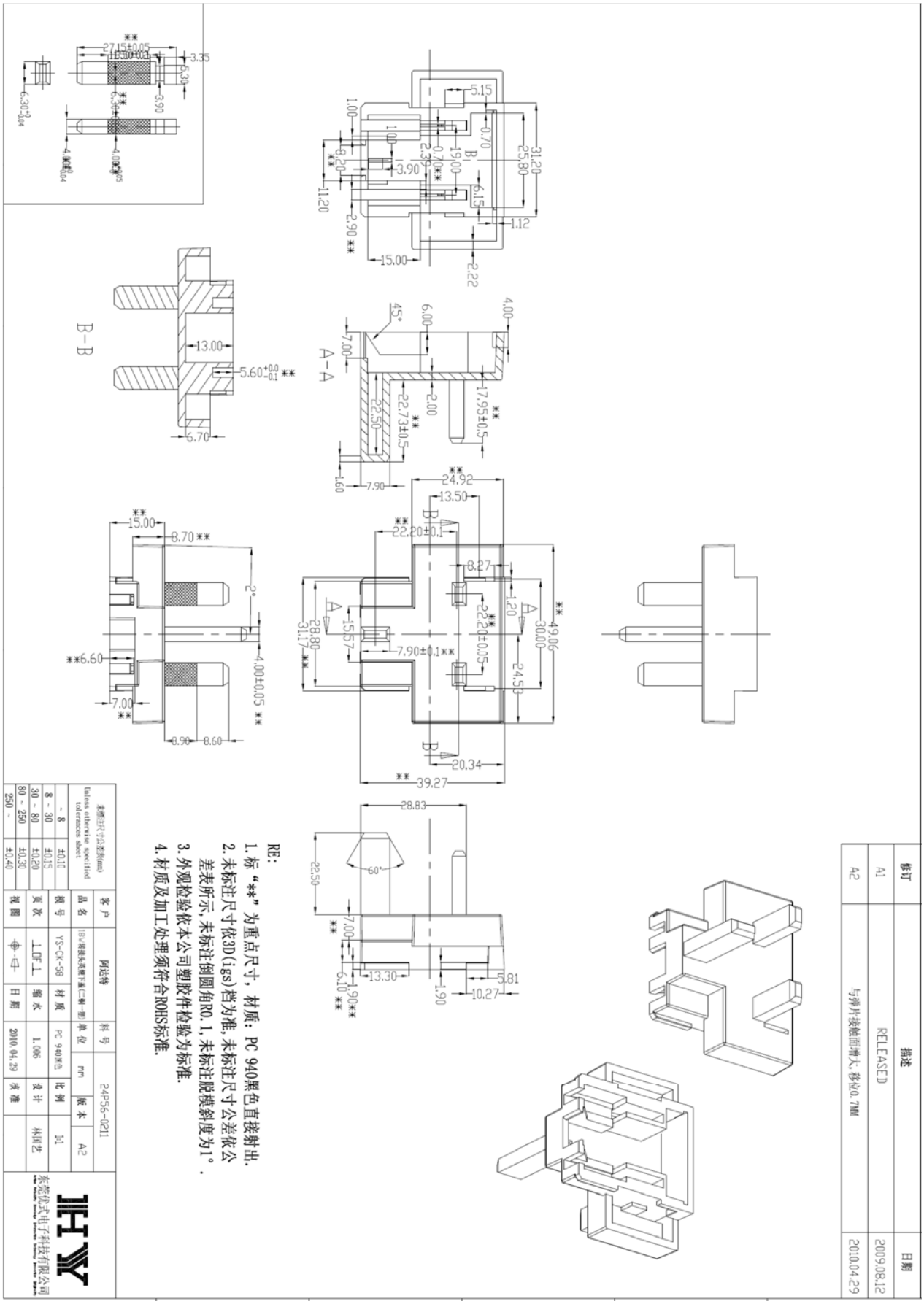






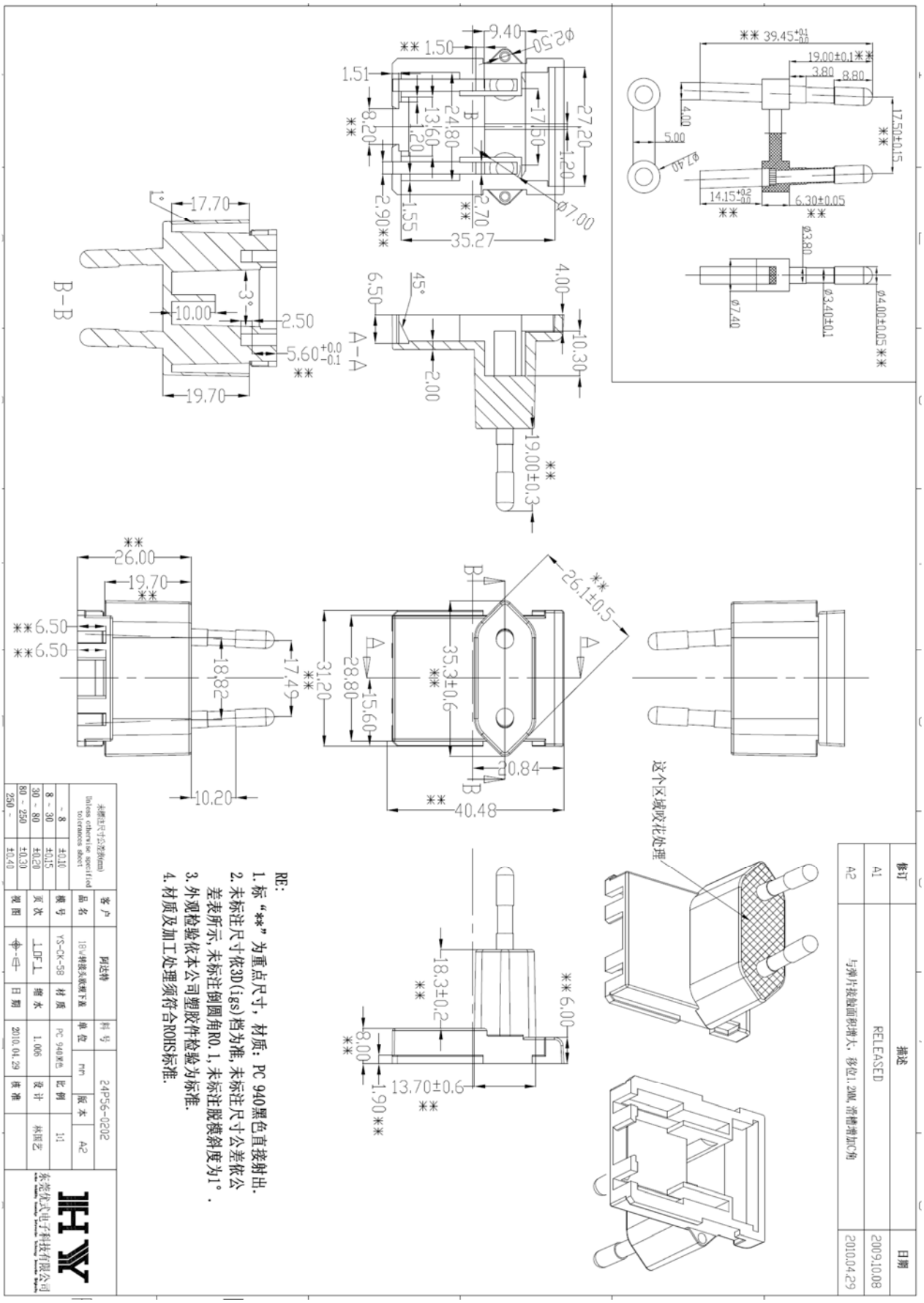
KTPS36-xxxyyyMP-VI (for US plug)

Enclosure Drawing



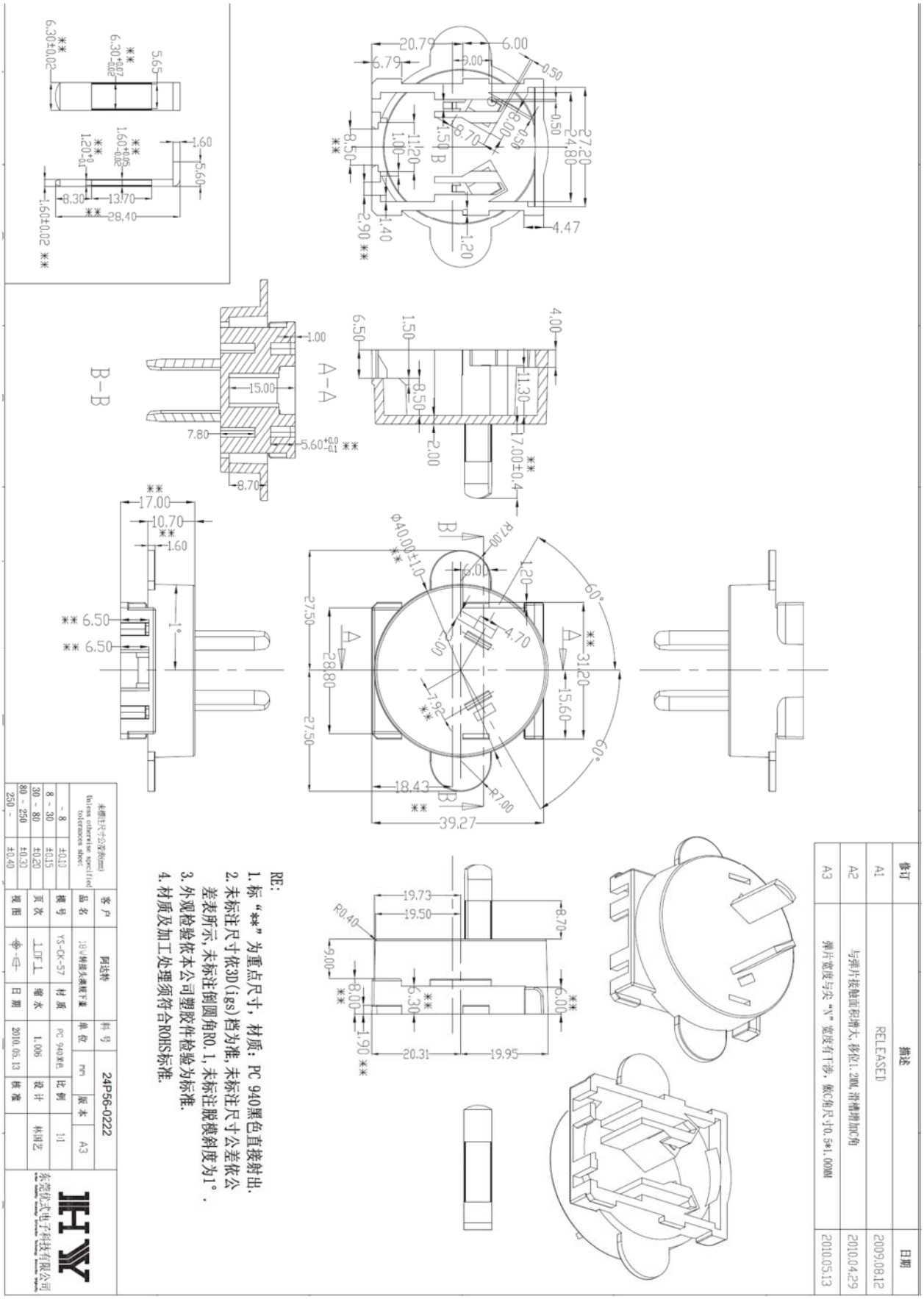
KTPS36-xxxyyyMP-VI (for UK plug)

