Ref. Certif. No.

DK-56902-UL

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D'ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product Produit	Switching Mode Power Supply
Name and address of the applicant Nom et adresse du demandeur	MEAN WELL ENTERPRISES CO LTD 28 WUQUAN 3RD RD WUGU DIST NEW TAIPEI, 248 TAIWAN
Name and address of the manufacturer Nom et adresse du fabricant	MEAN WELL ENTERPRISES CO LTD 28 WUQUAN 3RD RD WUGU DIST NEW TAIPEI, 248 TAIWAN
Name and address of the factory Nom et adresse de l'usine Note: *When more than one factory, please report on page 2* Note: *Lorsque il y plus d'une usine, veuillez utiliser la 2ème page*	MEAN WELL Enterprises Co., Ltd. No.28, Wuquan 3rd Rd., Wugu Dist., New Taipei City 248 Taiwan ☒ Additional Information on page 2
Ratings and principal characteristics Valeurs nominales et caractéristiques principales	See Test Report for details
Trademark (if any) Marque de fabrique (si elle existe)	MW MEAN WELL
Type of Manufacturer's Testing Laboratories used Type de programme du laboratoire d'essais constructeur	
Model / Type Ref. Ref. De type	RCP-1600-xy, RCB-1600-xy, RCB-1600-zNE, See Page 2
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire,, peuvent être indiqués sur la 2ème page	Additionally evaluated to EN 60950-1:2006 / A11:2009 / A1:2010 / A12:2011 / A2:2013; National Differences specified in the CB Test Report. ☐ Additional Information on page 2
A sample of the product was tested and found to be in conformity with Un échantillon de ce produit a été essayé et a été considéré conforme à la	IEC 60950-1(ed.2), IEC 60950-1(ed.2);am1, IEC 60950-1(ed.2);am2
As shown in the Test Report Ref. No. which forms part of this Certificate Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat	1601009-CB issued on 2016-07-21

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme **National de Certification**

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2016-08-02

Signature:

Jan-Erik Storgaard

Ref. Certif. No.

DK-56902-UL

Model Details:
Power Module: RCP-1600-xy, RCB-1600-xy, RCB-1600-zNE
(x can be 12, 24 or 48; y can be blank or CAN; z can be 12 or 24)

Switching Mode Power Supply: RSP-1600-x1, RPB-1600-xy
(x can be 12, 24 or 48; x1 can be 12, 24, 27, 36 or 48; y can be blank or CAN)

Rack System: RHP-1Uy-A, RHP-8K1Uy-x, RHB-8K1Uy-x
(x can be 12, 24 or 48; y can be I or T)

Factories:
MEAN WELL (GUANGZHOU) Electronics Co Ltd
2nd Floor, No. A Building, Yuean Ind. Park, Dongpu Town, TianHe Dist., Guangzhou
P.R. China

SuZhou MEAN WELL Technology Co., Ltd.
No. 77, Jian-min Road, Dong-qiao, Pan-yang Ind. Park, Huang-dai Town, Xiang-cheng District, Suzhou, Jiangsu
215152
P.R. China

GUANGZHOU HUA WELL ELECTRONICS CO.,LTD.
No.11 Jingu South Road, Huadong Town, Huadu District, Guangzhou
China

Additional information (if necessary)
Information complémentaire (si nécessaire)

- ☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
- ☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
- ☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
- ☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2016-08-02

Signature:

Jan-Erik Storgaard

Test Report issued under the responsibility of:

TEST REPORT
IEC 60950-1
Information technology equipment – Safety – Part 1: General requirements

Report Number ..... :	1601009-CB
Date of issue ..... :	2016-07-21
Total number of pages :	90
Applicant's name ..... :	MEAN WELL ENTERPRISES CO LTD
Address ..... :	28 WUQUAN 3RD RD WUGU DIST NEW TAIPEI, 248 TAIWAN
Test specification:	
Standard ..... :	IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
Test procedure ..... :	CB Scheme
Non-standard test method ..... :	N/A
Test Report Form No. ..... :	IEC60950_1F
Test Report Form originator ..... :	SGS Fimko Ltd
Master TRF ..... :	Dated 2014-02

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

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.
This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description ..... :	Switching Mode Power Supply
Trade Mark ..... :	
Manufacturer..... :	MEAN WELL ENTERPRISES CO LTD 28 WUQUAN 3RD RD WUGU DIST NEW TAIPEI, 248 TAIWAN
Model/Type reference ..... :	Power Module: RCP-1600-xy, RCB-1600-xy, RCB-1600-zNE (x can be 12, 24 or 48; y can be blank or CAN; z can be 12 or 24) Switching Mode Power Supply: RSP-1600-x_1, RPB-1600-xy (x can be 12, 24 or 48; x_1 can be 12, 24, 27, 36 or 48; y can be blank or CAN) Rack System: RHP-1Uy-A, RHP-8K1Uy-x, RHB-8K1Uy-x (x can be 12, 24 or 48; y can be I or T)
Ratings ..... :	See Enclosure ID 7-02 for details

Testing procedure and testing location:			
☒	**CB Testing Laboratory:**	Superior Product Consulting, Inc. 3rd Fl, 10 Alley 6, Lane 235 Pao Chiao Rd, Hsin-Tien, Taipei, Taiwan	
Testing location/ address..... :			
☐	**Associated CB Testing Laboratory:**		
Testing location/ address..... :			
	Tested by (name + signature).....:	Leo Chang / Project handler	
	Approved by (name + signature).....:	Tim Lu / 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).....:		
	Witnessed by (name + signature) ....:		
	Approved by (name + signature).....:		
	Supervised by (name + signature)....:		

List of Attachments

National Differences (56 pages)
Enclosures (27 pages)

Summary of testing:

Tests performed (name of test and test clause)	**Testing location:**
Guide information page - maximum output voltage, current, and volt-ampere measurement test (1.2.2.1) Input: single-phase (1.6.2) Durability of Marking (1.7.11) Energy hazard measurements (2.1.1.5, 2.1.2, 1.2.8.10) Capacitance discharge (2.1.1.7) SELV reliability test including hazardous voltage measurements (2.2.2, 2.2.3, 2.2.4, part 22 6.1) Limited current circuit measurement (2.4.1, 2.4.2) Protective bonding ii (2.6.3.4, 2.6.1) Humidity (2.9.1, 2.9.2, 5.2.2) Determination of Working Voltage; Working Voltage Measurement (2.10.2) Thin sheet material (2.10.5.9, 2.10.5.10, 2.10.5.6) Transformer and Wire /Insulation Electric Strength (2.10.5.13) Steady force (4.2.1 - 4.2.4) Impact Test (4.2.5, 4.2.1, Part 22 10.2) Knob Pull/Handle Loading Test (4.3.2) Heating (4.5.1, 1.4.12, 1.4.13) Ball pressure (4.5.5, 4.5) Touch current (single-phase; tn/tt system) (5.1, annex d) Electric strength (5.2.2) Component failure (5.3.1, 5.3.4, 5.3.7) Abnormal operation tests (5.3.1 - 5.3.9) Transformer Abnormal Operation (5.3.3, 5.3.7b, Annex C.1) Power supply output short-circuit/overload (5.3.7)	Unless otherwise indicated, all tests were conducted at Superior Product Consulting, Inc. 3rd Fl, 10 Alley 6, Lane 235 Pao Chiao Rd, Hsin-Tien, Taipei, Taiwan.

Summary of Compliance with National Differences:

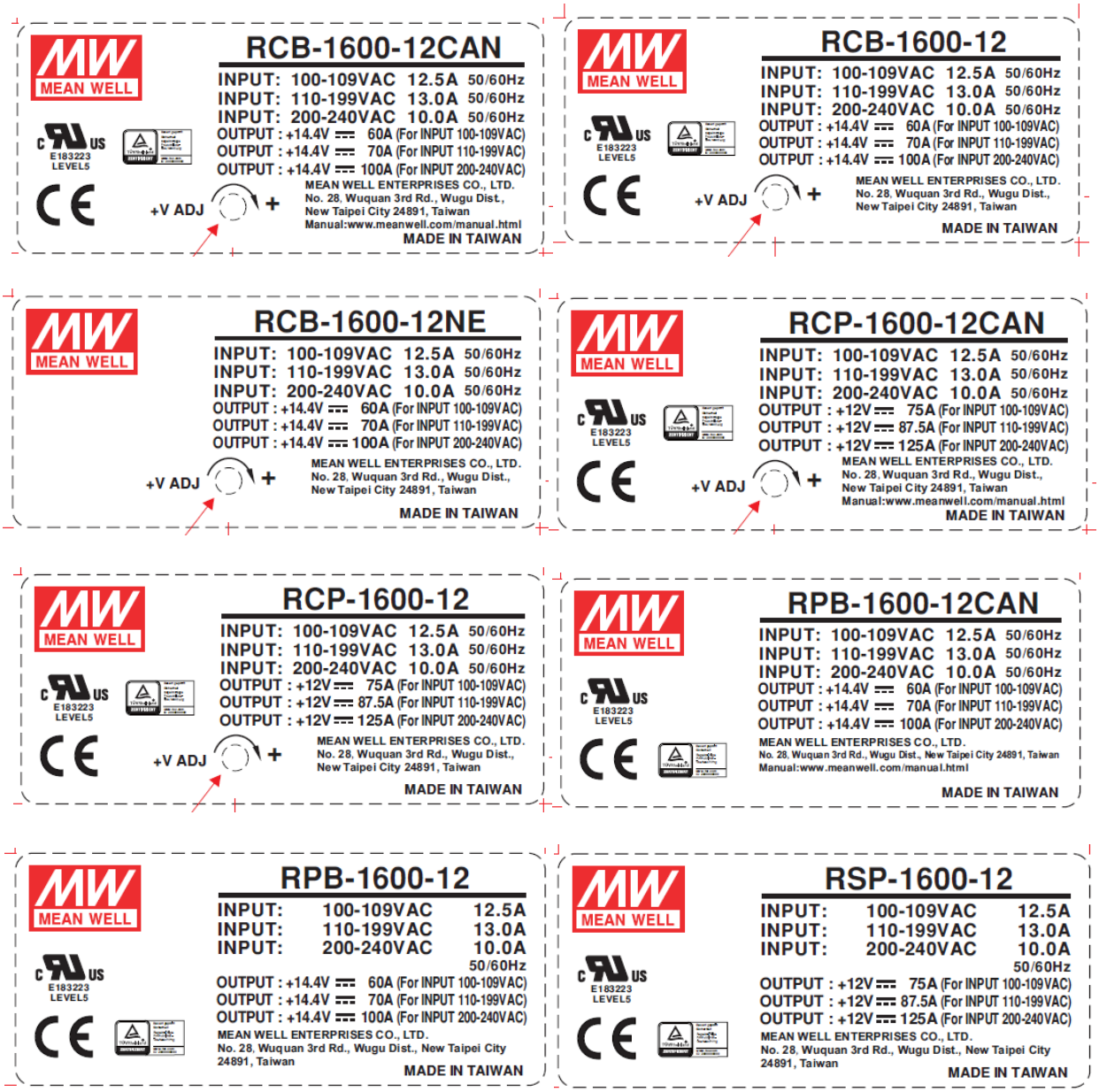
Countries outside the CB Scheme membership may also accept this report.

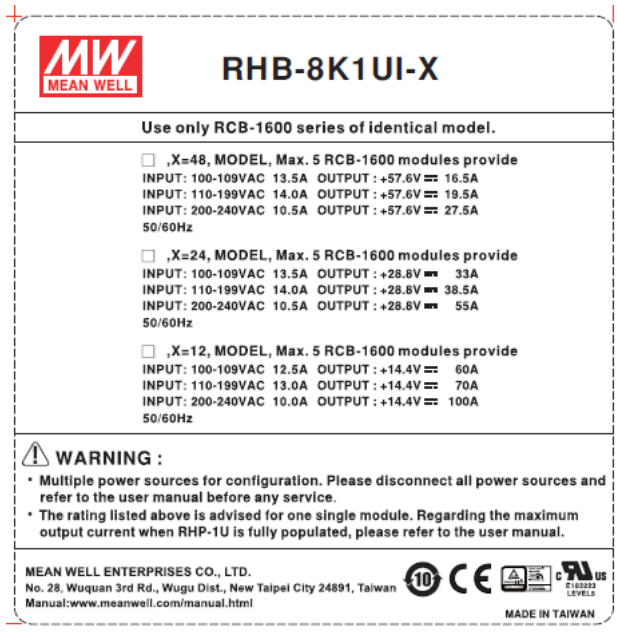
List of countries addressed: AR, AT, AU, BE, BG, BY, CA, CH, CN, CS, CZ, DE, DK, ES, EU, FI, FR, GB, GR, HU, IE, IL, IN, IT, JP, KR, MY, NL, NO, NZ, PL, PT, RO, SA, SE, SG, SI, SK, UA, US, ZA

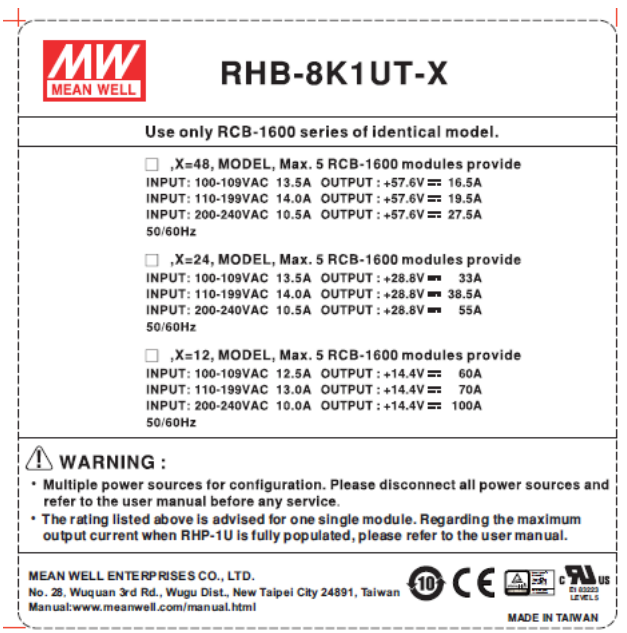
The product fulfills the requirements of: CSA C22.2 No. 60950-1-07 + A1:2011 + A2:2014, EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013, UL 60950-1 2nd Ed. Revised 2014-10-14

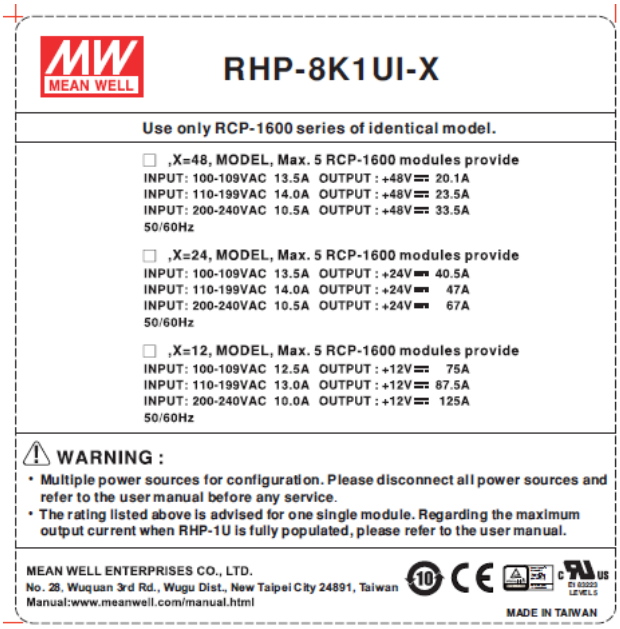
Copy of marking plate

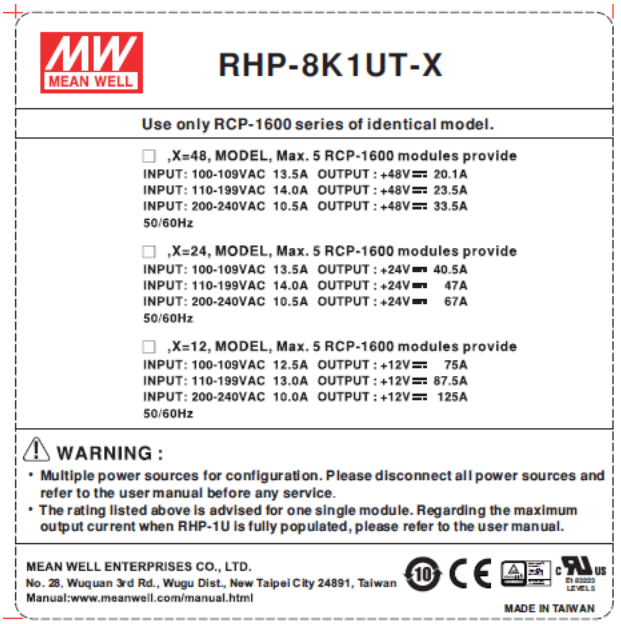
The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.




MEAN WELL
RHB-8K1UI-X
Use only RCB-1600 series of identical model.
☐ ,X=48, MODEL, Max. 5 RCB-1600 modules provide
INPUT: 100-109VAC 13.5A OUTPUT : +57.6V 16.5A
INPUT: 110-199VAC 14.0A OUTPUT : +57.6V 19.5A
INPUT: 200-240VAC 10.5A OUTPUT : +57.6V 27.5A
50/60Hz
☐ ,X=24, MODEL, Max. 5 RCB-1600 modules provide
INPUT: 100-109VAC 13.5A OUTPUT : +28.8V 33A
INPUT: 110-199VAC 14.0A OUTPUT : +28.8V 38.5A
INPUT: 200-240VAC 10.5A OUTPUT : +28.8V 55A
50/60Hz
☐ ,X=12, MODEL, Max. 5 RCB-1600 modules provide
INPUT: 100-109VAC 12.5A OUTPUT : +14.4V 60A
INPUT: 110-199VAC 13.0A OUTPUT : +14.4V 70A
INPUT: 200-240VAC 10.0A OUTPUT : +14.4V 100A
50/60Hz
WARNING :
• Multiple power sources for configuration. Please disconnect all power sources and refer to the user manual before any service.
• The rating listed above is advised for one single module. Regarding the maximum output current when RHP-1U is fully populated, please refer to the user manual.
MEAN WELL ENTERPRISES CO., LTD.
No. 28, Wuquan 3rd Rd., Wugu Dist., New Taipei City 24891, Taiwan
Manual:www.meanwell.com/manual.html
MADE IN TAIWAN


MEAN WELL
RHB-8K1UT-X
Use only RCB-1600 series of identical model.
☐ ,X=48, MODEL, Max. 5 RCB-1600 modules provide
INPUT: 100-109VAC 13.5A OUTPUT : +57.6V 16.5A
INPUT: 110-199VAC 14.0A OUTPUT : +57.6V 19.5A
INPUT: 200-240VAC 10.5A OUTPUT : +57.6V 27.5A
50/60Hz
☐ ,X=24, MODEL, Max. 5 RCB-1600 modules provide
INPUT: 100-109VAC 13.5A OUTPUT : +28.8V 33A
INPUT: 110-199VAC 14.0A OUTPUT : +28.8V 38.5A
INPUT: 200-240VAC 10.5A OUTPUT : +28.8V 55A
50/60Hz
☐ ,X=12, MODEL, Max. 5 RCB-1600 modules provide
INPUT: 100-109VAC 12.5A OUTPUT : +14.4V 60A
INPUT: 110-199VAC 13.0A OUTPUT : +14.4V 70A
INPUT: 200-240VAC 10.0A OUTPUT : +14.4V 100A
50/60Hz
WARNING :
• Multiple power sources for configuration. Please disconnect all power sources and refer to the user manual before any service.
• The rating listed above is advised for one single module. Regarding the maximum output current when RHP-1U is fully populated, please refer to the user manual.
MEAN WELL ENTERPRISES CO., LTD.
No. 28, Wuquan 3rd Rd., Wugu Dist., New Taipei City 24891, Taiwan
Manual:www.meanwell.com/manual.html
MADE IN TAIWAN


MEAN WELL
RHP-8K1UI-X
Use only RCP-1600 series of identical model.
☐ ,X=48, MODEL, Max. 5 RCP-1600 modules provide
INPUT: 100-109VAC 13.5A OUTPUT : +48V 20.1A
INPUT: 110-199VAC 14.0A OUTPUT : +48V 23.5A
INPUT: 200-240VAC 10.5A OUTPUT : +48V 33.5A
50/60Hz
☐ ,X=24, MODEL, Max. 5 RCP-1600 modules provide
INPUT: 100-109VAC 13.5A OUTPUT : +24V 40.5A
INPUT: 110-199VAC 14.0A OUTPUT : +24V 47A
INPUT: 200-240VAC 10.5A OUTPUT : +24V 67A
50/60Hz
☐ ,X=12, MODEL, Max. 5 RCP-1600 modules provide
INPUT: 100-109VAC 12.5A OUTPUT : +12V 75A
INPUT: 110-199VAC 13.0A OUTPUT : +12V 87.5A
INPUT: 200-240VAC 10.0A OUTPUT : +12V 125A
50/60Hz
WARNING :
• Multiple power sources for configuration. Please disconnect all power sources and refer to the user manual before any service.
• The rating listed above is advised for one single module. Regarding the maximum output current when RHP-1U is fully populated, please refer to the user manual.
MEAN WELL ENTERPRISES CO., LTD.
No. 28, Wuquan 3rd Rd., Wugu Dist., New Taipei City 24891, Taiwan
Manual:www.meanwell.com/manual.html
MADE IN TAIWAN


MEAN WELL
RHP-8K1UT-X
Use only RCP-1600 series of identical model.
☐ ,X=48, MODEL, Max. 5 RCP-1600 modules provide
INPUT: 100-109VAC 13.5A OUTPUT : +48V 20.1A
INPUT: 110-199VAC 14.0A OUTPUT : +48V 23.5A
INPUT: 200-240VAC 10.5A OUTPUT : +48V 33.5A
50/60Hz
☐ ,X=24, MODEL, Max. 5 RCP-1600 modules provide
INPUT: 100-109VAC 13.5A OUTPUT : +24V 40.5A
INPUT: 110-199VAC 14.0A OUTPUT : +24V 47A
INPUT: 200-240VAC 10.5A OUTPUT : +24V 67A
50/60Hz
☐ ,X=12, MODEL, Max. 5 RCP-1600 modules provide
INPUT: 100-109VAC 12.5A OUTPUT : +12V 75A
INPUT: 110-199VAC 13.0A OUTPUT : +12V 87.5A
INPUT: 200-240VAC 10.0A OUTPUT : +12V 125A
50/60Hz
WARNING :
• Multiple power sources for configuration. Please disconnect all power sources and refer to the user manual before any service.
• The rating listed above is advised for one single module. Regarding the maximum output current when RHP-1U is fully populated, please refer to the user manual.
MEAN WELL ENTERPRISES CO., LTD.
No. 28, Wuquan 3rd Rd., Wugu Dist., New Taipei City 24891, Taiwan
Manual:www.meanwell.com/manual.html
MADE IN TAIWAN

RHP-1UT-A

Use only RCP-1600 or RCB-1600 series of identical model.

RCP-1600 series	RCB-1600 series
▫ 48V MODEL, Max. 5 modules provide INPUT: 100-109VAC 13.5A OUTPUT : +48V⎓ 20.1A INPUT: 110-199VAC 14.0A OUTPUT : +48V⎓ 23.5A INPUT: 200-240VAC 10.5A OUTPUT : +48V⎓ 33.5A 50/60Hz	▫ 48V MODEL, Max. 5 modules provide INPUT: 100-109VAC 13.5A OUTPUT : +57.6V⎓ 16.5A INPUT: 110-199VAC 14.0A OUTPUT : +57.6V⎓ 19.5A INPUT: 200-240VAC 10.5A OUTPUT : +57.6V⎓ 27.5A 50/60Hz
▫ 24V MODEL, Max. 5 modules provide INPUT: 100-109VAC 13.5A OUTPUT : +24V⎓ 40.5A INPUT: 110-199VAC 14.0A OUTPUT : +24V⎓ 47A INPUT: 200-240VAC 10.5A OUTPUT : +24V⎓ 67A 50/60Hz	▫ 24V MODEL, Max. 5 modules provide INPUT: 100-109VAC 13.5A OUTPUT : +28.8V⎓ 33A INPUT: 110-199VAC 14.0A OUTPUT : +28.8V⎓ 38.5A INPUT: 200-240VAC 10.5A OUTPUT : +28.8V⎓ 55A 50/60Hz
▫ 12V MODEL, Max. 5 modules provide INPUT: 100-109VAC 12.5A OUTPUT : +12V⎓ 75A INPUT: 110-199VAC 13.0A OUTPUT : +12V⎓ 87.5A INPUT: 200-240VAC 10.0A OUTPUT : +12V⎓ 125A 50/60Hz	▫ 12V MODEL, Max. 5 modules provide INPUT: 100-109VAC 12.5A OUTPUT : +14.4V⎓ 60A INPUT: 110-199VAC 13.0A OUTPUT : +14.4V⎓ 70A INPUT: 200-240VAC 10.0A OUTPUT : +14.4V⎓ 100A 50/60Hz

⚠ WARNING :

- **Multiple power sources for configuration. Please disconnect all power sources and refer to the user manual before any service.**
- **The rating listed above is advised for one single module. Regarding the maximum output current when RHP-1U is fully populated, please refer to the user manual.**

MEAN WELL ENTERPRISES CO., LTD.
No. 28, Wuquan 3rd Rd., Wugu Dist., New Taipei City 24891, Taiwan
Manual:www.meanwell.com/manual.html

E183223 LEVEL5

MADE IN TAIWAN

RHP-1UI-A

Use only RCP-1600 or RCB-1600 series of identical model.

RCP-1600 series	RCB-1600 series
▫ 48V MODEL, Max. 5 modules provide INPUT: 100-109VAC 13.5A OUTPUT : +48V⎓ 20.1A INPUT: 110-199VAC 14.0A OUTPUT : +48V⎓ 23.5A INPUT: 200-240VAC 10.5A OUTPUT : +48V⎓ 33.5A 50/60Hz	▫ 48V MODEL, Max. 5 modules provide INPUT: 100-109VAC 13.5A OUTPUT : +57.6V⎓ 16.5A INPUT: 110-199VAC 14.0A OUTPUT : +57.6V⎓ 19.5A INPUT: 200-240VAC 10.5A OUTPUT : +57.6V⎓ 27.5A 50/60Hz
▫ 24V MODEL, Max. 5 modules provide INPUT: 100-109VAC 13.5A OUTPUT : +24V⎓ 40.5A INPUT: 110-199VAC 14.0A OUTPUT : +24V⎓ 47A INPUT: 200-240VAC 10.5A OUTPUT : +24V⎓ 67A 50/60Hz	▫ 24V MODEL, Max. 5 modules provide INPUT: 100-109VAC 13.5A OUTPUT : +28.8V⎓ 33A INPUT: 110-199VAC 14.0A OUTPUT : +28.8V⎓ 38.5A INPUT: 200-240VAC 10.5A OUTPUT : +28.8V⎓ 55A 50/60Hz
▫ 12V MODEL, Max. 5 modules provide INPUT: 100-109VAC 12.5A OUTPUT : +12V⎓ 75A INPUT: 110-199VAC 13.0A OUTPUT : +12V⎓ 87.5A INPUT: 200-240VAC 10.0A OUTPUT : +12V⎓ 125A 50/60Hz	▫ 12V MODEL, Max. 5 modules provide INPUT: 100-109VAC 12.5A OUTPUT : +14.4V⎓ 60A INPUT: 110-199VAC 13.0A OUTPUT : +14.4V⎓ 70A INPUT: 200-240VAC 10.0A OUTPUT : +14.4V⎓ 100A 50/60Hz

⚠ WARNING :

- **Multiple power sources for configuration. Please disconnect all power sources and refer to the user manual before any service.**
- **The rating listed above is advised for one single module. Regarding the maximum output current when RHP-1U is fully populated, please refer to the user manual.**

MEAN WELL ENTERPRISES CO., LTD.
No. 28, Wuquan 3rd Rd., Wugu Dist., New Taipei City 24891, Taiwan
Manual:www.meanwell.com/manual.html

E183223 LEVEL5

MADE IN TAIWAN

Test item particulars :	
Equipment mobility .....:	for building-in
Connection to the mains .....:	To be determined in the end product
Operating condition .....:	continuous
Access location .....:	restricted access location
Over voltage category (OVC) .....:	OVC II
Mains supply tolerance (%) or absolute mains supply values .....:	+10%, -10% (Manufacturer declared)
Tested for IT power systems .....:	Yes
IT testing, phase-phase voltage (V) .....:	230V(for Norway)
Class of equipment .....:	Class I (earthed)
Considered current rating of protective device as part of the building installation (A) .....:	(depend on external circuit breaker in the final system for each SPS module)
Pollution degree (PD) .....:	PD 2
IP protection class .....:	IP X0
Altitude during operation (m)	up to 2000 meters
Altitude of test laboratory (m) .....:	less than 2000 meters
Mass of equipment (kg) .....:	Power Module: max. 1.9kg Switching Mode Power Supply: max. 1.8kg Rack System: max. 12.56kg
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(s) of receipt of test item .....:	2016-01-04
Date(s) of Performance of tests .....:	2016-01-04 to 2016-07-21
General remarks:	
"(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a point is used as the decimal separator.	
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
When differences exist; they shall be identified in the General product information section.	
Name and address of Factory(ies):	1. MEAN WELL Enterprises Co., Ltd. No.28, Wuquan 3rd Rd., Wugu Dist., New Taipei City 248, Taiwan 2. MEAN WELL (GUANGZHOU) Electronics Co Ltd 2nd Floor, No. A Building, Yuean Ind. Park,

Dongpu Town, TianHe Dist., Guangzhou, P.R. China

3. SuZhou MEAN WELL Technology Co., Ltd.
No. 77, Jian-min Road, Dong-qiao, Pan-yang Ind. Park, Huang-dai Town, Xiang-cheng District, Suzhou, Jiangsu 215152, P.R. China

4. GUANGZHOU HUA WELL ELECTRONICS CO.,LTD.
No.11 Jingu South Road, Huadong Town, Huadu District, Guangzhou, China.

GENERAL PRODUCT INFORMATION:

Report Summary

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

Product Description

The product is a Rack System for use in Information Technology Equipment (ITE), which is composed of maximum five units of Power Module, a connector board and housed in metal chassis.
The Power Module and Switching Mode Power Supply is composed of an AC inlet or Terminal Block, two DC fan (inward or outward), a power supply board, and housed in metal chassis.

Model Differences

All Models are similar, except for model designation, (T1) transformer primary/secondary windings, input/output type, layout drawing and output ratings.

Power Module:
RCP-1600-xy, RCB-1600-xy, RCB-1600-zNE.
x can be 12, 24 or 48 denote output rating;
y can be blank or CAN denote communication protocol option;
z can be 12 or 24 denote output rating
The Models RCP-1600-xy are similar with RCB-1600-xy except for output rating and firmware.
The Models RCB-1600-zNE are similar with RCB-1600-xy except for model designation.
The Models RCB-1600-xy and PCB-1600-zNE are Battery chargers.

Switching Mode Power Supply:
RSP-1600-x_1, RPB-1600-xy.
x can be 12, 24 or 48 denote output rating;
x_1 can be 12, 24, 27, 36 or 48 denote output rating;
y can be blank or CAN denote communication protocol option
The Models RSP-1600-x_1 are similar with RPB-1600-xy except for output rating and firmware.
The Models RPB-1600-xy are Battery chargers.

Rack System:
RHP-1Uy-A, RHP-8K1Uy-x, RHB-8K1Uy-x.
x can be 12, 24 or 48 denote output rating;
y can be I or T, when y = I, the input used AC inlet; when y = T, input used Terminal block.

Additional Information

Licenses for critical components to be furnished by applicant upon request.

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.

Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 50°C
- The means of connection to the mains supply is: To be evaluated in end product,
- The product is intended for use on the following power systems: TN
- The equipment disconnect device is considered to be: To be evaluated in end product
- The following accessible locations (with circuit/schematic designation) are within a limited current circuit: Secondary side of bridging capacitor C31 and C80
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual

Engineering Conditions of Acceptability

When installed in an end-product, consideration must be given to the following:

- The end-product Electric Strength Test is to be based upon a maximum working voltage of: Primary-Earthed Dead Metal: 332 Vrms, 616 Vpk, Primary-SELV: 332 Vrms, 640 Vpk
- The following secondary output circuits are SELV: All outputs of all models.
- The following secondary output circuits are at hazardous energy levels: all models output
- The following output terminals were referenced to earth during performance testing: GND
- The maximum investigated branch circuit rating is: 20 A
- The investigated Pollution Degree is: 2
- Proper bonding to the end-product main protective earthing termination is: Required
- An investigation of the protective bonding terminals has: Been conducted
- The following end-product enclosures are required: Mechanical, Fire, Electrical
- The equipment is suitable for direct connection to: AC mains supply
- Testing for Auxiliary output load 12V, 0.8A and 5V, 0.3A for all models.

Abbreviations used in the report:

- normal condition	N.C.	- single fault condition	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)

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

1	**GENERAL**		Pass
1.5	Components		Pass
1.5.1	General		Pass
	Comply with IEC 60950-1 or relevant component standard	See Critical Component Table for details.	Pass
1.5.2	Evaluation and testing of components	Components certified to IEC harmonized standard and checked for correct application. Components, for which no relevant IEC-Standard exist, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 60950-1. Components not certified are used in accordance with their ratings and they comply with applicable parts of IEC 60950-1 and the relevant component Standard.	Pass
1.5.3	Thermal controls		N/A
1.5.4	Transformers	Transformer used is suitable for its intended application and complies with the relevant requirements of the standard. See Annex C for details.	Pass
1.5.5	Interconnecting cables	No interconnecting cables provided as part of the equipment.	N/A
1.5.6	Capacitors bridging insulation	Line-to-line capacitors are subclass X1 or X2. PRI-to-earth capacitors are subclass Y1 or Y2. Double Insulation bridged by a single capacitor complying with IEC 60384-14, subclass Y1. Accessible conductive parts separated from other parts by DOUBLE or REINFORCED INSULATION bridged by C31 and C80 comply with the requirements for LIMITED CURRENT CIRCUITS.	Pass
1.5.7	Resistors bridging insulation	See below.	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	Only bridging functional insulation.	Pass
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable	No resistors bridging double or reinforced insulation.	N/A
1.5.8	Components in equipment for IT power systems		N/A
1.5.9	Surge suppressors		Pass
1.5.9.1	General	See Critical Component Table for details.	Pass
1.5.9.2	Protection of VDRs	A fuse connected in the line phase and in series with the VDRs.	Pass
1.5.9.3	Bridging of functional insulation by a VDR	VDRs provided and connected in L-N.	Pass
1.5.9.4	Bridging of basic insulation by a VDR		N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N/A
1.6	**Power interface**		Pass
1.6.1	AC power distribution systems		Pass
1.6.2	Input current	Steady state input current of the unit did not exceed the rated current by more than 10% under Maximum Normal Load. See Table 1.6.2 for details.	Pass
1.6.3	Voltage limit of hand-held equipment		N/A
1.6.4	Neutral conductor	Neutral is insulated from earth with basic insulation.	Pass
1.7	**Marking and instructions**		Pass
1.7.1	Power rating and identification markings	Rating marking readily visible to operator.	Pass
1.7.1.1	Power rating mark		Pass
	Multiple mains supply connections..... :	Electrical ratings are marked on each individual Redundant Power Supply.	Pass
	Rated voltage(s) or voltage range(s) (V)..... :	Refer to the Rating information at the beginning of this Test Report.	Pass
	Symbol for nature of supply, for d.c. only..... :		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Rated frequency or rated frequency range (Hz) ... :	Refer to the Rating information at the beginning of this Test Report.	Pass
	Rated current (mA or A) ..... :	Refer to the Rating information at the beginning of this Test Report.	Pass
1.7.1.2	Identification markings		Pass
	Manufacturer's name or trad-emark or identification mark..... :		Pass
	Model identification or type reference ..... :	Refer to the Model information at the beginning of this Test Report.	Pass
	Symbol for Class II equipment only..... :		N/A
	Other markings and symbols..... :	Additional symbols may be provided when submitted for National Approval.	Pass
1.7.1.3	Use of graphical symbols		N/A
1.7.2	Safety instructions and marking	Installation instruction with directions to maintain the requirements of IEC60950-1 during the installation into the end product. Included are directions regarding the maximum ambient temperature and electrical rating of unit. Safety instructions in English. Other languages will be provided when submitted for National Approval.	Pass
1.7.2.1	General		Pass
1.7.2.2	Disconnect devices	For building-in. To be determined in the end product.	N/A
1.7.2.3	Overcurrent protective device		N/A
1.7.2.4	IT Power distribution systems		N/A
1.7.2.5	Operator access with a tool	For building-in. To be determined in the end product.	N/A
1.7.2.6	Ozone		N/A
1.7.3	Short duty cycles		N/A
1.7.4	Supply voltage adjustment ..... :	Equipment is auto-ranging.	N/A
	Method and means of adjustment; reference to installation instructions ..... :		N/A
1.7.5	Power outlets on the equipment..... :		N/A
1.7.6	Fuse identification (marking, special fusing	Fuse (FS1) marking provided	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

	characteristics, cross-reference) ..... :	as follows: T20A/250V on PWB (Main Board).	
1.7.7	Wiring terminals	For building-in. Additional investigation to be determined in the end product.	Pass
1.7.7.1	Protective earthing and bonding terminals..... :	The earth terminal is marked with the standard earth symbol (60417-2-IEC-5017) near the terminal.	Pass
1.7.7.2	Terminals for a.c. mains supply conductors	Terminals intended for connection of the primary power neutral conductor indicated by the capital letter N.	Pass
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators		Pass
1.7.8.1	Identification, location and marking..... :	The function of controls affecting safety is obvious regardless of language.	Pass
1.7.8.2	Colours ..... :	Only functional indicators use color.	Pass
1.7.8.3	Symbols according to IEC 60417..... :		N/A
1.7.8.4	Markings using figures ..... :		N/A
1.7.9	Isolation of multiple power sources..... :		N/A
1.7.10	Thermostats and other regulating devices..... :	No thermostats or similar regulating devices.	N/A
1.7.11	Durability	All markings provided on UL Recognized Component labels or are laser marked or are permanently silk-screened on the unit. Labels suitable for surface they are applied upon and meet the durability test. Durability test conducted with compliant results.	Pass
1.7.12	Removable parts	No marking is located on (a) removable part(s).	Pass
1.7.13	Replaceable batteries..... :	There are no batteries in the equipment.	N/A
	Language(s) ..... :		-
1.7.14	Equipment for restricted access locations..... :		N/A

2	**PROTECTION FROM HAZARDS**	Pass
2.1	Protection from electric shock and energy hazards	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

2.1.1	Protection in operator access areas	Unit intended for building-in. fan side evaluated, other sides to be evaluated in end product.	Pass
2.1.1.1	Access to energized parts	Unit intended for building-in and to be determined in end product.	N/A
	Test by inspection ..... :	No operator access to energized parts.	Pass
	Test with test finger (Figure 2A) ..... :	The test finger was unable to contact bare hazardous parts, basic insulation, or ELV circuits.	Pass
	Test with test pin (Figure 2B) ..... :	The test pin was unable to contact bare hazardous parts.	Pass
	Test with test probe (Figure 2C)..... :	No TNV present.	N/A
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring		N/A
	Working voltage (Vpeak or Vrms); minimum distance through insulation (mm) ..... :		-
2.1.1.4	Access to hazardous voltage circuit wiring		N/A
2.1.1.5	Energy hazards ..... :	The output of the power supply presents an energy hazard. No operator access permitted. For building-in, accessibility to be determined in the end product.	N/A
2.1.1.6	Manual controls	No shafts or knobs, etc. at ELV, TNV or hazardous voltage provided.	N/A
2.1.1.7	Discharge of capacitors in equipment	The capacitance of the input circuit is > 0.1 uF, measurements are required.	Pass
	Measured voltage (V); time-constant (s) ..... :	See enclosure ID 7-01 Additional Test Table.	-
2.1.1.8	Energy hazards - d.c. mains supply		N/A
	a) Capacitor connected to the d.c. mains supply .. :		N/A
	b) Internal battery connected to the mains supply :		N/A
2.1.1.9	Audio amplifiers ..... :		N/A
2.1.2	Protection in service access areas		N/A
2.1.3	Protection in restricted access locations		N/A

2.2	**SELV circuits**		Pass
2.2.1	General requirements	SELV levels are maintained	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		after single fault condition.	
2.2.2	Voltages under normal conditions (V) ..... :	All accessible voltages are less than 42.4 Vpk or 60 Vdc and are classified as SELV.	Pass
2.2.3	Voltages under fault conditions (V) ..... :	Under fault conditions, voltages never exceed 71 Vpk and 120 Vdc and do not exceed 42.2 Vpk or 60 Vdc for more than 0.2 second.	Pass
2.2.4	Connection of SELV circuits to other circuits ..... :	SELV circuits are only connected to other secondary circuits. SELV circuit and all interconnected circuits separated from primary by double or reinforced insulation. The SELV circuit does not exceed the SELV limits under normal and fault conditions.	N/A
2.3	**TNV circuits**		N/A
2.4	**Limited current circuits**		Pass
2.4.1	General requirements	Considered for bridging capacitor.	Pass
2.4.2	Limit values	See enclosure ID 7-01 Additional Test Table.	Pass
	Frequency (Hz)..... :	See enclosure ID 7-01 Additional Test Table.	-
	Measured current (mA) ..... :	See enclosure ID 7-01 Additional Test Table.	-
	Measured voltage (V)..... :	See enclosure ID 7-01 Additional Test Table.	-
	Measured circuit capacitance (nF or uF)..... :	See enclosure ID 7-01 Additional Test Table.	-
2.4.3	Connection of limited current circuits to other circuits		N/A
2.5	**Limited power sources**		N/A
2.6	**Provisions for earthing and bonding**		Pass
2.6.1	Protective earthing	Protective bonding provided as one level of protection against electric shock.	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

2.6.2	Functional earthing		N/A
	Use of symbol for functional earthing .....:		N/A
2.6.3	Protective earthing and protective bonding conductors		Pass
2.6.3.1	General		Pass
2.6.3.2	Size of protective earthing conductors	For building-in. To be determined in the end product.	N/A
	Rated current (A), cross-sectional area (mm²), AWG ..... :		-
2.6.3.3	Size of protective bonding conductors	Protective bonding conductor evaluated based on 2.6.3.4.	Pass
	Rated current (A), cross-sectional area (mm²), AWG ..... :	--	-
	Protective current rating (A), cross-sectional area (mm²), AWG ..... :	--	-
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (ohm), voltage drop (V), test current (A), duration (min) ..... :	See enclosure ID 7-01 Additional Test Table.	Pass
2.6.3.5	Colour of insulation..... :		Pass
2.6.4	Terminals	Earthing used only for parts not likely to carry fault currents intended to operate overcurrent protective devices. Protective bonding conductor evaluated based on 2.6.3.4.	Pass
2.6.4.1	General		Pass
2.6.4.2	Protective earthing and bonding terminals		Pass
	Rated current (A), type, nominal thread diameter (mm) ..... :	See 2.6.3.4.	-
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		Pass
2.6.5	Integrity of protective earthing	For building-in. To be determined in the end product.	Pass
2.6.5.1	Interconnection of equipment	For building-in. To be evaluated in end-product.	Pass
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No switches or fuses in earthing/bonding conductors.	Pass
2.6.5.3	Disconnection of protective earth		N/A
2.6.5.4	Parts that can be removed by an operator		N/A
2.6.5.5	Parts removed during servicing		N/A
2.6.5.6	Corrosion resistance		Pass
2.6.5.7	Screws for protective bonding		Pass
2.6.5.8	Reliance on telecommunication network or cable		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	distribution system		
2.7	**Overcurrent and earth fault protection in primary circuits**		Pass
2.7.1	Basic requirements	Supplementary fusing located in the line conductor provides protection against faults covered in Sub clause 5.3. Protection from earth faults not covered in Sub clause 5.3 is provided as part of the building installation.	Pass
	Instructions when protection relies on building installation		N/A
2.7.2	Faults not covered in 5.3.7	Protection from faults not covered in Sub clause 5.3 is provided by installation.	Pass
2.7.3	Short-circuit backup protection	Building installation is considered as providing short-circuit backup protection.	N/A
2.7.4	Number and location of protective devices ..... :	One protective device in the line phase.	Pass
2.7.5	Protection by several devices	Only one protective device is provided.	N/A
2.7.6	Warning to service personnel..... :		N/A
2.8	**Safety interlocks**		N/A
2.9	**Electrical insulation**		Pass
2.9.1	Properties of insulating materials		Pass
2.9.2	Humidity conditioning	Tested for 120 hrs. (For unit and all transformer sources).	Pass
	Relative humidity (%), temperature (°C) ..... :	93%, 40°C.	-
2.9.3	Grade of insulation	Functional, Basic and reinforced insulation	Pass
2.9.4	Separation from hazardous voltages		Pass
	Method(s) used ..... :	Method 1	-
2.10	**Clearances, creepage distances and distances through insulation**		Pass
2.10.1	General	Pollution degree 2 applicable.	Pass
2.10.1.1	Frequency..... :	The insulation requirements given in 2.10 are for	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

		frequencies up to 30 kHz. It is permitted to use the same requirements for insulation operating at frequencies over 30 kHz until additional data is available.	
2.10.1.2	Pollution degrees..... :	2	Pass
2.10.1.3	Reduced values for functional insulation	See Sub clause 5.3.4 for details.	Pass
2.10.1.4	Intervening unconnected conductive parts		Pass
2.10.1.5	Insulation with varying dimensions		N/A
2.10.1.6	Special separation requirements		N/A
2.10.1.7	Insulation in circuits generating starting pulses		N/A
2.10.2	Determination of working voltage		Pass
2.10.2.1	General		Pass
2.10.2.2	RMS working voltage		Pass
2.10.2.3	Peak working voltage		Pass
2.10.3	Clearances	(see appended table 2.10.3 and 2.10.4).	Pass
2.10.3.1	General		Pass
2.10.3.2	Mains transient voltages	Overvoltage Category II; Mains transient voltage is 2500 V peak.	Pass
	a) AC mains supply ..... :	Less than 300 Vrms.	Pass
	b) Earthed d.c. mains supplies..... :		N/A
	c) Unearthed d.c. mains supplies..... :		N/A
	d) Battery operation..... :		N/A
2.10.3.3	Clearances in primary circuits	See Table 2.10.3 and 2.10.4 for details.	Pass
2.10.3.4	Clearances in secondary circuits	See Sub clause 5.3.4 for details.	Pass
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply ..... :	Secondary circuit transient considered to be 1500V (one step lower than mains value)	Pass
2.10.3.7	Transients from d.c. mains supply ..... :		N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems ..... :		N/A
2.10.3.9	Measurement of transient voltage levels		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply ..... :		N/A
	For a d.c. mains supply ..... :		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

	b) Transients from a telecommunication network		N/A
2.10.4	Creepage distances	See Table 2.10.3 and 2.10.4 for details. For secondary circuits, see sub-clause 5.3.4.	Pass
2.10.4.1	General		Pass
2.10.4.2	Material group and comparative tracking index		Pass
	CTI tests ..... :	Material group IIIb; 100 <= CTI < 175.	-
2.10.4.3	Minimum creepage distances	(see appended table 2.10.3 and 2.10.4)	Pass
2.10.5	Solid insulation	Solid or laminated insulating materials having adequate thickness are provided.	Pass
2.10.5.1	General		Pass
2.10.5.2	Distances through insulation	See Critical Component Table and Table 2.10.5 for details.	Pass
2.10.5.3	Insulating compound as solid insulation	Certified optical insulators used. See Table 1.5.1 for details.	Pass
2.10.5.4	Semiconductor devices	Certified optical insulators used. See Critical Component Table for details.	Pass
2.10.5.5	Cemented joints	Certified optical insulators used. See Table 1.5.1 for details.	Pass
2.10.5.6	Thin sheet material - General	See Critical Component Table for details.	Pass
2.10.5.7	Separable thin sheet material	See Critical components for details.	Pass
	Number of layers (pcs)..... :	(see appended table 5.2)	-
2.10.5.8	Non-separable thin sheet material	See appended table 5.2	Pass
2.10.5.9	Thin sheet material - standard test procedure	See Sub clause 2.10.5.10 for details.	N/A
	Electric strength test..... :		-
2.10.5.10	Thin sheet material - alternative test procedure		Pass
	Electric strength test..... :	(see appended table 5.2)	-
2.10.5.11	Insulation in wound components	See Sub clause 2.10.5.12 and 2.10.5.14.	Pass
2.10.5.12	Wire in wound components		Pass
	Working voltage..... :	(see appended table 2.10.3 and 2.10.4)	Pass
	a) Basic insulation not under stress ..... :		N/A
	b) Basic, supplementary, reinforced insulation ..... :	Supplementary or Reinforced.	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

	c) Compliance with Annex U ..... :	The primary winding used triple insulation wire. (see appended table 1.5.1 and Annex U)	Pass
	Two wires in contact inside wound component; angle between 45° and 90° ..... :	Physical separation in the form of insulating sheet material to relieve mechanical stress at the crossover point.	Pass
2.10.5.13	Wire with solvent-based enamel in wound components		N/A
	Electric strength test..... :		-
	Routine test		N/A
2.10.5.14	Additional insulation in wound components		Pass
	Working voltage..... :	See appended table 2.10.2 for details.	Pass
	- Basic insulation not under stress ..... :	See appended Table C.2 for details.	Pass
	- Supplementary, reinforced insulation..... :		N/A
2.10.6	Construction of printed boards		Pass
2.10.6.1	Uncoated printed boards		Pass
2.10.6.2	Coated printed boards		N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		Pass
2.10.6.4	Insulation between conductors on different layers of a printed board		N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs)..... :		N/A
2.10.7	Component external terminations		Pass
2.10.8	Tests on coated printed boards and coated components		N/A
2.10.8.1	Sample preparation and preliminary inspection		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		N/A
2.10.8.4	Abrasion resistance test		N/A
2.10.9	Thermal cycling	Certified optical insulators used. See Table 1.5.1 for details.	Pass
2.10.10	Test for Pollution Degree 1 environment and insulating compound	Certified optical insulators used. See Table 1.5.1 for details.	Pass
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts	Certified optical insulators	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		used. See Table 1.5.1 for details.	
3	**WIRING, CONNECTIONS AND SUPPLY**		Pass
3.1	General		Pass
3.1.1	Current rating and overcurrent protection	All internal wiring used in the distribution of primary power protected against overcurrent and short circuit by suitably rated protective devices.	Pass
3.1.2	Protection against mechanical damage		N/A
3.1.3	Securing of internal wiring		N/A
3.1.4	Insulation of conductors	The insulation of the individual conductors is suitable for the application and the working voltage.	Pass
3.1.5	Beads and ceramic insulators	The equipment does not have any beads or similar insulators	N/A
3.1.6	Screws for electrical contact pressure	The equipment does not have any screw-type connections.	N/A
3.1.7	Insulating materials in electrical connections	Unit does not have any electrical connections that rely on insulating material for adequate contact pressure.	N/A
3.1.8	Self-tapping and spaced thread screws	Thread-cutting or space thread screws are not used for electrical connections. Machine screws only.	N/A
3.1.9	Termination of conductors		Pass
	10 N pull test	Compliance checked by inspection.	Pass
3.1.10	Sleeving on wiring	The sleeving used as supplementary insulation on internal wiring is retained by positive means.	Pass
3.2	**Connection to mains supply**		Pass
3.2.1	Means of connection	Rack System is provided with an appliance inlet.	Pass
3.2.1.1	Connection to an a.c. mains supply	Connection to AC mains with appliance inlet used.	Pass
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections	Separate means of connection are provided for different	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		circuits.	
3.2.3	Permanently connected equipment		N/A
	Number of conductors, diameter of cable and conduits (mm).....:		-
3.2.4	Appliance inlets	The appliance coupler complies with IEC/EN 60320-1. The connector of the power cord can be inserted without difficulties and does not support the unit.	Pass
3.2.5	Power supply cords	No power supply cord provided. Unit intended for building-in. To be evaluated in end product.	N/A
3.2.5.1	AC power supply cords	Same as above.	N/A
	Type .....:		-
	Rated current (A), cross-sectional area (mm²), AWG.....:		-
3.2.5.2	DC power supply cords	Same as above.	N/A
3.2.6	Cord anchorages and strain relief		N/A
	Mass of equipment (kg), pull (N).....:		-
	Longitudinal displacement (mm) .....:		-
3.2.7	Protection against mechanical damage	Unit does not use a non-detachable power supply cord.	N/A
3.2.8	Cord guards		N/A
	Diameter of minor dimension D (mm); test mass (g) .....:		-
	Radius of curvature of cord (mm) .....:		-
3.2.9	Supply wiring space		N/A
3.3	**Wiring terminals for connection of external conductors**		N/A
3.4	**Disconnection from the mains supply**		Pass
3.4.1	General requirement		Pass
3.4.2	Disconnect devices	Appliance inlet used.	Pass
3.4.3	Permanently connected equipment	Not permanently connected equipment.	N/A
3.4.4	Parts which remain energized	No energized accessible parts on the supply side of the disconnect device.	Pass
3.4.5	Switches in flexible cords		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.4.6	Number of poles - single-phase and d.c. equipment	Disconnect device disconnects all poles simultaneously.	Pass
3.4.7	Number of poles - three-phase equipment	Unit is single-phase.	N/A
3.4.8	Switches as disconnect devices		N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment	Interconnection to other devices by secondary connector only.	N/A
3.4.11	Multiple power sources	Each disconnect device is marked to indicate the proper method for total power disconnection and all disconnects are grouped together.	Pass
3.5	**Interconnection of equipment**		Pass
3.5.1	General requirements	SELV output circuits of unit to be connected to other SELV circuits only.	Pass
3.5.2	Types of interconnection circuits..... :	Interconnection circuits are SELV circuits.	Pass
3.5.3	ELV circuits as interconnection circuits		N/A
3.5.4	Data ports for additional equipment		N/A
4	**PHYSICAL REQUIREMENTS**		Pass
4.1	Stability		N/A
	Angle of 10°	For building-in. To be determined in the end product.	N/A
	Test force (N) ..... :		N/A
4.2	**Mechanical strength**		Pass
4.2.1	General	For building-in. To be determined in the end product.	N/A
	Rack-mounted equipment		N/A
4.2.2	Steady force test, 10 N	Steady Force Test (10 N) applied to components which continue to comply with the requirements of Sub clause 2.10.	Pass
4.2.3	Steady force test, 30 N	See enclosure ID 7-01 Additional Test Table.	Pass
4.2.4	Steady force test, 250 N	See enclosure ID 7-01	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		Additional Test Table.	
4.2.5	Impact test	See below	Pass
	Fall test	See enclosure ID 7-01 Additional Test Table.	Pass
	Swing test		N/A
4.2.6	Drop test; height (mm)..... :		N/A
4.2.7	Stress relief test		N/A
4.2.8	Cathode ray tubes		N/A
	Picture tube separately certified..... :		N/A
4.2.9	High pressure lamps		N/A
4.2.10	Wall or ceiling mounted equipment; force (N)..... :		N/A
4.3	**Design and construction**		Pass
4.3.1	Edges and corners	All edges and corners judged to be sufficiently well rounded so as not to constitute a hazard.	Pass
4.3.2	Handles and manual controls; force (N)..... :	See enclosure ID 7-01 Additional Test Table.	Pass
4.3.3	Adjustable controls		N/A
4.3.4	Securing of parts	No loosening of parts impairing creepage distances or clearances over supplementary or reinforced insulation is likely to occur.	Pass
4.3.5	Connection by plugs and sockets	Unit intended for building-in. To be evaluated in end product.	N/A
4.3.6	Direct plug-in equipment	Not direct plug-in equipment.	N/A
	Torque ..... :		N/A
	Compliance with the relevant mains plug standard:		N/A
4.3.7	Heating elements in earthed equipment		N/A
4.3.8	Batteries	The equipment does not have any batteries.	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
4.3.9	Oil and grease		N/A
4.3.10	Dust, powders, liquids and gases		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

4.3.11	Containers for liquids or gases		N/A
4.3.12	Flammable liquids ..... :		N/A
	Quantity of liquid (l) ..... :		N/A
	Flash point (°C) ..... :		N/A
4.3.13	Radiation		Pass
4.3.13.1	General	LED indicator only.	Pass
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg)..... :		-
	Measured high-voltage (kV) ..... :		-
	Measured focus voltage (kV) ..... :		-
	CRT markings ..... :		-
4.3.13.3	Effect of ultraviolet (UV) radiation on materials		N/A
	Part, property, retention after test, flammability classification ..... :		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation ..... :		N/A
4.3.13.5	Lasers (including laser diodes) and LEDs	See below 4.3.13.5.2 for details.	Pass
4.3.13.5.1	Lasers (including laser diodes)		N/A
	Laser class ..... :		-
4.3.13.5.2	Light emitting diodes (LEDs)	This product contains only visible indicator LEDs (Class 1) operating in the range of 400 - 710 nm wavelength. No IEC60825-1 evaluation was deemed necessary. Additional review may be required at the discretion of the accepting NCB.	Pass
4.3.13.6	Other types..... :		N/A

4.4	**Protection against hazardous moving parts**		Pass
4.4.1	General	Fan mounted internal to equipment	Pass
4.4.2	Protection in operator access areas..... :	An adequate fan guard is provided to prevent the operator from having access to the internal fan.	Pass
	Household and home/office document/media shredders		N/A
4.4.3	Protection in restricted access locations..... :		N/A
4.4.4	Protection in service access areas	See 4.4.5.3	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.4.5	Protection against moving fan blades		Pass
4.4.5.1	General	See 4.4.5.3	Pass
	Not considered to cause pain or injury. a)..... :		N/A
	Is considered to cause pain, not injury. b)..... :		N/A
	Considered to cause injury. c)..... :		N/A
4.4.5.2	Protection for users	An adequate fan guard is provided to prevent the operator from having access to the internal fan.	Pass
	Use of symbol or warning..... :		N/A
4.4.5.3	Protection for service persons	Due to the location of the internal fan, inadvertent contact is considered unlikely.	Pass
	Use of symbol or warning..... :		N/A
4.5	**Thermal requirements**		Pass
4.5.1	General		Pass
4.5.2	Temperature tests	See Table 4.5 for details.	Pass
	Normal load condition per Annex L ..... :	Operated in the most unfavorable way of operation given in the operating instructions until steady conditions established.	-
4.5.3	Temperature limits for materials	See Table 4.5 for details.	Pass
4.5.4	Touch temperature limits	For equipment intended for installation in a RESTRICTED ACCESS LOCATION, the temperature limits in Table 4C apply, except that for external metal parts which are evidently designed as heat sinks or which have a visible warning, a temperature of 90 °C is permitted. See Table 4.5 for details.	Pass
4.5.5	Resistance to abnormal heat ..... :	See Table 4.5.5 for details.	Pass
4.6	**Openings in enclosures**		Pass
4.6.1	Top and side openings	fan side evaluated for Fire, Electrical and Mechanical. Foreign objects entering the enclosure will not contact bare parts at hazardous voltage or energy. (No hazardous parts	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

		within 5 projection)	
	Dimensions (mm) .....:	See Critical Component Table/Enclosure Drawings for opening dimension.	-
4.6.2	Bottoms of fire enclosures	No openings	-
	Construction of the bottom, dimensions (mm) .....:		-
4.6.3	Doors or covers in fire enclosures		N/A
4.6.4	Openings in transportable equipment		N/A
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm) .....:		-
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metallized parts		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C), time (weeks).....:		-

4.7	**Resistance to fire**		Pass
4.7.1	Reducing the risk of ignition and spread of flame	Materials are used with required flammability classes	N/A
	Method 1, selection and application of components wiring and materials		Pass
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure		Pass
4.7.2.1	Parts requiring a fire enclosure	A fire enclosure covers all parts.	Pass
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials		Pass
4.7.3.1	General	All components are mounted on minimum V-1 rated PWB. See Critical Components List for details.	Pass
4.7.3.2	Materials for fire enclosures	The fire enclosure is metal.	Pass
4.7.3.3	Materials for components and other parts outside fire enclosures		N/A
4.7.3.4	Materials for components and other parts inside fire enclosures	Materials used, except small parts of components, are minimum V-2, HF-2 or better.	Pass
4.7.3.5	Materials for air filter assemblies		N/A
4.7.3.6	Materials used in high-voltage components		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

5	**ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS**		Pass
5.1	Touch current and protective conductor current		Pass
5.1.1	General	See Sub clauses 5.1.2 to 5.1.6.	Pass
5.1.2	Configuration of equipment under test (EUT)	Unit has only one mains connection.	Pass
5.1.2.1	Single connection to an a.c. mains supply		Pass
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit	Touch Current Test conducted based on TN systems using the test circuit in Fig. 5A.	Pass
5.1.4	Application of measuring instrument	Using measuring instrument in Annex D1.	Pass
5.1.5	Test procedure		Pass
5.1.6	Test measurements	Test for Power Module and Switching Mode Power Supply. The Rack System to be determined in the end product	Pass
	Supply voltage (V) ..... :	264Vac, 60Hz	-
	Measured touch current (mA) ..... :	See Table 5.1 for details	-
	Max. allowed touch current (mA) ..... :	0.25 mA (for Output)	-
	Measured protective conductor current (mA)..... :	See Table 5.1 for details	-
	Max. allowed protective conductor current (mA)... :	3.5 mA (for Earth)	-
5.1.7	Equipment with touch current exceeding 3,5 mA		N/A
5.1.7.1	General..... :		N/A
5.1.7.2	Simultaneous multiple connections to the supply		N/A
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks		N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		N/A
	Supply voltage (V) ..... :		-
	Measured touch current (mA) ..... :		-
	Max. allowed touch current (mA) ..... :		-
5.1.8.2	Summation of touch currents from telecommunication networks		N/A
	a) EUT with earthed telecommunication ports ..... :		N/A
	b) EUT whose telecommunication ports have no		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	reference to protective earth		
5.2	**Electric strength**		Pass
5.2.1	General		Pass
5.2.2	Test procedure	See Table 5.2 for details.	Pass
5.3	**Abnormal operating and fault conditions**		Pass
5.3.1	Protection against overload and abnormal operation	See Table 5.3 for details.	Pass
5.3.2	Motors	Certified sources of DC fan used. See Critical Component Table for details.	Pass
5.3.3	Transformers	Transformers are constructed in accordance with the applicable Sub clause and Annex C.	Pass
5.3.4	Functional insulation..... :	Functional insulation complies with the requirement (c). Functional insulation between the phases before the fuse complies with method a).	Pass
5.3.5	Electromechanical components		N/A
5.3.6	Audio amplifiers in ITE ..... :		N/A
5.3.7	Simulation of faults	See Table 5.3 for details.	Pass
5.3.8	Unattended equipment		N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	See below.	Pass
5.3.9.1	During the tests	No fire, emission of molten metal or deformation was noted during the tests.	Pass
5.3.9.2	After the tests	Electric Strength tests performed after abnormal and fault tests.	Pass
6	**CONNECTION TO TELECOMMUNICATION NETWORKS**		N/A
7	**CONNECTION TO CABLE DISTRIBUTION SYSTEMS**		N/A
A	**ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE**		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

B	**ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)**	N/A

C	**ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)**		Pass
	Position..... :	Transformers (T1, T301, T600)	-
	Manufacturer ..... :	See Critical Component Table for details.	-
	Type..... :	See Critical Component Table for details.	-
	Rated values ..... :	See Critical Component Table for details.	-
	Method of protection..... :	Inherent circuit protection.	-
C.1	Overload test	See Table 5.3 for details.	Pass
C.2	Insulation	See Table C.2 for details	Pass
	Protection from displacement of windings..... :	See Table C.2 for details	Pass

D	**ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)**		Pass
D.1	Measuring instrument		Pass
D.2	Alternative measuring instrument		N/A

E	**ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)**	N/A

F	**ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)**	Pass

G	**ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES**	N/A

H	**ANNEX H, IONIZING RADIATION (see 4.3.13)**	N/A

J	**ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)**		Pass
	Metal(s) used..... :	Zn on Steel	-

K	**ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)**	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

L	**ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)**		Pass
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A
L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A
L.7	Other business equipment	Max. normal load is continuous operation at rated output load.	Pass

M	**ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)**	N/A

N	**ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)**	N/A

P	**ANNEX P, NORMATIVE REFERENCES**	Pass

Q	**ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)**		Pass
	- Preferred climatic categories .....:	Certified VDRs used, see Table 1.5.1 Critical Component Table for details.	Pass
	- Maximum continuous voltage .....:	Component rating is at least 125% of the rated voltage of the equipment.	Pass
	- Combination pulse current .....:	Comply with the requirement of combination pulses of 6 kV / 3 kA, having a pulse shape of 1,2/50 us for voltage and 8/20 us for current.	Pass
	Body of the VDR Test according to IEC60695-11-5.....:		N/A
	Body of the VDR. Flammability class of material (min V-1).....:	See Table 1.5.1 Critical Component Table for details.	Pass

R	**ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES**	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
S	**ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)**		N/A
T	**ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)**		N/A
U	**ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)**		Pass
	..... :	Certified triple insulated wire used, See Table: Critical Components.	-
V	**ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)**		Pass
V.1	Introduction		Pass
V.2	TN power distribution systems		Pass
W	**ANNEX W, SUMMATION OF TOUCH CURRENTS**		N/A
X	**ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)**		N/A
Y	**ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)**		N/A
Z	**ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)**		Pass
AA	**ANNEX AA, MANDREL TEST (see 2.10.5.8)**		N/A
BB	**ANNEX BB, CHANGES IN THE SECOND EDITION**		Pass
CC	**ANNEX CC, EVALUATION OF INTEGRATED CIRCUIT (IC) CURRENT LIMITERS**		N/A
DD	**ANNEX DD, REQUIREMENTS FOR THE MOUNTING MEANS OF RACK-MOUNTED EQUIPMENT**		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

EE	**ANNEX EE, HOUSEHOLD AND HOME/OFFICE DOCUMENT/MEDIA SHREDDERS**	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: list of critical components				Pass
object/part or Description	manufacturer/ trademark	type/model	technical data	standard (Edition or year)	mark(s) of conformity[1])
Following for Rack System, model: RHP-1Uy-A, RHP-8K1Uy-x, RHB-8K1Uy-x (x can be 12, 24 or 48; y can be I or T)					
Power Module (Five provided)	MEAN WELL Enterprises Co Ltd	RCP-1600-xy, RCB-1600-xy, RCB-1600-zNE (x can be 12, 24 or 48; y can be blank or CAN; z can be 12 or 24)	See last two pages	--	--
Appliance Inlet (for models RHP-1Uy-A, RHP-8K1Uy-x, RHB-8K1Uy-x (y=I)))	Rich Bay	R-30190(B39)	250 Vac, 10 A	UL 1283, EN 60939-2	UL, VDE
Terminal block (TB1) (for models RHP-1Uy-A, RHP-8K1Uy-x, RHB-8K1Uy-x (y=T))	Switchlab Inc	T25	300 Vac, 25 A, 140°C.	UL 1059	UL
	Dinkle	DT-5	300 Vac, 20 A, 110°C.	UL 1059	UL
I/O connector (CNA, CNB, CNC, CND, CNE) (for PCB no. RHP-1UA)	Positronic	PCIM34W13F400A1	Rated 128 A, 1500 V	UL 1977	UL
Y-capacitor (C13, C14) (for PCB no. RHP-1UB) (optional) (Y1 or Y2 type)	Murata Mfg Co Ltd	KH, KX, KY	Max. 4700pF, Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL
	Walsin Technology Corp	AC, AH	Max. 4700pF, Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14,	VDE, UL
	Walsin Technology Corp	Series AS	Max. 4700pF, Min. 250Vac, 125°C	IEC/EN 60384-14: 2013, UL 60384-14,	VDE, UL
	TDK Corp	CD, CS	Max. 4700pF, Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL
	Welson Industrial Co., Ltd.	KL, WD	Max. 4700pF, Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL
Y-capacitor (C23, C24) (for PCB no. RHP-1UC) (optional)	Murata Mfg Co Ltd	KH, KX, KY	Max. 4700pF, Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

(Y1 or Y2 type)					
	Walsin Technology Corp	AC, AH	Max. 4700pF, Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14,	VDE, UL
	Walsin Technology Corp	Series AS	Max. 4700pF, Min. 250Vac, 125°C	IEC/EN 60384-14: 2013, UL 60384-14,	VDE, UL
	TDK Corp	CD, CS	Max. 4700pF, Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL
	Welson Industrial Co., Ltd.	KL, WD	Max. 4700pF, Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL
Following for Power Module, model: RCP-1600-xy, RCB-1600-xy (x can be 12, 24 or 48; y can be blank or CAN), RCB-1600-zNE (z can be 12 or 24) Following for Switching Mode Power Supply, model: RSP-1600-x_1 (x_1 can be 12, 24, 27, 36 or 48), RPB-1600-xy (x can be 12, 24 or 48; y can be blank or CAN)					
Terminal block (TB1) (for Models RSP-1600-x and RPB-1600-xy)	Switchlab Inc	T35	300 Vac, 20 A, 120°C.	UL 1059	UL
	Switchlab Inc	T25	300 Vac, 20 A, 140°C.	UL 1059	UL
I/O connector (CN1) (for Models RCP-1600-xy and RCB-1600-xy, RCB-1600-zNE)	Positronic	PCIM34W13M400A1	Rated 128 A, 1500 V	UL 1977	UL
Fuse (FS1)	Conquer	UDA-A	T20A, 500 Vac	UL 248-1, UL 248-14	UL
Varistor (ZNR1, ZNR2) (Optional)	Joyin	14S471K, 14N471K, 10S471K	300Vac, 385Vdc, 85°C, (Flame class of body coating complied with V-0)	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2 UL 1449	VDE, UL
	Centra Science	CNR-14D471K	300Vac, 385Vdc, 85°C, (Flame class of body coating complied with V-0)	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2 UL 1449	VDE, UL
	Thinking	TVR10471,-V,-D. TVR14471,-V,-D. TVR20471,-V,-D	300Vac, 385Vdc, 85°C, (Flame class of body coating complied with V-0)	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2 UL 1449	VDE, UL
	EPCOS	S10K300E2K1, S10K300	300Vac, 385Vdc, 85°C, (Flame class of body coating complied with V-0)	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2 UL 1449	VDE, UL