Enclosure Drawing



KTPS36-xxxyyyMP-VI (for EU plug)

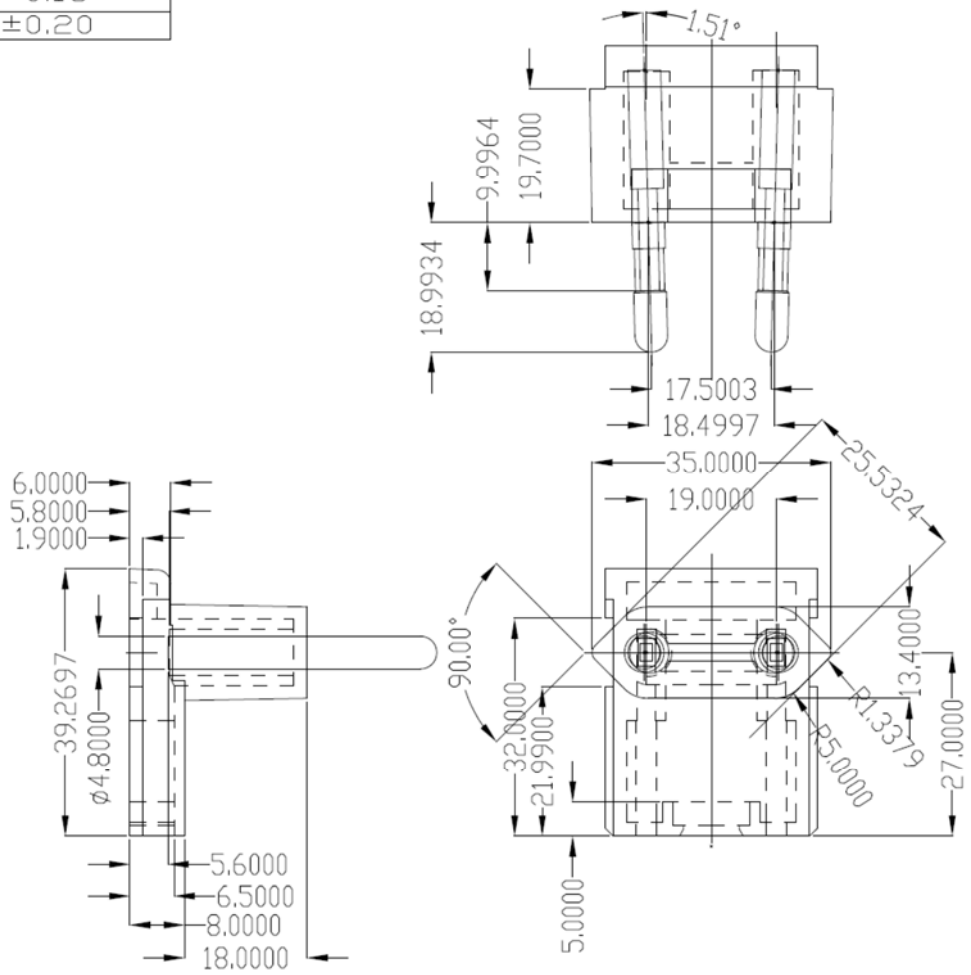
Enclosure Drawing



KTPS36-xxxyyyMP-VI (for AU plug)

Enclosure Drawing

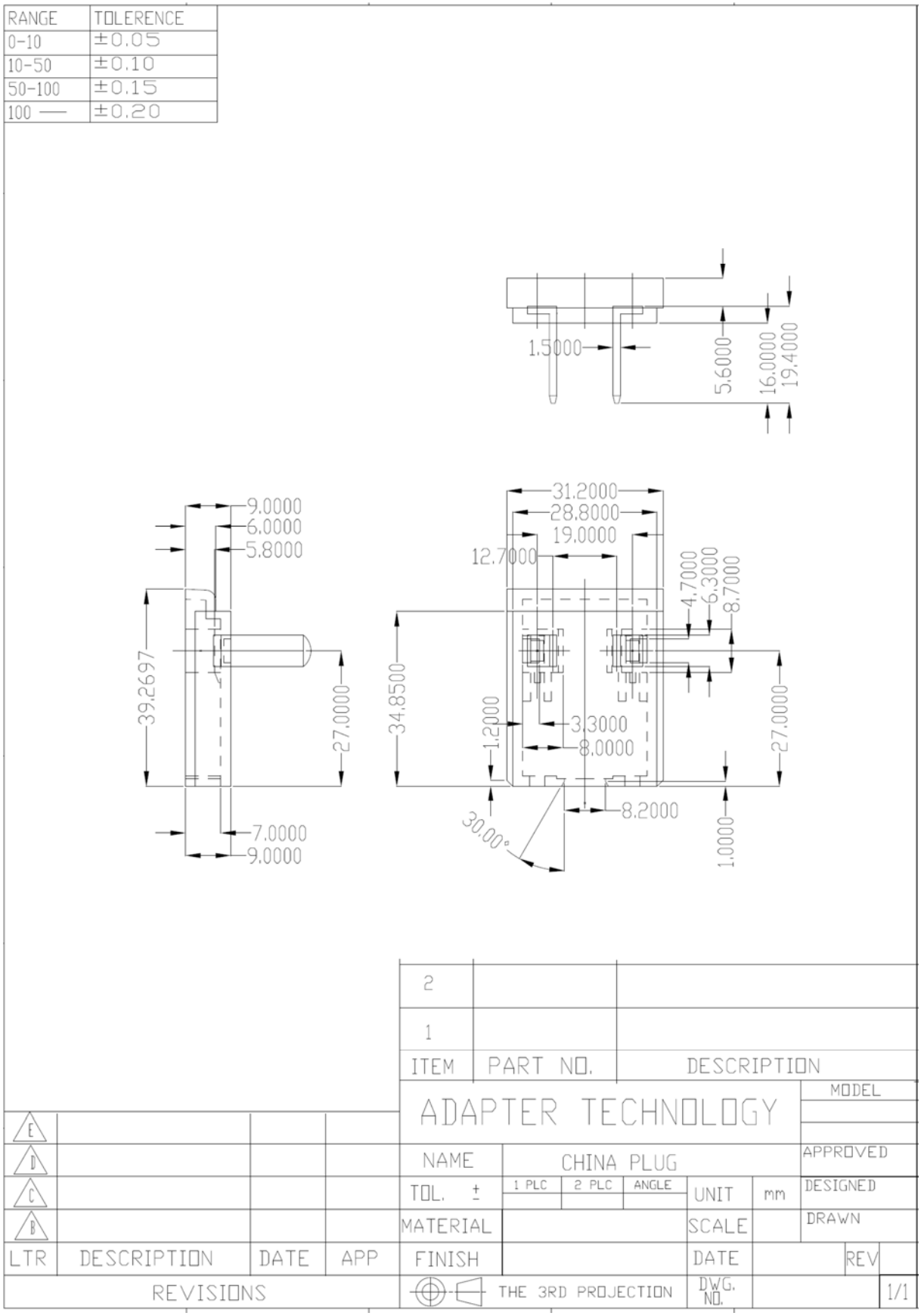
RANGE	TOLERENCE
0-10	±0.05
10-50	±0.10
50-100	±0.15
100 —	±0.20



				2				
				1				
				ITEM	PART NO.	DESCRIPTION		
				ADAPTER TECHNOLOGY				MODEL
E								
D				NAME	KOR PLUG			APPROVED
C				TOL. ±	1 PLC / 2 PLC / ANGLE	UNIT mm		DESIGNED
B				MATERIAL		SCALE		DRAWN
LTR	DESCRIPTION	DATE	APP	FINISH		DATE	REV	
REVISIONS				THE 3RD PROJECTION		DWG. NO.		1/1

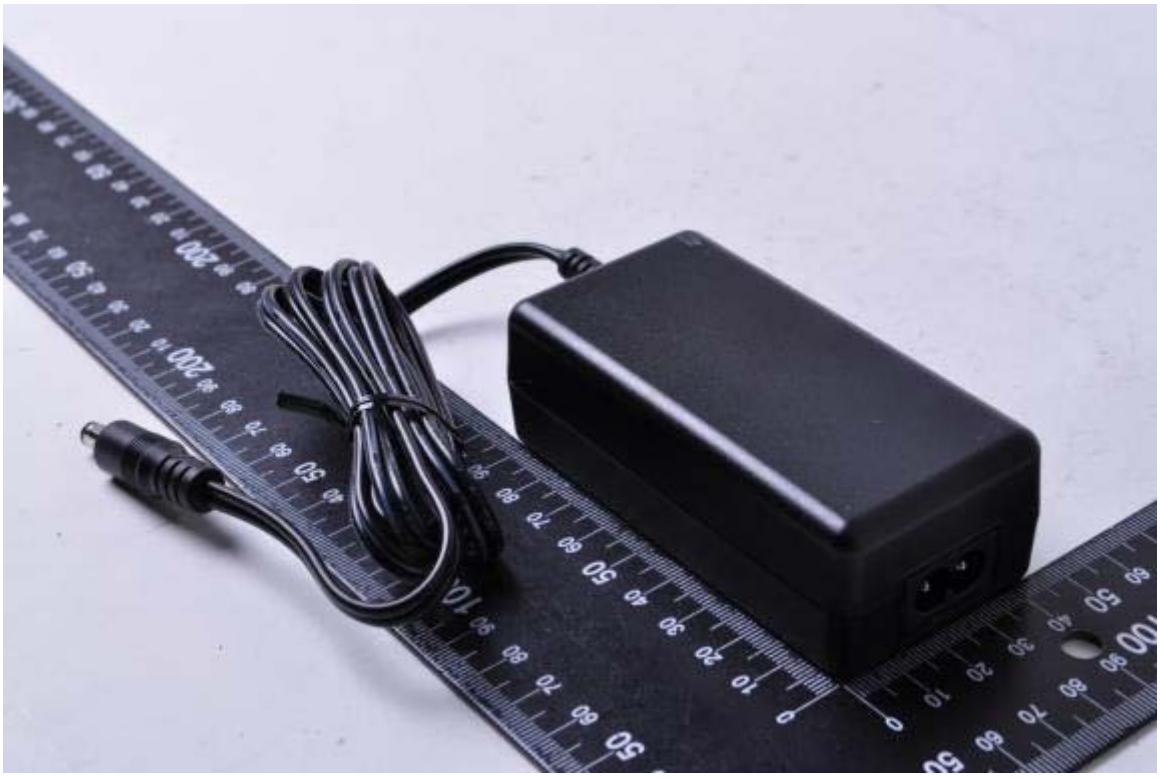
KTPS36-xxxyyyMP-VI (for Korea plug)