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

	Xiamen	MOV14471K	300Vac, 385Vdc, 85°C, (Flame class of body coating complied with V-0)	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2 UL 1449	VDE, UL
	Joyin	JVT10S471K, JVT14S471K	300Vac, 385Vdc, 85°C, (Flame class of body coating complied with V-0)	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2 UL 1449	VDE, UL
	Thinking	TVR10471-M, TVR14471-M	300Vac, 385Vdc, 85°C, (Flame class of body coating complied with V-0)	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2 UL 1449	VDE, UL
X-Capacitor (C1, C2, C10) (Optional) (X1 or X2) (C1: max. 2.2 µF, C2, C10: max. 1.0 µF)	Kemet Electronics Italia Srl (IEC named: Arcotronics SPA)	R.46	Min. 250Vac, 100°C or 110°C	EN 60384-14: 2013, UL 60384-14	ENEC, UL
	Kemet Electronics Italia Srl (IEC named: Arcotronics SPA)	R.49	Min. 250Vac, 110°C	EN 60384-14: 2013, UL 60384-14	ENEC, UL
	Epcos Electronic Components S A	B3292#	Min. 250Vac, 100°C	EN 60384-14: 2005, UL 60384-14	VDE, UL
	Epcos Electronic Components S A	B3292#-…	Min. 250Vac, 105°C	EN 60384-14: 2005, UL 60384-14	VDE, UL
	EPCOS Electronic Components S.A.	B3292#CD series	Min. 250Vac, 105°C	EN 60384-14: 2005, UL 60384-14	ENEC, UL
	Iskra, d. d.	KNB1530	Min. 250Vac, 100°C	EN 60384-14: 2005, UL 60384-14	VDE, UL
	Iskra, d. d.	KNB1560	Min. 250Vac, 110°C or 125°C	EN 60384-14: 2005, UL 60384-14	VDE, UL
	Liow Gu Electronics Industry Co Ltd	GS-L	Min. 250Vac, 110°C	EN 60384-14: 2005, UL 60384-14	ENEC, UL
	Cowell Fashion Co., Ltd. Pilkor REPUBLIC OF KOREA	PCX2 337	Min. 250Vac, 100°C, 110°C or 125°C	EN 60384-14: 2005, UL 60384-14	ENEC, UL
	Ultra Tech Xiphi Enterprise Co Ltd	HQX	Min. 250Vac, 110°C	EN 60384-14: 2005, UL 60384-14	ENEC, UL
	Joey	MPX	Max. 1.0 µF used, min.	EN 60384-14: 2005,	VDE, UL

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

			250Vac, 105°C	UL 60384-14	
	Xiamen Faratronic	MKP62	Min. 250Vac, 110°C	EN 60384-14: 2005, UL 60384-14	VDE, UL
	Hua Jung	MKP	Min. 250Vac, 110°C	EN 60384-14: 2013, UL 60384-14	ENEC, UL
	Carli	MPX	Min. 250Vac, 100°C or 110°C	EN 60384-14: 2005, UL 60384-14	VDE, UL
	Okaya Electric Industries Co., Ltd.	LE(-*)	Min. 250Vac, 100 or 110°C	EN 60384-14: 2005, UL 60384-14	ENEC, UL
Y-capacitor (C3, C4, C24, C25, C30) (optional) (C3, C4, C30: max. 3300 pF, C24, C25: max. 4700pF) (Y1 or Y2 type) for models RCP-1600-xy, RCB-1600-xy, RCB-1600-zNE	Murata Mfg Co Ltd	KH, KX, KY	Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL
	Walsin Technology Corp	AC, AH	Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14,	VDE, UL
	Walsin Technology Corp	Series AS	Min. 250Vac, 125°C	IEC/EN 60384-14: 2013, UL 60384-14,	VDE, UL
	TDK Corp	CD, CS	Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL
	Welson Industrial Co., Ltd.	KL, WD	Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL
Y-capacitor (C3A, C3, C4, C24, C25, C30) (optional) (C3, C4, C30: max. 3300 pF, C24, C25: max. 4700pF) (Y1 or Y2 type) for models RSP-1600-x_1 and RPB-1600-xy	Murata Mfg Co Ltd	KH, KX, KY	Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL
	Walsin Technology Corp	AC, AH	Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14,	VDE, UL
	Walsin	Series AS	Min. 250Vac,	IEC/EN 60384-	VDE, UL

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

	Technology Corp		125°C	14: 2013, UL 60384-14,	
	TDK Corp	CD, CS	Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL
	Welson Industrial Co., Ltd.	KL, WD	Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL
	Vishay Capacitors Belgium N V	338 6	Min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	ENEC, UL
Choke (LF1,LF2) (Optional)	MEAN WELL Enterprises Co Ltd	TR-807	Min. 105 °C	--	--
	MEAN WELL Enterprises Co Ltd	TR-1182	Min. 105 °C	--	--
Relay (RY1)	FUJITSU	FTR-K2 series	250 Vac, 16 A, coil: 12 Vdc	UL 508, EN 61810-1	UL, VDE
Choke (L1, L2)	MEAN WELL Enterprises Co Ltd	TF-2790	Min. 105 °C	--	--
Choke (T51, T52)	MEAN WELL Enterprises Co Ltd	TR-1177	Min. 105 °C	--	--
Transformer (T1) on PCB no. RCP-1600A and PSP-1600A (for Model RCP-1600-12y, RSP-1600-12, RCB-1600-12y, RCB-1600-12zNE, RPB-1600-12y)	MEAN WELL Enterprises Co Ltd	TF-2791, TF-2791A	Class B	Applicable part in IEC 60950-1 and evaluated according to IEC 60085	Accepted by TÜV Rheinland
(for Model RCP-1600-24y, RSP-1600-24, RCB-1600-24y, RCB-1600-24zNE, RPB-1600-24y)	MEAN WELL Enterprises Co Ltd	TF-2792, TF-2792A	Class B	Applicable part in IEC 60950-1 and evaluated according to IEC 60085	Accepted by TÜV Rheinland
(for Model RCP-1600-48y, RSP-1600-48, RCB-1600-48y, RPB-1600-48y)	MEAN WELL Enterprises Co Ltd	TF-2793, TF-2793A	Class B	Applicable part in IEC 60950-1 and evaluated according to IEC 60085	Accepted by TÜV Rheinland
(for Model RSP-1600-27)	MEAN WELL Enterprises Co Ltd	TF-2837, TF-2837A	Class B	Applicable part in IEC 60950-1 and evaluated according to IEC 60085	Accepted by TÜV Rheinland
(for Model RSP-1600-36)	MEAN WELL Enterprises Co Ltd	TF-2838, TF-2838A	Class B	Applicable part in IEC 60950-1 and evaluated	Accepted by TÜV Rheinland

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

				according to IEC 60085	
Transformer (T301) on PCB no. RCP-1600A and PSP-1600A	MEAN WELL Enterprises Co Ltd	TF-2789	Class B	Applicable part in IEC 60950-1 and evaluated according to IEC 60085	Accepted by TÜV Rheinland
Transformer (T600) on PCB no. RCP-1600B	MEAN WELL Enterprises Co Ltd	LF-511	Class B	Applicable part in IEC 60950-1 and evaluated according to IEC 60085	Accepted by TÜV Rheinland
- Insulation Tubing used in primary winding of T600	Great Holding	TFL, TFT, TFS	min. 0.4mm thick, min. 130°C	UL 224	UL
	Zeus Industrial Products Inc.	TFE-LW-150, TFE-TW-300, TFE-SW-600	min. 0.4mm thick, min. 130°C	UL 224	UL
Bobbin (For T1, T301, T600)	Sumitomo Bakelite Co Ltd	PM-9820, PM-9630	Phenolic, V-0, min. 0.71 mm thick, min. 150 degree C.	UL 94, UL 746C	UL
	E I Dupont De Nemours & Co Inc	FR530(I)(+)(f1)	Phenolic, V-0, min. 0.71 mm thick, min. 155 degree C.	UL 94, UL 746C	UL
Insulation tape (For T1, T301, T600)	3M Company electrical Markets Div (Emd)	1351T-1 (a), 1351T-2 (a), 1351T-3 (a), 1351-1 (a), 1351-2 (c), 1350F-1 (b), 1350T-1 (b), 1350T-2 (b), 1350T-3 (b), 1318-1 (a)	130 degree C.	UL 510	UL
	Bondtrc Pacific Co., Ltd	370S+$, 371F+@	130 degree C.	UL 510	UL
	Jingjiang Yahua Pressure Sensitive Glue Co Ltd	WF	130 degree C.	UL 510	UL
	Symbio Inc	MY9YAF*(h), 35660Y*(%), 35660*@	130 degree C.	UL 510	UL
Photo Coupler (U81, U242) (U81 on PCB no. RCP-1600A and PSP-1600A, U242 on PCB no. RCP-1600B and PSP-1600B)	Cosmo Electronics Corp	K1010	Dti = 0.7mm, Dcr. = 8.0mm, thermal cycle test, 115°C	IEC/EN 60747-5-5, UL 1577	VDE, UL

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

	Sharp Corp Electronic Components Group	PC 123	Dti = 0.4mm, Dcr. = 8.0mm, 110°C (type B) Tsi = 150°C	EN 60747-5-2 UL 1577	VDE, FI, UL
	Lite-On Technology Corporation	VDE: LTV-817(M) FI: LTV817 UL: LTV-817 may be followed by suffix M, S, S-TA, S TA1, S-TP	Dti = 0.6 mm, Ext. dc r= 8.0 mm, thermal cycling test, 115°C	IEC/EN 60950-1 EN 60747-5-5 UL 1577	VDE, UL, FIMKO
	Toshiba Corporation Semiconductor & Storage Products Company	TLP781F	Di = 0.6 mm, Ext. dcr = 8 mm, thermal cycling test, 115 °C	IEC/EN 60950-1 EN 60747-5-2 UL 1577	VDE, UL
	Everlight	EL817	Dti = 0.6 mm, Ext. dcr = 8.0 mm, thermal cycling test, 115 °C	IEC/EN 60950-1 IEC/EN 60747-5-5 UL 1577	VDE, UL
Single Protection Non-Optical Isolators (U901, U921) (on PCB no. RCP-1600A and PSP-1600A)	Silicon Laboratories Inc	Si8233BD-D-IS	Ext. dcr. = 7.6mm, 125°C, complied with thermal cycling test. Reinforced insulation provided.	IEC/EN 60950-1:2006 /A2:2013, UL 1577	VDE UL
Bridge Capacitor (C31, C80) (Optional) (Y1 type)	Murata Mfg Co Ltd	KX	Total max. 3300 pF, min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL
	Walsin Technology Corp	AH	Total max. 3300 pF, min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL
	Walsin Technology Corp	Series AS	Total max. 3300 pF, min. 250Vac, 125°C	IEC/EN 60384-14: 2013, UL 60384-14	VDE, UL
	TDK Corporation	CD	Total max. 3300 pF, min. 250Vac, 125°C	IEC/EN 60384-14: 2005, UL 60384-14	VDE, UL
	Welson Industrial Co Ltd	WD	Total max. 3300 pF, min. 250Vac, 125°C	IEC 60384-14: 2005, UL 60384-14	VDE, UL
Bridge Diodes (BD1)	Shindengen Electric Mfg Co Ltd	LL25XB60	25A, 600V	UL 1577	UL
	Vishay General Semiconductor	LVB2560	25A, 600V	UL 1577	UL
	Lite-On Semiconductor Corp	GBJ25L06	25A, 600V	UL 1577	UL

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

	Shindengen Electric Mfg Co Ltd	US30KB80R	30A, 800V	UL 1577	UL
	Vishay General Semiconductor	PB3506	35A, 600V	UL 1577	UL
	Lite-On Semiconductor Corp	GBJ35L06	35A, 600V	UL 1577	UL
Fuse (FS600) (for PCB no. RCP-1600B and RSP-1600B)	Conquer	MST	T 8A, 250Vac	UL 248-1, UL 248-14	UL
DC Fan (Two provided)	Sanyo Denki Co., Ltd.	9GA0312P3J003	12 Vdc, 0.52 A, min. 17.7 CFM	UL 507, EN 60950-1:2006 +A11:2009+A1: 2010+A12:2011	TUV, UL
	Sanyo Denki Co., Ltd.	9GA0312P3J004	12 Vdc, 0.52 A, min. 17.7 CFM	UL 507, EN 60950-1:2006 +A11:2009+A1: 2010+A12:2011	TUV, UL
	Minebea Co Ltd	03828DA-12R-AU	12 Vdc, 0.95 A, min. 19.4 CFM	UL 507, EN 60950-1:2006 +A11:2009+A1: 2010+A12:2011	TUV, UL
Insulation Sheet - Between U242 and RY1 - Between PCB no. RCP-1600I and area from RY1 to C25 used on RSP-1600B and RCP-1600B board - Between L1 and PCB no. RSP-1600B and RCP-1600B board - On C5 top side - On C5 bottom side - Between L900 and area of	Formex, Div Of Illinois Tool Works Inc, Formerly Fastex, Div Of Illinois Tool Works Inc	FORMEX GK - (a)(b)(f1)	Min. V-2. Min. 0.4 mm thick	UL 94, UL 746C	UL

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

metal part of Q902/Q901 and C81 - On shielding PCB (PCB no. RCP-1600I)					
	Sabic Innovative Plastics US L L C	FR700(GG)	Min. V-2. Min. 0.4 mm thick	UL 94, UL 746C	UL
	3M Taiwan Ltd	IS-250-a	Min. V-2. Min. 0.4 mm thick	UL 94, UL 746C	UL
	Sun Delta Corp	VS(f)	Min. V-2. Min. 0.4 mm thick	UL 94, UL 746C	UL
	SICHUAN DONGFANG INSULATING MATERIAL CO LTD	DFR-117,DFR-117ECOB	Min. V-2. Min. 0.4 mm thick	UL 94, UL 746C	UL
	MIANYANG LONGHUA FILM CO LTD	PP-BK(i)(j)	Min. V-2. Min. 0.4 mm thick	UL 94, UL 746C	UL
	Shenzhen Bornsun Industrial Co Ltd	BN-FP	Min. V-2. Min. 0.4 mm thick	UL 94, UL 746C	UL
Insulation tubing (Provide on C5 and fan wire, min. 0.4 mm thick)	Taiwan Yun Lin Electronic Co Ltd	G5(+)	Max. 600 V; max. 125 degree C. Min. 0.4 mm thick	UL 224	UL
	Hamburg Industries Co Ltd	H-2	Max. 600 V; max. 125 degree C. Min. 0.4 mm thick	UL 224	UL
	Sumitomo Electric Fine Polymer Inc	Sumitube F32, Sumitube F2, F2(Z), NHR2	Max. 600 V; max. 125 degree C. Min. 0.4 mm thick	UL 224	UL
	Shenzhen Woer Heat-Shrinkable Material Co Ltd	RSFR, RSFR-H	Max. 600 V; max. 125 degree C. Min. 0.4 mm thick	UL 224	UL
	Shenzhen Woer Heat-Shrinkable Material Co Ltd	RSFR(CB)	Max. 600 V; max. 125 degree C. Min. 0.4 mm thick	UL 224	UL
Following for all models					
Metal chassis	Interchangeable	Interchangeable	Steel. Min. 0.6 mm thickness.	--	--
Printed Wiring Boards	Interchangeable	Interchangeable	V-1 or better, min. 130°C	UL 796	UL
Following for Rack System, model: RHP-1Uy-A, RHP-8K1Uy-x, RHB-8K1Uy-x (x can be 12, 24 or 48; y can be I or T)					
Insulation Sheet	Interchangeable	Interchangeable	Min. V-2. Min.	UL 94, UL 746C	UL

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

- between bottom metal chassis and Backplane board (PCB no.: RHP-1UA) - between PCB no.: RHP-1UB and metal chassis near terminal block - under PCB no.: RHP-1UC with AC Inlet			0.25 mm thick		
Following for Power Module, model: RCP-1600-xy, RCB-1600-xy (x can be 12, 24 or 48; y can be blank or CAN), RCB-1600-zNE (z can be 12 or 24) Following for Switching Mode Power Supply, model: RSP-1600-x_1 (x_1 can be 12, 24, 27, 36 or 48), RPB-1600-xy (x can be 12, 24 or 48; y can be blank or CAN)					
Bleeder Resistor (R1, R2, R3)	Interchangeable	Interchangeable	Each rated max. 150 k ohm, min. 1/4W	--	--
Thermistor (RTH4, RTH5) (Optional)	Interchangeable	Interchangeable	Min. 4 A, max. 22 Ω at 25°C	--	--
Thermistor (RTH9) on PCB no. RCP-1600B and PSP-1600B (Optional)	Interchangeable	Interchangeable	Min. 3 A, max. 10kΩ at 25°C	--	--
Thermistor (RTH41) on PCB no. RCP-1600B and PSP-1600B (Optional)	Interchangeable	Interchangeable	Min. 3 A, max. 10kΩ at 25°C	--	--
Thermistor (RTH21) on PCB no. RCP-1600B and PSP-1600B (Optional)	Interchangeable	Interchangeable	Min. 3 A, max. 10kΩ at 25°C	--	--
Electrolytic Capacitor (C5)	Interchangeable	Interchangeable	680 uF, min. 400 V, min. 105 °C	--	--
Transistors (Q901, Q902, Q903, Q904)	Interchangeable	Interchangeable	Min. 29 A, min. 600 V.	--	--
Transistors (Q51, Q52)	Interchangeable	Interchangeable	Min. 52 A, min. 600 V.	--	--
Insulation Sheet - Between top chassis and main board	Interchangeable	Interchangeable	Min. V-2. Min. 0.25 mm thick	UL 94, UL 746C	UL

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

- Between bottom chassis and main board - Between side chassis and main board near components from C3 to LF2 and from C5 to output circuit - On HS2 near Q902					
Insulation Tape (Provide on L100)	Interchangeable	Interchangeable	Min. 105°C	UL 510	UL
Insulation tubing (Provide on ZNR2)	Interchangeable	Interchangeable	Min. V-2, min. 0.2 mm thick, max. 600 V; min. 85°C.	UL 224	UL
Insulation tubing (Provide on metal part for fixed Q51, Q52 and D50)	Interchangeable	Interchangeable	Min. V-2, min. 0.2 mm thick	UL 224	UL
Silicone tubing (Provide on Q51, Q52, D50, Q901, Q902, Q903 and Q904)	Interchangeable	Interchangeable	Min. V-2, min. 0.2 mm thick	UL 94	UL
Silicon sheet (Provide on BD1, Q101,Q102,Q103,Q104,Q105,Q106)	Interchangeable	Interchangeable	Min. V-2, min. 0.2 mm thick	UL 94	UL
Supplementary information: [1]) Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: Opto Electronic Devices	Pass

Manufacturer.....:

Type.....:

Separately tested.....:

Bridging insulation .....:

External creepage distance .....:

Internal creepage distance .....:

Distance through insulation .....:

Tested under the following conditions .....:

Input.....:

Output.....:

supplementary information

See Critical Components List for details.

1.6.2	TABLE: electrical data (in normal conditions)					Pass
U (V)	I (A)	I rated (A)	P (W)	Fuse #	I fuse (A)	condition/status
--	--	--	--	--	--	Test on Model: RCP-1600-12
90V/50Hz	11.94	--	1059	FS1	11.94	Maximum Normal Load, 12V/75A
90V/60Hz	11.95	--	1061	FS1	11.95	Maximum Normal Load, 12V/75A
100V/50Hz	10.56	12.5	1049	FS1	10.56	Maximum Normal Load, 12V/75A
100V/60Hz	10.57	12.5	1050	FS1	10.57	Maximum Normal Load, 12V/75A
109V/50Hz	9.67	12.5	1048	FS1	9.67	Maximum Normal Load, 12V/75A
109V/60Hz	9.67	12.5	1048	FS1	9.67	Maximum Normal Load, 12V/75A
110V/50Hz	11.11	13.0	1222	FS1	11.11	Maximum Normal Load, 12V/87.5A
110V/60Hz	11.12	13.0	1223	FS1	11.12	Maximum Normal Load, 12V/87.5A
199V/50Hz	6.04	13.0	1180	FS1	6.04	Maximum Normal Load, 12V/87.5A
199V/60Hz	6.05	13.0	1180	FS1	6.05	Maximum Normal Load, 12V/87.5A
200V/50Hz	8.57	10.0	1700	FS1	8.57	Maximum Normal Load, 12V/125A
200V/60Hz	8.58	10.0	1700	FS1	8.58	Maximum Normal Load, 12V/125A
240V/50Hz	7.22	10.0	1700	FS1	7.22	Maximum Normal Load, 12V/125A
240V/60Hz	7.23	10.0	1700	FS1	7.23	Maximum Normal Load, 12V/125A
264V/50Hz	6.68	--	1700	FS1	6.68	Maximum Normal Load, 12V/125A
264V/60Hz	6.68	--	1700	FS1	6.68	Maximum Normal Load, 12V/125A
--	--	--	--	--	--	Test on Model: RCP-1600-24
90V/50Hz	12.51	--	1124	FS1	12.51	Maximum Normal Load, 24V/40.5A
90V/60Hz	12.53	--	1125	FS1	12.53	Maximum Normal Load, 24V/40.5A
100V/50Hz	11.20	13.5	1113	FS1	11.20	Maximum Normal Load, 24V/40.5A
100V/60Hz	11.21	13.5	1114	FS1	11.21	Maximum Normal Load, 24V/40.5A
109V/50Hz	10.21	13.5	1106	FS1	10.21	Maximum Normal Load, 24V/40.5A
109V/60Hz	10.22	13.5	1106	FS1	10.22	Maximum Normal Load, 24V/40.5A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

110V/50Hz	11.64	14.0	1280	FS1	11.64	Maximum Normal Load, 24V/47A
110V/60Hz	11.64	14.0	1280	FS1	11.64	Maximum Normal Load, 24V/47A
199V/50Hz	6.28	14.0	1230	FS1	6.28	Maximum Normal Load, 24V/47A
199V/60Hz	6.29	14.0	1230	FS1	6.29	Maximum Normal Load, 24V/47A
200V/50Hz	8.87	10.5	1770	FS1	8.87	Maximum Normal Load, 24V/67A
200V/60Hz	8.88	10.5	1770	FS1	8.88	Maximum Normal Load, 24V/67A
240V/50Hz	7.50	10.5	1760	FS1	7.50	Maximum Normal Load, 24V/67A
240V/60Hz	7.50	10.5	1760	FS1	7.50	Maximum Normal Load, 24V/67A
264V/50Hz	6.90	--	1760	FS1	6.90	Maximum Normal Load, 24V/67A
264V/60Hz	6.91	--	1760	FS1	6.91	Maximum Normal Load, 24V/67A
--	--	--	--	--	--	Test on Model: RCP-1600-24-CAN
90V/50Hz	12.50	--	1123	FS1	12.50	Maximum Normal Load, 24V/40.5A
90V/60Hz	12.51	--	1124	FS1	12.51	Maximum Normal Load, 24V/40.5A
100V/50Hz	11.20	13.5	1113	FS1	11.20	Maximum Normal Load, 24V/40.5A
100V/60Hz	11.20	13.5	1113	FS1	11.20	Maximum Normal Load, 24V/40.5A
109V/50Hz	10.20	13.5	1106	FS1	10.20	Maximum Normal Load, 24V/40.5A
109V/60Hz	10.21	13.5	1106	FS1	10.21	Maximum Normal Load, 24V/40.5A
110V/50Hz	11.62	14.0	1280	FS1	11.62	Maximum Normal Load, 24V/47A
110V/60Hz	11.62	14.0	1280	FS1	11.62	Maximum Normal Load, 24V/47A
199V/50Hz	6.28	14.0	1230	FS1	6.28	Maximum Normal Load, 24V/47A
199V/60Hz	6.28	14.0	1230	FS1	6.28	Maximum Normal Load, 24V/47A
200V/50Hz	8.88	10.5	1770	FS1	8.88	Maximum Normal Load, 24V/67A
200V/60Hz	8.88	10.5	1770	FS1	8.88	Maximum Normal Load, 24V/67A
240V/50Hz	7.50	10.5	1760	FS1	7.50	Maximum Normal Load, 24V/67A
240V/60Hz	7.50	10.5	1760	FS1	7.50	Maximum Normal Load, 24V/67A
264V/50Hz	6.90	--	1760	FS1	6.90	Maximum Normal Load, 24V/67A
264V/60Hz	6.90	--	1760	FS1	6.90	Maximum Normal Load, 24V/67A
--	--	--	--	--	--	Test on Model: RSP-1600-24
90V/50Hz	12.51	--	1124	FS1	12.51	Maximum Normal Load, 24V/40.5A
90V/60Hz	12.51	--	1125	FS1	12.51	Maximum Normal Load, 24V/40.5A
100V/50Hz	11.21	13.5	1113	FS1	11.21	Maximum Normal Load, 24V/40.5A
100V/60Hz	11.21	13.5	1114	FS1	11.21	Maximum Normal Load, 24V/40.5A
109V/50Hz	10.22	13.5	1106	FS1	10.22	Maximum Normal Load, 24V/40.5A
109V/60Hz	10.22	13.5	1106	FS1	10.22	Maximum Normal Load, 24V/40.5A
110V/50Hz	11.64	14.0	1280	FS1	11.64	Maximum Normal Load, 24V/47A
110V/60Hz	11.64	14.0	1280	FS1	11.64	Maximum Normal Load, 24V/47A
199V/50Hz	6.28	14.0	1230	FS1	6.28	Maximum Normal Load, 24V/47A
199V/60Hz	6.28	14.0	1230	FS1	6.28	Maximum Normal Load, 24V/47A
200V/50Hz	8.87	10.5	1770	FS1	8.87	Maximum Normal Load, 24V/67A
200V/60Hz	8.87	10.5	1770	FS1	8.87	Maximum Normal Load, 24V/67A
240V/50Hz	7.50	10.5	1760	FS1	7.50	Maximum Normal Load, 24V/67A
240V/60Hz	7.50	10.5	1760	FS1	7.50	Maximum Normal Load, 24V/67A
264V/50Hz	6.90	--	1760	FS1	6.90	Maximum Normal Load, 24V/67A
264V/60Hz	6.90	--	1760	FS1	6.90	Maximum Normal Load, 24V/67A
--	--	--	--	--	--	Test on Model: RSP-1600-27
90V/50Hz	12.27	--	1095	FS1	12.27	Maximum Normal Load, 27V/35.5A
90V/60Hz	12.28	--	1096	FS1	12.28	Maximum Normal Load, 27V/35.5A
100V/50Hz	10.86	13.5	1085	FS1	10.86	Maximum Normal Load, 27V/35.5A
100V/60Hz	10.87	13.5	1086	FS1	10.87	Maximum Normal Load, 27V/35.5A
109V/50Hz	9.92	13.5	1076	FS1	9.92	Maximum Normal Load, 27V/35.5A
109V/60Hz	9.93	13.5	1077	FS1	9.93	Maximum Normal Load, 27V/35.5A
110V/50Hz	11.52	14.0	1263	FS1	11.52	Maximum Normal Load, 27V/41.5A
110V/60Hz	11.52	14.0	1263	FS1	11.52	Maximum Normal Load, 27V/41.5A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

199V/50Hz	6.21	14.0	1219	FS1	6.21	Maximum Normal Load, 27V/41.5A
199V/60Hz	6.22	14.0	1220	FS1	6.22	Maximum Normal Load, 27V/41.5A
200V/50Hz	8.75	10.5	1729	FS1	8.75	Maximum Normal Load, 27V/59A
200V/60Hz	8.76	10.5	1730	FS1	8.76	Maximum Normal Load, 27V/59A
240V/50Hz	7.30	10.5	1720	FS1	7.30	Maximum Normal Load, 27V/59A
240V/60Hz	7.31	10.5	1720	FS1	7.31	Maximum Normal Load, 27V/59A
264V/50Hz	6.76	--	1720	FS1	6.76	Maximum Normal Load, 27V/59A
264V/60Hz	6.76	--	1720	FS1	6.76	Maximum Normal Load, 27V/59A
--	--	--	--	--	--	Test on Model: RCB-1600-48
90V/50Hz	12.25	--	1092	FS1	12.25	Maximum Normal Load, 57.6V/16.5A
90V/60Hz	12.27	--	1093	FS1	12.27	Maximum Normal Load, 57.6V/16.5A
100V/50Hz	10.81	13.5	1079	FS1	10.81	Maximum Normal Load, 57.6V/16.5A
100V/60Hz	10.82	13.5	1080	FS1	10.82	Maximum Normal Load, 57.6V/16.5A
109V/50Hz	9.86	13.5	1072	FS1	9.86	Maximum Normal Load, 57.6V/16.5A
109V/60Hz	9.86	13.5	1072	FS1	9.86	Maximum Normal Load, 57.6V/16.5A
110V/50Hz	11.55	14.0	1264	FS1	11.55	Maximum Normal Load, 57.6V/19.5A
110V/60Hz	11.57	14.0	1265	FS1	11.57	Maximum Normal Load, 57.6V/19.5A
199V/50Hz	6.20	14.0	1220	FS1	6.20	Maximum Normal Load, 57.6V/19.5A
199V/60Hz	6.21	14.0	1220	FS1	6.21	Maximum Normal Load, 57.6V/19.5A
200V/50Hz	8.64	10.5	1710	FS1	8.64	Maximum Normal Load, 57.6V/27.5A
200V/60Hz	8.65	10.5	1710	FS1	8.65	Maximum Normal Load, 57.6V/27.5A
240V/50Hz	7.23	10.5	1700	FS1	7.23	Maximum Normal Load, 57.6V/27.5A
240V/60Hz	7.23	10.5	1700	FS1	7.23	Maximum Normal Load, 57.6V/27.5A
264V/50Hz	6.64	--	1690	FS1	6.64	Maximum Normal Load, 57.6V/27.5A
264V/60Hz	6.65	--	1690	FS1	6.65	Maximum Normal Load, 57.6V/27.5A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-12 (with five module: RCP-1600-12) Module.1
90V/50Hz	11.82	--	1051	FS1	11.82	Maximum Normal Load, 12V/375A
90V/60Hz	11.83	--	1052	FS1	11.83	Maximum Normal Load, 12V/375A
100V/50Hz	10.61	12.5	1048	FS1	10.61	Maximum Normal Load, 12V/375A
100V/60Hz	10.62	12.5	1049	FS1	10.62	Maximum Normal Load, 12V/375A
109V/50Hz	9.51	12.5	1035	FS1	9.51	Maximum Normal Load, 12V/375A
109V/60Hz	9.52	12.5	1036	FS1	9.52	Maximum Normal Load, 12V/375A
110V/50Hz	11.07	13.0	1213	FS1	11.07	Maximum Normal Load, 12V/437.5A
110V/60Hz	11.09	13.0	1213	FS1	11.09	Maximum Normal Load, 12V/437.5A
199V/50Hz	5.91	13.0	1150	FS1	5.91	Maximum Normal Load, 12V/437.5A
199V/60Hz	5.92	13.0	1150	FS1	5.92	Maximum Normal Load, 12V/437.5A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

200V/50Hz	8.59	10.0	1700	FS1	8.59	Maximum Normal Load, 12V/625A
200V/60Hz	8.59	10.0	1700	FS1	8.59	Maximum Normal Load, 12V/625A
240V/50Hz	7.21	10.0	1700	FS1	7.21	Maximum Normal Load, 12V/625A
240V/60Hz	7.23	10.0	1700	FS1	7.23	Maximum Normal Load, 12V/625A
264V/50Hz	6.67	--	1700	FS1	6.67	Maximum Normal Load, 12V/625A
264V/60Hz	6.68	--	1700	FS1	6.68	Maximum Normal Load, 12V/625A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-12 (with five module: RCP-1600-12) Module.2
90V/50Hz	11.81	--	1050	FS1	11.81	Maximum Normal Load, 12V/375A
90V/60Hz	11.82	--	1052	FS1	11.82	Maximum Normal Load, 12V/375A
100V/50Hz	10.61	12.5	1048	FS1	10.61	Maximum Normal Load, 12V/375A
100V/60Hz	10.61	12.5	1049	FS1	10.61	Maximum Normal Load, 12V/375A
109V/50Hz	9.50	12.5	1035	FS1	9.50	Maximum Normal Load, 12V/375A
109V/60Hz	9.51	12.5	1035	FS1	9.51	Maximum Normal Load, 12V/375A
110V/50Hz	11.08	13.0	1212	FS1	11.08	Maximum Normal Load, 12V/437.5A
110V/60Hz	11.08	13.0	1213	FS1	11.08	Maximum Normal Load, 12V/437.5A
199V/50Hz	5.90	13.0	1150	FS1	5.90	Maximum Normal Load, 12V/437.5A
199V/60Hz	5.91	13.0	1150	FS1	5.91	Maximum Normal Load, 12V/437.5A
200V/50Hz	8.59	10.0	1700	FS1	8.59	Maximum Normal Load, 12V/625A
200V/60Hz	8.59	10.0	1700	FS1	8.59	Maximum Normal Load, 12V/625A
240V/50Hz	7.22	10.0	1700	FS1	7.22	Maximum Normal Load, 12V/625A
240V/60Hz	7.23	10.0	1700	FS1	7.23	Maximum Normal Load, 12V/625A
264V/50Hz	6.68	--	1700	FS1	6.68	Maximum Normal Load, 12V/625A
264V/60Hz	6.68	--	1700	FS1	6.68	Maximum Normal Load, 12V/625A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-12 (with five module: RCP-1600-12) Module.3
90V/50Hz	11.82	--	1050	FS1	11.82	Maximum Normal Load, 12V/375A
90V/60Hz	11.84	--	1052	FS1	11.84	Maximum Normal Load, 12V/375A
100V/50Hz	10.62	12.5	1048	FS1	10.62	Maximum Normal Load, 12V/375A
100V/60Hz	10.62	12.5	1049	FS1	10.62	Maximum Normal Load, 12V/375A
109V/50Hz	9.52	12.5	1035	FS1	9.52	Maximum Normal Load, 12V/375A
109V/60Hz	9.53	12.5	1035	FS1	9.53	Maximum Normal Load, 12V/375A
110V/50Hz	11.09	13.0	1212	FS1	11.09	Maximum Normal Load, 12V/437.5A
110V/60Hz	11.10	13.0	1213	FS1	11.10	Maximum Normal Load, 12V/437.5A
199V/50Hz	5.91	13.0	1150	FS1	5.91	Maximum Normal Load, 12V/437.5A
199V/60Hz	5.91	13.0	1150	FS1	5.91	Maximum Normal Load, 12V/437.5A
200V/50Hz	8.59	10.0	1700	FS1	8.59	Maximum Normal Load, 12V/625A
200V/60Hz	8.59	10.0	1700	FS1	8.59	Maximum Normal Load, 12V/625A
240V/50Hz	7.23	10.0	1700	FS1	7.23	Maximum Normal Load, 12V/625A
240V/60Hz	7.23	10.0	1700	FS1	7.23	Maximum Normal Load, 12V/625A
264V/50Hz	6.69	--	1700	FS1	6.69	Maximum Normal Load, 12V/625A
264V/60Hz	6.69	--	1700	FS1	6.69	Maximum Normal Load, 12V/625A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-12 (with five module: RCP-1600-12) Module.4
90V/50Hz	11.82	--	1051	FS1	11.82	Maximum Normal Load, 12V/375A
90V/60Hz	11.84	--	1052	FS1	11.84	Maximum Normal Load, 12V/375A
100V/50Hz	10.61	12.5	1049	FS1	10.61	Maximum Normal Load, 12V/375A
100V/60Hz	10.64	12.5	1050	FS1	10.64	Maximum Normal Load, 12V/375A
109V/50Hz	9.52	12.5	1036	FS1	9.52	Maximum Normal Load, 12V/375A
109V/60Hz	9.53	12.5	1037	FS1	9.53	Maximum Normal Load, 12V/375A
110V/50Hz	11.09	13.0	1214	FS1	11.09	Maximum Normal Load, 12V/437.5A

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict

110V/60Hz	11.09	13.0	1214	FS1	11.09	Maximum Normal Load, 12V/437.5A
199V/50Hz	5.92	13.0	1151	FS1	5.92	Maximum Normal Load, 12V/437.5A
199V/60Hz	5.93	13.0	1151	FS1	5.93	Maximum Normal Load, 12V/437.5A
200V/50Hz	8.60	10.0	1700	FS1	8.60	Maximum Normal Load, 12V/625A
200V/60Hz	8.60	10.0	1700	FS1	8.60	Maximum Normal Load, 12V/625A
240V/50Hz	7.23	10.0	1700	FS1	7.23	Maximum Normal Load, 12V/625A
240V/60Hz	7.24	10.0	1700	FS1	7.24	Maximum Normal Load, 12V/625A
264V/50Hz	6.70	--	1700	FS1	6.70	Maximum Normal Load, 12V/625A
264V/60Hz	6.70	--	1700	FS1	6.70	Maximum Normal Load, 12V/625A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-12 (with five module: RCP-1600-12) Module.5
90V/50Hz	11.82	--	1051	FS1	11.82	Maximum Normal Load, 12V/375A
90V/60Hz	11.83	--	1052	FS1	11.83	Maximum Normal Load, 12V/375A
100V/50Hz	10.61	12.5	1049	FS1	10.61	Maximum Normal Load, 12V/375A
100V/60Hz	10.62	12.5	1050	FS1	10.62	Maximum Normal Load, 12V/375A
109V/50Hz	9.51	12.5	1036	FS1	9.51	Maximum Normal Load, 12V/375A
109V/60Hz	9.52	12.5	1037	FS1	9.52	Maximum Normal Load, 12V/375A
110V/50Hz	11.08	13.0	1214	FS1	11.08	Maximum Normal Load, 12V/437.5A
110V/60Hz	11.09	13.0	1214	FS1	11.09	Maximum Normal Load, 12V/437.5A
199V/50Hz	5.93	13.0	1151	FS1	5.93	Maximum Normal Load, 12V/437.5A
199V/60Hz	5.94	13.0	1151	FS1	5.94	Maximum Normal Load, 12V/437.5A
200V/50Hz	8.62	10.0	1700	FS1	8.62	Maximum Normal Load, 12V/625A
200V/60Hz	8.64	10.0	1700	FS1	8.64	Maximum Normal Load, 12V/625A
240V/50Hz	7.24	10.0	1700	FS1	7.24	Maximum Normal Load, 12V/625A
240V/60Hz	7.25	10.0	1700	FS1	7.25	Maximum Normal Load, 12V/625A
264V/50Hz	6.71	--	1700	FS1	6.71	Maximum Normal Load, 12V/625A
264V/60Hz	6.71	--	1700	FS1	6.71	Maximum Normal Load, 12V/625A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-24 (with five module: RCP-1600-24) Module.1
90V/50Hz	12.51	--	1112	FS1	12.51	Maximum Normal Load, 24V/202.5A
90V/60Hz	12.52	--	1113	FS1	12.52	Maximum Normal Load, 24V/202.5A
100V/50Hz	11.20	13.5	1102	FS1	11.20	Maximum Normal Load, 24V/202.5A
100V/60Hz	11.21	13.5	1103	FS1	11.21	Maximum Normal Load, 24V/202.5A
109V/50Hz	10.13	13.5	1091	FS1	10.13	Maximum Normal Load, 24V/202.5A
109V/60Hz	10.13	13.5	1093	FS1	10.13	Maximum Normal Load, 24V/202.5A
110V/50Hz	11.62	14.0	1278	FS1	11.62	Maximum Normal Load, 24V/235A
110V/60Hz	11.63	14.0	1279	FS1	11.63	Maximum Normal Load, 24V/235A
199V/50Hz	6.29	14.0	1228	FS1	6.29	Maximum Normal Load, 24V/235A
199V/60Hz	6.30	14.0	1230	FS1	6.30	Maximum Normal Load, 24V/235A
200V/50Hz	8.98	10.5	1778	FS1	8.98	Maximum Normal Load, 24V/335A
200V/60Hz	8.98	10.5	1780	FS1	8.98	Maximum Normal Load, 24V/335A
240V/50Hz	7.48	10.5	1760	FS1	7.48	Maximum Normal Load, 24V/335A
240V/60Hz	7.48	10.5	1760	FS1	7.48	Maximum Normal Load, 24V/335A
264V/50Hz	6.90	--	1760	FS1	6.90	Maximum Normal Load, 24V/335A
264V/60Hz	6.91	--	1760	FS1	6.91	Maximum Normal Load, 24V/335A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-24 (with five module: RCP-1600-24) Module.2
90V/50Hz	12.49	--	1112	FS1	12.49	Maximum Normal Load, 24V/202.5A
90V/60Hz	12.50	--	1112	FS1	12.50	Maximum Normal Load, 24V/202.5A
100V/50Hz	11.18	13.5	1102	FS1	11.18	Maximum Normal Load, 24V/202.5A
100V/60Hz	11.19	13.5	1103	FS1	11.19	Maximum Normal Load, 24V/202.5A

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict

109V/50Hz	10.12	13.5	1092	FS1	10.12	Maximum Normal Load, 24V/202.5A
109V/60Hz	10.12	13.5	1093	FS1	10.12	Maximum Normal Load, 24V/202.5A
110V/50Hz	11.60	14.0	1275	FS1	11.60	Maximum Normal Load, 24V/235A
110V/60Hz	11.61	14.0	1277	FS1	11.61	Maximum Normal Load, 24V/235A
199V/50Hz	6.27	14.0	1229	FS1	6.27	Maximum Normal Load, 24V/235A
199V/60Hz	6.28	14.0	1231	FS1	6.28	Maximum Normal Load, 24V/235A
200V/50Hz	8.96	10.5	1779	FS1	8.96	Maximum Normal Load, 24V/335A
200V/60Hz	8.97	10.5	1780	FS1	8.97	Maximum Normal Load, 24V/335A
240V/50Hz	7.47	10.5	1761	FS1	7.47	Maximum Normal Load, 24V/335A
240V/60Hz	7.48	10.5	1761	FS1	7.48	Maximum Normal Load, 24V/335A
264V/50Hz	6.90	--	1761	FS1	6.90	Maximum Normal Load, 24V/335A
264V/60Hz	6.90	--	1761	FS1	6.90	Maximum Normal Load, 24V/335A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-24 (with five module: RCP-1600-24) Module.3
90V/50Hz	12.50	--	1114	FS1	12.50	Maximum Normal Load, 24V/202.5A
90V/60Hz	12.52	--	1114	FS1	12.52	Maximum Normal Load, 24V/202.5A
100V/50Hz	11.17	13.5	1104	FS1	11.17	Maximum Normal Load, 24V/202.5A
100V/60Hz	11.18	13.5	1105	FS1	11.18	Maximum Normal Load, 24V/202.5A
109V/50Hz	10.13	13.5	1094	FS1	10.13	Maximum Normal Load, 24V/202.5A
109V/60Hz	10.14	13.5	1095	FS1	10.14	Maximum Normal Load, 24V/202.5A
110V/50Hz	11.61	14.0	1277	FS1	11.61	Maximum Normal Load, 24V/235A
110V/60Hz	11.62	14.0	1278	FS1	11.62	Maximum Normal Load, 24V/235A
199V/50Hz	6.28	14.0	1230	FS1	6.28	Maximum Normal Load, 24V/235A
199V/60Hz	6.30	14.0	1232	FS1	6.30	Maximum Normal Load, 24V/235A
200V/50Hz	8.97	10.5	1780	FS1	8.97	Maximum Normal Load, 24V/335A
200V/60Hz	8.98	10.5	1782	FS1	8.98	Maximum Normal Load, 24V/335A
240V/50Hz	7.48	10.5	1763	FS1	7.48	Maximum Normal Load, 24V/335A
240V/60Hz	7.50	10.5	1763	FS1	7.50	Maximum Normal Load, 24V/335A
264V/50Hz	6.92	--	1763	FS1	6.92	Maximum Normal Load, 24V/335A
264V/60Hz	6.92	--	1763	FS1	6.92	Maximum Normal Load, 24V/335A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-24 (with five module: RCP-1600-24) Module.4
90V/50Hz	12.51	--	1113	FS1	12.51	Maximum Normal Load, 24V/202.5A
90V/60Hz	12.52	--	1113	FS1	12.52	Maximum Normal Load, 24V/202.5A
100V/50Hz	11.18	13.5	1104	FS1	11.18	Maximum Normal Load, 24V/202.5A
100V/60Hz	11.18	13.5	1104	FS1	11.18	Maximum Normal Load, 24V/202.5A
109V/50Hz	10.12	13.5	1093	FS1	10.12	Maximum Normal Load, 24V/202.5A
109V/60Hz	10.13	13.5	1094	FS1	10.13	Maximum Normal Load, 24V/202.5A
110V/50Hz	11.61	14.0	1277	FS1	11.61	Maximum Normal Load, 24V/235A
110V/60Hz	11.62	14.0	1278	FS1	11.62	Maximum Normal Load, 24V/235A
199V/50Hz	6.29	14.0	1229	FS1	6.29	Maximum Normal Load, 24V/235A
199V/60Hz	6.31	14.0	1230	FS1	6.31	Maximum Normal Load, 24V/235A
200V/50Hz	8.96	10.5	1778	FS1	8.96	Maximum Normal Load, 24V/335A
200V/60Hz	8.97	10.5	1780	FS1	8.97	Maximum Normal Load, 24V/335A
240V/50Hz	7.47	10.5	1762	FS1	7.47	Maximum Normal Load, 24V/335A
240V/60Hz	7.50	10.5	1762	FS1	7.50	Maximum Normal Load, 24V/335A
264V/50Hz	6.91	--	1762	FS1	6.91	Maximum Normal Load, 24V/335A
264V/60Hz	6.91	--	1762	FS1	6.91	Maximum Normal Load, 24V/335A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-24 (with five module: RCP-1600-24) Module.5
90V/50Hz	12.52	--	1115	FS1	12.52	Maximum Normal Load, 24V/202.5A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

90V/60Hz	12.54	--	1115	FS1	12.54	Maximum Normal Load, 24V/202.5A
100V/50Hz	11.19	13.5	1105	FS1	11.19	Maximum Normal Load, 24V/202.5A
100V/60Hz	11.19	13.5	1106	FS1	11.19	Maximum Normal Load, 24V/202.5A
109V/50Hz	10.14	13.5	1095	FS1	10.14	Maximum Normal Load, 24V/202.5A
109V/60Hz	10.15	13.5	1096	FS1	10.15	Maximum Normal Load, 24V/202.5A
110V/50Hz	11.62	14.0	1278	FS1	11.62	Maximum Normal Load, 24V/235A
110V/60Hz	11.64	14.0	1280	FS1	11.64	Maximum Normal Load, 24V/235A
199V/50Hz	6.31	14.0	1230	FS1	6.31	Maximum Normal Load, 24V/235A
199V/60Hz	6.33	14.0	1230	FS1	6.33	Maximum Normal Load, 24V/235A
200V/50Hz	8.97	10.5	1780	FS1	8.97	Maximum Normal Load, 24V/335A
200V/60Hz	8.98	10.5	1782	FS1	8.98	Maximum Normal Load, 24V/335A
240V/50Hz	7.46	10.5	1764	FS1	7.46	Maximum Normal Load, 24V/335A
240V/60Hz	7.51	10.5	1764	FS1	7.51	Maximum Normal Load, 24V/335A
264V/50Hz	6.92	--	1764	FS1	6.92	Maximum Normal Load, 24V/335A
264V/60Hz	6.92	--	1764	FS1	6.92	Maximum Normal Load, 24V/335A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-48 (with five module: RCB-1600-48) Module.1
90V/50Hz	12.14	--	1086	FS1	12.14	Maximum Normal Load, 57.6V/82.5A
90V/60Hz	12.15	--	1087	FS1	12.15	Maximum Normal Load, 57.6V/82.5A
100V/50Hz	10.76	13.5	1073	FS1	10.76	Maximum Normal Load, 57.6V/82.5A
100V/60Hz	10.78	13.5	1074	FS1	10.78	Maximum Normal Load, 57.6V/82.5A
109V/50Hz	9.80	13.5	1064	FS1	9.80	Maximum Normal Load, 57.6V/82.5A
109V/60Hz	9.81	13.5	1065	FS1	9.81	Maximum Normal Load, 57.6V/82.5A
110V/50Hz	11.53	14.0	1256	FS1	11.53	Maximum Normal Load, 57.6V/97.5A
110V/60Hz	11.54	14.0	1258	FS1	11.54	Maximum Normal Load, 57.6V/97.5A
199V/50Hz	6.20	14.0	1208	FS1	6.20	Maximum Normal Load, 57.6V/97.5A
199V/60Hz	6.21	14.0	1210	FS1	6.21	Maximum Normal Load, 57.6V/97.5A
200V/50Hz	8.54	10.5	1689	FS1	8.54	Maximum Normal Load, 57.6V/137.5A
200V/60Hz	8.55	10.5	1690	FS1	8.55	Maximum Normal Load, 57.6V/137.5A
240V/50Hz	7.16	10.5	1680	FS1	7.16	Maximum Normal Load, 57.6V/137.5A
240V/60Hz	7.17	10.5	1680	FS1	7.17	Maximum Normal Load, 57.6V/137.5A
264V/50Hz	6.58	--	1670	FS1	6.58	Maximum Normal Load, 57.6V/137.5A
264V/60Hz	6.59	--	1670	FS1	6.59	Maximum Normal Load, 57.6V/137.5A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-48 (with five module: RCB-1600-48) Module.2
90V/50Hz	12.13	--	1086	FS1	12.13	Maximum Normal Load,

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

						57.6V/82.5A
90V/60Hz	12.14	--	1088	FS1	12.14	Maximum Normal Load, 57.6V/82.5A
100V/50Hz	10.77	13.5	1072	FS1	10.77	Maximum Normal Load, 57.6V/82.5A
100V/60Hz	10.79	13.5	1075	FS1	10.79	Maximum Normal Load, 57.6V/82.5A
109V/50Hz	9.82	13.5	1065	FS1	9.82	Maximum Normal Load, 57.6V/82.5A
109V/60Hz	9.82	13.5	1065	FS1	9.82	Maximum Normal Load, 57.6V/82.5A
110V/50Hz	11.52	14.0	1257	FS1	11.52	Maximum Normal Load, 57.6V/97.5A
110V/60Hz	11.53	14.0	1258	FS1	11.53	Maximum Normal Load, 57.6V/97.5A
199V/50Hz	6.22	14.0	1209	FS1	6.22	Maximum Normal Load, 57.6V/97.5A
199V/60Hz	6.22	14.0	1210	FS1	6.22	Maximum Normal Load, 57.6V/97.5A
200V/50Hz	8.55	10.5	1690	FS1	8.55	Maximum Normal Load, 57.6V/137.5A
200V/60Hz	8.56	10.5	1690	FS1	8.56	Maximum Normal Load, 57.6V/137.5A
240V/50Hz	7.17	10.5	1680	FS1	7.17	Maximum Normal Load, 57.6V/137.5A
240V/60Hz	7.17	10.5	1680	FS1	7.17	Maximum Normal Load, 57.6V/137.5A
264V/50Hz	6.59	--	1670	FS1	6.59	Maximum Normal Load, 57.6V/137.5A
264V/60Hz	6.60	--	1670	FS1	6.60	Maximum Normal Load, 57.6V/137.5A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-48 (with five module: RCB-1600-48) Module.3
90V/50Hz	12.15	--	1087	FS1	12.15	Maximum Normal Load, 57.6V/82.5A
90V/60Hz	12.15	--	1088	FS1	12.15	Maximum Normal Load, 57.6V/82.5A
100V/50Hz	10.77	13.5	1074	FS1	10.77	Maximum Normal Load, 57.6V/82.5A
100V/60Hz	10.78	13.5	1075	FS1	10.78	Maximum Normal Load, 57.6V/82.5A
109V/50Hz	9.81	13.5	1066	FS1	9.81	Maximum Normal Load, 57.6V/82.5A
109V/60Hz	9.81	13.5	1066	FS1	9.81	Maximum Normal Load, 57.6V/82.5A
110V/50Hz	11.53	14.0	1257	FS1	11.53	Maximum Normal Load, 57.6V/97.5A
110V/60Hz	11.54	14.0	1258	FS1	11.54	Maximum Normal Load, 57.6V/97.5A
199V/50Hz	6.21	14.0	1210	FS1	6.21	Maximum Normal Load, 57.6V/97.5A
199V/60Hz	6.22	14.0	1211	FS1	6.22	Maximum Normal Load, 57.6V/97.5A

IEC 60950-1						
Clause	Requirement + Test				Result - Remark	Verdict

200V/50Hz	8.56	10.5	1691	FS1	8.56	Maximum Normal Load, 57.6V/137.5A
200V/60Hz	8.56	10.5	1691	FS1	8.56	Maximum Normal Load, 57.6V/137.5A
240V/50Hz	7.18	10.5	1681	FS1	7.18	Maximum Normal Load, 57.6V/137.5A
240V/60Hz	7.18	10.5	1681	FS1	7.18	Maximum Normal Load, 57.6V/137.5A
264V/50Hz	6.59	--	1670	FS1	6.59	Maximum Normal Load, 57.6V/137.5A
264V/60Hz	6.60	--	1670	FS1	6.60	Maximum Normal Load, 57.6V/137.5A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-48 (with five module: RCB-1600-48) Module.4
90V/50Hz	12.15	--	1087	FS1	12.15	Maximum Normal Load, 57.6V/82.5A
90V/60Hz	12.16	--	1088	FS1	12.16	Maximum Normal Load, 57.6V/82.5A
100V/50Hz	10.77	13.5	1075	FS1	10.77	Maximum Normal Load, 57.6V/82.5A
100V/60Hz	10.78	13.5	1075	FS1	10.78	Maximum Normal Load, 57.6V/82.5A
109V/50Hz	9.80	13.5	1067	FS1	9.80	Maximum Normal Load, 57.6V/82.5A
109V/60Hz	9.81	13.5	1067	FS1	9.81	Maximum Normal Load, 57.6V/82.5A
110V/50Hz	11.52	14.0	1256	FS1	11.52	Maximum Normal Load, 57.6V/97.5A
110V/60Hz	11.54	14.0	1258	FS1	11.54	Maximum Normal Load, 57.6V/97.5A
199V/50Hz	6.22	14.0	1210	FS1	6.22	Maximum Normal Load, 57.6V/97.5A
199V/60Hz	6.24	14.0	1210	FS1	6.24	Maximum Normal Load, 57.6V/97.5A
200V/50Hz	8.57	10.5	1691	FS1	8.57	Maximum Normal Load, 57.6V/137.5A
200V/60Hz	8.57	10.5	1691	FS1	8.57	Maximum Normal Load, 57.6V/137.5A
240V/50Hz	7.17	10.5	1681	FS1	7.17	Maximum Normal Load, 57.6V/137.5A
240V/60Hz	7.18	10.5	1681	FS1	7.18	Maximum Normal Load, 57.6V/137.5A
264V/50Hz	6.59	--	1670	FS1	6.59	Maximum Normal Load, 57.6V/137.5A
264V/60Hz	6.60	--	1671	FS1	6.60	Maximum Normal Load, 57.6V/137.5A
--	--	--	--	--	--	Test on Model: RHP-8K1UI-48 (with five module: RCB-1600-48) Module.5
90V/50Hz	12.13	--	1088	FS1	12.13	Maximum Normal Load, 57.6V/82.5A
90V/60Hz	12.14	--	1089	FS1	12.14	Maximum Normal Load, 57.6V/82.5A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

100V/50Hz	10.77	13.5	1074	FS1	10.77	Maximum Normal Load, 57.6V/82.5A
100V/60Hz	10.79	13.5	1075	FS1	10.79	Maximum Normal Load, 57.6V/82.5A
109V/50Hz	9.82	13.5	1066	FS1	9.82	Maximum Normal Load, 57.6V/82.5A
109V/60Hz	9.82	13.5	1067	FS1	9.82	Maximum Normal Load, 57.6V/82.5A
110V/50Hz	11.52	14.0	1257	FS1	11.52	Maximum Normal Load, 57.6V/97.5A
110V/60Hz	11.53	14.0	1258	FS1	11.53	Maximum Normal Load, 57.6V/97.5A
199V/50Hz	6.22	14.0	1211	FS1	6.22	Maximum Normal Load, 57.6V/97.5A
199V/60Hz	6.22	14.0	1211	FS1	6.22	Maximum Normal Load, 57.6V/97.5A
200V/50Hz	8.55	10.5	1692	FS1	8.55	Maximum Normal Load, 57.6V/137.5A
200V/60Hz	8.56	10.5	1692	FS1	8.56	Maximum Normal Load, 57.6V/137.5A
240V/50Hz	7.17	10.5	1681	FS1	7.17	Maximum Normal Load, 57.6V/137.5A
240V/60Hz	7.17	10.5	1681	FS1	7.17	Maximum Normal Load, 57.6V/137.5A
264V/50Hz	6.59	--	1671	FS1	6.59	Maximum Normal Load, 57.6V/137.5A
264V/60Hz	6.60	--	1671	FS1	6.60	Maximum Normal Load, 57.6V/137.5A
supplementary information:						
--						

2.1.1.5 c) 1)	**TABLE: Max. V, A, VA test**	Pass

Voltage(rated) (V)	Current(rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)
--	--	--	--	Test on Model: RCP-1600-12
12	125	12.18	136.0	1611.6 (11.85V*136.0A)
--	--	--	--	Test on Model: RCP-1600-24
24	67	24.22	71.0	1708.26 (24.06V*71.0A)
--	--	--	--	Test on Model: RSP-1600-27
27	59	27.15	63.0	1701.0 (27.00V*63.0A)
--	--	--	--	Test on Model: RCB-1600-48
57.6	27.5	57.71	30.0	1730.4 (57.68V*30.0A)
--	--	--	--	Test on Model: RCP-1600-12-CAN
12	125	12.15	135.5	1597.55 (11.79V*135.5A)

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

--	--	--	--	Test on Model: RCB-1600-48-CAN
57.6	27.5	57.70	30.0	1728.6 (57.62V*30.0A)
--	--	--	--	Test on Model: RSP-1600-12
12	125	12.16	136.0	1600.72 (11.77V*136.0A)
--	--	--	--	Test on Model: RPB-1600-48
57.6	27.5	57.68	30.0	1726.5 (57.55V*30.0A)
--	--	--	--	Test on Model: RHP-8K1UI-12 (with five module: RCP-1600-12)
12	625	12.16	683.0	7683.75 (11.25V*683.0A)
--	--	--	--	Test on Model: RHP-8K1UI-24 (with five module: RCP-1600-24)
24	335	24.20	354.0	8428.74 (23.81V*354.0A)
--	--	--	--	Test on Model: RHP-8K1UI-48 (with five module: RCB-1600-48)
57.6	137.5	57.75	150.0	8640.0 (57.6V*150.0A)
supplementary information:				
Test voltage: 264Vac 60Hz				

2.1.1.5 c) 2)	**TABLE: Stored energy**		N/A
Capacitance C (μF)	Voltage U (V)	Energy E (J)	
--	--	--	
supplementary information:			

2.2	**TABLE: Evaluation of voltage limiting components in SELV circuits**		Pass
Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components
	V Peak	V d.c.	
Test on Model RCP-1600-12	--	--	--
T1: pin 9, 10, 11 to GND	32.8	--	--
T1: pin 12, 13 to GND	52	--	--
T1: pin 12, 13 to GND after D107	10	--	D107
T1: pin 14, 15 to GND	56	--	--
T1: pin 14, 15 to GND after D117	8	--	D117
T301 pin 1 to 2 (GND)	50.4	--	--
T301 pin 1 to 2 (GND) after R300	48.8	--	R300

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

T301 pin 1 to 2 (GND) after C300	--	14	C300
T301 pin 1 to 2 (GND) after D301	--	14	D301
T301 pin 3 to 4 (GND)	43.2	--	--
T301 pin 3 to 4 (GND) after D321	--	12.8	D321
T600 pin 3 to 4 (GND)	15.6	--	--
Test on Model RCP-1600-48	--	--	--
T1 pin 9, 10, 11 to GND	76	--	--
T1 pin 9, 10, 11 to GND after D100	24	--	D100
T1 pin 9, 10, 11 to GND after L100	24	--	L100
T1 pin 9, 10, 11 to GND after C110	24	--	C110
T1 pin 9, 10, 11 to GND after C111	24	--	C111
T1 pin 9, 10, 11 to GND after R119	24	--	R119
T1 pin 9, 10, 11 to GND after R120	24	--	R120
T1 pin 12, 13 to GND	132	--	--
T1 pin 12, 13 to GND after D107	--	35.2	D107
T1 pin 14, 15 to GND	128	--	--
T1 pin 14, 15 to GND after D117	--	39.2	D117
T301 pin 1 to 2 (GND)	51.2	--	--
T301 pin 1 to 2 (GND) after R300	51.2	--	R300
T301 pin 1 to 2 (GND) after C300	--	14	C300
T301 pin 1 to 2 (GND) after D301	--	14	D301
T301 pin 3 to 4 (GND)	44.8	--	--
T301 pin 3 to 4 (GND) after D321	--	12.8	D321
T600 pin 3 to 4 (GND)	23.2	--	--
Test on Model RCB-1600-48	--	--	--
T1 pin 9, 10, 11 to GND	89	--	--
T1 pin 9, 10, 11 to GND after D100	35	--	D100
T1 pin 9, 10, 11 to GND after L100	35	--	L100
T1 pin 9, 10, 11 to GND after C110	35	--	C110
T1 pin 9, 10, 11 to GND after C111	35	--	C111
T1 pin 9, 10, 11 to GND after R119	35	--	R119
T1 pin 9, 10, 11 to GND after R120	35	--	R120
T1 pin 12, 13 to GND	128	--	--
T1 pin 12, 13 to GND after D107	--	38.2	D107
T1 pin 14, 15 to GND	135	--	--
T1 pin 14, 15 to GND after D117	--	38.8	D117
T301 pin 1 to 2 (GND)	50.5	--	--
T301 pin 1 to 2 (GND) after R300	50.2	--	R300
T301 pin 1 to 2 (GND) after C300	--	14	C300
T301 pin 1 to 2 (GND) after D301	--	14	D301
T301 pin 3 to 4 (GND)	46.2	--	--
T301 pin 3 to 4 (GND) after D321	--	13.1	D321
T600 pin 3 to 4 (GND)	22.5	--	--

Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)
Test on Model RCP-1600-12	--
D107 short	0 V
D117 short	0 V
R300 short	12V
C300 short	0 V
D301 short	0 V
D321 short	0 V
Test on Model RCP-1600-48	--

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

D100 short	0 V
L100 short	0 V
C110 short	48V
C111 short	48V
R119 short	48V
R120 short	48V
D107 short	0 V
D117 short	0 V
R300 short	48V
C300 short	0 V
D301 short	0 V
D321 short	0 V
Test on Model RCB-1600-48	--
D100 short	0 V
L100 short	0 V
C110 short	58V
C111 short	58V
R119 short	58V
R120 short	58V
D107 short	0 V
D117 short	0 V
R300 short	58V
C300 short	0 V
D301 short	0 V
D321 short	0 V
supplementary information:	
Test voltage: 264Vac, 60Hz	

2.5	**TABLE: Limited power sources**						N/A
Circuit output tested:							
Note: Measured Uoc (V) with all load circuits disconnected:							
Components	Test condition (Single fault)	Uoc (V)	I_{sc} (A)		VA		
			Meas.	Limit	Meas.	Limit	
supplementary information:							
Sc=Short circuit, Oc=Open circuit							

2.10.2	**TABLE: working voltage measurement**		Pass
Location	RMS Voltage (V)	Peak voltage (V)	Comments
Test on Model RCP-1600-12	--	--	--
T1 pin 1, 2 to 9, 10, 11	211	364	--
T1 pin 1, 2 to 12, 13	201	348	--
T1 pin 1, 2 to 14, 15	224	388	--
T1 pin 1, 2 to GND	203	372	--

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

T1 pin 4, 5 to 9, 10, 11	212	372	--
T1 pin 4, 5 to 12, 13	199	352	--
T1 pin 4, 5 to 14, 15	222	392	--
T1 pin 4, 5 to GND	202	376	--
T1 pin 7, 8 to 9, 10, 11	207	376	--
T1 pin 7, 8 to 12, 13	**250**	**408**	--
T1 pin 7, 8 to 14, 15	196	356	--
T1 pin 7, 8 to GND	198	384	--
T301 pin 5 to 1	311	512	--
T301 pin 5 to 2	318	560	--
T301 pin 5 to 3	190	344	--
T301 pin 5 to 4 (GND)	175	368	--
T301 pin 6 to 1	311	488	--
T301 pin 6 to 2	310	448	--
T301 pin 6 to 3	168	304	--
T301 pin 6 to 4 (GND)	161	264	--
T301 pin 7 to 1	241	608	--
T301 pin 7 to 2	230	**632**	--
T301 pin 7 to 3	224	464	--
T301 pin 7 to 4 (GND)	**322**	584	--
T301 pin 8 to 1	12	40	--
T301 pin 8 to 2	13	32	--
T301 pin 8 to 3	7	24	--
T301 pin 8 to 4 (GND)	9	24	--
T301 pin 9 to 1	171	384	--
T301 pin 9 to 2	173	424	--
T301 pin 9 to 3	143	446	--
T301 pin 9 to 4 (GND)	172	424	--
T301 pin 10 to 1	173	408	--
T301 pin 10 to 2	171	384	--
T301 pin 10 to 3	143	336	--
T301 pin 10 to 4 (GND)	171	392	--
C31 Primary to Secondary	143	328	--
C80 Primary to Secondary	144	333	--
T600 pin 1 to 3	162	256	--
T600 pin 1 to 4	165	264	--
T600 pin 1 to GND	108	220	--
T600 pin 2 to 3	166	268	--
T600 pin 2 to 4	170	272	--
T600 pin 2 to GND	108	224	--
U242 pin 3 to 1	168	382	--
U242 pin 3 to 2	167	386	--
U242 pin 4 to 1	167	396	--
U242 pin 4 to 2	166	367	--
U81 pin 3 to 1	168	395	--
U81 pin 3 to 2	166	398	--
U81 pin 4 to 1	167	380	--
U81 pin 4 to 2	168	386	--
U901 Pin 9 to Pin 1	166	374	--
U901 Pin 9 to Pin 2	163	372	--
U901 Pin 9 to Pin 3	162	372	--
U901 Pin 9 to Pin 4	168	376	--
U901 Pin 9 to Pin 5	163	372	--

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

U901 Pin 9 to Pin 6	168	376	--
U901 Pin 9 to Pin 7	12	24	--
U901 Pin 9 to Pin 8	163	372	--
U901 Pin 10 to Pin 1	162	372	--
U901 Pin 10 to Pin 2	166	374	--
U901 Pin 10 to Pin 3	164	370	--
U901 Pin 10 to Pin 4	168	374	--
U901 Pin 10 to Pin 5	170	378	--
U901 Pin 10 to Pin 6	166	376	--
U901 Pin 10 to Pin 7	14	27	--
U901 Pin 10 to Pin 8	166	374	--
U901 Pin 11 to Pin 1	168	380	--
U901 Pin 11 to Pin 2	162	370	--
U901 Pin 11 to Pin 3	166	374	--
U901 Pin 11 to Pin 4	164	372	--
U901 Pin 11 to Pin 5	164	370	--
U901 Pin 11 to Pin 6	166	374	--
U901 Pin 11 to Pin 7	12	25	--
U901 Pin 11 to Pin 8	166	374	--
U901 Pin 12 to Pin 1	14	30	--
U901 Pin 12 to Pin 2	15	27	--
U901 Pin 12 to Pin 3	15	26	--
U901 Pin 12 to Pin 4	14	28	--
U901 Pin 12 to Pin 5	12	24	--
U901 Pin 12 to Pin 6	13	27	--
U901 Pin 12 to Pin 7	14	26	--
U901 Pin 12 to Pin 8	15	27	--
U901 Pin 13 to Pin 1	14	30	--
U901 Pin 13 to Pin 2	15	26	--
U901 Pin 13 to Pin 3	15	25	--
U901 Pin 13 to Pin 4	14	27	--
U901 Pin 13 to Pin 5	13	27	--
U901 Pin 13 to Pin 6	15	28	--
U901 Pin 13 to Pin 7	14	27	--
U901 Pin 13 to Pin 8	16	28	--
U901 Pin 14 to Pin 1	163	368	--
U901 Pin 14 to Pin 2	164	370	--
U901 Pin 14 to Pin 3	160	368	--
U901 Pin 14 to Pin 4	160	366	--
U901 Pin 14 to Pin 5	164	370	--
U901 Pin 14 to Pin 6	162	370	--
U901 Pin 14 to Pin 7	14	27	--
U901 Pin 14 to Pin 8	160	370	--
U901 Pin 15 to Pin 1	164	372	--
U901 Pin 15 to Pin 2	162	370	--
U901 Pin 15 to Pin 3	160	368	--
U901 Pin 15 to Pin 4	166	375	--
U901 Pin 15 to Pin 5	168	376	--
U901 Pin 15 to Pin 6	167	378	--
U901 Pin 15 to Pin 7	15	29	--
U901 Pin 15 to Pin 8	165	368	--
U901 Pin 16 to Pin 1	164	368	--
U901 Pin 16 to Pin 2	164	368	--