Enclosure Drawing



KTPS36-xxxyyyMP-VI (for China plug)

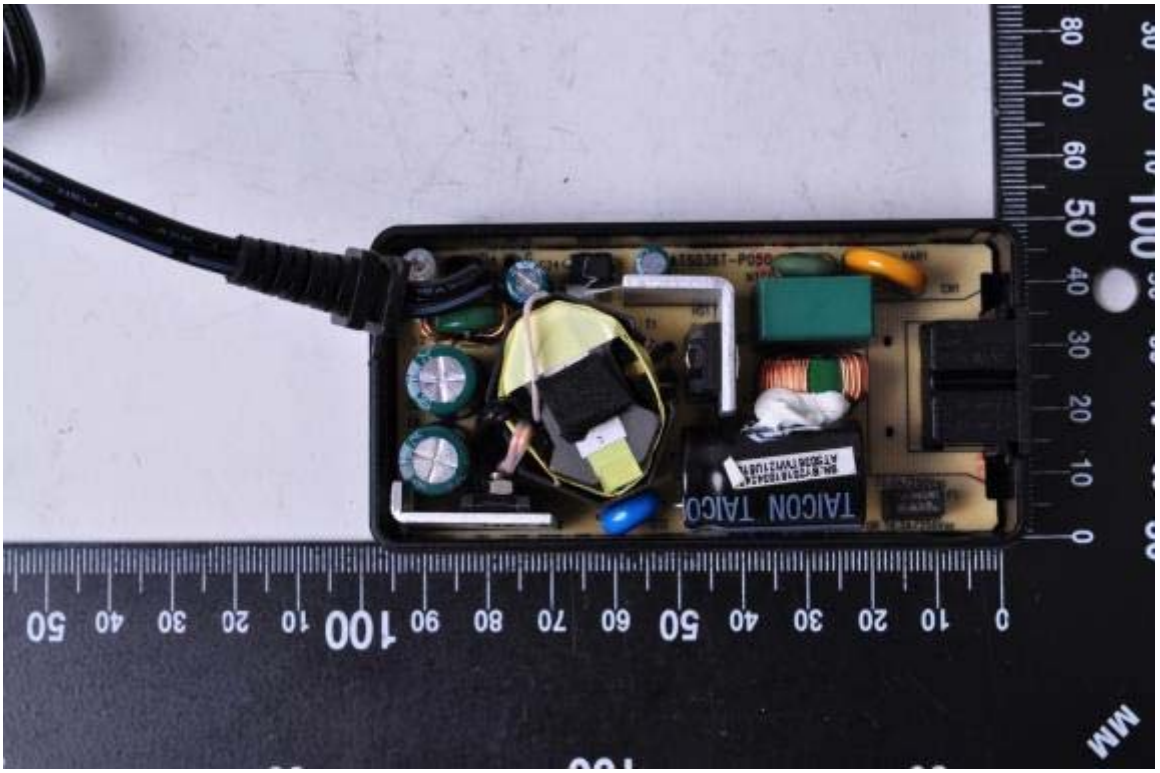
Photo



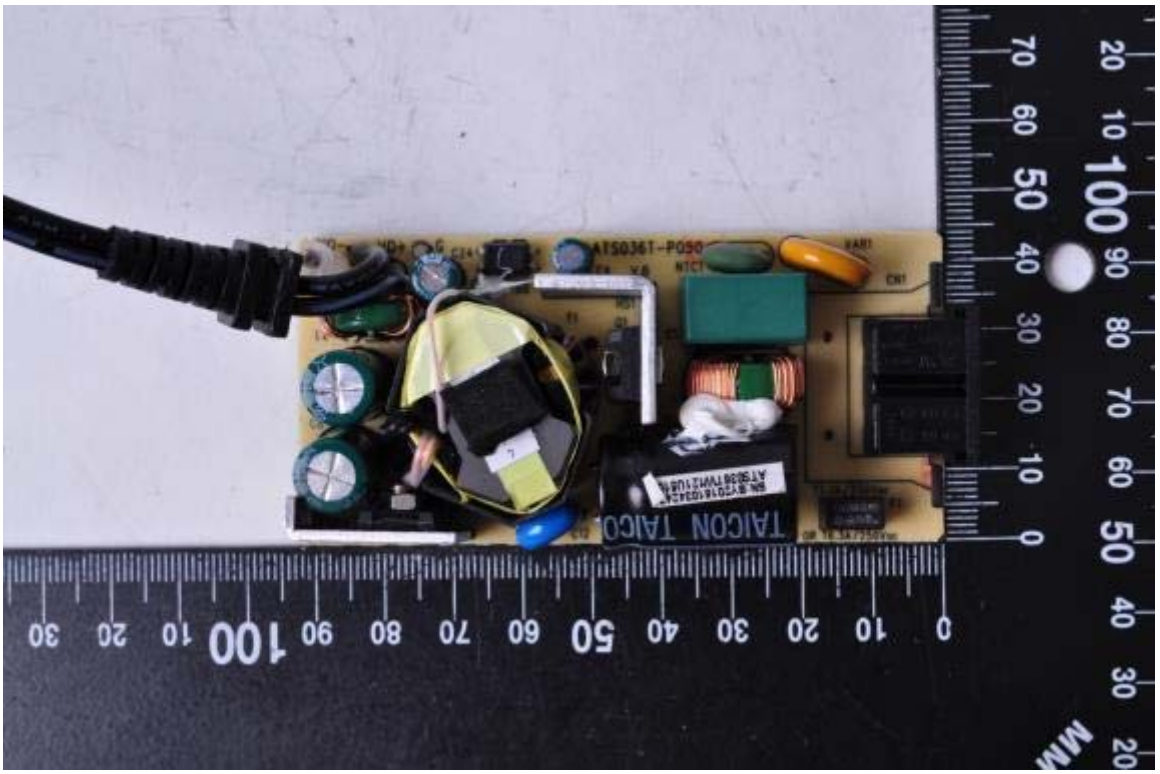
KTPS36-xxxyyyDT-2P-VI

KTPS36-xxxyyyDT-2P-VI

Photo

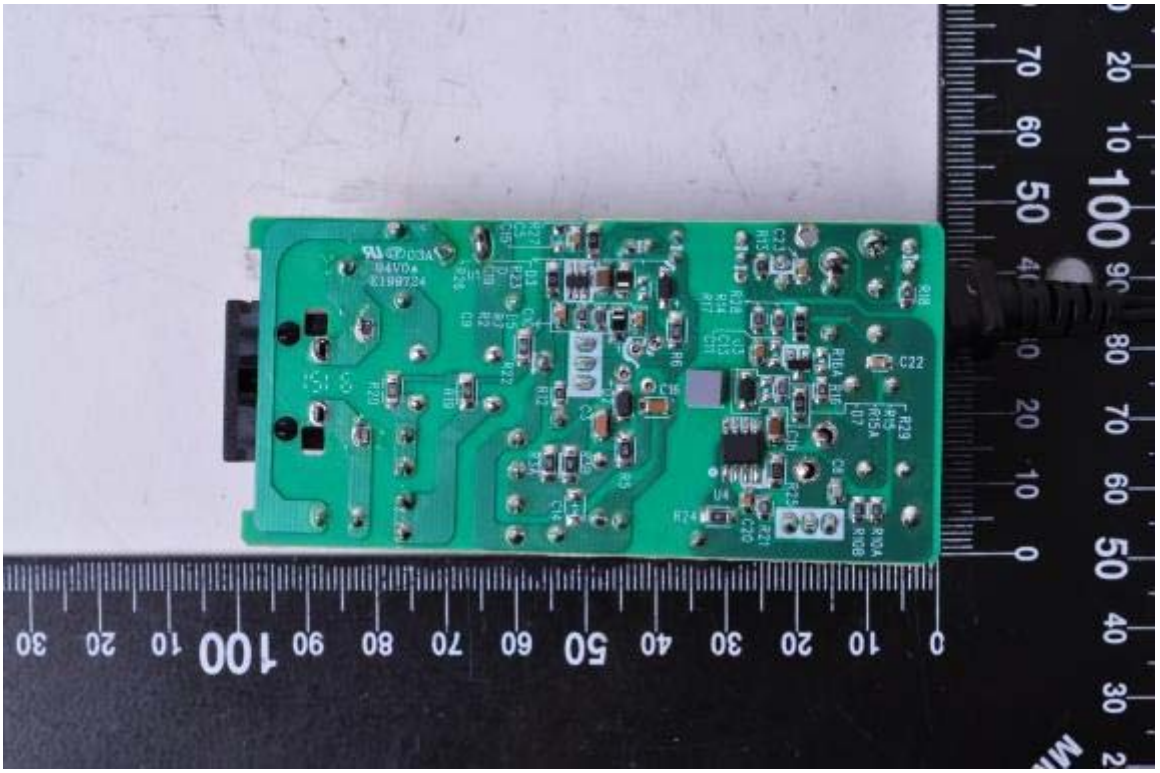


KTPS36-050500DT-2P-VI, KTPS36-075400DT-2P-VI, KTPS36-085352DT-2P-VI, KTPS36-090334DT-2P-VI
(SR type)

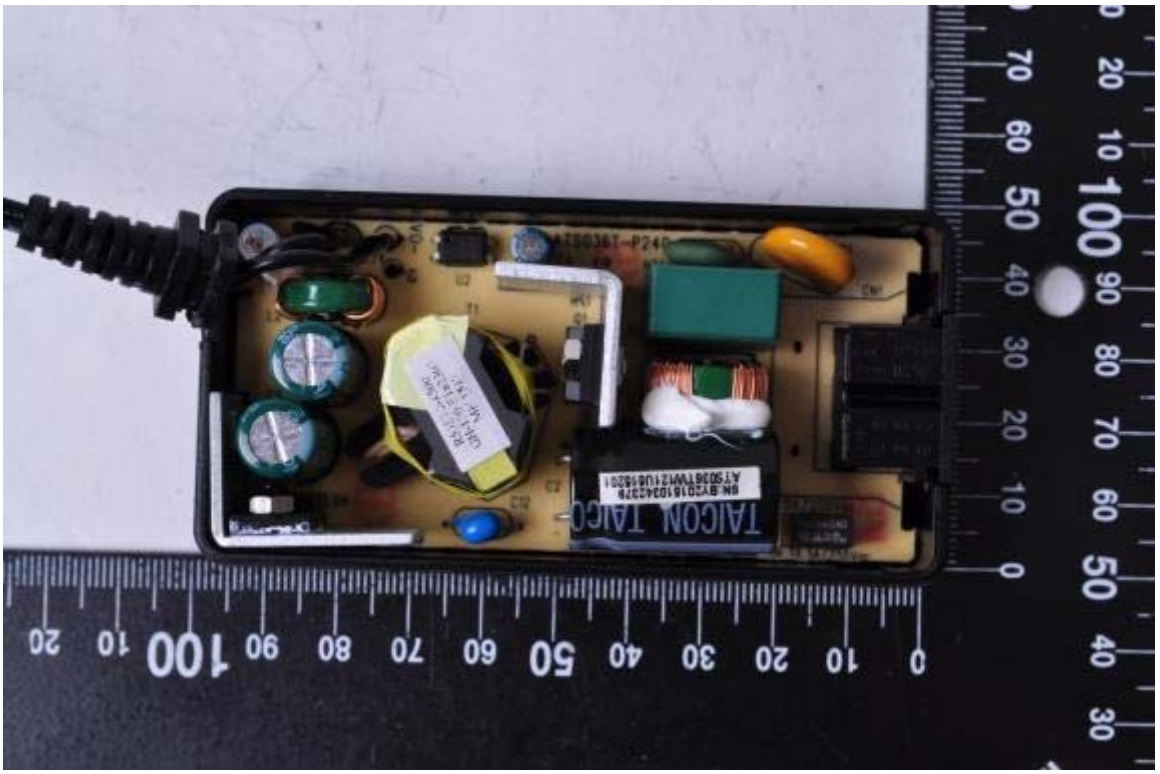


KTPS36-050500DT-2P-VI, KTPS36-075400DT-2P-VI, KTPS36-085352DT-2P-VI, KTPS36-090334DT-2P-VI
(SR type)

Photo

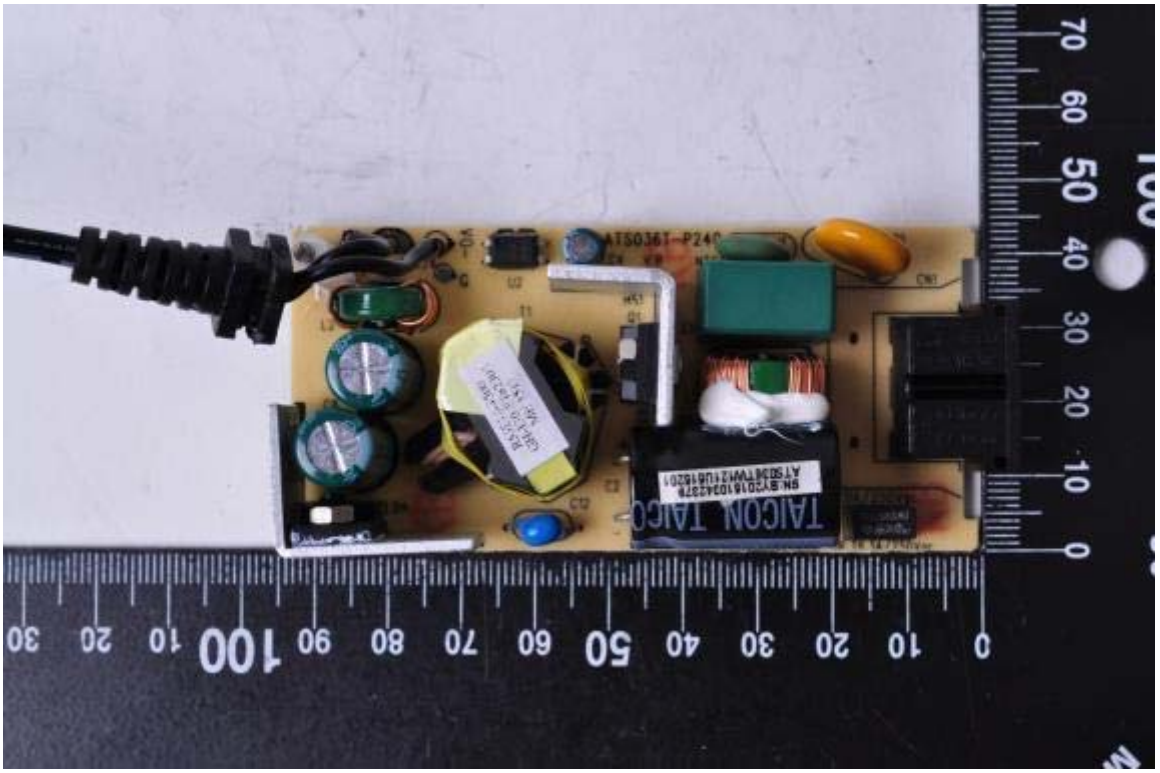


KTPS36-050500DT-2P-VI, KTPS36-075400DT-2P-VI, KTPS36-085352DT-2P-VI, KTPS36-090334DT-2P-VI
(SR type)

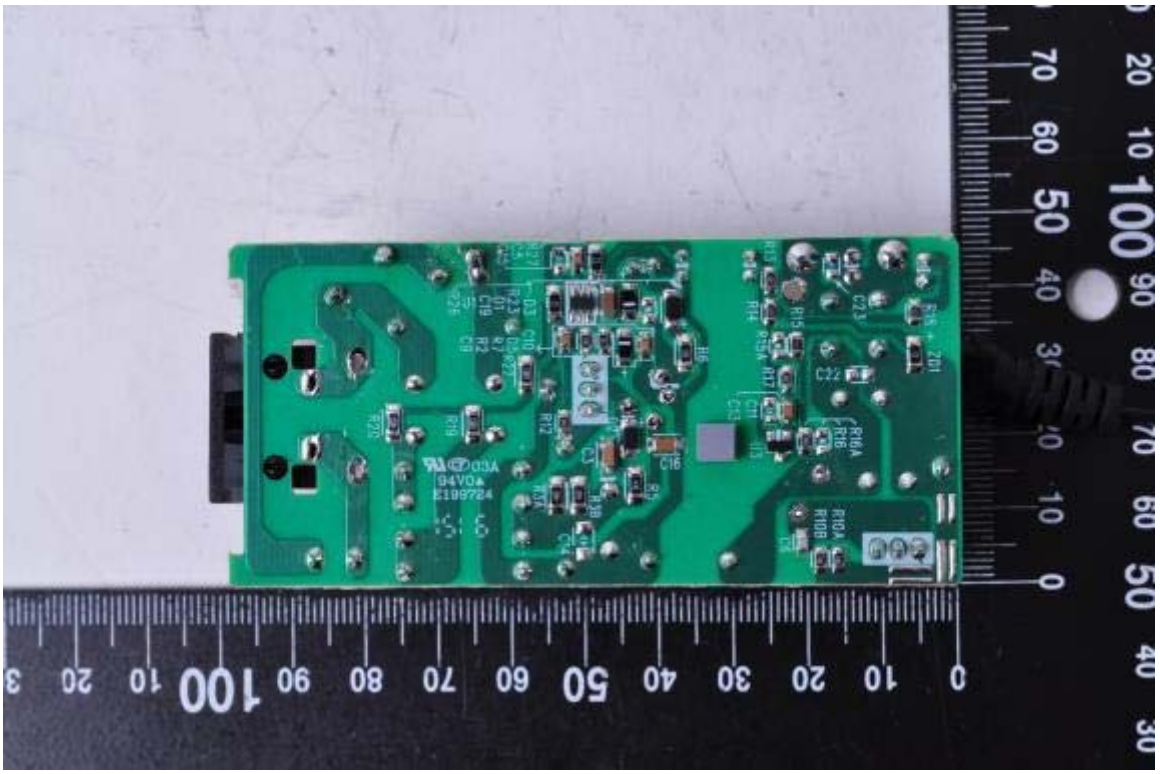


KTPS36-120300DT-2P-VI, KTPS36-120250DT-2P-VI, KTPS36-135266DT-2P-VI, KTPS36-150240DT-2P-VI, KTPS36-160225DT-2P-VI, KTPS36-180200DT-2P-VI, KTPS36-240150DT-2P-VI, KTPS36-480075DT-2P-VI
(SBD type)

Photo



KTPS36-120300DT-2P-VI, KTPS36-120250DT-2P-VI, KTPS36-135266DT-2P-VI, KTPS36-150240DT-2P-VI, KTPS36-160225DT-2P-VI, KTPS36-180200DT-2P-VI, KTPS36-240150DT-2P-VI, KTPS36-480075DT-2P-VI (SBD type)



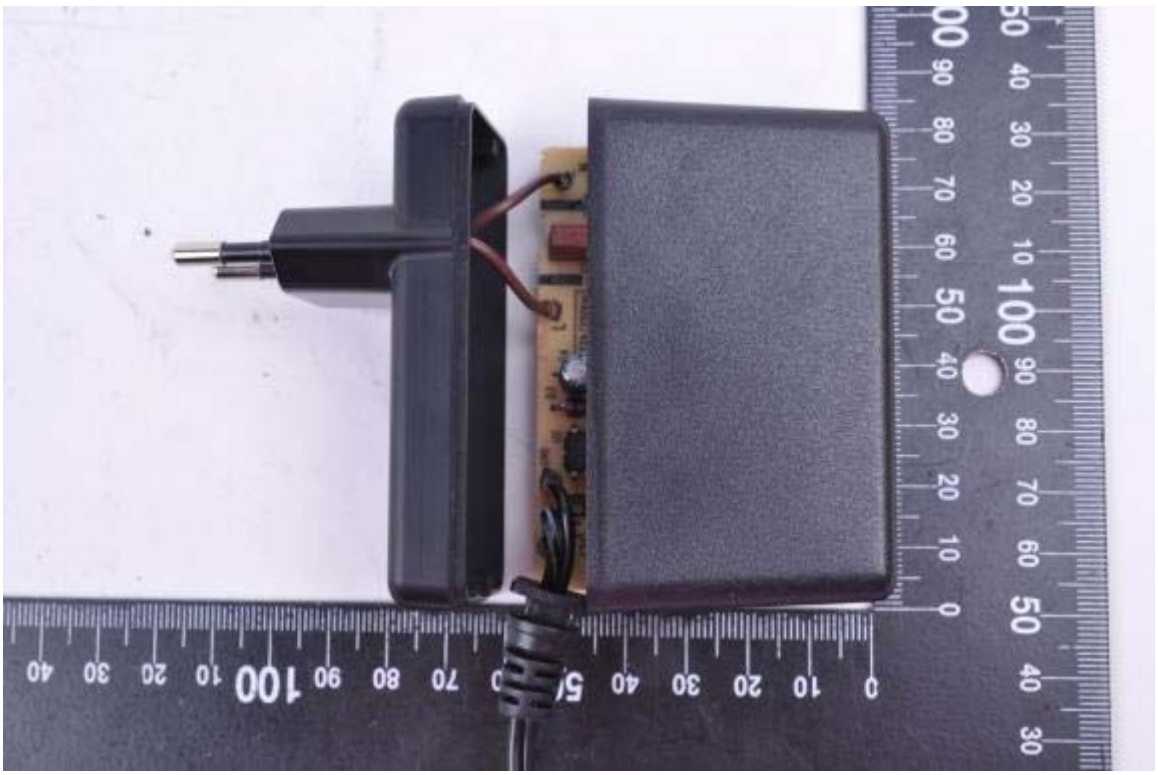
KTPS36-120300DT-2P-VI, KTPS36-120250DT-2P-VI, KTPS36-135266DT-2P-VI, KTPS36-150240DT-2P-VI, KTPS36-160225DT-2P-VI, KTPS36-180200DT-2P-VI, KTPS36-240150DT-2P-VI, KTPS36-480075DT-2P-VI (SBD type)