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

U901 Pin 16 to Pin 3	162	366	--
U901 Pin 16 to Pin 4	160	368	--
U901 Pin 16 to Pin 5	164	370	--
U901 Pin 16 to Pin 6	168	376	--
U901 Pin 16 to Pin 7	16	34	--
U901 Pin 16 to Pin 8	235	430	--
U921 Pin 9 to Pin 1	164	380	--
U921 Pin 9 to Pin 2	160	368	--
U921 Pin 9 to Pin 3	164	370	--
U921 Pin 9 to Pin 4	166	370	--
U921 Pin 9 to Pin 5	162	370	--
U921 Pin 9 to Pin 6	160	368	--
U921 Pin 9 to Pin 7	15	25	--
U921 Pin 9 to Pin 8	164	374	--
U921 Pin 10 to Pin 1	160	368	--
U921 Pin 10 to Pin 2	160	368	--
U921 Pin 10 to Pin 3	162	370	--
U921 Pin 10 to Pin 4	162	370	--
U921 Pin 10 to Pin 5	166	376	--
U921 Pin 10 to Pin 6	168	380	--
U921 Pin 10 to Pin 7	16	27	--
U921 Pin 10 to Pin 8	164	370	--
U921 Pin 11 to Pin 1	160	368	--
U921 Pin 11 to Pin 2	162	368	--
U921 Pin 11 to Pin 3	160	368	--
U921 Pin 11 to Pin 4	164	370	--
U921 Pin 11 to Pin 5	164	370	--
U921 Pin 11 to Pin 6	168	376	--
U921 Pin 11 to Pin 7	168	376	--
U921 Pin 11 to Pin 8	162	374	--
U921 Pin 12 to Pin 1	14	27	--
U921 Pin 12 to Pin 2	15	27	--
U921 Pin 12 to Pin 3	14	27	--
U921 Pin 12 to Pin 4	15	30	--
U921 Pin 12 to Pin 5	14	27	--
U921 Pin 12 to Pin 6	15	28	--
U921 Pin 12 to Pin 7	14	26	--
U921 Pin 12 to Pin 8	16	28	--
U921 Pin 13 to Pin 1	15	26	--
U921 Pin 13 to Pin 2	16	28	--
U921 Pin 13 to Pin 3	16	27	--
U921 Pin 13 to Pin 4	15	30	--
U921 Pin 13 to Pin 5	16	28	--
U921 Pin 13 to Pin 6	15	28	--
U921 Pin 13 to Pin 7	14	27	--
U921 Pin 13 to Pin 8	15	26	--
U921 Pin 14 to Pin 1	162	370	--
U921 Pin 14 to Pin 2	160	368	--
U921 Pin 14 to Pin 3	167	375	--
U921 Pin 14 to Pin 4	164	375	--
U921 Pin 14 to Pin 5	160	368	--
U921 Pin 14 to Pin 6	166	374	--
U921 Pin 14 to Pin 7	12	26	--

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

U921 Pin 14 to Pin 8	168	376	--
U921 Pin 15 to Pin 1	162	370	--
U921 Pin 15 to Pin 2	160	368	--
U921 Pin 15 to Pin 3	166	374	--
U921 Pin 15 to Pin 4	158	360	--
U921 Pin 15 to Pin 5	162	368	--
U921 Pin 15 to Pin 6	162	370	--
U921 Pin 15 to Pin 7	14	24	--
U921 Pin 15 to Pin 8	164	372	--
U921 Pin 16 to Pin 1	160	370	--
U921 Pin 16 to Pin 2	160	368	--
U921 Pin 16 to Pin 3	162	370	--
U921 Pin 16 to Pin 4	160	368	--
U921 Pin 16 to Pin 5	166	370	--
U921 Pin 16 to Pin 6	160	368	--
U921 Pin 16 to Pin 7	14	26	--
U921 Pin 16 to Pin 8	160	368	--
Trace 1	5	17	--
Trace 2	42	58	--
Trace 3	6	18	--
Trace 4	12	56	--
Trace 5	172	382	--
Trace 6	150	310	--
Trace 7	296	558	--
Trace 8	180	406	--
Trace 9	176	380	--
Trace 10	168	438	--
Trace 11	168	438	--
Trace 12	180	402	--
Trace 13	172	382	--
Trace 14	180	405	--
Trace 15	176	400	--
Test on Model RCB-1600-48	--	--	--
T1 pin 1, 2 to 9, 10, 11	220	424	--
T1 pin 1, 2 to 12, 13	187	392	--
T1 pin 1, 2 to 14, 15	262	504	--
T1 pin 1, 2 to GND	230	408	--
T1 pin 4, 5 to 9, 10, 11	219	416	--
T1 pin 4, 5 to 12, 13	186	384	--
T1 pin 4, 5 to 14, 15	261	496	--
T1 pin 4, 5 to GND	228	400	--
T1 pin 7, 8 to 9, 10, 11	233	456	--
T1 pin 7, 8 to 12, 13	**280**	**544**	T1, Max Vpk, Vrms
T1 pin 7, 8 to 14, 15	196	384	--
T1 pin 7, 8 to GND	244	440	--
T301 pin 5 to 1	151	432	--
T301 pin 5 to 2	152	448	--
T301 pin 5 to 3	314	520	--
T301 pin 5 to 4 (GND)	313	536	--
T301 pin 6 to 1	146	304	--
T301 pin 6 to 2	145	296	--
T301 pin 6 to 3	311	480	--
T301 pin 6 to 4 (GND)	311	448	--

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

T301 pin 7 to 1	175	628	--
T301 pin 7 to 2	308	**640**	T301, Max Vpk
T301 pin 7 to 3	326	616	--
T301 pin 7 to 4 (GND)	**332**	616	T301, Max Vrms
T301 pin 8 to 1	15	32	--
T301 pin 8 to 2	15	32	--
T301 pin 8 to 3	10	32	--
T301 pin 8 to 4 (GND)	9	24	--
T301 pin 9 to 1	146	304	--
T301 pin 9 to 2	146	328	--
T301 pin 9 to 3	176	400	--
T301 pin 9 to 4 (GND)	177	440	--
T301 pin 10 to 1	146	304	--
T301 pin 10 to 2	146	312	--
T301 pin 10 to 3	177	408	--
T301 pin 10 to 4 (GND)	176	408	--
C31 Primary to Secondary	176	400	--
C80 Primary to Secondary	168	384	--
T600 pin 1 to 3	310	448	--
T600 pin 1 to 4	311	448	--
T600 pin 1 to GND	311	448	--
T600 pin 2 to 3	311	448	--
T600 pin 2 to 4	312	448	T600, Max Vpk, Vrms
T600 pin 2 to GND	311	448	--
U242 pin 3 to 1	180	400	--
U242 pin 3 to 2	179	408	--
U242 pin 4 to 1	176	408	--
U242 pin 4 to 2	175	400	--
U81 pin 3 to 1	176	406	--
U81 pin 3 to 2	176	404	--
U81 pin 4 to 1	178	400	--
U81 pin 4 to 2	176	400	--
U901 Pin 9 to Pin 1	163	370	--
U901 Pin 9 to Pin 2	163	372	--
U901 Pin 9 to Pin 3	162	372	--
U901 Pin 9 to Pin 4	166	374	--
U901 Pin 9 to Pin 5	163	372	--
U901 Pin 9 to Pin 6	168	376	--
U901 Pin 9 to Pin 7	14	27	--
U901 Pin 9 to Pin 8	163	372	--
U901 Pin 10 to Pin 1	162	372	--
U901 Pin 10 to Pin 2	166	374	--
U901 Pin 10 to Pin 3	164	370	--
U901 Pin 10 to Pin 4	168	374	--
U901 Pin 10 to Pin 5	170	378	--
U901 Pin 10 to Pin 6	166	376	--
U901 Pin 10 to Pin 7	16	29	--
U901 Pin 10 to Pin 8	166	374	--
U901 Pin 11 to Pin 1	168	380	--
U901 Pin 11 to Pin 2	162	370	--
U901 Pin 11 to Pin 3	166	374	--
U901 Pin 11 to Pin 4	164	372	--
U901 Pin 11 to Pin 5	164	370	--

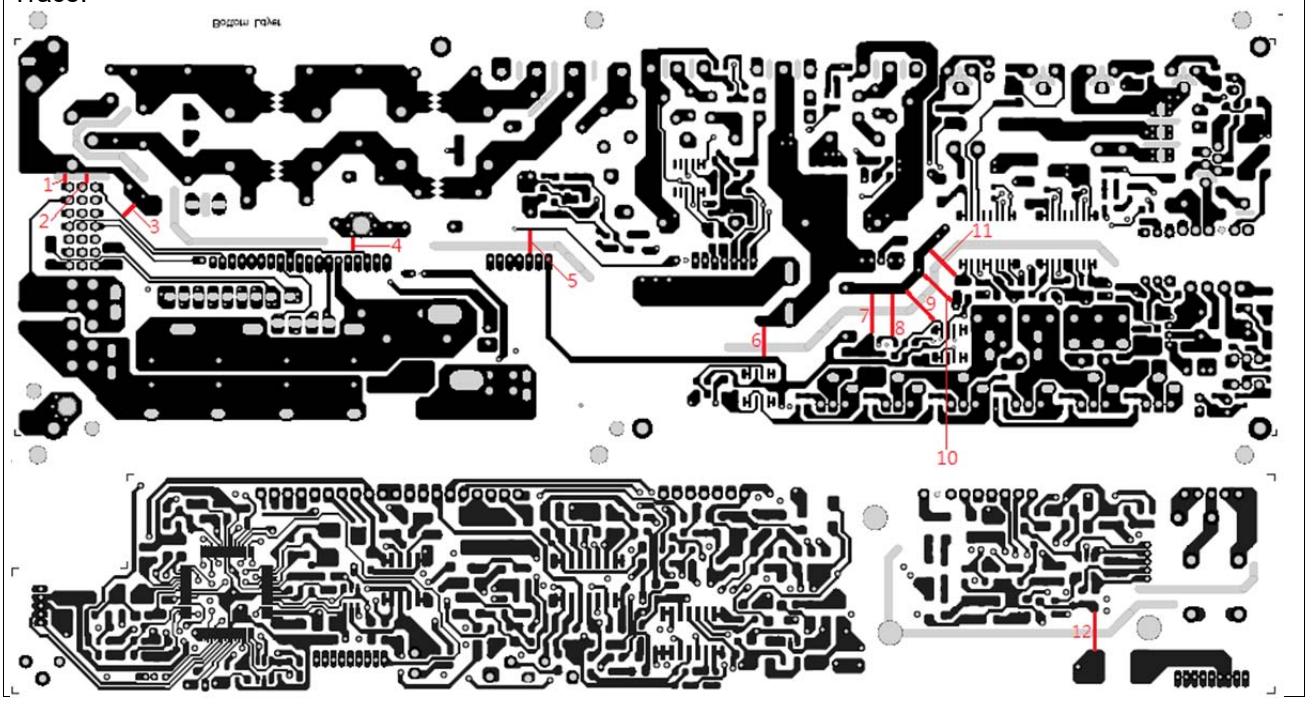
IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

U901 Pin 11 to Pin 6	166	374	--
U901 Pin 11 to Pin 7	14	27	--
U901 Pin 11 to Pin 8	166	374	--
U901 Pin 12 to Pin 1	15	32	--
U901 Pin 12 to Pin 2	16	28	--
U901 Pin 12 to Pin 3	16	28	--
U901 Pin 12 to Pin 4	15	30	--
U901 Pin 12 to Pin 5	14	28	--
U901 Pin 12 to Pin 6	15	28	--
U901 Pin 12 to Pin 7	15	28	--
U901 Pin 12 to Pin 8	16	28	--
U901 Pin 13 to Pin 1	15	32	--
U901 Pin 13 to Pin 2	16	28	--
U901 Pin 13 to Pin 3	16	27	--
U901 Pin 13 to Pin 4	15	30	--
U901 Pin 13 to Pin 5	14	28	--
U901 Pin 13 to Pin 6	15	28	--
U901 Pin 13 to Pin 7	14	27	--
U901 Pin 13 to Pin 8	16	28	--
U901 Pin 14 to Pin 1	164	370	--
U901 Pin 14 to Pin 2	166	374	--
U901 Pin 14 to Pin 3	162	370	--
U901 Pin 14 to Pin 4	162	370	--
U901 Pin 14 to Pin 5	168	374	--
U901 Pin 14 to Pin 6	166	374	--
U901 Pin 14 to Pin 7	15	26	--
U901 Pin 14 to Pin 8	162	372	--
U901 Pin 15 to Pin 1	166	374	--
U901 Pin 15 to Pin 2	163	372	--
U901 Pin 15 to Pin 3	162	370	--
U901 Pin 15 to Pin 4	168	376	--
U901 Pin 15 to Pin 5	170	380	--
U901 Pin 15 to Pin 6	170	380	--
U901 Pin 15 to Pin 7	16	28	--
U901 Pin 15 to Pin 8	166	370	--
U901 Pin 16 to Pin 1	162	370	--
U901 Pin 16 to Pin 2	166	370	--
U901 Pin 16 to Pin 3	164	372	--
U901 Pin 16 to Pin 4	162	370	--
U901 Pin 16 to Pin 5	168	374	--
U901 Pin 16 to Pin 6	170	380	--
U901 Pin 16 to Pin 7	17	38	--
U901 Pin 16 to Pin 8	238	432	--
U921 Pin 9 to Pin 1	167	382	--
U921 Pin 9 to Pin 2	162	370	--
U921 Pin 9 to Pin 3	166	374	--
U921 Pin 9 to Pin 4	168	376	--
U921 Pin 9 to Pin 5	164	372	--
U921 Pin 9 to Pin 6	162	370	--
U921 Pin 9 to Pin 7	16	27	--
U921 Pin 9 to Pin 8	166	374	--
U921 Pin 10 to Pin 1	162	370	--
U921 Pin 10 to Pin 2	162	370	--

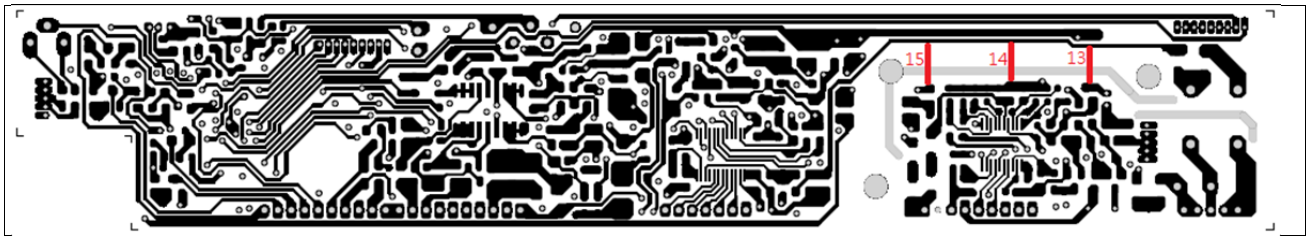
IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

U921 Pin 10 to Pin 3	166	376	--
U921 Pin 10 to Pin 4	164	372	--
U921 Pin 10 to Pin 5	168	378	--
U921 Pin 10 to Pin 6	170	382	--
U921 Pin 10 to Pin 7	16	27	--
U921 Pin 10 to Pin 8	166	374	--
U921 Pin 11 to Pin 1	162	370	--
U921 Pin 11 to Pin 2	164	370	--
U921 Pin 11 to Pin 3	162	370	--
U921 Pin 11 to Pin 4	166	372	--
U921 Pin 11 to Pin 5	166	374	--
U921 Pin 11 to Pin 6	170	380	--
U921 Pin 11 to Pin 7	170	378	--
U921 Pin 11 to Pin 8	166	376	--
U921 Pin 12 to Pin 1	14	27	--
U921 Pin 12 to Pin 2	16	28	--
U921 Pin 12 to Pin 3	16	28	--
U921 Pin 12 to Pin 4	15	30	--
U921 Pin 12 to Pin 5	14	27	--
U921 Pin 12 to Pin 6	15	28	--
U921 Pin 12 to Pin 7	15	28	--
U921 Pin 12 to Pin 8	16	28	--
U921 Pin 13 to Pin 1	14	27	--
U921 Pin 13 to Pin 2	16	28	--
U921 Pin 13 to Pin 3	16	27	--
U921 Pin 13 to Pin 4	15	30	--
U921 Pin 13 to Pin 5	16	28	--
U921 Pin 13 to Pin 6	15	28	--
U921 Pin 13 to Pin 7	14	27	--
U921 Pin 13 to Pin 8	16	28	--
U921 Pin 14 to Pin 1	164	372	--
U921 Pin 14 to Pin 2	162	370	--
U921 Pin 14 to Pin 3	168	376	--
U921 Pin 14 to Pin 4	166	376	--
U921 Pin 14 to Pin 5	162	370	--
U921 Pin 14 to Pin 6	168	376	--
U921 Pin 14 to Pin 7	15	28	--
U921 Pin 14 to Pin 8	170	380	--
U921 Pin 15 to Pin 1	166	372	--
U921 Pin 15 to Pin 2	162	370	--
U921 Pin 15 to Pin 3	168	376	--
U921 Pin 15 to Pin 4	160	368	--
U921 Pin 15 to Pin 5	163	370	--
U921 Pin 15 to Pin 6	166	372	--
U921 Pin 15 to Pin 7	15	28	--
U921 Pin 15 to Pin 8	166	374	--
U921 Pin 16 to Pin 1	166	372	--
U921 Pin 16 to Pin 2	162	370	--
U921 Pin 16 to Pin 3	164	372	--
U921 Pin 16 to Pin 4	162	370	--
U921 Pin 16 to Pin 5	168	374	--
U921 Pin 16 to Pin 6	162	370	--
U921 Pin 16 to Pin 7	15	28	--

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

U921 Pin 16 to Pin 8	162	372	--
Trace 1	5	16	--
Trace 2	48	56	--
Trace 3	5	16	--
Trace 4	13	56	--
Trace 5	174	384	--
Trace 6	157	312	--
Trace 7	298	560	--
Trace 8	181	408	--
Trace 9	177	400	--
Trace 10	176	438	--
Trace 11	178	440	--
Trace 12	181	408	--
Trace 13	174	384	--
Trace 14	181	408	--
Trace 15	180	404	--
Test on Model RPB-1600-48	--	--	--
T1 pin 7, 8 to 12, 13	280	542	--
T301 pin 7 to 2	306	640	--
T301 pin 7 to GND	332	614	--
T600 pin 2 to 4	312	446	--
Trace 7	296	562	--
supplementary information:			
Supply Voltage: 240Vac, 60Hz. Trace:  			

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict



2.10.3 and 2.10.4	**TABLE: clearance and creepage distance measurements**					Pass
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
FI: Functional Insulation; RI: Reinforced Insulation; BI: Basic Insulation; SI: supplementary Insulation; Investigated base on Pollution degree 2. AC mains voltage 100-240V. OCII, 2500V peak. Altitude 2000m	--	--	--	--	--	--
Following measured on Model RCP-1600-48	--	--	--	--	--	--
Following measured on Main Board	--	--	--	--	--	--
FI: L/N trace before fuse	420	250	1.5	2.6	2.5	6.6
FI: Trace under fuse	420	250	1.5	2.7	2.5	2.7
BI: Trace under C3	420	250	2.0	7.5	2.5	7.5
BI: Trace under C4	420	250	2.0	3.5	2.5	5.1
BI: Trace under C30	420	250	2.0	7.3	2.5	7.3
BI: Primary trace of C2 to earth trace	420	250	2.0	5.0	2.5	5.0
BI: Primary component T52 to earth screw of Q52.	420	250	2.0	5.0	2.5	5.0
BI: Primary component C81 to earth screw of Q902	420	250	2.0	4.9	2.5	4.9
BI: Primary component C84 to earth screw of Q902	420	250	2.0	4.2	2.5	4.2
BI: Primary component L900 (on control board RCP-1600C) to earth screw of Q902	420	250	2.0	4.6	2.5	20.5
BI: Primary component FS1 to chassis (earth)	420	250	2.0	4.6	2.5	4.6
BI: Primary trace of C1 to bottom chassis (earth)	420	250	2.0	5.2	2.5	5.2
BI: Primary component Q902 to chassis (earth)	420	250	2.0	7.0	2.5	7.0
RI: Trace under U81	420	250	4.0	8.0	5.0	8.0
RI: Trace under U901	420	250	4.0	7.5	5.0	7.5
RI: Trace under U921	420	250	4.0	7.5	5.0	7.5
RI: Trace under C31	420	250	4.0	7.0	5.0	7.0
RI: Primary trace of C12 to	560	298	4.4	6.3	6.0	9.3

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

secondary trace of D117						
RI: Primary component C5 to secondary component L100 (Push 10N)	420	250	4.0	7.1	5.0	7.1
RI: Primary component C5 to secondary component J112 (Push 10N)	420	250	4.0	6.5	5.0	6.5
RI: Primary component C5 to secondary component C677 (on control board RCP-1600B) (Push 10N)	420	250	4.0	30.0	5.0	30.0
RI: Primary component RY1 to secondary component U242 (on control board RCP-1600B) (Push 10N)	420	250	4.0	6.7	5.0	6.7
RI: Primary component LF1 to secondary component ZD461 (on control board RCP-1600B) (Push 10N)	420	250	4.0	6.5	5.0	6.5
RI: Primary component LF2 to secondary component D501 (on control board RCP-1600B) (Push 10N)	420	250	4.0	5.0	5.0	15.2
RI: Primary component L1 to secondary trace of T600 secondary pin (on control board RCP-1600B) (Push 10N)	420	250	4.0	14.0	5.0	14.0
RI: Primary component C81 to secondary component Fan (Push 10N)	420	250	4.0	7.5	5.0	7.5
Following measured on control Board RCP-1600B	**--**	**--**	**--**	**--**	**--**	**--**
RI: Trace under U242	420	250	4.0	6.9	5.0	11.3
RI: Trace under T600	420	250	4.2	5.5	6.4	9.5
Following measured on control Board RCP-1600C	**--**	**--**	**--**	**--**	**--**	**--**
RI: Primary trace of C980 to secondary trace D352	420	250	4.0	14.7	5.0	14.7
T1 transformer, core is considered as floating, the core wrapped with insulation tape.	--	--	--	--	--	--
RI: T1, primary pins to secondary pins.	544	280	4.4	34.1	5.6	34.1
RI: T1, primary pins to secondary windings.	544	280	4.4	12.8	5.6	12.8
BI: T1, primary pins to core.	544	280	2.2	7.4	2.8	7.4
RI: T1, primary windings to secondary pins.	544	280	4.4	6.6	5.6	6.6
RI: T1, primary windings to secondary windings.	544	280	4.4	9.6	5.6	9.6
BI: T1, primary windings to core.	544	280	2.2	3.0	2.8	3.0

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

SI: T1, secondary pins to core.	544	280	2.2	9.5	2.8	9.5
SI: T1, secondary windings to core.	544	280	2.2	6.5	2.8	6.5
BI: Primary component L1 to core.	544	280	2.2	5.0	2.8	5.0
SI: Secondary wire to T1 core.	544	280	2.2	13.5	2.8	13.5
T301 transformer, core is considered as floating, the core wrapped with insulation tape.	--	--	--	--	--	--
RI: T301, primary pins to secondary pins.	640	332	4.6	11.4	6.8	11.4
RI: T301, primary pins to secondary windings.	640	332	4.6	8.3	6.8	8.3
BI: T301, primary pins to core.	640	332	2.3	6.8	3.4	6.8
RI: T301, primary windings to secondary pins.	640	332	4.6	8.3	6.8	8.3
RI: T301, primary windings to secondary windings.	640	332	4.6	8.0	6.8	8.0
BI: T301, primary windings to core.	640	332	2.3	4.0	3.4	4.0
SI: T301, secondary pins to core.	640	332	2.3	6.8	3.4	6.8
SI: T301, secondary windings to core.	640	332	2.3	4.0	3.4	4.0
SI: Secondary component DC fan to T301 core.	640	332	2.3	5.0	3.4	5.0
SI: Secondary component CN355 to T301 core.	640	332	2.3	4.0	3.4	4.0
BI: Primary component C980 to T301 core.	640	332	2.3	4.0	3.4	4.0
T600 transformer, primary winding used insulation tubing, core is considered as floating.	--	--	--	--	--	--
RI: T600, primary pins to secondary pins.	448	312	4.2	7.4	6.4	7.4
RI: T600, primary pins to secondary windings.	448	312	4.2	6.8	6.4	6.8
BI: T600, primary pins to core.	448	312	2.1	5.3	3.2	5.3
RI: T600, primary windings to secondary pins.	448	312	4.2	5.7	6.4	8.2
RI: T600, primary windings to secondary windings.	448	312	4.2	6.8	6.4	6.8
BI: T600, primary windings to core.	448	312	2.1	7.6	3.2	7.6
SI: T600, secondary pins to core.	448	312	2.1	5.8	3.2	5.8
SI: T600, secondary windings to core.	448	312	2.1	6.6	3.2	6.6
Following measured on Model RSP-1600-48	**--**	**--**	**--**	**--**	**--**	**--**
Following measured on Main Board	**--**	**--**	**--**	**--**	**--**	**--**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

FI: L/N trace before fuse	420	250	1.5	3.0	2.5	3.0
FI: Trace under fuse	420	250	1.5	2.7	2.5	2.7
BI: Trace under C3	420	250	2.0	4.8	2.5	4.8
BI: Trace under C4	420	250	2.0	5.6	2.5	5.6
BI: Trace under C24	420	250	2.0	7.4	2.5	7.4
BI: Trace under C25	420	250	2.0	5.0	2.5	5.0
BI: Trace under C30	420	250	2.0	7.3	2.5	7.3
BI: Primary trace of C2 to earth trace	420	250	2.0	5.0	2.5	5.0
BI: Primary component ZNR2 to earth screw of BD1.	420	250	2.0	7.9	2.5	7.9
Following measured on Model RHP-1Uy	--	--	--	--	--	--
Following measured on backplane	--	--	--	--	--	--
FI: Trace of N to trace of L	420	250	1.5	2.8	2.5	2.8
BI: Trace of L to earth trace	420	250	2.0	4.9	2.5	4.9
BI: Trace of L to chassis (earth)	420	250	2.0	7.7	2.5	7.7
Functional:						
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
--	--	--	--	--	--	--
Basic/supplementary:						
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
--	--	--	--	--	--	--
Reinforced:						
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
--	--	--	--	--	--	--
supplementary information:						

2.10.5	**TABLE: distance through insulation measurements**				Pass
Distance through insulation (DTI) at/of:	U peak (V)	Urms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
Photo couplers (reinforced insulation)	420	250	AC 3000	0.4 mm	Minimum 0.4 mm
supplementary information:					
Certified Optical Isolator used for Reinforced Insulation. See critical components for details.					

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

4.3.8	TABLE: Batteries									N/A
The tests of 4.3.8 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										
- Electric strength tests of equipment after completion of tests										
Supplementary information:										

4.3.8	TABLE: Batteries	N/A
Battery category.....:	(Lithium, NiMh, NiCad, Lithium Ion …)	
Manufacturer.....:		
Type / model.....:		
Voltage.....:		
Capacity.....:	mAh	
Tested and Certified by (incl. Ref. No.) .....:		
Circuit protection diagram:		

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

MARKINGS AND INSTRUCTIONS (1.7.13)	
Location of replaceable battery	
Language(s) ……..:	
Close to the battery ……..:	
In the servicing instructions ……..:	
In the operating instructions ……..:	

4.5	TABLE: Thermal requirements						Pass
	Supply voltage (V)	See below	See below	See below	See below	--	—
	Ambient Tmin (°C)	--	--	--	--	--	—
	Ambient Tmax (°C)	--	--	--	--	--	—
Maximum measured temperature T of part/at:		T (°C)					allowed Tmax (°C)
Model: RCP-1600-12 with DC Fan (Sanyo, Type 9GA0312P3J003) (LF1, LF2 used MEAN WELL Enterprises Co Ltd type TR-807) a. 90Vac, 60Hz, Fan Inward. (75A) b. 110Vac, 60Hz, Fan Inward. (87.5A) c. 200Vac, 60Hz, Fan Inward. (125A) d. 264Vac, 60Hz, Fan Inward. (125A)		(a)	(b)	(c)	(d)	--	--
Connector near line pin (CN1)		70.8	71.6	79.2	78.1	--	80
C4 body (Y-Cap)		70.7	71.6	79.5	78.4	--	85
PCB near ZNR1		74.0	74.2	80.7	79.1	--	105
C1 body (X-Cap)		75.9	75.8	81.8	79.7	--	85
LF1 coil		73.2	72.8	75.8	74.0	--	105
C24 body (Y-Cap)		70.4	70.9	76.5	75.3	--	85
C25 body (Y-Cap)		72.5	72.9	78.8	77.3	--	85
C2 body (X-Cap)		74.8	74.6	80.3	78.4	--	85
LF2 coil		75.1	74.4	78.0	75.8	--	105
RY1 coil		67.7	68.6	73.8	72.8	--	105
PCB near BD1 and ZNR2		80.0	79.7	85.6	83.0	--	105
PCB near RTH5 and RTH4		79.7	79.5	85.9	83.4	--	105
L2 coil		78.8	79.0	80.0	75.4	--	105
L1 coil		71.3	71.8	73.5	70.9	--	105
T52 coil		66.5	67.0	73.0	72.5	--	105
T51 coil		62.0	62.6	68.8	68.5	--	105
PCB near Q903 and Q901		65.0	66.5	87.1	86.3	--	105
L900 coil		60.3	61.8	70.5	69.5	--	105
T1 coil		73.9	78.7	103.0	101.6	--	110
T1 core		75.7	79.8	95.3	94.3	--	110
T301 coil		62.2	62.6	64.4	63.3	--	90
T301 core		58.1	58.6	60.3	59.1	--	90
T600 coil		61.3	63.3	71.9	70.8	--	90
T600 core		60.7	62.6	71.1	69.9	--	90
U242		66.4	68.0	75.5	75.3	--	100

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

C5 body (bulk cap)	62.7	65.0	76.9	75.7	--	105
C31 body (Bridging cap)	65.3	68.3	84.0	82.6	--	85
PCB near Q101 and Q106	68.2	72.5	94.2	92.9	--	105
C3 body (Y-Cap)	71.5	72.3	80.0	78.8	--	85
C30 body (Y-Cap)	68.9	70.1	78.0	77.4	--	85
U901	61.7	62.8	71.4	70.8	--	100
Enclosure outside near T1	58.2	59.2	66.5	65.6	--	90
Enclosure outside near Fan	52.9	53.1	54.4	52.6	--	90
Handle body	51.7	51.8	52.4	51.2	--	90
Ambient	50.0	50.0	50.0	50.0	--	--
Model: RCP-1600-24 with DC Fan (Sanyo, Type 9GA0312P3J003) (LF1, LF2 used MEAN WELL Enterprises Co Ltd type TR-807) a. 90Vac, 60Hz, Fan Inward. (40.5A) b. 110Vac, 60Hz, Fan Inward. (47A) c. 200Vac, 60Hz, Fan Inward. (67A) d. 264Vac, 60Hz, Fan Inward. (67A)	(a)	(b)	(c)	(d)	--	--
Connector near line pin (CN1)	70.1	69.5	70.7	68.6	--	80
C4 body (Y-Cap)	68.5	68.1	70.0	68.3	--	85
PCB near ZNR1	73.1	72.2	72.5	70.1	--	105
C1 body (X-Cap)	72.7	71.7	71.8	69.2	--	85
LF1 coil	70.2	69.1	68.4	66.0	--	105
C24 body (Y-Cap)	69.0	68.4	69.4	67.4	--	85
C25 body (Y-Cap)	69.6	69.2	70.5	68.4	--	85
C2 body (X-Cap)	70.8	70.1	70.9	68.6	--	85
LF2 coil	73.2	71.8	70.4	67.4	--	105
RY1 coil	64.8	64.8	66.6	65.0	--	105
PCB near BD1 and ZNR2	77.1	76.2	76.4	73.2	--	105
PCB near RTH5 and RTH4	78.1	77.3	77.3	74.1	--	105
L2 coil	77.7	77.0	74.5	69.0	--	105
L1 coil	66.5	66.4	66.1	63.2	--	105
T52 coil	63.5	63.5	66.0	64.9	--	105
T51 coil	60.8	61.0	64.1	63.6	--	105
PCB near Q903 and Q901	61.9	62.8	71.4	71.5	--	105
L900 coil	57.6	58.7	64.8	65.2	--	105
T1 coil	65.0	66.4	73.9	74.8	--	110
T1 core	64.2	65.3	71.0	71.9	--	110
T301 coil	58.2	58.1	58.8	59.0	--	90
T301 core	54.5	54.6	55.2	55.5	--	90
T600 coil	57.6	58.6	63.9	64.3	--	90
T600 core	56.0	56.8	60.7	61.3	--	90
U242	62.2	62.9	66.6	66.3	--	100
C5 body (bulk cap)	58.3	59.3	66.3	67.0	--	105
C31 body (Bridging cap)	60.2	61.6	69.7	70.4	--	85
PCB near Q101 and Q106	59.8	61.7	72.9	73.3	--	105
C3 body (Y-Cap)	71.4	70.8	71.6	69.4	--	85
C30 body (Y-Cap)	66.4	66.6	69.7	68.4	--	85
U901	59.6	60.0	63.0	63.2	--	100
Enclosure outside near T1	54.6	55.2	58.8	58.9	--	90
Enclosure outside near Fan	51.2	51.3	51.0	52.0	--	90
Handle body	50.1	50.4	50.8	51.4	--	90
Ambient	50.0	50.0	50.0	50.0	--	--
Model: RCP-1600-48 with DC Fan (Sanyo, Type 9GA0312P3J003) (LF1, LF2 used MEAN	(a)	(b)	(c)	(d)	--	--