Photo

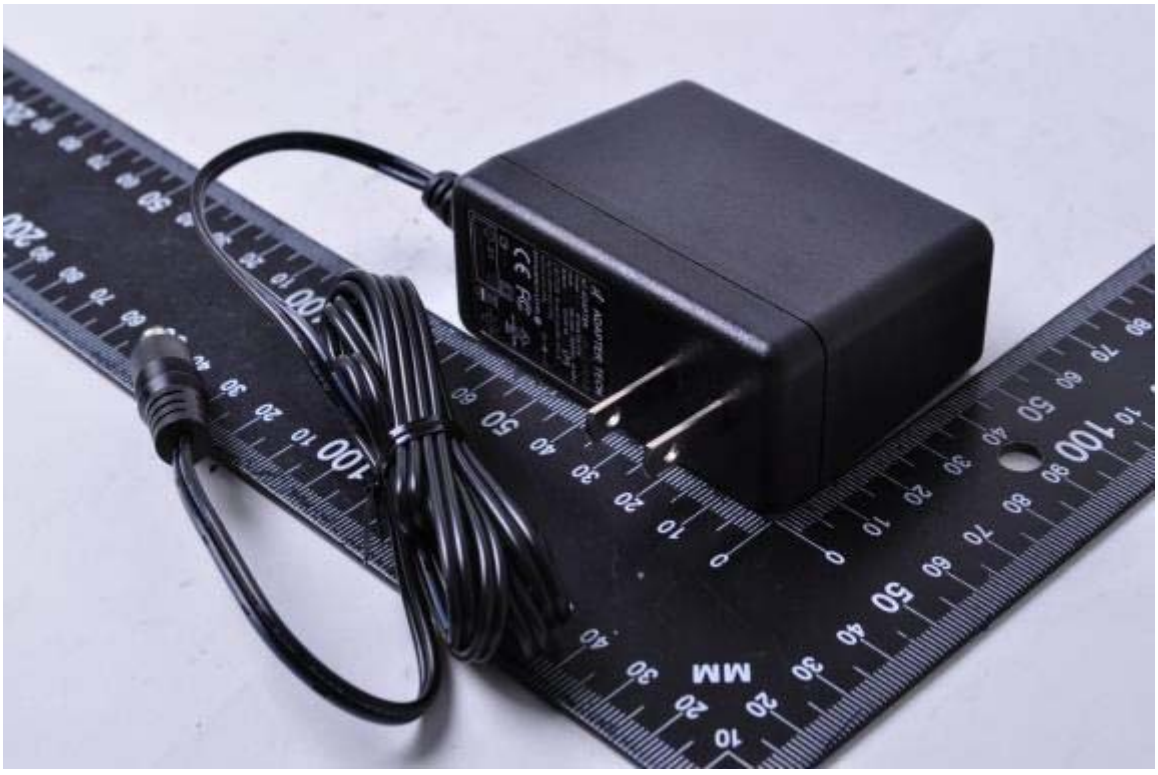
KTPS36-xxxyyyEU-VI (EU Plug)

KTPS36-xxxyyyEU-VI (EU Plug)

Photo

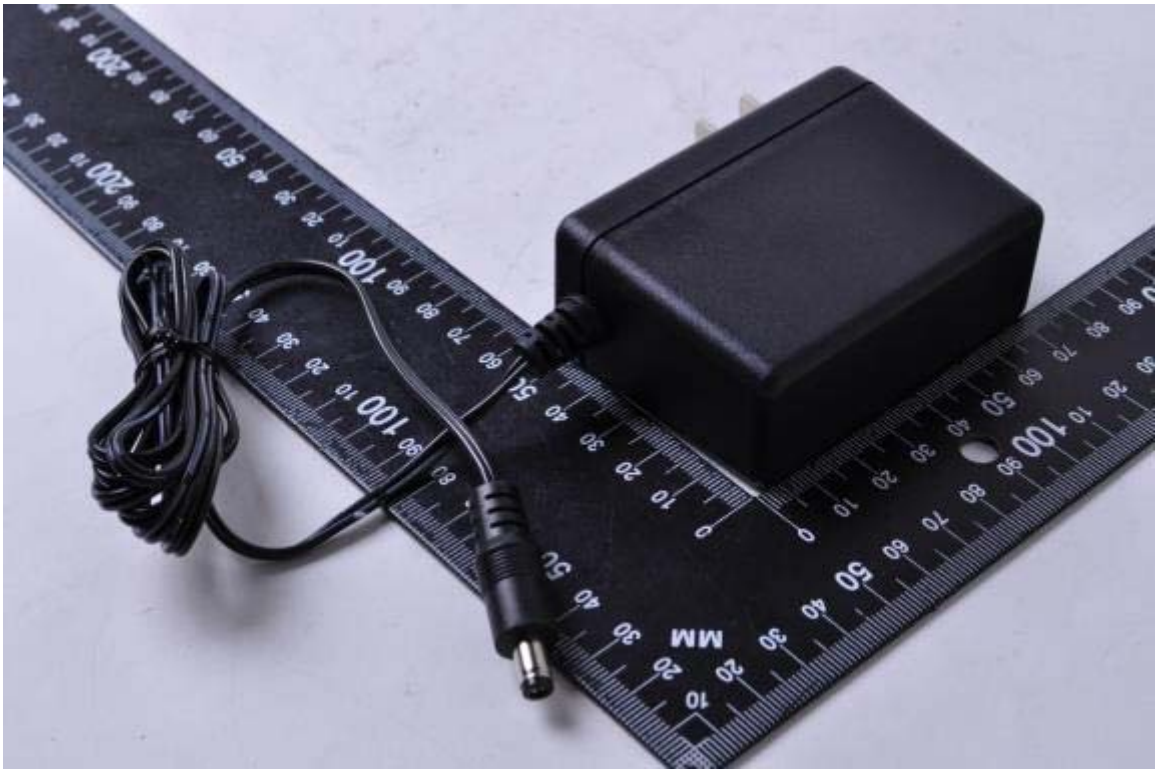


KTPS36-xxxyyyEU-VI (EU Plug)

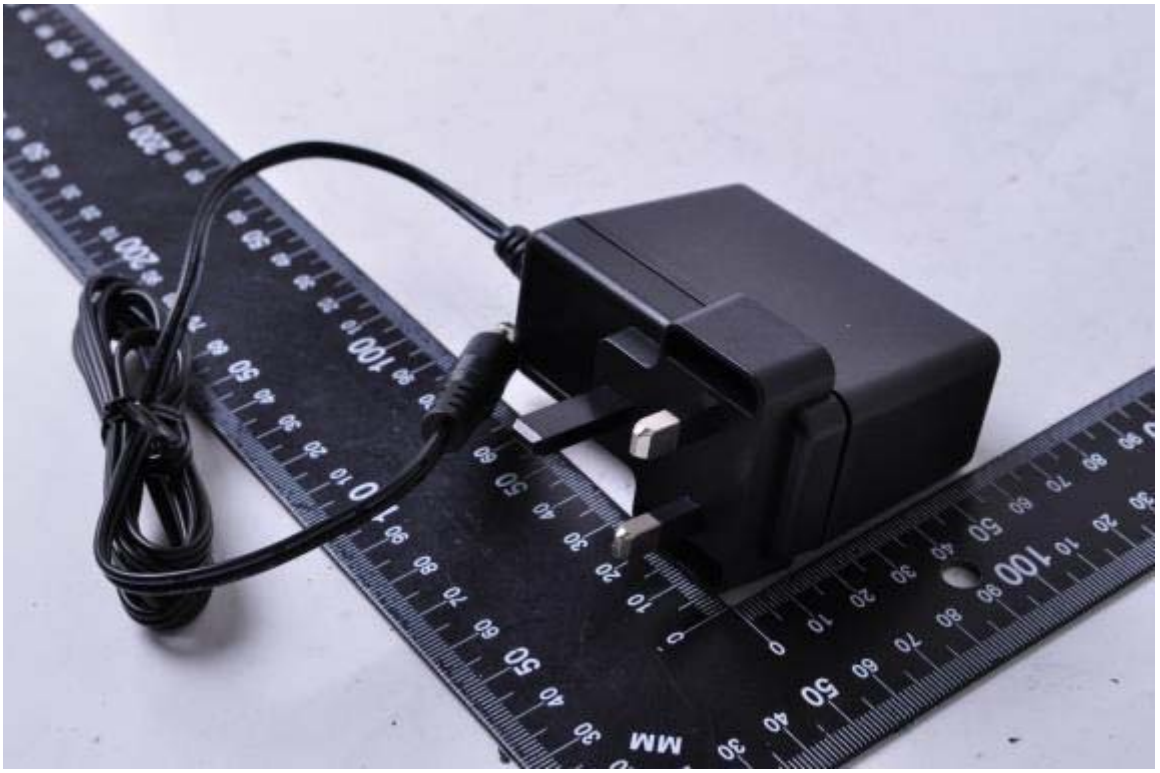


KTPS36-xxxyyyWA-VI (US Plug)

Photo



KTPS36-xxxyyyWA-VI (US Plug)



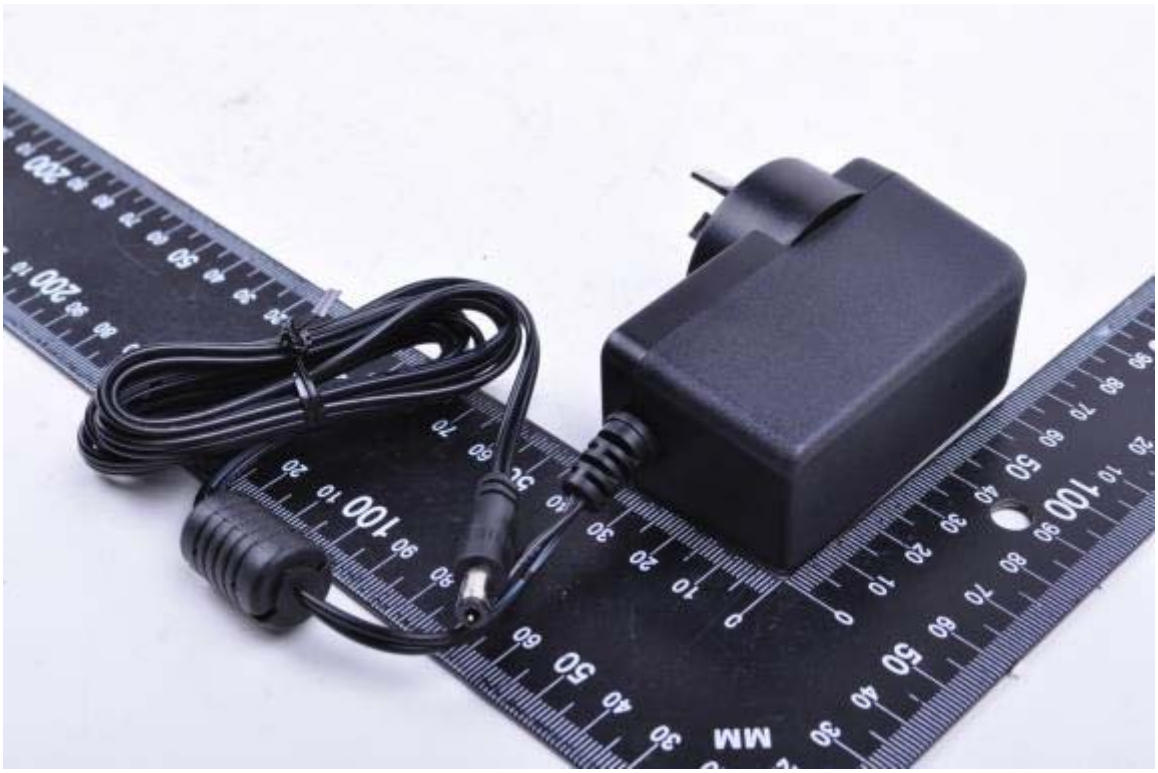
KTPS36-xxxyyyUK-VI (UK Plug)

Photo

KTPS36-xxxyyyUK-VI (UK Plug)

KTPS36-xxxyyyAU-VI (AU Plug)

Photo

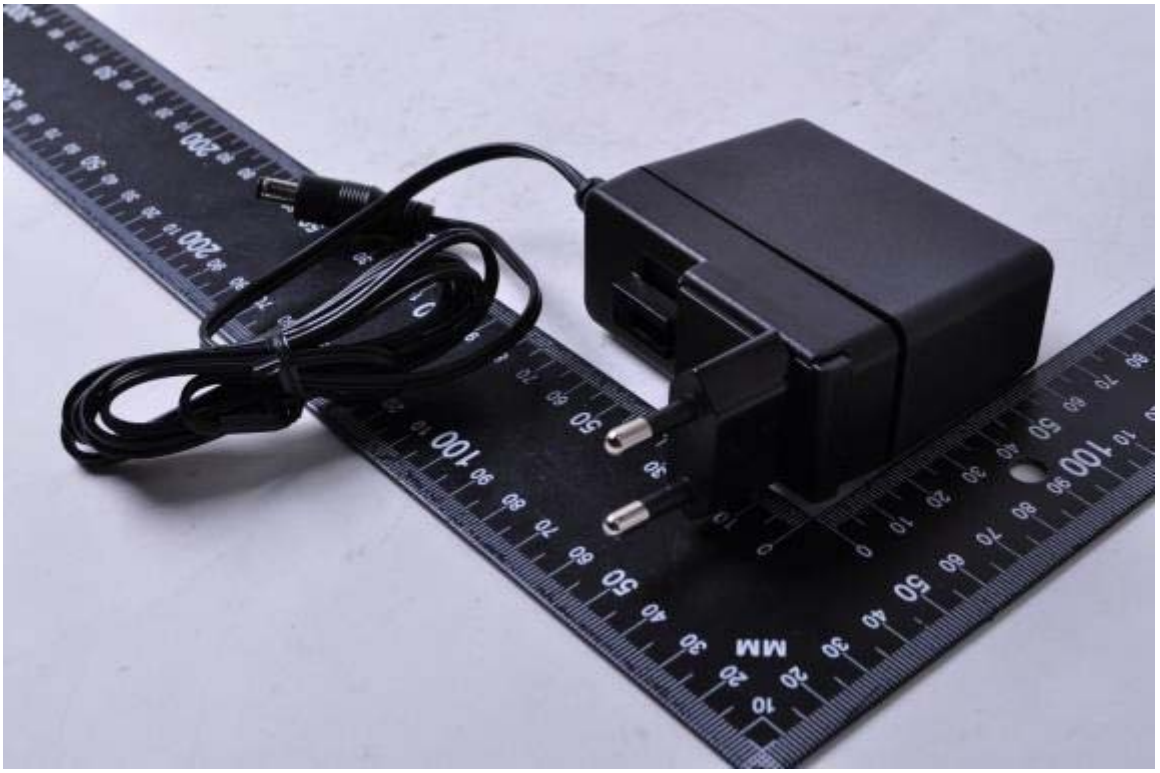


KTPS36-xxxyyyAU-VI (AU Plug)

KTPS36-xxxyyyMP-VI (Snap-fit plug)

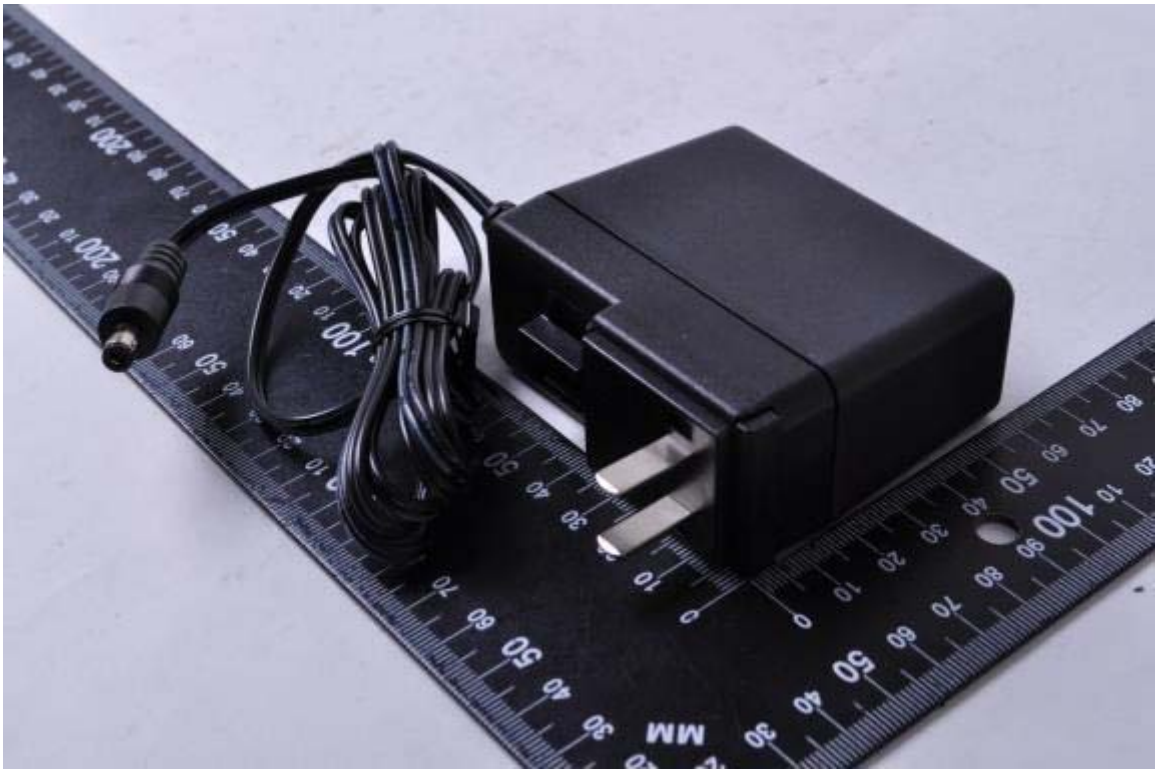
Photo

KTPS36-xxxyyyMP-VI (EU plug)

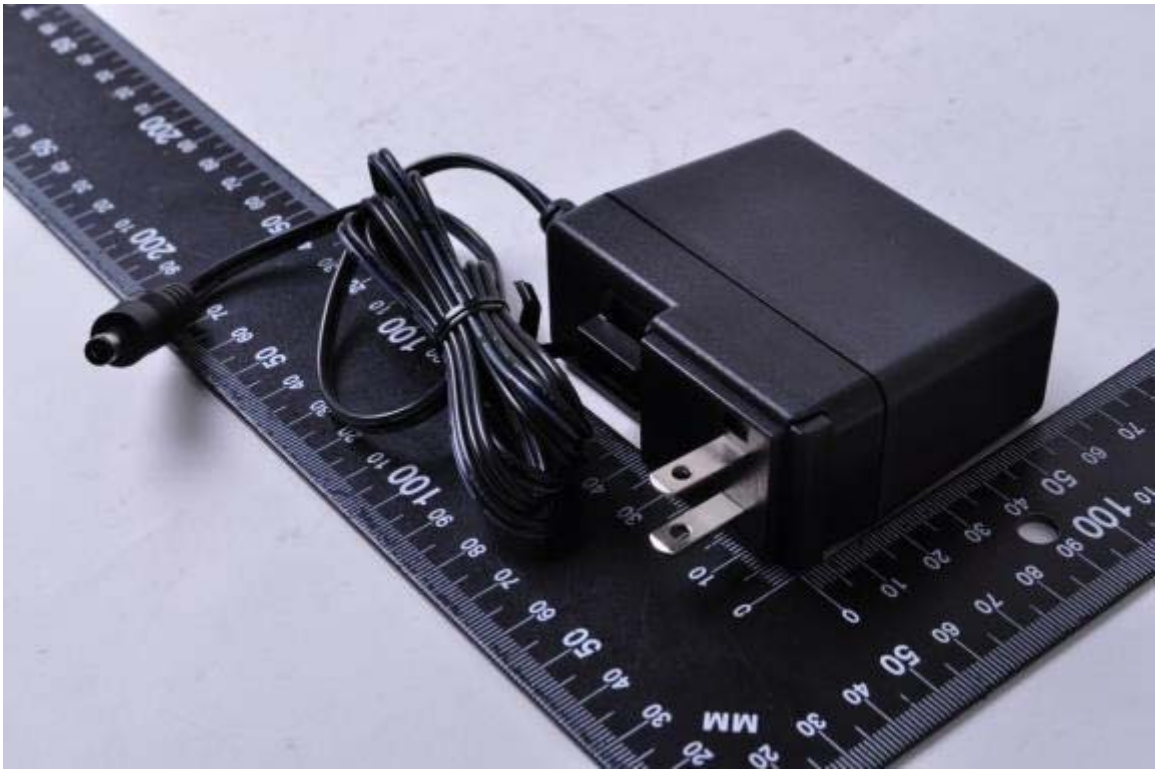


KTPS36-xxxyyyMP-VI (KR plug)