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

WELL Enterprises Co Ltd type TR-807) a. 90Vac, 60Hz, Fan Inward. (20.1A) b. 110Vac, 60Hz, Fan Inward. (23.5A) c. 200Vac, 60Hz, Fan Inward. (33.5A) d. 264Vac, 60Hz, Fan Inward. (33.5A)						
Connector near line pin (CN1)	69.7	69.0	65.2	62.5	--	80
C4 body (Y-Cap)	68.5	68.1	65.7	63.3	--	85
PCB near ZNR1	70.6	69.8	65.8	63.0	--	105
C1 body (X-Cap)	74.1	73.0	67.7	64.3	--	85
LF1 coil	71.8	70.7	65.3	62.0	--	105
C24 body (Y-Cap)	69.5	69.0	66.3	63.7	--	85
C25 body (Y-Cap)	69.1	68.6	65.6	62.9	--	85
C2 body (X-Cap)	78.9	77.5	70.8	66.9	--	85
LF2 coil	71.9	70.7	65.2	61.8	--	105
RY1 coil	62.3	62.3	61.2	59.2	--	105
PCB near BD1 and ZNR2	83.2	81.6	74.0	69.6	--	105
PCB near RTH5 and RTH4	81.0	79.8	73.4	69.2	--	105
L2 coil	71.6	71.3	67.1	62.3	--	105
L1 coil	71.2	70.9	67.0	62.2	--	105
T52 coil	62.6	62.4	61.0	59.4	--	105
T51 coil	57.7	57.7	57.6	56.8	--	105
PCB near Q903 and Q901	59.7	60.0	59.9	59.3	--	105
L900 coil	59.4	61.4	65.0	64.8	--	105
T1 coil	70.7	72.1	77.0	75.5	--	110
T1 core	66.8	67.6	70.3	69.0	--	110
T301 coil	55.2	55.3	55.1	55.0	--	90
T301 core	54.7	54.9	54.6	54.6	--	90
T600 coil	57.5	57.9	59.1	58.6	--	90
T600 core	56.3	56.5	57.5	57.0	--	90
U242	60.9	61.3	61.8	60.7	--	100
C5 body (bulk cap)	57.2	57.8	59.4	59.1	--	105
C31 body (Bridging cap)	60.6	61.1	62.6	62.0	--	85
PCB near Q101 and Q106	56.1	56.8	58.5	58.3	--	105
C3 body (Y-Cap)	71.2	70.5	66.6	63.6	--	85
C30 body (Y-Cap)	67.2	67.0	65.7	63.6	--	85
U901	61.0	60.9	59.3	59.3	--	100
Enclosure outside near T1	53.4	53.5	53.8	53.3	--	90
Enclosure outside near Fan	50.8	51.0	51.5	51.2	--	90
Handle body	50.6	50.9	50.8	50.5	--	90
Ambient	50.0	50.0	50.0	50.0	--	--
Model: RCP-1600-12 with DC Fan (Sanyo, Type 9GA0312P3J003) (LF1, LF2 used MEAN WELL Enterprises Co Ltd type TR-807) a. 90Vac, 60Hz, Fan Outward. (75A) b. 110Vac, 60Hz, Fan Outward. (87.5A) c. 200Vac, 60Hz, Fan Outward. (125A) d. 264Vac, 60Hz, Fan Outward. (125A)	(a)	(b)	(c)	(d)	--	--
Connector near line pin (CN1)	51.7	51.9	51.7	51.0	--	80
C4 body (Y-Cap)	50.8	51.1	51.1	50.9	--	85
PCB near ZNR1	51.3	51.5	51.3	51.0	--	105
C1 body (X-Cap)	50.9	51.3	51.3	51.1	--	85
LF1 coil	55.2	55.1	53.9	52.6	--	105
C24 body (Y-Cap)	52.7	53.1	54.7	53.8	--	85
C25 body (Y-Cap)	53.0	53.4	54.4	53.7	--	85

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

C2 body (X-Cap)	57.6	57.4	56.7	55.1	--	85
LF2 coil	60.2	59.5	57.2	55.0	--	105
RY1 coil	53.8	54.0	54.1	53.5	--	105
PCB near BD1 and ZNR2	61.8	61.4	60.2	57.7	--	105
PCB near RTH5 and RTH4	67.5	67.0	65.5	61.9	--	105
L2 coil	69.4	69.3	66.2	60.6	--	105
L1 coil	73.6	73.5	70.1	63.4	--	105
T52 coil	62.2	62.2	61.9	59.2	--	105
T51 coil	63.2	63.2	63.0	60.1	--	105
PCB near Q903 and Q901	74.8	76.0	85.0	80.9	--	105
L900 coil	64.6	66.1	71.7	69.9	--	105
T1 coil	75.8	80.3	99.7	98.1	--	110
T1 core	76.3	78.5	87.4	85.1	--	110
T301 coil	73.4	75.2	82.6	80.9	--	90
T301 core	66.9	68.7	75.7	74.2	--	90
T600 coil	55.4	57.1	62.3	61.0	--	90
T600 core	54.7	56.8	64.1	63.1	--	90
U242	54.1	55.1	56.9	56.2	--	100
C5 body (bulk cap)	55.6	58.5	69.7	69.0	--	105
C31 body (Bridging cap)	55.8	58.7	69.6	68.3	--	85
PCB near Q101 and Q106	62.5	67.2	87.6	86.2	--	105
C3 body (Y-Cap)	50.5	50.9	51.0	50.4	--	85
C30 body (Y-Cap)	52.1	52.9	55.8	54.7	--	85
U901	62.0	64.2	74.2	72.4	--	100
Enclosure outside near T1	56.7	58.3	66.2	65.0	--	90
Enclosure outside near Fan	62.3	64.9	75.2	73.9	--	90
Handle body	56.9	57.8	60.4	59.6	--	90
Ambient	50.0	50.0	50.0	50.0	--	--
Model: RSP-1600-12 with DC Fan (Sanyo, Type 9GA0312P3J003) (LF1, LF2 used MEAN WELL Enterprises Co Ltd type TR-807) a. 90Vac, 60Hz, Fan Outward. (75A) b. 110Vac, 60Hz, Fan Outward. (87.5A) c. 200Vac, 60Hz, Fan Outward. (125A) d. 264Vac, 60Hz, Fan Outward. (125A)	(a)	(b)	(c)	(d)	--	--
Connector near line pin (CN1)	54.2	53.6	53.5	52.7	--	80
C4 body (Y-Cap)	52.6	52.2	52.2	51.7	--	85
ZNR1 body	52.1	51.7	51.8	51.3	--	85
C1 body (X-Cap)	53.2	52.7	52.7	52.2	--	85
LF1 coil	58.8	57.4	55.7	53.9	--	105
C24 body (Y-Cap)	51.1	50.9	51.7	51.6	--	85
C25 body (Y-Cap)	52.2	52.0	52.5	52.3	--	85
C2 body (X-Cap)	56.5	55.7	55.1	53.9	--	85
LF2 coil	64.0	62.1	59.4	56.7	--	105
RY1 coil	55.0	54.4	54.5	53.8	--	105
PCB near BD1	64.5	62.9	60.9	58.3	--	105
PCB near RTH5 and RTH4	70.8	69.0	66.8	63.2	--	105
L2 coil	62.0	61.1	59.4	56.3	--	105
L1 coil	67.2	66.0	63.8	59.2	--	105
T52 coil	62.2	61.1	60.0	57.7	--	105
T51 coil	65.6	64.5	63.2	60.3	--	105
PCB near Q903 and Q901	73.8	73.3	80.2	76.5	--	105
L900 coil	69.6	70.5	79.6	77.7	--	105
T1 coil	71.7	75.5	97.2	95.8	--	110

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

T1 core	65.7	67.6	81.1	80.0	--	110
T301 coil	72.8	70.7	81.6	80.4	--	90
T301 core	68.2	68.5	80.0	78.7	--	90
T600 coil	54.0	55.1	64.8	64.6	--	90
T600 core	55.1	56.4	66.5	66.5	--	90
U242	53.6	53.8	57.0	57.0	--	100
C5 body (bulk cap)	57.6	59.8	73.0	73.0	--	105
C31 body (Bridging cap)	57.3	58.7	69.3	69.0	--	85
PCB near Q101 and Q106	70.9	74.8	101.9	101.3	--	105
C3 body (Y-Cap)	55.0	54.4	54.5	53.5	--	85
C30 body (Y-Cap)	52.0	51.7	53.7	53.4	--	85
U901	65.6	66.3	76.0	74.5	--	100
Enclosure outside near T1	61.6	62.0	70.1	68.7	--	90
Enclosure outside near Fan	63.6	63.9	75.0	74.0	--	90
ZNR2 body	62.2	60.9	59.6	57.5	--	85
Ambient	50.0	50.0	50.0	50.0	--	--
Model: RSP-1600-24 with DC Fan (Sanyo, Type 9GA0312P3J003) (LF1, LF2 used MEAN WELL Enterprises Co Ltd type TR-807) a. 90Vac, 60Hz, Fan Outward. (40.5A) b. 110Vac, 60Hz, Fan Outward. (47A) c. 200Vac, 60Hz, Fan Outward. (67A) d. 264Vac, 60Hz, Fan Outward. (67A)	(a)	(b)	(c)	(d)	--	--
Connector near line pin (CN1)	55.3	54.9	54.3	53.3	--	80
C4 body (Y-Cap)	53.7	53.5	53.0	52.3	--	85
ZNR1 body	52.8	52.7	52.3	51.7	--	85
C1 body (X-Cap)	53.0	52.9	52.6	52.1	--	85
LF1 coil	57.1	56.3	54.7	53.3	--	105
C24 body (Y-Cap)	52.7	52.6	52.3	51.7	--	85
C25 body (Y-Cap)	53.5	53.4	53.1	52.5	--	85
C2 body (X-Cap)	56.2	55.6	54.7	53.5	--	85
LF2 coil	61.0	59.6	56.8	54.6	--	105
RY1 coil	55.8	55.4	54.9	53.9	--	105
PCB near BD1	62.2	61.2	59.1	57.1	--	105
PCB near RTH5 and RTH4	69.9	68.4	65.2	61.8	--	105
L2 coil	70.6	69.0	64.8	59.4	--	105
L1 coil	79.1	77.0	71.4	64.1	--	105
T52 coil	68.0	66.6	63.9	60.7	--	105
T51 coil	68.0	66.6	63.9	60.6	--	105
PCB near Q903 and Q901	76.2	75.9	79.0	74.7	--	105
L900 coil	69.9	71.1	78.0	75.9	--	105
T1 coil	70.0	71.9	81.4	80.3	--	110
T1 core	62.9	63.9	68.1	67.2	--	110
T301 coil	75.1	75.6	79.5	77.9	--	90
T301 core	67.0	68.0	73.1	72.0	--	90
T600 coil	53.5	54.6	57.8	57.8	--	90
T600 core	53.8	55.2	58.8	58.7	--	90
U242	53.4	53.9	55.2	55.1	--	100
C5 body (bulk cap)	55.1	57.3	63.5	63.5	--	105
C31 body (Bridging cap)	55.9	57.3	61.9	61.6	--	85
PCB near Q101 and Q106	63.5	67.6	84.5	83.9	--	105
C3 body (Y-Cap)	57.6	57.1	56.3	54.9	--	85
C30 body (Y-Cap)	52.2	52.1	52.1	51.6	--	85
U901	65.8	67.1	73.3	71.5	--	100

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

Enclosure outside near T1	60.3	61.6	67.7	66.3	--	90
Enclosure outside near Fan	62.1	63.5	68.7	67.5	--	90
ZNR2 body	62.7	61.6	59.4	57.2	--	85
Ambient	50.0	50.0	50.0	50.0	--	--
Model: RSP-1600-27 with DC Fan (Sanyo, Type 9GA0312P3J003) (LF1, LF2 used MEAN WELL Enterprises Co Ltd type TR-807) a. 90Vac, 60Hz, Fan Outward. (35.5A) b. 110Vac, 60Hz, Fan Outward. (41.5A) c. 200Vac, 60Hz, Fan Outward. (59A) d. 264Vac, 60Hz, Fan Outward. (59A)	(a)	(b)	(c)	(d)	--	--
Connector near line pin (CN1)	53.3	53.0	52.6	51.9	--	80
C4 body (Y-Cap)	52.3	52.0	51.8	51.2	--	85
ZNR1 body	52.7	52.5	52.1	51.5	--	85
C1 body (X-Cap)	53.6	53.3	52.8	52.1	--	85
LF1 coil	59.2	58.2	55.5	53.7	--	105
C24 body (Y-Cap)	51.0	50.9	50.8	50.5	--	85
C25 body (Y-Cap)	51.9	51.8	51.6	51.3	--	85
C2 body (X-Cap)	56.6	56.0	54.7	53.5	--	85
LF2 coil	61.7	60.5	57.1	54.8	--	105
RY1 coil	56.0	55.5	54.6	53.7	--	105
PCB near BD1	65.9	64.6	60.9	58.1	--	105
PCB near RTH5 and RTH4	72.6	70.9	66.2	62.3	--	105
L2 coil	67.2	66.3	62.4	57.8	--	105
L1 coil	73.3	72.0	66.9	60.6	--	105
T52 coil	64.6	63.6	60.7	58.0	--	105
T51 coil	65.7	64.7	61.7	58.8	--	105
PCB near Q903 and Q901	73.8	73.4	74.3	70.9	--	105
L900 coil	64.3	64.7	67.4	65.6	--	105
T1 coil	61.3	62.8	69.9	69.1	--	110
T1 core	62.8	64.7	73.5	72.7	--	110
T301 coil	68.1	68.2	70.8	69.4	--	90
T301 core	66.9	67.0	70.6	69.1	--	90
T600 coil	50.9	51.3	53.3	53.3	--	90
T600 core	51.2	51.7	53.7	53.4	--	90
U242	52.9	52.9	53.5	53.3	--	100
C5 body (bulk cap)	51.9	52.4	56.5	56.8	--	105
C31 body (Bridging cap)	52.9	53.2	55.9	55.8	--	85
PCB near Q101 and Q106	57.0	58.3	65.9	65.8	--	105
C3 body (Y-Cap)	55.2	54.8	54.2	53.4	--	85
C30 body (Y-Cap)	50.9	50.9	50.8	50.4	--	85
U901	62.6	63.0	66.9	65.4	--	100
Enclosure outside near T1	59.3	59.5	62.2	61.2	--	90
Enclosure outside near Fan	61.9	62.1	64.7	63.4	--	90
ZNR2 body	64.3	63.1	60.0	57.5	--	85
Ambient	50.0	50.0	50.0	50.0	--	--
Model: RSP-1600-48 with DC Fan (Sanyo, Type 9GA0312P3J003) (LF1, LF2 used MEAN WELL Enterprises Co Ltd type TR-807) a. 90Vac, 60Hz, Fan Outward. (16.5A) b. 110Vac, 60Hz, Fan Outward. (19.5A) c. 200Vac, 60Hz, Fan Outward. (27.5A) d. 264Vac, 60Hz, Fan Outward. (27.5A)	(a)	(b)	(c)	(d)	--	--
Connector near line pin (CN1)	53.7	53.5	52.2	51.1	--	80

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

C4 body (Y-Cap)	52.3	52.2	51.5	51.0	--	85
ZNR1 body	51.8	51.7	51.0	50.7	--	85
C1 body (X-Cap)	53.2	53.0	52.2	51.9	--	85
LF1 coil	57.5	56.9	54.2	52.8	--	105
C24 body (Y-Cap)	50.5	50.3	50.2	50.8	--	85
C25 body (Y-Cap)	50.2	50.1	50.1	50.2	--	85
C2 body (X-Cap)	56.7	56.2	54.2	53.1	--	85
LF2 coil	63.6	62.3	57.3	55.0	--	105
RY1 coil	53.9	53.6	52.5	52.4	--	105
PCB near BD1	65.6	64.4	59.6	57.8	--	105
PCB near RTH5 and RTH4	75.0	73.3	66.4	63.5	--	105
L2 coil	65.3	64.7	60.5	57.6	--	105
L1 coil	72.1	71.1	65.3	60.8	--	105
T52 coil	65.6	64.5	60.3	58.7	--	105
T51 coil	65.0	64.0	59.9	58.3	--	105
PCB near Q903 and Q901	73.9	73.1	69.3	67.1	--	105
L900 coil	68.2	69.5	71.6	70.0	--	105
T1 coil	61.7	62.2	66.5	65.9	--	110
T1 core	57.4	57.5	59.5	58.6	--	110
T301 coil	65.7	65.5	66.2	65.4	--	90
T301 core	63.9	63.8	65.2	63.9	--	90
T600 coil	52.4	52.3	52.7	52.6	--	90
T600 core	51.4	51.2	52.9	52.8	--	90
U242	52.6	51.8	51.9	53.0	--	100
C5 body (bulk cap)	52.0	51.9	50.7	54.6	--	105
C31 body (Bridging cap)	52.8	52.6	51.9	54.8	--	85
PCB near Q101 and Q106	52.2	52.0	57.2	60.0	--	105
C3 body (Y-Cap)	55.7	55.4	53.9	52.0	--	85
C30 body (Y-Cap)	51.3	50.7	50.6	51.7	--	85
U901	63.2	62.9	62.4	62.5	--	100
Enclosure outside near T1	58.5	58.4	59.0	59.0	--	90
Enclosure outside near Fan	59.4	59.4	60.7	61.4	--	90
ZNR2 body	66.3	65.0	60.3	57.5	--	85
Ambient	50.0	50.0	50.0	50.0	--	--
Model: RSP-1600-12 with DC Fan (Sanyo, Type 9GA0312P3J003) (LF1, LF2 used MEAN WELL Enterprises Co Ltd type TR-807) a. 90Vac, 60Hz, Fan Inward. (75A) b. 110Vac, 60Hz, Fan Inward. (87.5A) c. 200Vac, 60Hz, Fan Inward. (125A) d. 264Vac, 60Hz, Fan Inward. (25A)	(a)	(b)	(c)	(d)	--	--
Connector near line pin (CN1)	69.1	69.2	73.2	70.3	--	80
C4 body (Y-Cap)	67.6	68.3	74.7	72.4	--	85
ZNR1 body	69.0	69.1	72.9	70.0	--	85
C1 body (X-Cap)	73.9	73.3	74.8	71.1	--	85
LF1 coil	72.2	71.3	71.7	67.7	--	105
C24 body (Y-Cap)	68.2	68.7	73.5	70.8	--	85
C25 body (Y-Cap)	68.5	68.8	73.6	70.8	--	85
C2 body (X-Cap)	76.6	75.9	77.0	72.8	--	85
LF2 coil	73.2	72.4	72.8	68.7	--	105
RY1 coil	61.8	62.7	67.4	65.3	--	105
PCB near BD1	76.7	76.0	77.7	73.3	--	105
PCB near RTH5 and RTH4	79.9	79.3	81.3	76.6	--	105
L2 coil	69.0	69.2	70.2	65.4	--	105

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

L1 coil	66.7	67.0	68.6	64.5	--	105
T52 coil	60.5	61.1	65.1	63.2	--	105
T51 coil	59.0	59.7	63.8	62.3	--	105
PCB near Q903 and Q901	60.7	61.6	70.4	68.8	--	105
L900 coil	60.1	61.6	69.8	69.1	--	105
T1 coil	70.4	74.0	95.3	94.7	--	110
T1 core	68.3	70.6	87.0	86.5	--	110
T301 coil	59.8	60.6	63.0	62.4	--	90
T301 core	53.0	53.7	56.1	55.6	--	90
T600 coil	58.1	59.6	63.6	63.0	--	90
T600 core	57.6	59.0	62.5	61.9	--	90
U242	63.1	64.5	71.6	69.9	--	100
C5 body (bulk cap)	60.0	61.7	72.0	71.7	--	105
C31 body (Bridging cap)	61.1	63.0	74.0	73.1	--	85
PCB near Q101 and Q106	64.8	67.5	84.6	83.8	--	105
C3 body (Y-Cap)	70.3	70.4	74.8	71.7	--	85
C30 body (Y-Cap)	66.2	67.0	73.0	70.8	--	85
U901	59.4	60.3	65.9	65.1	--	100
Enclosure outside near T1	55.1	55.8	60.6	59.8	--	90
Enclosure outside near Fan	47.8	47.9	49.3	48.1	--	90
ZNR2 body	69.6	69.5	72.0	69.0	--	85
Ambient	50.0	50.0	50.0	50.0	--	--
Model: RHP-8K1UI-12 (with five module: RCP-1600-12) with DC Fan (Sanyo, Type 9GA0312P3J003) (LF1, LF2 used MEAN WELL Enterprises Co Ltd type TR-807) a. 90Vac, 60Hz, Fan Inward. (375A) b. 110Vac, 60Hz, Fan Inward. (437.5A) c. 200Vac, 60Hz, Fan Inward. (625A) d. 264Vac, 60Hz, Fan Inward. (625A)	(a)	(b)	(c)	(d)	--	--
Connector near line pin (CN1)	71.6	72.1	73.4	70.3	--	80
C4 body (Y-Cap)	71.0	71.5	72.7	69.8	--	85
PCB near ZNR1	75.3	75.4	75.3	71.6	--	105
C1 body (X-Cap)	77.5	77.4	76.7	72.4	--	85
LF1 coil	74.5	74.1	71.5	67.5	--	105
C24 body (Y-Cap)	71.9	72.2	72.1	68.6	--	85
C25 body (Y-Cap)	74.2	74.5	74.6	70.9	--	85
C2 body (X-Cap)	74.8	74.6	73.4	69.5	--	85
LF2 coil	77.1	76.5	73.5	69.0	--	105
RY1 coil	68.5	69.2	69.0	65.9	--	105
PCB near BD1 and ZNR2	81.3	81.2	79.6	74.8	--	105
PCB near RTH5 and RTH4	81.3	81.2	79.7	75.1	--	105
L2 coil	80.5	80.8	77.0	69.4	--	105
L1 coil	73.4	73.8	70.8	65.5	--	105
T52 coil	67.9	68.2	67.6	65.0	--	105
T51 coil	62.5	63.0	62.7	61.1	--	105
PCB near Q903 and Q901	64.2	65.3	70.9	69.2	--	105
L900 coil	60.8	62.1	64.3	63.6	--	105
T1 coil	77.0	80.8	95.4	94.3	--	110
T1 core	77.8	79.9	87.1	86.2	--	110
T301 coil	62.2	63.3	64.2	63.9	--	90
T301 core	58.7	59.0	56.3	55.6	--	90
T600 coil	61.5	62.9	66.1	65.1	--	90
T600 core	61.2	62.5	65.9	64.8	--	90

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

U242	67.5	68.6	71.0	68.8	--	100
C5 body (bulk cap)	63.8	65.7	72.9	71.3	--	105
C31 body (Bridging cap)	65.6	68.0	76.6	75.5	--	85
PCB near Q101 and Q106	69.0	72.9	87.6	86.4	--	105
C3 body (Y-Cap)	72.4	73.0	74.6	71.3	--	85
C30 body (Y-Cap)	70.4	71.4	73.9	70.9	--	85
U901	61.8	62.5	64.5	63.5	--	100
Enclosure outside near T1	59.7	60.4	61.1	59.9	--	90
Enclosure outside near Fan	52.4	53.1	50.4	50.2	--	90
Handle body	52.1	52.6	50.2	50.1	--	60
Inlet near line pin (on Rack System)	69.1	69.9	71.6	68.6	--	70
PCB near pin + (on Rack System)	69.3	72.3	83.8	81.9	--	105
Ambient	50.0	50.0	50.0	50.0	--	--
Model: RHP-8K1UI-12 (with five module: RCP-1600-12) with DC Fan (Sanyo, Type 9GA0312P3J003) (LF1, LF2 used MEAN WELL Enterprises Co Ltd type TR-807) a. 90Vac, 60Hz, Fan Outward. (375A) b. 110Vac, 60Hz, Fan Outward. (437.5A) c. 200Vac, 60Hz, Fan Outward. (625A) d. 264Vac, 60Hz, Fan Outward. (625A)	(a)	(b)	(c)	(d)	--	--
Connector near line pin (CN1)	56.1	56.6	50.5	50.0	--	80
C4 body (Y-Cap)	54.0	54.9	50.2	50.2	--	85
PCB near ZNR1	55.8	56.4	50.7	50.3	--	105
C1 body (X-Cap)	54.9	55.6	50.9	50.8	--	85
LF1 coil	59.1	59.4	52.3	51.4	--	105
C24 body (Y-Cap)	57.3	57.1	53.5	52.9	--	85
C25 body (Y-Cap)	58.0	57.6	54.0	53.3	--	85
C2 body (X-Cap)	61.9	62.0	56.0	54.5	--	85
LF2 coil	64.2	63.8	56.3	54.2	--	105
RY1 coil	57.9	57.9	53.7	53.2	--	105
PCB near BD1 and ZNR2	66.7	66.1	60.1	57.8	--	105
PCB near RTH5 and RTH4	72.9	71.8	65.3	62.2	--	105
L2 coil	73.4	73.1	64.8	59.4	--	105
L1 coil	78.0	77.4	68.7	62.4	--	105
T52 coil	67.0	66.4	61.2	58.9	--	105
T51 coil	68.3	67.7	62.4	59.9	--	105
PCB near Q903 and Q901	80.6	80.9	83.9	80.1	--	105
L900 coil	69.1	69.9	69.3	67.6	--	105
T1 coil	83.1	86.1	96.7	95.3	--	110
T1 core	83.0	84.2	86.0	84.0	--	110
T301 coil	76.6	77.0	77.0	75.6	--	90
T301 core	72.0	72.2	75.9	70.5	--	90
T600 coil	61.1	60.9	62.3	58.8	--	90
T600 core	60.4	60.9	61.1	60.0	--	90
U242	58.9	58.9	60.5	55.1	--	100
C5 body (bulk cap)	62.5	62.5	64.5	64.5	--	105
C31 body (Bridging cap)	63.2	62.8	65.3	65.0	--	85
PCB near Q101 and Q106	70.1	71.4	82.4	82.0	--	105
C3 body (Y-Cap)	56.4	56.5	61.0	50.3	--	85
C30 body (Y-Cap)	57.2	56.8	64.2	53.8	--	85
U901	68.4	67.2	71.3	69.7	--	100
Enclosure outside near T1	51.9	53.9	61.4	59.8	--	90
Enclosure outside near Fan	68.8	68.8	72.1	61.1	--	90

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

Handle body		63.1	61.3	67.9	57.5	--	90
inlet near line pin (on Rack System)		50.2	52.4	66.8	66.0	--	70
PCB near pin + (on Rack System)		50.9	52.5	70.5	70.2	--	105
Ambient		50.0	50.0	50.0	50.0	--	--
Model: RCP-1600-12 with DC Fan (Sanyo, Type 9GA0312P3J003) (LF1, LF2 used MEAN WELL Enterprises Co Ltd type TR-1182) a. 200Vac, 60Hz, Fan Inward. (125A)		(a)	--	--	--	--	--
LF1 coil		74.3	--	--	--	--	105
LF2 coil		77.2	--	--	--	--	105
T1 coil		102.8	--	--	--	--	110
T1 core		95.0	--	--	--	--	110
T301 coil		64.1	--	--	--	--	90
Ambient		50.0	--	--	--	--	--
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:							

4.5.5	**TABLE: Ball pressure test of thermoplastic parts**		Pass
	allowed impression diameter (mm)..... :	≤ 2 mm	—

part	test temperature (°C)	impression diameter (mm)
Terminal Block (TB1), Switchlab Inc, Type T25	125	1.3
Terminal Block (TB1), Dinkle, Type DT-5	125	1.2
I/O connector (CN1), Positronic, Type PCIM34W13M400A1	125	1.2
Bobbin (L1, L2, T600, T1 and T301), E I DUPONT DE NEMOURS & CO INC , Type FR-530	125	1.4
Bobbin (L1, L2 and T600), NAN YA , Type 1403G3	125	1.5
Bobbin (L1, L2 and T600), CHANG CHUN PLASTICS CO LTD, Type PBT4115	125	1.4
Bobbin (L1, L2 and T600), CHANG CHUN PLASTICS CO LTD, Type PBT4130	125	1.4
supplementary information:		
--		

4.7	**TABLE: resistance to fire**				Pass
part	manufacturer of material	type of material	thickness (mm)	flammability class	Evidence
--	--	--	--	--	

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

supplementary information:

All internal materials are rated minimum V-2 or are mounted on a PWB rated minimum V-1. Internal wiring marked VW-1 or FT-1 and strapped by individual cable ties. See Critical Component Table for details.

5.1	**TABLE: touch current measurement**		Pass
Measured between:	Measured (mA)	Limit (mA)	Comments/Conditions
--	--	--	Test on Model RSP-1600-12
Earth	1.09	3.5	switch “e” open; Normal
Earth	1.10	3.5	switch “e” open; Reverse
Output	0.23	0.25	switch “e” closed; Normal
Output	0.23	0.25	switch “e” closed; Reverse
--	--	--	Test on Model RCP-1600-12
Earth	1.09	3.5	switch “e” open; Normal
Earth	1.09	3.5	switch “e” open; Reverse
Output	0.23	0.25	switch “e” closed; Normal
Output	0.23	0.25	switch “e” closed; Reverse

supplementary information:

Test voltage: 264V, 60Hz
Y capacitor: C3, C4, C30 = 3300 pF, C24, C25 = 4700 pF
Bridging Capacitor: C31, C80 = 3300 pF

5.2	**TABLE: electric strength tests, impulse tests and voltage surge tests**		Pass
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Functional:			
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
--	--	--	--
Basic/supplementary:			
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
T1: Primary to Core	AC	1834	No
T1: Secondary to Core	AC	1834	No
T301: Primary to Core	AC	1951	No
T301: Secondary to Core	AC	1951	No
T600: Primary to Core	AC	1740	No

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

T600: Secondary to Core	AC	1740	No
Unit: Primary to earth	DC	2759	No
Insulation Sheet (Located Between top chassis and main board)	AC	1951	No
BD1 internal conductor to plastic cover	AC	1951	No
Mylar sheet	AC	1951	No
Silicon rubber	AC	1951	No
Reinforced:			
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Unit: Primary to secondary	DC	4242	No
T1: Primary to Secondary	AC	3000	No
T301: Primary to Secondary	AC	3000	No
T600: Primary to Secondary	AC	3000	No
T1: One layer insulation tape	AC	3000	No
T301: One layer insulation tape	AC	3000	No
T600: One layer insulation tape	AC	3000	No
Insulation Sheet (Located Between top chassis and main board)	AC	3000	No
Tubing of DC Fan wire	AC	3000	No
Tubing	AC	3000	No
supplementary information:			
The electric strength test has been applied for all transformer sources. All insulation tape, sheet, Tubing are conducted with the tests, see critical component list for source detail.			

5.3	**TABLE: fault condition tests**						Pass
	ambient temperature (° C).....				25°C, if no otherwise state.		—
	Power source for EUT: Manufacturer, model/type, output rating.....				--		—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation	
--	--	--	--	--	--	Test on Model: RCP-1600-12	
BD1 (AC to +)	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	
C9	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	
C5	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	
Q901 (D-S)	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	
Q901 (D-G)	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	
Q902 (D-S)	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	
Q902 (D-G)	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	
Q903 (D-S)	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	
Q903 (D-G)	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	
Q904 (D-S)	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	
Q904 (D-G)	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	
Q51 (D-S)	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	
Q51 (D-G)	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	
Q52 (D-S)	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	
Q52 (D-S)	short	264Vac	1 sec	FS1	0	Fuse (FS1) opened, No hazards.	

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

U82 (pin 1 to 3)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
U82 (pin 1 to 4)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
Q901 (G-S)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
Q902 (G-S)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
Q903 (G-S)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
Q904 (G-S)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
T1 (pin 9, 10, 11 to 12, 13)	short	200Vac	0.5 hr	FS1	8.58 to 0.42	Unit shut down, except for +5V AUX and +12V AUX, No hazards.
T1 (pin 9, 10, 11 to 14, 15)	short	200Vac	0.5 hr	FS1	8.58 to 0.42	Unit shut down, except for +5V AUX and +12V AUX, No hazards.
T301 (pin 9 to 10)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
T301 (pin 1 to 2)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
T301 (pin 3 to 4)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
T600 (pin 3 to 4)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
U81 (pin 3 to 4)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
U81 (pin 1 to 2)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
U81 (pin 1)	open	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
U242 (pin 3 to 4)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
U242 (pin 1 to 2)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
U242 (pin 1)	open	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
Q901 (S to G)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
Q902 (S to G)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
Q903 (S to G)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
Q904 (S to G)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
Q51 (S to G)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
Q52 (S to G)	short	200Vac	0.5 hr	FS1	8.58 to 0.25	Unit shut down, No hazards.
Output (+12V/125A)	short	200Vac	0.5 hr	FS1	8.58 to 0.42	Unit shut down, except for +5V AUX and +12V AUX, No hazards.
Output (+12V/125A) (Fan Inward)	overload	200Vac	2.5 hrs	FS1	8.58 to 9.29 to 0.42	Temperature was stable at load 135.0 A, Unit shut down at load 135.5 A. except for +5V AUX and +12V AUX. T1 coil = 76.2 °C, T301 coil = 38.5 °C, T600 coil = 44.8 °C, Ambient = 22.5 °C. No hazards.
Output (+5V AUX /0.3A) (Fan Outward)	overload	200Vac	1.5 hrs	FS1	8.58 to 8.62 to 0.26	Temperature was stable at load 0.4 A, Unit shut down at load 0.5 A. T1 coil = 72.0 °C, T301 coil = 55.9 °C, T600 coil = 50.5 °C, Ambient = 22.2 °C. No hazards.
T1 (9, 10, 11 to 12, 13) After D100 at C101 for +12V	overload	200Vac	3.0 hrs	FS1	8.58 to 9.32 to 0.42	Temperature was stable at load 135.5 A, Unit shut down at load 136.0 A. except for +5V AUX and +12V AUX.

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

(Fan Inward)						T1 coil = 76.3 °C, T301 coil = 38.0 °C, T600 coil = 44.8 °C, Ambient = 22.0 °C. No hazards.
T301 (1 to 2) After D301 at C302 for +5V AUX (Fan Outward)	overload	200Vac	3.0 hrs	FS1	8.58 to 8.64 to 0.26	Temperature was stable at load 0.5 A, Unit shut down at load 0.6 A. T1 coil = 72.0 °C, T301 coil = 56.2 °C, T600 coil = 50.4 °C, Ambient = 22.0 °C. No hazards.
T301 (3 to 4) After D321 at C321 for +12V AUX (Fan Outward)	overload	200Vac	3.0 hrs	FS1	8.58 to 8.95 to 0.26	Temperature was stable at load 2.0 A, Unit shut down at load 2.1 A. T1 coil = 71.6 °C, T301 coil = 55.7 °C, T600 coil = 50.2 °C, Ambient = 21.9 °C. No hazards.
T600 (3 to 4) for internal voltage	overload	200Va	0.5 hrs	FS1	8.58 to 0.26	Unit shut down immediately when loaded to 0.1A.
All Fan (Fan Inward)	locked	200Vac	2.0 hrs	FS1	8.58 to 0.28	Unit shut down. except for +5V AUX and +12V AUX. T1 coil = 75.1 °C, T301 coil = 75.7 °C, T600 coil = 53.2 °C, Ambient = 21.1 °C. No hazards.
One Fan (Fan Inward)	locked	200Vac	4.0 hrs	FS1	8.58 to 0.32	Unit shut down. except for +5V AUX and +12V AUX. T1 coil = 75.0 °C, T301 coil = 54.2 °C, T600 coil = 48.4 °C, Ambient = 21.7 °C. No hazards.
All openings (Fan Inward)	blocked	200Vac	1.0 hrs	FS1	8.58 to 0.47	Unit cycle protection. T1 coil = 122.1 °C, T301 coil = 86.8 °C, T600 coil = 83.8 °C, Ambient = 21.5 °C. No hazards.

supplementary information:

All R/C fuse sources are repeated with the tests which fuse would be opened during the test, refer to appended table 1.5.1 for details

For UL recognized fuses, all tests were carried out for ten times during the worst case fault condition test.

C.2	TABLE: transformers						Pass
Loc.	Tested insulation	Working voltage peak /V (2.10.2)	Working voltage rms /V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
T1 transformer,	--	--	--	--	--	--	--

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

core is considered as floating, the core wrapped with insulation tape.							
T1	RI: primary pins to secondary pins.	544	280	3000 Vac	4.4	5.6	Minimum 0.4 mm or two layer
T1	RI: primary pins to secondary windings.	544	280	3000 Vac	4.4	5.6	Minimum 0.4 mm or two layer
T1	BI: primary pins to core.	544	280	1834 Vac	2.2	2.8	--
T1	RI: primary windings to secondary pins.	544	280	3000 Vac	4.4	5.6	Minimum 0.4 mm or two layer
T1	RI: primary windings to secondary windings.	544	280	3000 Vac	4.4	5.6	Minimum 0.4 mm or two layer
T1	BI: primary windings to core.	544	280	1834 Vac	2.2	2.8	--
T1	SI: secondary pins to core.	544	280	1834 Vac	2.2	2.8	Minimum 0.4 mm or two layer
T1	SI: secondary windings to core.	544	280	1834 Vac	2.2	2.8	Minimum 0.4 mm or two layer
T301 transformer, core is considered as floating, the core wrapped with insulation tape.	--	--	--	--	--	--	--
T301	RI: primary pins to secondary pins.	640	332	3000 Vac	4.6	6.8	Minimum 0.4 mm or two layer
T301	RI: primary pins to secondary windings.	640	332	3000 Vac	4.6	6.8	Minimum 0.4 mm or two layer
T301	BI: primary pins to core.	640	332	1951 Vac	2.3	3.4	--
T301	RI: primary windings to secondary pins.	640	332	3000 Vac	4.6	6.8	Minimum 0.4 mm or two layer
T301	RI: primary windings to secondary windings.	640	332	3000 Vac	4.6	6.8	Minimum 0.4 mm or two

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

							layer
T301	BI: primary windings to core.	640	332	1951 Vac	2.3	3.4	--
T301	SI: secondary pins to core.	640	332	1951 Vac	2.3	3.4	Minimum 0.4 mm or two layer
T301	SI: secondary windings to core.	640	332	1951 Vac	2.3	3.4	Minimum 0.4 mm or two layer
T600 transformer, primary winding used insulation tubing, core is considered as floating.	--	--	--	--	--	--	--
T600	RI: primary pins to secondary pins.	488	312	3000 Vac	4.2	6.4	Minimum 0.4 mm or two layer
T600	RI: primary pins to secondary windings.	488	312	3000 Vac	4.2	6.4	Minimum 0.4 mm or two layer
T600	BI: primary pins to core.	488	312	1740 Vac	2.1	3.2	--
T600	RI: primary windings to secondary pins.	488	312	3000 Vac	4.2	6.4	Minimum 0.4 mm or two layer
T600	RI: primary windings to secondary windings.	488	312	3000 Vac	4.2	6.4	Minimum 0.4 mm or two layer
T600	BI: primary windings to core.	488	312	1740 Vac	2.1	3.2	--
T600	SI: secondary pins to core.	488	312	1740 Vac	2.1	3.2	Minimum 0.4 mm or two layer
T600	SI: secondary windings to core.	488	312	1740 Vac	2.1	3.2	Minimum 0.4 mm or two layer
Loc.	Tested insulation			Test voltage / V	Measured clearance / mm	Measured creepage dist./mm	Measured distance thr. insul / mm; number of layers
T1 transformer, core is considered as floating, the	--			--	--	--	--

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

core wrapped with insulation tape.					
T1	RI: primary pins to secondary pins.	3000 Vac	34.1	34.1	Minimum 0.4 mm or two layer
T1	RI: primary pins to secondary windings.	3000 Vac	12.8	12.8	Minimum 0.4 mm or two layer
T1	BI: primary pins to core.	1834 Vac	7.4	7.4	--
T1	RI: primary windings to secondary pins.	3000 Vac	6.6	6.6	Minimum 0.4 mm or two layer
T1	RI: primary windings to secondary windings.	3000 Vac	9.6	9.6	Minimum 0.4 mm or two layer
T1	BI: primary windings to core.	1834 Vac	3.0	3.0	--
T1	SI: secondary pins to core.	1834 Vac	9.5	9.5	Minimum 0.4 mm or two layer
T1	SI: secondary windings to core.	1834 Vac	6.5	6.5	Minimum 0.4 mm or two layer
T301 transformer, core is considered as floating, the core wrapped with insulation tape.	--	--	--	--	--
T301	RI: primary pins to secondary pins.	3000 Vac	11.4	11.4	Minimum 0.4 mm or two layer
T301	RI: primary pins to secondary windings.	3000 Vac	8.3	8.3	Minimum 0.4 mm or two layer
T301	BI: primary pins to core.	1951 Vac	6.8	6.8	--
T301	RI: primary windings to secondary pins.	3000 Vac	8.3	8.3	Minimum 0.4 mm or two layer
T301	RI: primary windings to secondary windings.	3000 Vac	8.0	8.0	Minimum 0.4 mm or two layer
T301	BI: primary windings to core.	1951 Vac	4.0	4.0	--
T301	SI: secondary pins to core.	1951 Vac	6.8	6.8	Minimum 0.4 mm or two

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

					layer
T301	SI: secondary windings to core.	1951 Vac	4.0	4.0	Minimum 0.4 mm or two layer
T600 transformer, primary winding used insulation tubing, core is considered as floating.	--	--	--	--	--
T600	RI: primary pins to secondary pins.	3000 Vac	7.4	7.4	Minimum 0.4 mm or two layer
T600	RI: primary pins to secondary windings.	3000 Vac	6.8	6.8	Minimum 0.4 mm or two layer
T600	BI: primary pins to core.	1740 Vac	5.3	5.3	--
T600	RI: primary windings to secondary pins.	3000 Vac	5.7	8.2	Minimum 0.4 mm or two layer
T600	RI: primary windings to secondary windings.	3000 Vac	6.8	6.8	Minimum 0.4 mm or two layer
T600	BI: primary windings to core.	1740 Vac	7.6	7.6	--
T600	SI: secondary pins to core.	1740 Vac	5.8	5.8	Minimum 0.4 mm or two layer
T600	SI: secondary windings to core.	1740 Vac	6.6	6.6	Minimum 0.4 mm or two layer
supplementary information:					
--					

C.2	**TABLE: transformers**	Pass
See Enclosure for details		

Enclosure

National Differences

Argentina

Australia / New Zealand

Austria**

Belarus*

Belgium**

Bulgaria**

China

Czech Republic**

Denmark

Finland

France**

Germany

Greece**

Group

Hungary**

India*

Ireland

Israel

Italy**

Japan

Korea

Malaysia*

Netherlands**

Norway

Poland**

Portugal**

Romania**

Saudi Arabia*

Serbia**

Singapore*

Slovakia**

Slovenia**

South Africa*

Spain

Sweden

Switzerland

USA / Canada

Ukraine*

United Kingdom

* No National Differences Declared

** Only Group Differences

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Argentina - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
General	Argentina has national differences declared to 60950-1:2005 + A1:2009.		Pass
1.5.2	Certified plug according to IRAM 2063 (two prong) or IRAM 2073 (three prong) are used in accordance with their ratings	Additional investigation when submitted for National Approval.	N/A
1.7.2	Operating/safety instructions made available to the user in Spanish. Product information appears on the product.	Additional investigation when submitted for National Approval.	N/A
3.2	Plugs shall be in conformity with IRAM 2063 Standard for Class II and IRAM 2073 Standard for Class I appliances (Resolution 524/98)	Additional investigation when submitted for National Approval.	N/A
4.3.6	Adapters/Transformers provided with integrated plugs shall be provided with blades which shall meet the geometry of IRAM 2063 standard for Class II appliances or IRAM 2073 standard for Class I appliances (Resolution 524/98)		N/A
General	Household power supply sources are 220 V a.c., 50 Hz	Additional investigation when submitted for National Approval.	N/A

Australia / New Zealand - Differences to IEC 60950-1:2005, Second Edition including A1+A2			
1.2.12.201	Addition: POTENTIAL IGNITION SOURCE Possible fault which can starts a fire if the open-circuit voltage measured across an interruption or faulty contact exceeds a value of 50 V (peak) a.c. or d.c. and the product of the peak value of this voltage and the measured r.m.s. current under normal operating conditions exceeds 15VA. Such a faulty contact or interruption in an electrical connection includes those which may occur in conductive patterns on printed boards. Note 201: An electronic protection circuit may be used to prevent such a fault from becoming a POTENTIAL IGNITION SOURCE. Note 202: This definition is from AS/NZS 60065:2012, Clause 2.8.11		Pass
1.5.1	Add to the end of the first paragraph and in note 1 after the word “standard; "or the relevant Australian / New Zealand Standard". Delete from second paragraph ‘without further evaluation’.		Pass
1.5.2	Add to the first line of the first paragraph and first paragraph second dashed item second line and last line after the word “standard:” or an Australian/New Zealand Standard ".		Pass
1.7.1.3	Replace existing text with Graphical symbols		Pass

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	placed on the equipment as a requirement of this standard, shall be in accordance with IEC 60417 or ISO 3864-2 or ISO 7000, if available. In absence of suitable symbols, the manufacturer may design specific graphical symbols		
2.9.2	Delete from second paragraph the word “designated”.		Pass
3.2.5.1	Replace the first four rows for Table 3B with the following: Sizes of Conductors --- Rated Current of Equipment (A) — Nominal cross-sectional area (mm²) --- 0.2 <= 3 — 0.5 1) 3 <= 7.5 — 0.75 7.5 <= 10 — (0.75) 2) 1.00 10 <= 16 — (1,0) 3) 1.5 --- Replace footnote a) with the following: a) This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord or cord guard, enters the appliance, and the entry to the plug, does not exceed 2 m (0.5 mm² three-core supply flexible cords are not permitted; see S/NZS 3191). Delete Note 1. And renumber existing Note 2 as Note	Equipment intended for built-in, to be determined in the end product. Additional investigation when submitted for National Approval.	N/A
4.1.201	Addition: Display devices used for television purposes Display devices which may be used for television purposes, with a mass of 7 kg or more, shall comply with the requirements for stability and mechanical hazards, including the additional stability requirements for television received, specified in AS/NZS 60065.		N/A
4.3.6	Replace the third paragraph: Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin socket-outlet complying with AS/NZS 3112, shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets.		N/A
4.3.8	Add new note after the first dashed item of paragraph eight.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Note 6.201 In cases where the voltage source is provided by power from an unassociated power source, consideration should be given to the effect of possible single fault conditions in the unassociated equipment. If the power source is unknown then it should be assumed that the maximum limit of SELV may be applied to the source input under assumed single fault conditions in the source when accessing the charging circuit in the equipment under test.		
4.3.8.201	Additional after Clause 4.3.8: Products containing coin/button cell batteries and batteries designated R1. The requirements of AS/NZS 60065:2012 Amendment 1:2015, clause 14.10.201 apply for this Clause.		N/A
4.3.13.5.1	Add the following after each reference to 'IEC 60825-1': 'or AS/NZS 60825.1' Add the following after 'IEC 60825-2' in line two of the first paragraph: 'or AS/NZS 60825.2'		N/A
4.7	Add after the clause: For alternative resistance to fire tests, refer to Clause 4.7.201		N/A
4.7.201	Additional after the clause 4.7.3.6: Resistance to fire - Alternative tests		N/A
4.7.201.1	Addition: General Parts of non-metallic material shall be resistant to ignition and spread of fire. This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames originating from inside the apparatus, or the following: (a) Components that are contained in an enclosure having a flammability category of V-0 according to AS/NZS 60695.11.10 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1 mm in width regardless of length. (b) The following parts which would contribute negligible fuel to a fire: - small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings; - small electrical components, such as capacitors with a volume not exceeding 1 750 mm3, integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category V-1, or better,		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	according to AS/NZS 60695.11.10. NOTE In considering how to minimize propagation of fire and what 'small parts' are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating fire from one part to another. Compliance shall be checked by the tests of 4.7.201.2, 4.7.201.3, 4.7.201.4 and 4.7.201.5. For the base material of printed boards, compliance shall be checked by the test of 4.7.201.5. The tests shall be carried out on parts of non-metallic material which have been removed from the apparatus. When the glow-wire test is carried out, the parts shall be placed in the same orientation as they would be in normal use. These tests are not carried out on internal wiring.		
4.7.201.2	Addition: Testing of non-metallic materials Parts of non-metallic material shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 550°C. Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy material, shall meet the requirements specified in ISO 9772 for category FH-3 material. The glow-wire test shall be not carried out on parts of material classified at least FH-3 according to ISO 9772 provided that the sample tested was not thicker than the relevant part.		N/A
4.7.201.3	Addition: Testing of insulating materials Parts of insulating material supporting POTENTIAL IGNITION SOURCES shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 750°C. The test shall be also carried out on other parts of insulating material which are within a distance of 3mm of the connection. NOTE Contacts in components such as switch contacts are considered to be connections. For parts which withstand the glow-wire test but produce a flame, other parts above the connection within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm shall be subjected to the needle-flame test. However, parts shielded by a barrier which meets the needle-flame test shall not be tested. The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications:		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Clause of AS/NZS 60695.11.5 Change 9 Test procedure 9.2 Replace the first paragraph with: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1.If possible the flame shall be applied at least 10mm from a corner. Replace the second paragraph with: The duration of application of the test flame shall be 30s ± 1s. 9.3 Replace with: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall then withstand the test. 11 Evaluation of test results Replace with: The duration of burning (tb) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s. The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to AS/NZS 60695.11.10, provided that the sample tested was not thicker than the relevant part.		
4.7.201.4	Addition: Testing in the event of non-extinguishing material If parts, other than enclosures, do not withstand the glow wire tests of 4.7.201.3, by failure to extinguish within 30 s after the removal of the glow-wire tip, the needle-flame test detailed in 4.7.201.3 shall be made on all parts of non-metallic material which are within a distance of 50 mm or which are likely to be impinged upon by flame during the tests of 4.7.201.3. Parts shielded by a separate barrier which meets the needle-flame test need not be tested. NOTE 1 - If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing. NOTE 2 - If other parts do not withstand the glow-		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	wire test due to ignition of the tissue paper and if this indicates that burning or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing. NOTE 3 - Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the material supporting, in contact with, or in close proximity to, connections.		
4.7.201.5	Addition: Testing of printed boards The base material of printed boards shall be subjected to the needle-flame test of Clause 4.7.201.3. The flame shall be applied to the edge of the board where the heat sink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge, consisting of broken perforations, unless the edge is less than 3 mm from a POTENTIAL IGNITION SOURCE. The test is not carried out if the - Printed board does not carry any POTENTIAL IGNITION SOURCE; - Base material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category V-1 or better according to AS/NZS 60695.11.10, or the printed boards are protected by an enclosure meeting the flammability category V-0 according to AS/NZS 60695.11.10, or made of metal, having openings only for connecting wires which fill the openings completely; or - Base material of printed boards, on which the available apparatus power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category V-0 according to AS/NZS 60695.11.10 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely. Compliance shall be determined using the smallest thickness of the material.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	NOTE – Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximise the apparent power for more than 2 min when the circuit supplied is disconnected.		
6.2.2	For Australia only, delete the first paragraph and Note, and replace with the following: In Australia (not in New Zealand) only, compliance with 6.2.2 is checked by the tests of both 6.2.2.1 and 6.2.2.2.		N/A
6.2.2.1	For Australia only, delete the first paragraph including the note and replace with the following: In Australia only(not in New Zealand), the electrical separation is subjected to 10 impulses of alternating polarity, using the impulse test generator Reference 1 of Table N1 for 10/700µs impulses. The interval between successive impulses is 60 s and the initial voltage, Uc is: (i) for 6.2.1a): 7.0 kV for hand-held telephones and for headsets and 2.5 kV for other equipment and (ii) for 6.2.1b) and 6.2.1c): 1.5 kV. NOTE 201 - The 7 kV impulse is to simulate lightning surges on typical rural and semi-rural network lines. NOTE 202 - The value of 2.5 kV for 6.2.1a) was chosen to ensure adequacy of the insulation concerned and does not necessarily simulate likely overvoltages.		N/A
6.2.2.2	For Australia only, delete the second paragraph including the Note and replace with the following: In Australia (not New Zealand), the a.c. test voltage is: (i) for 6.2.1a) 3 kV; and (ii) for 6.2.1b) and 6.2.1c) 1.5 kV NOTE 201 - Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used. NOTE 202 - The 3 kV and 1.5 kV values have been determined considering the low frequency induced voltages from the power supply distribution system.		N/A
7.3	Add the following before the first paragraph: Equipment providing functions that fall only within the scope of AS/NZS 60065 and that incorporate a PSTN interface, are not required to comply with this Clause where the only ports provided on the equipment, in addition to a coaxial cable		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	connection and a PSTN interface, are audio or video ports and analogue or data ports not intended to be used for telecommunication purposes.		
Annex P	Add the following Normative References: AS/NZS 3191, Electric flexible cords AS/NZS 3112, Approval and test specification—Plugs and socket-outlets		Pass
Index	replace the reference to AS/NZS 2211.1 with references to AS/NZS 60825.1 and AS/NZS 60825.2: AS/NZS 60825.1..... 4.3.13.5.1 AS/NZS 60825.2 ..... 4.3.13.5.1		N/A

China - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
General	China has national differences declared for 60950-1:2005 (below).		Pass
1.1.2	Revised third dashed paragraph to read: equipment intended to be used in vehicles, on board ships or aircraft, in tropical countries, or at altitudes greater than 5000m;		Pass
1.4.5	Amend the second paragraph and the two following dash paragraphs as: If the equipment is intended for direct connection to an AC mains supply, the tolerances on RATED VOLTAGE shall be taken as +10%,-10% unless a wider tolerance is declared by the manufacturer, in which case the tolerance shall be taken as the wider value.		Pass
1.4.12.1	Tma in clause 1.4.12.1 amended as: Tma: is the maximum ambient temperature permitted by the manufacturer's specification, or 35 °C, whichever is greater. Add note 1: for equipment not to be operated at tropical climatic conditions, Tma: is the maximum ambient temperature permitted by the manufacturer's specification, or 25 °C, whichever is greater. Add note 2: for equipment is to be operated at 2000m-5000m above sea leave, its temperature test conditions and temperature limits are considered.	Equipment was investigated and complied with requirements for Tma 50 °C and altitude up to 2000 meters, addition investigations when submitted for National Approval.	Pass
1.5.2	Add a note behind the first dashed paragraph. Note: A component used shall comply with related requirements corresponding altitude of 5000m.	Equipment was investigated and complied with requirements for Tma 50 °C and altitude up to 2000 meters,	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
		addition investigations when submitted for National Approval.	
1.7	Add a paragraph before the last paragraph: The required marking and instruction should be given in normative Chinese unless otherwise specified.	Safety instructions in English. Other languages will be provided when submitted for National Approval.	Pass
1.7.1	Amend dashed paragraph at the fifth paragraph : The RATED VOLTAGE should be 220V (single phase) or 380V (three-phases) for single rated voltage, for RATED VOLTAGE RANGE, it should cover 220V or 380V (three-phases), for multiple RATED VOLTAGES, one of them should be 220V or 380V (three-phases) and set on 220V or 380V (three-phases) when manufactured. And the RATED FREQUENCY or RATED FREQUENCY RANGE should be 50Hz or include 50Hz		Pass
1.7.2.1	Add requirements of warning for equipment intended to be used at altitude not exceeding 2000m or at non-tropical climate regions: For equipment intended to be used at altitude not exceeding 2000m, a warning label containing the following or a similar appropriate wording, or a symbol as in annex DD shall fixed to the equipment at readily visible place. "Only used at altitude not exceeding 2000m." For equipment intended to be used in not-tropical climate regions, a warning label containing the following or a similar appropriate wording, or a symbol as in annex DD shall fixed to the equipment at readily visible place. "Only used in not-tropical climate regions." If only the symbol used, the explanation of the symbol shall be contained in the instruction manual. The above statements shall be given in a language acceptable to the regions where the apparatus is intended to be used.	Equipment was investigated and complied with requirements for Tma 50 °C and altitude up to 2000 meters, addition investigations when submitted for National Approval.	N/A
2.7.1	Amended the first paragraph as: Protection in PRIMARY CIRCUITS against overcurrent short-circuits and earth faults shall be provided as an integral part of the equipment except special provisions. And the protective device shall meet the requirement of Clause 5.3.		Pass
2.9	Humidity conditioning This section applies for equipment to be operated at tropical climatic conditions, humidity conditioning dealt with tropical climatic conditions. For equipment not to be operated at tropical climatic		Pass

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	conditions, its humidity conditioning complies with rules of CTL 624/07.		
2.9.2	First section of Clause 2.9.2 amended as two sections: Where required by 2.9.1, 2.10.8.3, 2.10.10 or 2.10.11, humidity conditioning is conducted for 120 h in a cabinet or room containing air with ambient temperature 40±2℃ and a relative humidity of (93±3)%. During this conditioning the component or subassembly is not energized. For equipment not to be operated at tropical climatic conditions, Where required by 2.9.1, 2.10.8.3, 2.10.10 or 2.10.11, humidity conditioning is conducted for 48 h in a cabinet or room containing air with a relative humidity of (93±3) %. The temperature of the air, at all places where samples can be located, is maintained within 2 °C of any convenient value between 20 °C and 30 °C such that condensation does not occur. Due to pretreatment of equipment operated at high altitude area is humidity conditioning withstand hot shock, specific requirements are to be considered. Add note: For equipment to be operated at 2000m - 5000m above sea level, assessment and requirement of humidity conditioning for Insulation material properties are considered.		Pass
2.10.3.1	Amend the third paragraph of Clause 2.10.3.1 to be: These requirements apply for equipment to be operated up to 2000m above sea level. For equipment to be operated at more than 2000m above sea level and up to 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of IEC 60664-1. For equipment to be operated at more than 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of IEC 60664-1. Linear interpolation is permitted between the nearest two points in Table A.2. The calculated minimum CLEARANCE using this multiplication factor shall be rounded up to the next higher 0,1 mm increment.	Equipment was investigated and complied with requirements for Tma 50 °C and altitude up to 2000 meters, addition investigations when submitted for National Approval.	N/A
2.10.3.3	Add "(applicable for altitude up to 2000m)" in header of Table 2K, 2L and 2M.		N/A
2.10.3.4	Add "(applicable for altitude up to 2000m)" in header of Table 2K, 2L and 2M.		N/A
2.10.3.4	Add a new section above Table 2K and in Clause 2.10.3.4: Minimum CLEARANCES determined by above		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	rules apply for equipment to be operated up to 2000m above sea level. For equipment operated at 2000m - 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T16935.1 (IEC 60664-1). For equipment to be operated at more than 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of GB/T16935.1.		
3.2.1.1	Add a paragraph before the last paragraph: Plugs connected to AC mains supply shall comply with GB 1002 or GB 1003 or GB/T 11918 as applicable.	Required addition investigations when submitted for National Approval.	N/A
4.2.8	Clause 4.2.8 cathode ray tubes quoted Clause 18 of GB8898-2011. Delete note of Clause 4.2.8.	No CRT.	N/A
E	Amend last section: For comparison of winding temperatures determined by the resistance method of this annex with the temperature limits of Table 4B, 35 °C shall be added to the calculated temperature rise. Add note: for equipment not to be operated at tropical climatic conditions, 25 °C shall be added to the calculated temperature rise to compare with the temperature of Table 4B.		N/A
G.6	Change the second section of Clause G.6 to be: For equipment to be operated at 2000m - 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T16935.1. For equipment to be operated at more than 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of IEC 60664-1. Linear interpolation is permitted between the nearest two points in Table A.2. The calculated minimum CLEARANCE using this multiplication factor shall be rounded up to the next higher 0,1 mm increment.		N/A
BB	Amended as: The differences between Chinese national standards GB 4943.1-2011 and GB 4943-2001.		Pass
DD	Added annex DD: Instructions for the new safety warning labels. DD.1 Altitude warning label Meaning of the label: Evaluation for apparatus only based on altitude not exceeding 2000m, therefor it's the only operating condition applied for the equipment .There may be some potential safety hazard if the equipment is used at altitude above 2000m. DD.2 Climate warning label		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Meaning of the label: Evaluation for apparatus only based on temperate climate condition, therefor it's the only operating condition applied for the equipment .There may be some potential safety hazard if the equipment is used in tropical climate region.		
EE	Illustration relative to safety explanation in normative Chinese, Tibetan, Mongolian, Zhuang Language and Uighu.		N/A
Other	In accordance with the relevant CTL decisions and the amendments of IEC 60950-1, the specific requirements or mistakes in IEC standard are corrected or editorially modified in this part, Including clause 1.7, 2.1.1.7, 2.9.2, Table 2H, Figure 2H, F.8, F.9, M.3 and Annex U		Pass
Other	The principles of quoting and referring to other standards in Annex P and reference documents of IEC 60950-1 are as follows: If the date of the reference document is given, only that edition applies, excluding any subsequent corrigenda and amendments. However, parties to agreements based on this part are encouraged to investigate the possibility of applying the most recent editions of the reference documents. For undated references, the latest edition of the referenced document applies, including any corrigenda and amendments. For the usage of international standards in Chinese national standards and industry standards is various, in the aim of achieving easy operation and based on the requirements of GB/T 1.1 and GB/T 20000.2, when quoting an entire international standard in the normative quoting files and reference documents of Annex P of this part, the principles of quotation are as follows: - If there is no national standard or industry standard corresponding to the international standard, then the international standard is quoted; - If there is national standard or industry standard corresponding to the international standard, then either the national or industry standard is quoted; - If the date of the national standard or industry standard is not given, the latest edition of the standard applies; - The national standard or industry standard number, corresponding international standard number and the consistency level code should be identified in parentheses behind the listed national standard or industry standard. When quoting several chapters or clauses of the international standard, the principles of quotation are as follows:		Pass

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	- If there is no national standard or industry standard corresponding to the international standard, then the international standard is quoted; - If there is national standard or industry standard corresponding to the international standard, then either the national or industry standard is quoted. Meanwhile, in order to retain the relevant information on international standards, informative annex CC is increased, which gives the table about the comparison of the normative quoting files and reference documents in IEC 60950-1:2005.		
Denmark - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
1.2.4.1	In Denmark, certain types of Class I appliances (see sub-clause 3.2.1.1) may be provided with plug not establishing earthing continuity when inserted into Danish socket-outlets.		N/A
1.7.2.1	CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows: : “Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.”	Equipment intended for built-in, to be determined in the end product.	N/A
1.7.5	In Denmark, socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For stationary equipment, the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a.		N/A
1.7.5	For CLASS II EQUIPMENT the socket outlet shall be in accordance with Standard Sheet DKA 1-4a. (Heavy Current Regulations, Section 107-2-D1)		N/A
3.2.1.1	Supply cord of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1. CLASS I EQUIPMENT provided with socket-outlets with earth contact 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.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	If poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.		
Finland - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
1.5.7.1	Resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		N/A
1.5.9.4	The third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N/A
1.7.2.1	CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text shall be: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"	Equipment intended for built-in, to be determined in the end product.	N/A
2.3.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.10.5.3	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
5.1.7.1	Touch current measurement results exceeding 3,5 mA r.m.s are permitted only for the following equipment: - STATIONARY PLUGGABLE EQUIPMENT TYPE A that: (1) is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and (2) has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and (3) is provided with instructions for the installation of that conductor by a SERVICE PERSON; - STATIONARY PLUGGABLE EQUIPMENT TYPE B - STATIONARY PERMANENTLY CONNECTED EQUIPMENT		N/A
6.1.2.1	Add the following text between the first and second paragraph of the compliance clause: If this insulation is solid, including insulation forming part of a component, it shall at least consist		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	of either - two layers of thin sheet material, each of which 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. Alternatively for components, 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 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b). It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994 (EN 60384-14:2005), subclass Y2. A capacitor classified Y3 according to EN 132400 [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 132400 [EN 60384-14], which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 132400 [EN 60384-14]; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400 [EN 60384-14], in the sequence of tests as described in EN 132400 [EN 60384-14].		
6.1.2.2	The exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication center, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	conductor by a SERVICE PERSON.		
7.2	Requirements according to this annex 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.		N/A
Germany - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
1.7.2.1	If for the assurance of safety and health certain rules during use, amending or maintenance of a technical labour equipment or readymade consumer product are to be followed, a manual in German language has to be delivered when placing the product on the market. Of this requirement, rules for use even only by SERVICE PERSONS are not exempted.		N/A
Group - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
General	Group Differences also includes the requirements in A11:2009 and A12:2011		Pass
1.3	A12:2011 - In EN 60950-1:2006/A12:2011 Delete the addition of 1.3.Z1 / EN 60950-1:2006 Delete the definition 1.2.3.Z1 / EN 60950-1:2006 /A1:2010	Deleted.	N/A
1.5.1	Add the following NOTE Z1: The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC	It should be provided in national approval.	N/A
1.7.2.1	Delete NOTE Z1 and the addition for Portable Sound System Add the following Zx clauses and annex to the existing standard and amendments		N/A
2.7.1	Replace the subclause as follows: Basic requirements To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, 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 5.3 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		Pass

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	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.		
2.7.2	Void		N/A
3.2.3	Delete the NOTE and conduit sizes in parentheses in Table 3A		N/A
3.2.5.1	Add the following Note: NOTE Z1 The harmonised code designations corresponding to the IEC cord types are given in Annex ZD. In Table 3B, replace the first four lines by the following: Up to and including 6 0.75 a) Over 6 up to and including 10 0.75 b) 1.0 Over 10 up to and including 16 1.0 c) 1.5 In the conditions applicable to table 3B, delete the words "in some countries" in condition a). In Note 1, applicable Table 3B, to delete the second sentence.	Equipment intended for built-in, to be determined in the end product.	N/A
3.3.4	In table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: "Over 10 up to and including 16 1.5 to 2.5 1.5 to by 4" Delete the fifth line: conductor sizes for 13 to 16A.	Equipment intended for built-in, to be determined in the end product.	N/A
4.3.13.6	Replace the existing NOTE by the following: NOTE Z1 Attention is drawn to 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz and 2006/25/EC: Directive on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation). Standards taking into account this Recommendation which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.		N/A
H	Replace the last paragraph of this annex by: At any point 10 cm from the surface of the OPERATOR ACCESS AREA, the dose rate shall not exceed 1 µSv/h (0,1 mR/h) (see NOTE). Account is taken of the background level.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Replace the notes as follows: NOTE - These values appear in Directive 96/29/Euratom. Delete NOTE 2.		
Zx	Protection against excessive sound pressure from personal music players		N/A
Zx.1	General - This sub-clause specifies requirements for protection against excessive sound pressure from personal music players that are closely coupled to the ear. It also specifies requirements for earphones and headphones intended for use with personal music players. A personal music player is a portable equipment for personal use, that: - is designed to allow the user to listen to recorded or broadcast sound or video; and - primarily uses headphones or earphones that can be worn in or on or around the ears; and - allows the user to walk around while in use. NOTE 1 Examples are hand-held or body-worn portable CD players, MP3 audio players, mobile phones with MP3 type features, PDA's or similar equipment. A personal music player and earphones or headphones intended to be used with personal music players shall comply with the requirements of this sub-clause. The requirements in this sub-clause are valid for music or video mode only. The requirements do not apply: - while the personal music player is connected to an external amplifier; or - while the headphones or earphones are not used. NOTE 2 An external amplifier is an amplifier which is not part of the personal music player or the listening device, but which is intended to play the music as a standalone music player. The requirements do not apply to: - hearing aid equipment and professional equipment; NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment. - analogue personal music players (personal music players without any kind of digital processing of the sound signal) that are brought to the market before		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	the end of 2015. NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies. For equipment which is clearly designed or intended for use by young children, the limits of EN 71-1 apply.		
Zx.2	Equipment Requirements - No safety provision is required for equipment that complies with the following: - equipment provided as a package (personal music player with its listening device), where the acoustic output LAeq,T is ≤ 85 dBA measured while playing the fixed “programme simulation noise” as described in EN 50332-1; and - a personal music player provided with an analogue electrical output socket for a listening device, where the electrical output is ≤ 27 mV measured as described in EN 50332-2, while playing the fixed “programme simulation noise” as described in EN 50332-1. NOTE 1 Wherever the term acoustic output is used in this clause, the 30 s A-weighted equivalent sound pressure level LAeq,T is meant. See also Zx.5 and Annex Zx. All other equipment shall: a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and b) have a standard acoustic output level not exceeding those mentioned above, and automatically return to an output level not exceeding those mentioned above when the power is switched off; and c) provide a means to actively inform the user of the increased sound pressure when the equipment is operated with an acoustic output exceeding those mentioned above. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an acoustic output exceeding those mentioned above. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time; and NOTE 2 Examples of means include visual or audible signals. Action from the user is always required.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	NOTE 3 The 20 h listening time is the accumulative listening time, independent how often and how long the personal music player has been switched off. d) have a warning as specified in Zx.3; and e) not exceed the following: 1) equipment provided as a package (player with Its listening device), the acoustic output shall be ≤ 100 dBA measured while playing the fixed “programme simulation noise” described in EN 50332-1; and 2) a personal music player provided with an analogue electrical output socket for a listening device, the electrical output shall be ≤ 150 mV measured as described in EN 50332-2, while playing the fixed “programme simulation noise” described in EN 50332-1. For music where the average sound pressure (long term LAeq,T) measured over the duration of the song is lower than the average produced by the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. In this case T becomes the duration of the song. NOTE 4 Classical music typically has an average sound pressure (long term LAeq,T) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the song and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. For example, if the player is set with the programme simulation noise to 85 dBA, but the average music level of the song is only 65 dBA, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dBA.		
Zx.3	Warning - The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following: - the symbol of Figure 1 (IEC 60417-6044) with a minimum height of 5 mm; and - the following wording, or similar: “To prevent possible hearing damage, do not listen at high volume levels for long periods.” Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Zx.4	Requirements for Listening devices (headphones and earphones)		N/A
Zx.4.1	Wired listening devices with analogue input With 94 dBA sound pressure output LAeq,T, the input voltage of the fixed “programme simulation noise” described in EN 50332-2 shall be ≥ 75 mV. This requirement is applicable in any mode where the headphones can operate (active or passive), including any available setting (for example built-in volume level control). NOTE The values of 94 dBA – 75 mV correspond with 85dBA – 27 mV and 100 dBA – 150 mV.		N/A
Zx.4.2	Wired listening devices with digital input With any playing device playing the fixed “programme simulation noise” described in EN 50332-1 (and respecting the digital interface standards, where a digital interface standard exists that specifies the equivalent acoustic level), the acoustic output LAeq,T of the listening device shall be ≤ 100 dBA. This requirement is applicable in any mode where the headphones can operate, including any available setting (for example built-in volume level control, additional sound feature like equalization, etc.). NOTE An example of a wired listening device with digital input is a USB headphone.		N/A
Zx.4.3	Wireless listening devices In wireless mode: - with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and - respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and - with volume and sound settings in the listening device (for example built-in volume level control, additional sound feature like equalization, etc.)set to the combination of positions that maximize the measured acoustic output for the abovementioned programme simulation noise, the acoustic output LAeq,T of the listening device shall be ≤ 100 dBA. NOTE An example of a wireless listening device is a Bluetooth headphone.		N/A
Zx.5	Measurement Methods Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable. Unless		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	stated otherwise, the time interval T shall be 30 s. NOTE Test method for wireless equipment provided without listening device should be defined.		
Ireland - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
General	Ireland has national differences declared for 60950-1:2005, Am 1:2009 (below).		Pass
3.2.1.1	Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 - National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.	Equipment intended for built-in, to be determined in the end product.	N/A
4.3.6	DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 - National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.		N/A
Israel - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
General	Israel has national differences declared for 60950-1:2005, Am 1:2009 (below).		Pass
1.6	**Power interface** The clause is applicable with the following addition:		N/A
1.6.1	**AC Power distribution systems**		N/A
	- At the end of the clause, the following note shall be added: **Note**: In Israel, the clause is subject to the Electricity Law, 1954, its Regulations and updates.		N/A
1.7	**Marking and instructions** The clause is applicable with the following additions:		N/A
1.7.1	**Power rating**		N/A
	- Subclause 1.7.201 shall be added after the clause, as follows:		N/A
1.7.201	**Marking in the Hebrew language**	Additional investigation when submitted for National Approval.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	The marking in the Hebrew language shall be in accordance with the Consumer Protection Order (Marking of goods), 1983. In addition to the marking required by clause 1.7.1, the following items shall be marked in the Hebrew language: 1. Name of the apparatus and its commercial designation; 2. Manufacturer's name and his address; if the equipment is imported, the importer's name and his address; 3. Manufacturer's registered trademark, if any; 4. Name of the model and serial number, if any; 5. Country of manufacture. The items shall be marked on the apparatus or on its packaging, or on a label well attached to the apparatus or its packaging, by bonding or sewing, such that the label cannot be easily removed.	Additional investigation when submitted for National Approval.	N/A
1.7.2	**Safety instructions and marking**		N/A
1.7.2.1	**General** - The following shall be added at the end of the clause: All the instruction and all the warnings related to safety shall also be written in the Hebrew language.	Additional investigation when submitted for National Approval.	N/A
- At the end of clause 1, clause 1.201 shall be added as follows:			
1.201	**Power consumption in standby mode** The equipment shall comply with the requirements of the Energy Sources Regulations (Maximum electrical power in standby mode for domestic and office electrical appliances), 2011, with a permitted deviation of up to 10 %.		N/A
2	**Protection from hazards** The clause is applicable with the following additions:		Pass