Photo



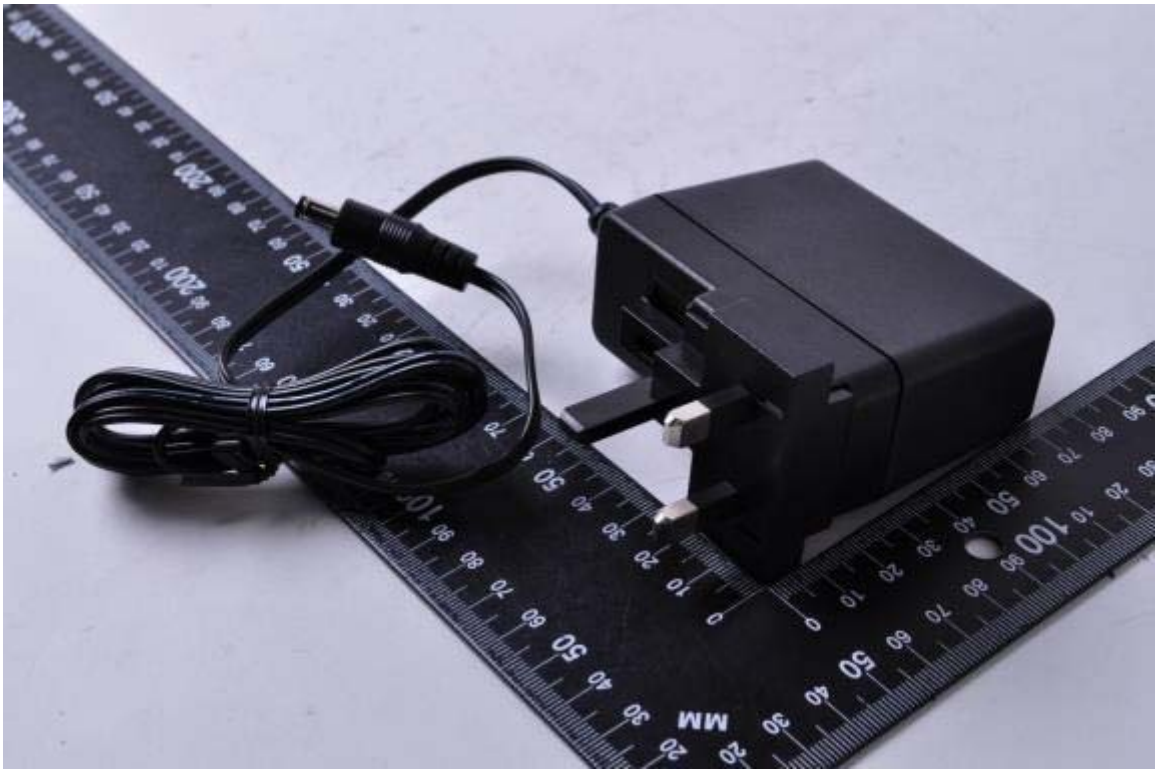
KTPS36-xxxyyyMP-VI (CN plug)



KTPS36-xxxyyyMP-VI (US plug)

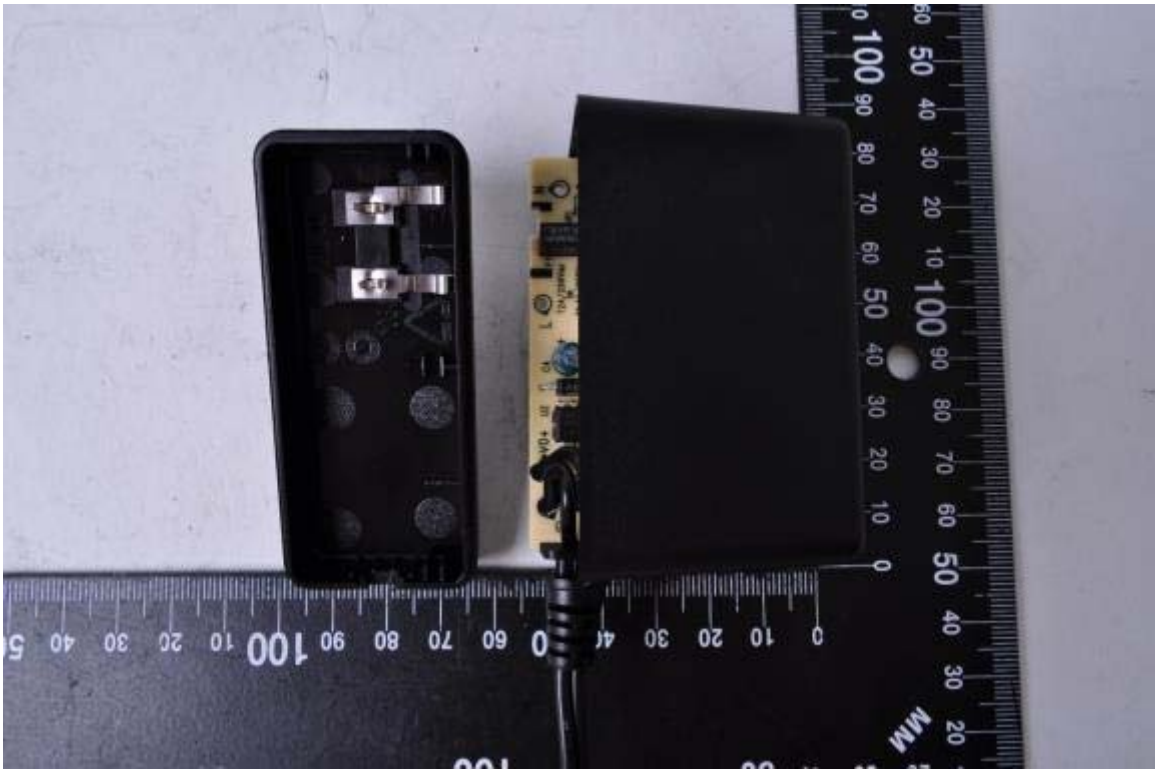
Photo

KTPS36-xxxyyyMP-VI (AU plug)

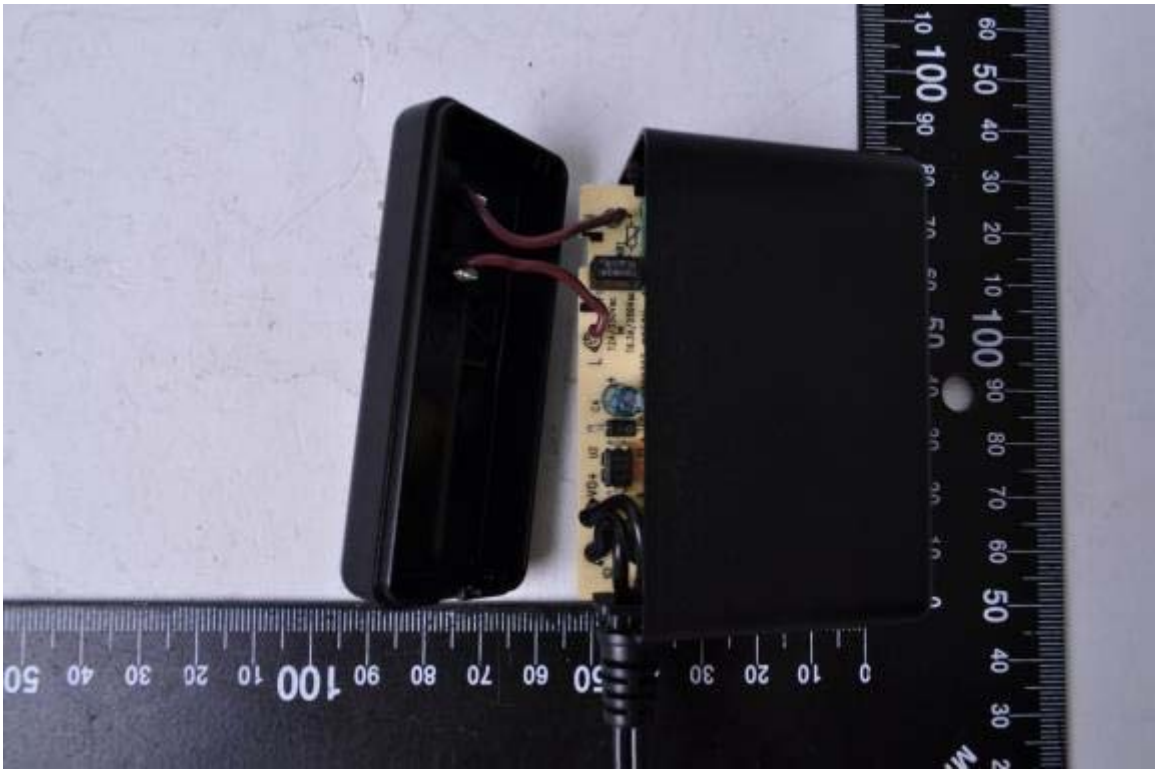


KTPS36-xxxyyyMP-VI (UK plug)

Photo



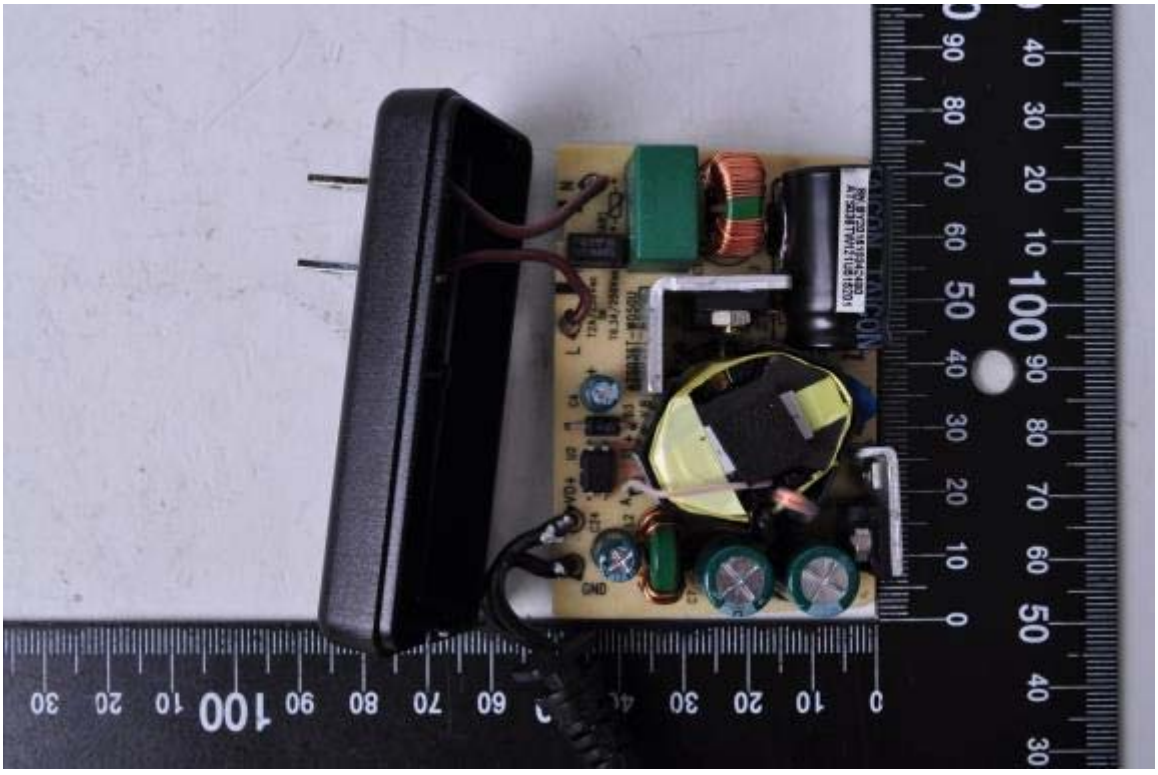
KTPS36-xxxyyyWA-VI, KTPS36-xxxyyyMP-VI



KTPS36-xxxyyyWA-VI, KTPS36-xxxyyyMP-VI

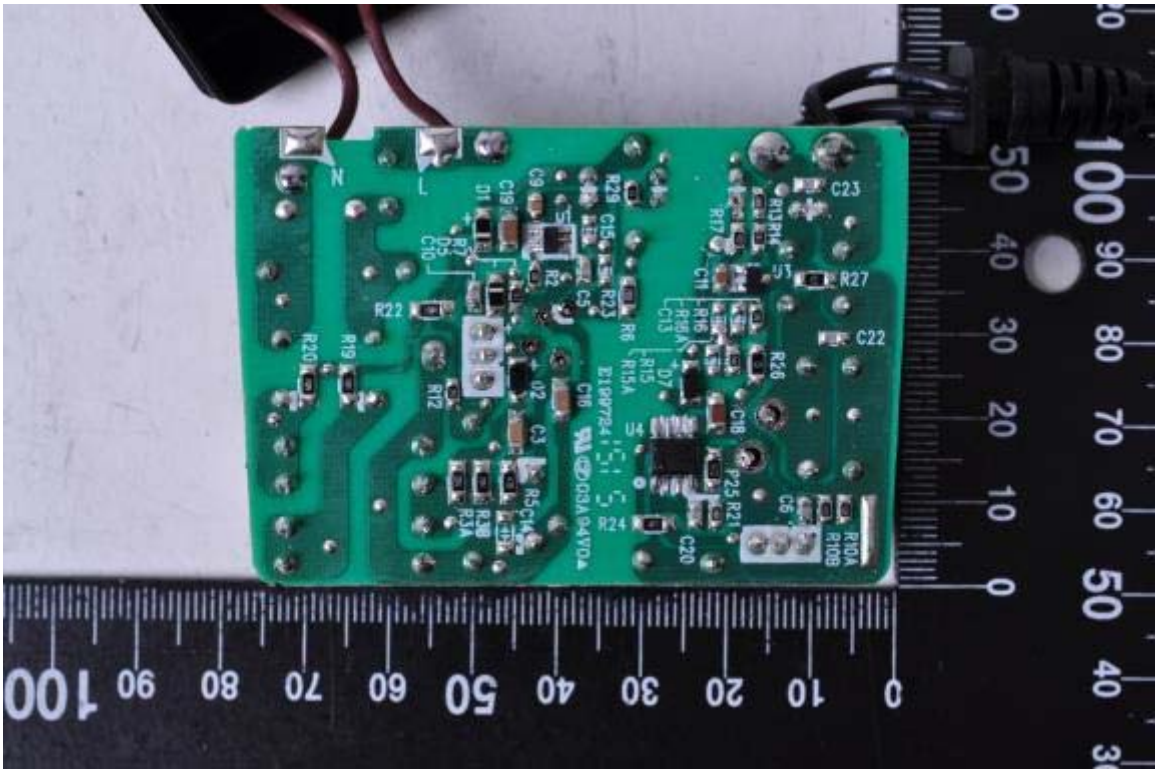
Photo

KTPS36-xxxyyyAU-VI, KTPS36-xxxyyyUK-VI, KTPS36-xxxyyyEU-VI, KTPS36-xxxyyyMP-VI

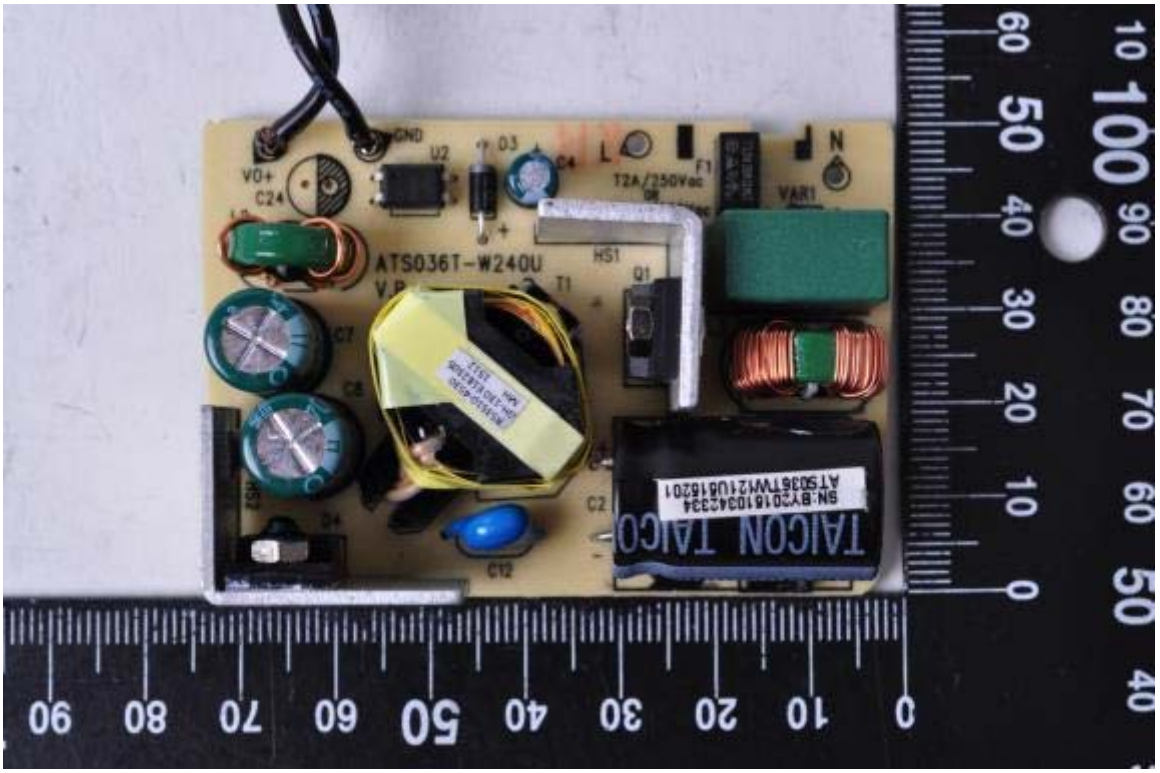


KTPS36-050500zz-VI, KTPS36-075400zz-VI, KTPS36-085352zz-VI, KTPS36-090334zz-VI (SR type)

Photo

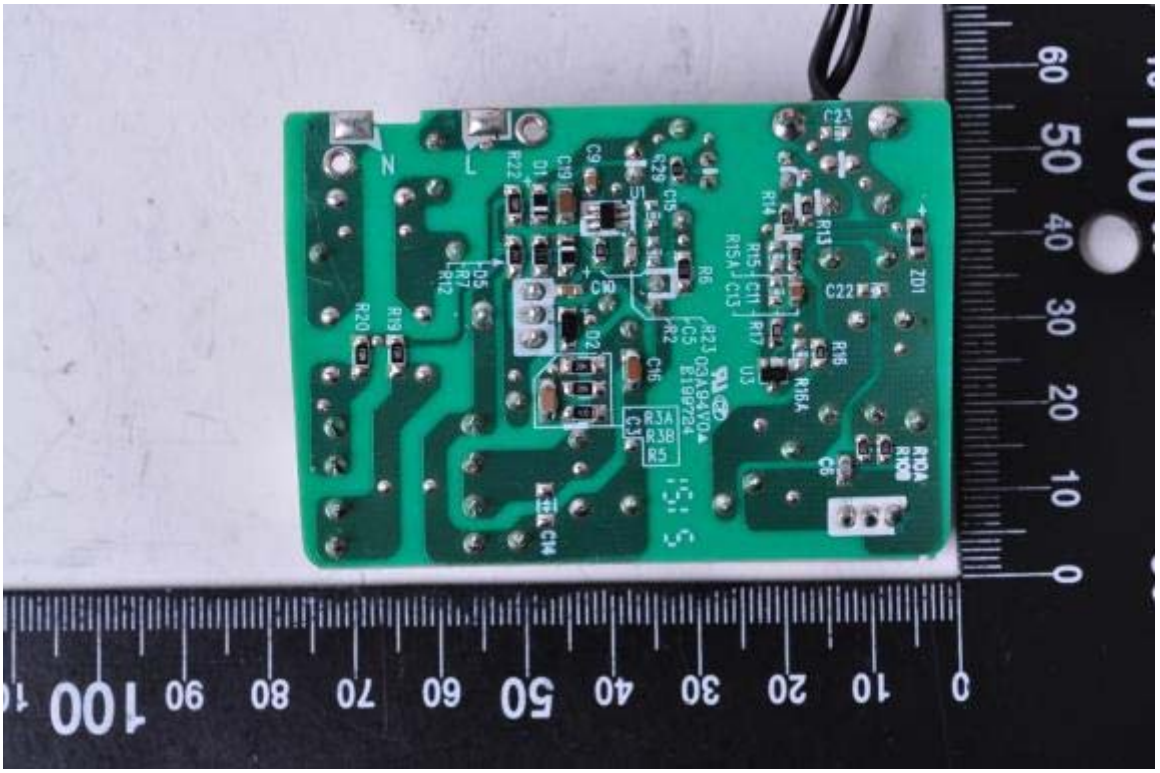


KTPS36-050500zz-VI, KTPS36-075400zz-VI, KTPS36-085352zz-VI, KTPS36-090334zz-VI (SR type)



KTPS36-120300zz-VI, KTPS36-120250zz-VI, KTPS36-135266zz-VI, KTPS36-150240zz-VI, KTPS36-160225zz-VI, KTPS36-180200zz-VI, KTPS36-240150zz-VI, KTPS36-480075zz-VI (SBD type)

Photo



KTPS36-120300zz-VI, KTPS36-120250zz-VI, KTPS36-135266zz-VI, KTPS36-150240zz-VI, KTPS36-160225zz-VI, KTPS36-180200zz-VI, KTPS36-240150zz-VI, KTPS36-480075zz-VI (SBD type)