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

2.9.4	**Separation from hazardous voltages** The following shall be added at the beginning of the clause: According to the Electricity Law, 1954, and the Electricity Regulations (Earthing and protection means from electricity at voltages up to 1,000 V), 1991, in Israel, seven means of protection from electricity are permitted, as follows: 1) Network system earthing - (TN-C-S, TN-S); 2) Network system earthing - (TT); 3) Network Insulation Terre - (IT); 4) Isolated transformer; 5) Safety extra low voltage; 6) Residual current circuit breaker; 7) Reinforced insulation; Double insulation		Pass
- Clause 2.201 shall be added at the end of clause 2, as follows:			
2.201	**Prevention of electromagnetic interference** The device shall meet the requirements of the relevant part of the Israeli Standard series, SI 961. If the device contains components for prevention of electromagnetic interference, the devices shall not lower the safety level of the device, as required by this Standard.	Additional investigation when submitted for National Approval.	N/A
3	**Wiring, connections and supply** The clause is applicable with the following additions:		N/A
3.2	**Connection to a mains supply**		N/A
3.2.1	**Means of connection**		N/A
3.2.1.1	**Connection to an a.c. mains supply** After the Note, the following note shall be added: **Note**: In Israel, the supply plug shall comply with the requirements in Israeli Standard, SI 32 Part 1.1.	Additional investigation when submitted for National Approval.	N/A
3.2.1.2	**Connection to a d.c. mains supply** After the first paragraph, the following note shall be added: **Note**: As of the date of publication of this Standard, there is no Israeli Standard for connection accessories to d.c.		N/A

The referenced International Standard	The substituted Israeli Standard	Comments

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

IEC 60317 (all parts) [(b)]	SI 1067 Part 1 – Enamelled[(c)] round copper wires with high mechanical properties	The Israeli Standard is identical to the International Electrotechnical Commission Standard, IEC 317-1: 1980-02.
	SI 1067 Part 2 – Self-fluxing enamelled[(c)] round copper wires	The Israeli Standard is identical to the International Electrotechnical Commission Standard, IEC 307-4: 1980-02.
	SI 1067 Part 3 – Enamelled[(c)] round copper wires with a temperature index of 180 °C	The Israeli Standard is identical to the International Electrotechnical Commission Standard, IEC 317-8: 1980-02.
IEC 60320 (all parts)[(b)]	SI 60320 Part 1 – Appliance couplers for household and similar general purposes: General requirements	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Electrotechnical Commission Standard, IEC 60320-1: Second edition: 2001-06.
	SI 60320 Part 2.1 – Appliance couplers for household and similar general purposes: Sewing machine couplers	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Electrotechnical Commission Standard, IEC 60320-2-1: Second edition: 2000-07.
	SI 60320 Part 2.2 – Appliance couplers for household and similar general purposes: Interconnection couplers for household and similar equipment	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Electrotechnical Commission Standard, IEC 60320-2-2: Second edition: 1998-08.
	SI 60320 Part 2.3 – Appliance couplers for household and similar general purposes: appliance coupler with a degree of protection higher than IPXO	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Electrotechnical Commission Standard, IEC 60320-2-3: First edition: 1998-09.
IEC 60364-1: 2001	Electricity Law, 1954, with its Regulations and updates	–
IEC 60730-1: 1999 Amendment 1 (2003)	SI 60730 Part 1 – Automatic electrical controls for household and similar use: General requirements	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Electrotechnical Commission Standard, IEC 60730-1: Edition 3.2: 2007-03.

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Japan - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
General	National Differences – Japan Differences according to J60950-1(H26)	(see below)	Pass
1.2.4.1	Add the following new NOTE: NOTE Even if the equipment is designed as Class I, the equipment is regarded as CLASS 0I EQUIPMENT when a 2-pin adaptor with an earthing lead wire or a cord set having a 2-pin plug with an earthing lead wire is provided or recommended.	Equipment intended for built-in. To be evaluated in end product. Additional investigation when submitted for National Approval if a 2-pin cord set with an earthing lead.	N/A
1.2.4.3A	Add the following new clause after 1.2.4.3: 1.2.4.3A CLASS 0I EQUIPMENT Equipment having mains plug without earthing blade, where protection against electric shock is achieved by: - using BASIC INSULATION, and - providing one of the following in order to connect those conductive parts that might assume a HAZARDOUS VOLTAGES in the event of BASIC INSULATION fault to the PROTECTIVE EARTHING CONDUCTOR. a) Mains plug with an earthing lead wire: Enclosing 2-pin plug with an earthing lead wire to the equipment as an accessory, or including to recommend the using 2-pin plug with an earthing lead wire b) an independent earth terminal, if power supply cord with 2-pin plug (non-protective earthing conductor) is provided, NOTE CLASS 0I EQUIPMENT may have a part constructed with DOUBLE INSULATION or REINFORCED INSULATION.		N/A
1.3.2	Add the following new notes after the first paragraph: NOTE 1 Transportable or similar equipment that is relocated frequently for intended usage should not be designed as CLASS I EQUIPMENT or CLASS 0I EQUIPMENT unless it is intended to be installed by service personnel. NOTE 2 Considering wiring circumstance in Japan, equipment intended to be installed where the provision for earthing connection is unlikely should not be designed as CLASS I EQUIPMENT	Equipment intended for built-in. To be evaluated in end product. Additional investigation when submitted for National Approval if a 2-pin cord set with an earthing lead.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	or CLASS 0I EQUIPMENT unless it is intended to be installed by service personnel.		
1.5.1	Replace the first paragraph with the following: Where safety is involved, components shall comply either with the requirements of this standard or with the safety aspects of the relevant JIS component standard or IEC component standards in case there is no applicable JIS component standard is available. However, in case a component that falls within the scope of the METI Ministerial ordinance (No. 85:1962) is properly used in accordance with its marked ratings, the requirements of 1.5.4, 2.8.7 and 3.2.5 apply, and in addition, a cord connector of power supply cord set matching with an appliance inlet specified in IEC 60320-1 or JIS C 8283-1, shall comply with the dimensions of relevant cord connector specified in IEC 60320-1 or JIS C 8283-1. Replace NOTE 1 with the following: NOTE 1 A JIS or an IEC component standard is considered relevant only if the component in question clearly falls within its scope.		Pass
1.5.2	Replace the first sentence in the first dashed paragraph with the following: - a component that has been demonstrated to comply with a JIS component standard harmonized with the relevant IEC component standard, or where such JIS component standard is not available, a component that has been demonstrated to comply with the relevant IEC component standard shall be checked for correct application and use in accordance with its rating. Replace the first sentence in the third dashed paragraph as follows: - where no relevant IEC component standard or JIS component standard harmonized with the relevant IEC component standard exists, or where components are used in circuits not in accordance with their specified rating, the components shall be tested under the conditions occurring in the equipment. Add the following new NOTE after the third dashed paragraph as follows:		Pass

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	NOTE 2 See 1.7.5A, when C14 appliance inlet rated 10 A per IEC JIS C 8283-1 is used with an equipment rated not more than 125 V and rated more than 10 A.		
1.5.9.1	Add the following to the last of NOTE 1: It is permitted to use a gas discharge tube (GDT) is series with a VDR.	No GDT.	N/A
1.5.9.4	Add the following after NOTE: It is permitted to use a gas discharge tube (GDT) is series with a VDR that bridges BASIC INSULATION in accordance with the conditions in this subclause if the GDT complies with the requirements for FUNCTIONAL INSULATION.	No GDT.	N/A
1.7.1	Replace the fifth dashed paragraph with the following: - manufacturer's or responsible company's name or trade-mark or identification mark; Replace the sixth dashed paragraph with the following: - manufacturer's or responsible company's model identification or type reference; Replace the last paragraph with the following: Where symbols are used, they shall conform to JIS S 0101, ISO 7000 or IEC 60417 where appropriate symbols exist.		Pass
1.7.2.1	Add the following after the second sentence in the first paragraph: Instructions and equipment marking related to safety shall be in Japanese, unless otherwise permitted in this standard.	Additional investigation when submitted for National Approval.	N/A
1.7.2.5	Replace the last sentence with the following: An acceptable marking for an electric shock hazard is  (6.2.4 of JIS S 0101).	Equipment intended for built-in. To be evaluated in end product.	N/A
1.7.5	Replace the last sentence with the following: Socket-outlets conforming to JIS C 8303 are examples of standard power supply outlets.	No power outlet.	N/A
1.7.5A	Add the following new clause after 1.7.5:	Additional investigation when submitted for National	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	1.7.5A Power supply cord set If an appliance inlet according to JIS C 8283-1, C14(rated current: 10 A) is used in equipment whose rated voltage is less than 125 V and the rated current is over 10 A, the following instruction or equivalent shall be described in the user instruction. “Use only designated cord set attached in this equipment” If the power supply cord set does not supply with the equipment provided with appliance inlet, the information of suitable power supply cord set shall be stated in the operating instructions. NOTE The following precautions should be written in the operating instructions for the combination CLASS 0I EQUIPMENT provided with appliance inlet having earthing blade and 2-pin (without earting conductor) power supply cord set. Supplied power supply cord set is special. The power supply cord set is exclusive use for the equipment, shall not be used with other equipment.	Approval.	
1.7.14A	Add the following new clause after 1.7.14: 1.7.17A Marking for the earthing connection of CLASS 0I EQUIPMENT For CLASS 0I EQUIPMENT, the following instruction or equivalent shall be: - marked on the visible place of the mains plug or the main body: 必ず接地接続を行って下さい “Provide an earthing connection” - indicated on the visible place of the main body or written in the operating instructions: 接地接続は必ず、電源プラグを電源につなぐ前に行って下さい。又、接地接続を外す場合は、必ず電源プラグを電源から切り離してから行って下さい。 “Provide an earthing connection before the mains plug is connected to the mains. And, when disconnecting the earthing connection, be sure to disconnect after pulling out the mains plug from the mains.”	Additional investigation when submitted for National Approval.	N/A
1.7.14B	Add the following new clause after 1.7.14A: 1.7.14B Protective earthing conductor used with CLASS 0I EQUIPMENT	Additional investigation when submitted for National Approval.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	If provided with an independent earth terminal, but not supplied protective earthing conductor with the product, the information for using the suitable protective eathing conductor shall be written in the operating instructions (see 2.6.3.2)		
2.1.1.1	In item b) of this sub-clause: Replace “IEC 60083, IEC 60309, IEC 60320, IEC 60906-1 or IEC 60906-2” with “JIS C 8303, Article 1 of the Ministerial Ordinance (No. 85:1962), JIS C 8285, IEC 60309 series, JIS C 8283 series or IEC 60320 series”		Pass
2.6.3.2	Add the following after the first sentence: If the single core type conductor is used as an earthing lead wire for protective earthing or an protective earthing conductor to CLASS 0I EQUIPMENT shall comply either with follows; - Copper wire of minimum 1.6 mm diameter or the metal wire not subject to significant corrosion, and at least same level of strength and diameter to the copper wire - Single core type cord or single core type sheathed cable having the cross sectional area of 1.25mm^2 and over	Additional investigation when submitted for National Approval.	N/A
2.6.3.5	Add the following to the first sentence: However, this clause is not required to the sheathed internal conductor of the power supply cord (set) integral molding plug and cord connector.	Additional investigation when submitted for National Approval.	N/A
2.6.4.2	Add the following after the second sentence: If CLASS 0I EQUIPMENT provides the separate main protective earthing terminal other than appliance inlet, such terminal can be considered as main protective earthing terminal.	Additional investigation when submitted for National Approval.	N/A
2.6.5.4	Replace the first sentence with the following: Protective earthing connections of CLASS I EQUIPMENT shall make earlier and break later than the supply connections in each of the following:	Considered on an appliance inlet.	Pass
2.6.5.6	Replace the first sentence with the following: Conductive parts in contact at protective earthing terminals, protective bonding terminals and connections shall not be subject to significant corrosion due to electrochemical action in any		Pass

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	working, storage or transport environment conditions as specified in the instructions supplied with the equipment.		
2.6.5.8A	Add the following new clause after 2.6.5.8: 2.6.5.8A Earthing of CLASS 0I EQUIPMENT Plugs with a lead wire for earthing shall not be used for equipment having a rated voltage exceeding 150 V. For plugs with a lead wire for earthing, the lead wire shall not be earthed by a clip. CLASS 0I EQUIPMENT shall be provided with an earthing terminal or a lead wire for earthing in the external location where easily visible.	Additional investigation when submitted for National Approval.	N/A
2.7.6	Replace “ISO 3864, No. 5036” with “6.2.4 of JIS S 0101”.		N/A
2.10.3.1	In this sub-clause, replace IEC 60664-1 with JIS C 0664. Replace the sentence, “For all other CLEARANCES in connectors, including connectors that are not fixed to the equipment, the minimum values specified in 2.10.3.3 or 2.10.3.4 apply.”, with the following: The above minimum CLEARANCES do not apply to: - Connectors complied with JIS C 8285, IEC 60309 series, JIS C 8283 series, IEC 60320 series or JIS C 8303, - Connectors complied with Article 1 of the Ministerial Ordinance (No. 85:1962) and are matching with the dimensions of JIS C 8283 series, JIS C 8303 or IEC 60309-2 See also 1.5.2.		Pass
2.10.3.3	Add the following before NOTE in table 2L: For voltage values within the PEAK WORKING VOLTAGE values given in the table, linear interpolation is permitted between the nearest two points, the calculated minimum additional CLEARANCE being rounded up to the next higher 0,1 mm increment.		Pass
2.10.4.3	Replace the sentence, “The above minimum CREEPAGE DISTANCES for connectors do not apply to connectors that comply with a standard harmonized with IEC 60083, IEC 60309, IEC 60320, IEC 60906-1 or IEC 60906-2, see also 1.5.2”, with the following:		Pass

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	The above minimum CREEPAGE DISTANCES do not apply to: - Connectors complied with JIS C 8285, IEC 60309 series, JIS C 8283 series, IEC 60320 series or JIS C 8303, - Connectors complied with Article 1 of the Ministerial Ordinance (No. 85:1962) and are matching with the dimensions of JIS C 8283 series, JIS C 8303 or IEC 60309-2 See also 1.5.2.		
3.2.3	Add the following after the second paragraph: Table 3A applies when cables complying with JIS C 3662 series or JIS C 3663 series are used. In case of other cables, the cable entries shall be so designed that a conduit suitable for the cable used can be fitted.	Additional investigation when submitted for National Approval.	N/A
3.2.4	Add the following after the third dashed paragraph: - Mechanical force shall not be transmitted to soldering section of appliance inlet when connector is inserted in or pulled out. This requirement is not applied to equipment which appliance inlet is securely fixed, and installation of appliance inlet is not relied solely on soldering.	Appliance inlet is not soldered to PWB direct, its' body is fit between top and bottom enclosure.	Pass
3.2.5.1	Add the following to the last of first dashed paragraph: Or mains cords shall be of the sheathed type complying with Appendix 1 of Article 1 of the Ministerial Ordinance (No. 85:1962) on stipulating technical requirements for the Electrical Appliance**.** Add the following to the first sentence in the second dashed paragraph: Or mains cords shall be of the sheathed type complying with Appendix 1 of Article 1 of the Ministerial Ordinance (No. 85:1962) on stipulating technical requirements for the Electrical Appliance**.** Add the following to the first sentence in the of third dashed paragraph: However, the insulator of sheathed internal protective earthing conductor of the power supply cord (set) integral molding plug and cord connector may not be the combination green and yellow. Also the protective eathing conductor may not be provided for the power supply cord of CLASS 0I EQUIPMENT provides the separate main protective earthing conductor.	Additional investigation when submitted for National Approval.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Replace the forth dashed paragraph with the following: have conductors with cross-sectional areas not less than those specified in Table 3B for the main cords that complied with JIS C 3662-5 or JIS C 3663-4. The other cords shall comply with the relevant standards. Replace “IEC 60320” with “JIS C 8283 series or IEC 60320 series” in NOTE 1 of Table 3B.		
3.3.4	Add the following note to Table 3D: NOTE For cables other than those complying with JIS C 3662 series or JIS C 3663 series, terminals shall be suitable for the size of the intended cables.		N/A
3.3.7	Add the following after the first sentence: This requirement is not applicable to the external earting terminal of Class 0I equipment.		N/A
4.3.4	Add the following after the first sentence: This requirement also applies to those connections in Class 0I equipment, where CLEARANCE or CREEPAGE DISTANCES over BASIC INSULATION would be reduced to less than the values specified in 2.10.	Additional investigation when submitted for National Approval.	N/A
4.3.5	Replace “IEC 60083 or IEC 60320” with “JIS C 8283 series, JIS C 8303 or JIS C 8358”.		Pass
4.5.3	Add the following note to footnote b) of Table 4B: NOTE: In case no data for the material is available, Appendix 4, 4. (1). b. 3 of the Interpretation on the Ministerial Ordinance stipulating Technical Specifications for Electrical Appliances (Commerce and Distribution Policy Group No. 3:2008/06/19) may apply.		Pass
5.1.3	Add the following new note after the first sentence: NOTE Attention should be drawn to that majority of three-phase power system in Japan is of delta connection, and therefore, in that case, the test is conducted using the test circuit from IEC 60990, figure 13.	Single-phase only.	N/A
5.1.6	Replace Table 5A as follows:		Pass

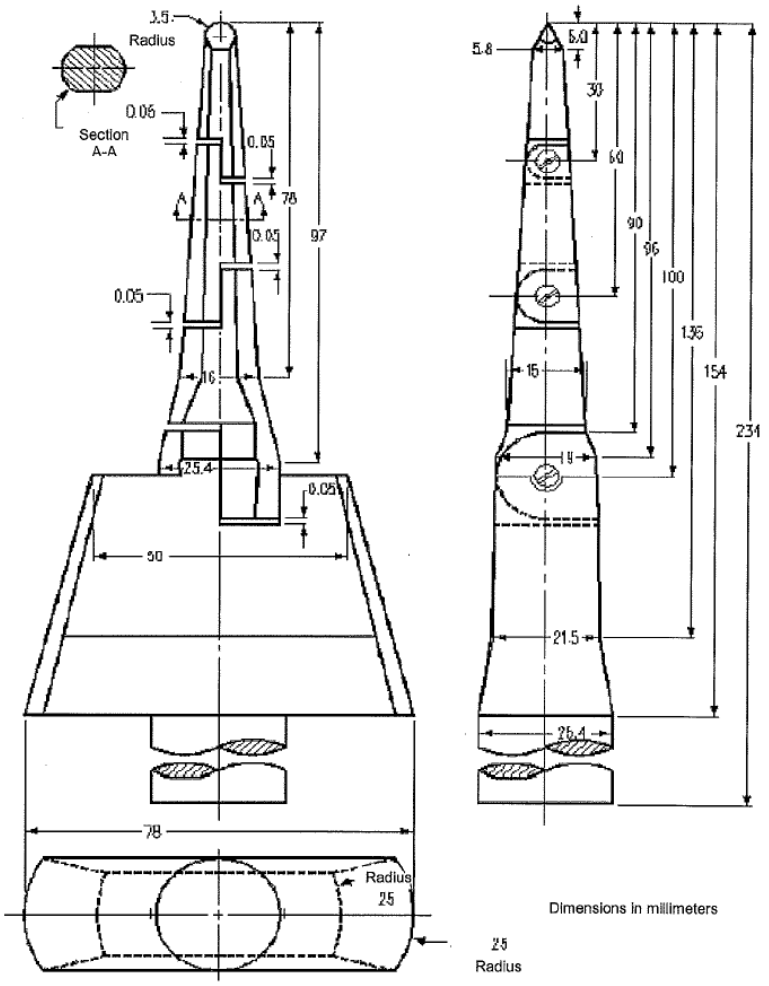
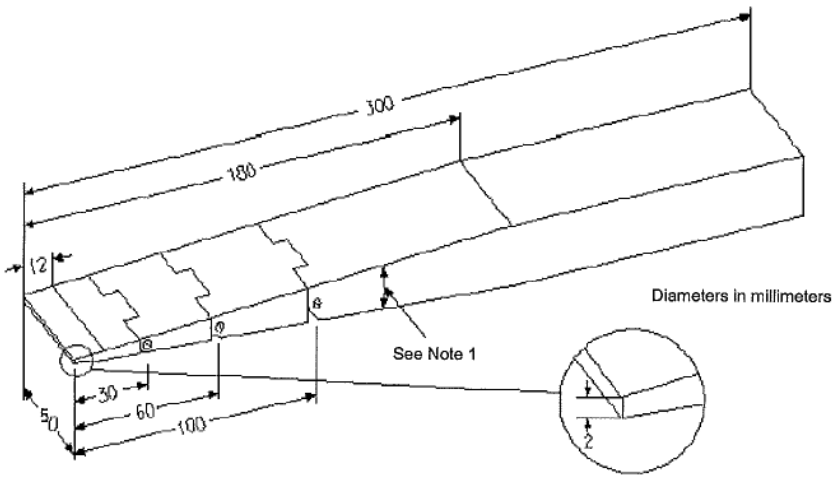
IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s. [1)]	Maximum PROTECTIVE CONDUCTOR CURRENT
All equipment	Accessible parts and circuits not connected to protective earth	0.25	-
HAND-HELD	Equipment main protective earthing terminal (if any) CLASS I EQUIPMENT	0.75	-
	Equipment main protective earthing terminal (if any) CLASS 0I EQUIPMENT	0.5	-
MOVABLE (other than HAND-HELD, but including TRANSPORTABLE EQUIPMENT	Equipment main protective earthing terminal (if any) CLASS I EQUIPMENT	3.5	-
	Equipment main protective earthing terminal (if any) CLASS 0I EQUIPMENT	1.0	-
STATIONARY, PLUGGABLE TYPE A	Equipment main protective earthing terminal (if any) CLASS I EQUIPMENT	3,5	5% of input current
	Equipment main protective earthing terminal (if any) CLASS 0I EQUIPMENT	1.0	-
[1)] If peak values of TOUCH-CURRENT are measured, the maximum values obtained by multiplying the r.m.s. values by 1,414.			

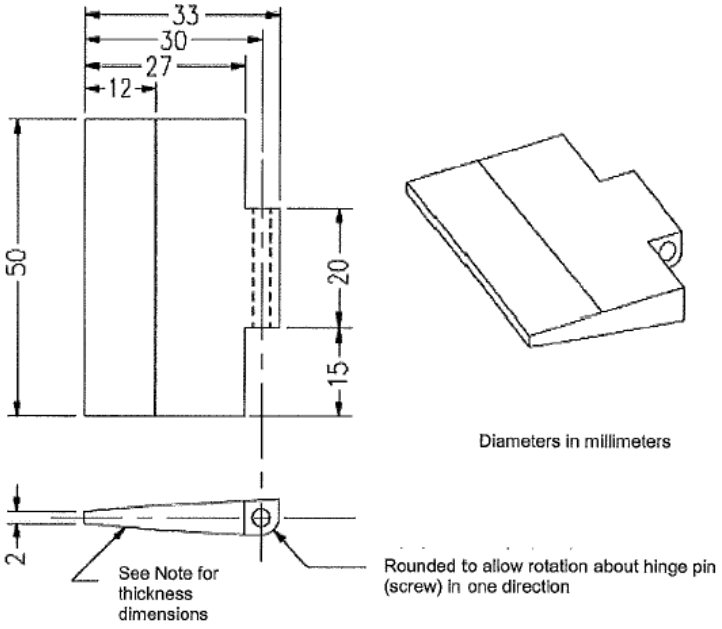
6	Add the following at the end of NOTE 1: Refer to Annex JB for information on the adequate additional measure.		N/A
M.1	Add the following new note after the first sentence: NOTE Method A is typical of analogue telephone networks in Europe, and Method B of those in North America.		N/A
P	Add the following Japanese Industrial Standards: JIS C 8303 JIS C 8358:1994 JIS S 0101:2000		Pass
Q	Replace the terms in b) as follows: From “Maximum continuous voltage” to “Maximum continuously applied voltage” From “The maximum continuous a.c. voltage” to “The maximum comtinuously applied a.c. voltage”		Pass

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
U.2.4	Add the following new note after NOTE: NOTE 2 Considering environmental issue, "(for example 1,1,1 -trichloroethane)" was deleted from the above paragraph.	Certified triple insulated wire used.	Pass
W.1	Replace the third sentence in the first paragraph with the following: Floating circuits can exist in CLASS I EQUIPMENT or CLASS 0I EQUIPMENT and earthed circuits in CLASS II EQUIPMENT.		N/A
Annex JA	Add a new annex JA with the following contents: Annex JA (normative) Document shredding machines (see 1.7, 2.8.3, 3.4 and 4.4) Document shredding machines shall also comply with the requirements of this annex except those of STATIONARY EQUIPMENT used by connecting directly to an AC MAINS SUPPLY of three-phase 200V or more. **JA.1 Markings and instructions** The symbol  (JIS S 0101:2000, 6.2.4) and the following precautions for use shall be marked on readily visible part adjacent to document feed opening. The marking shall be clearly legible, permanent, and easily discernible; - that use by an infants/children may cause a hazard of injury etc.; - that a hand can be drawn into the mechanical section for shredding when touching the document-slot; - that clothing can be drawn into the mechanical section for shredding when touching the document-slot; - that hairs can be drawn into the mechanical section for shredding when touching the document-slot; - in case of equipment incorporating a commutator motor, that equipment may catch fire or explode by spraying of flammable gas. **JA.2 Inadvertent reactivation** Any safety interlock that can be operated by means of the test finger, Figure JA.1, is considered to be likely to cause inadvertent reactivation of the		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	hazard. Compliance is checked by inspection and, where necessary, by a test with the test finger, Figure JA.1 **JA.3 Disconnection from the mains supply** Document shredding machines shall incorporate an isolating switch complying with sub-clause 3.4.2 as the device disconnecting the power of hazardous moving parts. For this switch, two-position (single-use) switch or multi-position (multifunction) switch (e.g., slide switch) may be used.		
Annex JA	If two-position switch, the positions for "ON" and "OFF" shall be indicated in accordance with sub-clause 1.7.8. If multi-position switch, the position for "OFF" shall be indicated in accordance with sub-clause 1.7.8 and other positions shall be indicated with proper terms or symbols. Compliance is checked by inspection **JA.4 Protection against hazardous moving parts** Any warning shall not be used instead of the structure for preventing access to hazardous moving parts. Document shredding machines shall comply with the following requirements. Insert the test finger, Figure JA.1, into all openings in MECHANICAL ENCLOSURES without applying appreciable force. It shall not be possible to touch hazardous moving parts with the test finger. This consideration applies to all sides of MECHANICAL ENCLOSURES when the equipment is mounted as intended. Before testing with the test finger, remove the parts detachable without a tool. Insert the wedge-probe, Figure JA.2, into the document-slot. And, against all directions of openings, if straight-cutting type, a force of 45 N shall apply to the probe, and 90 N if cross-cutting type. In this case, the weight of the probe is to be factored into the overall applied force. Before testing with the wedge-probe, remove the parts detachable without a tool. It shall not be possible to touch any hazardous moving parts, including the shredding roller or the mechanical section for shedding, with the probe.		N/A
Annex JA			N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	 Figure JA.1 Test finger		
Annex JA			N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict



Details of the tip of wedge

Distance from the tip (mm)	Thickness of probe (mm)
0	2
12	4
180	24

NOTE 1 The thickness of the probe varies linearly, with slope changes at the respective points shown in the table.
NOTE2 The allowable dimensional tolerance of the probe is +/- 0.127 mm.

Figure JA.2 Wedge-probe

Korea - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
General	Korea has national differences declared for 60950-1:2005, Am 1:2009 (below).		Pass
1.5.101	Plugs for the connection of the apparatus to the mains supply shall comply with the Korean requirement (KSC 8305)		N/A
8	EMC - The apparatus shall comply with the relevant CISPR standards	It should be provided in national approval.	N/A

Norway - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
General	Norway has national differences declared for 60950-1:2005, Am 1:2009 (below).		Pass
1.2.13.14	For requirements see 1.7.2.1 and 7.3.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.7.1	Resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.2. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		N/A
1.5.8	Due to the IT power system used (see annex V, figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).		Pass
1.5.9.4	The third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N/A
1.7.2.1	CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text shall be: "Apparatet må tilkoples jordet stikkontakt"	Equipment intended for built-in, to be determined in the end product.	N/A
1.7.2.1	In Norway, the screen of the cable 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 need 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 e.g. a retailer. 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: "Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing - and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore 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 installations of cable distribution systems, 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	Equipment intended for built-in, to be determined in the end product.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	also be accepted in Norway): “Utstyr som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr - og er tilkoplet et kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av utstyret til kabel-TV nettet installeres en galvanisk isolator mellom utstyret og kabel-TV nettet."		
2.2.4	Requirements according to this annex, 1.7.2.1, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.3.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.3.4	Requirements according to this annex, 1.7.2.1, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.10.5.13	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
5.1.7.1	TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s are permitted only for the following equipment: - STATIONARY PLUGGABLE EQUIPMENT TYPE A that: (1) is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and (2) has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and (3) is provided with instructions for the installation of that conductor by a SERVICE PERSON; - STATIONARY PLUGGABLE EQUIPMENT TYPE B - STATIONARY PERMANENTLY CONNECTED EQUIPMENT		N/A
6.1.2.1	Add the following text between the first and second paragraph of the compliance clause: 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 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. Alternatively for components, 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		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	- passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b). It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2. A capacitor classified Y3 according to EN 123400 [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 132400 [EN 60384-14], which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 132400 [EN 60384-14]; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400 [EN 60384-14], in the sequence of tests as described in EN 132400 [EN 60384-14.]		
6.1.2.2	The exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.		N/A
7.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.		N/A
7.3	Refer to EN 60728-11:2005 for installation conditions		N/A
7.3	Requirements according to this annex 1.2.13.14 and 1.7.2.1 apply.		N/A

Spain - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
General	Spain has national differences declared for 60950-		Pass

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	1:2005, Am 1:2009 (below).		
3.2.1.1	Supply cords of single-phase equipment having a rated current not exceeding 10A shall be provided with a plug according to UNE 20315:1994. Supply cords of single-phase equipment having a rated current not exceeding 2.5A shall be provided with a plug according to UNE-EN 50075:1993. CLASS 1 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 UNE 20315:1994. If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.		N/A
Sweden - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
1.2.13.14	For requirements see 1.7.2.1 and 7.3.		N/A
1.5.1	(Ordinance (1990:944)) Add NOTE: Switches containing mercury are not permitted.		N/A
1.5.7.1	Resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.2. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		N/A
1.5.9.4	The third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N/A
1.7.2.1	CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text shall be:"Apparaten skall anslutas till jordat uttag"	Equipment intended for built-in, to be determined in the end product.	N/A
1.7.2.1	In Sweden, the screen of the cable 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 need 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 e.g. a retailer. The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	country the equipment is intended to be used in: "Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing - and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore 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 installations of cable distribution systems, 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 Swedish: "Utrustning 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 utrustningen till kabel-TV nät galvanisk isolator finnas mellan utrustningen och kabel-TV nätet."		
2.3.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.10.5.13	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
5.1.7.1	TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s are permitted only for the following equipment: STATIONARY PLUGGABLE EQUIPMENT TYPE A that: (1) is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and (2) has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and (3) is provided with instructions for the installation of that conductor by a SERVICE PERSON; - STATIONARY PLUGGABLE TYPE B - STATIONARY PERMANENTLY CONNECTED EQUIPMENT		N/A
6.1.2.1	Add the following text between the first and second paragraph of the compliance clause: 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 shall pass the electric strength test below, or - one layer having a distance through insulation of		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	at least 0,4 mm, which shall pass the electric strength test below. Alternatively for components, 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 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b). It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2. A capacitor classified Y3 according to EN 132400 [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 132400 [EN 60384-14], which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 132400 [EN 60384-14]; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400 [EN 60384-14], in the sequence of tests as described in EN 132400 [EN 60384-14.]		
6.1.2.2	The exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.		N/A
7.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	being replaced by the term CABLE DISTRIBUTION SYSTEM.		
7.3	Requirements according to this annex 1.2.13.14 and 1.7.2.1 apply.		N/A

Switzerland - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
General	Includes update from 60950-1:2005, AC:2011		Pass
1.5.1	Ordinance on environmentally hazardous substances SR 814.81, Annex 1.7, Mercury - Annex 1.7 of SR 814.81 applies for mercury. Switches containing mercury such as thermostats, relays and level controllers are not allowed.		N/A
1.7.13	Ordinance on chemical hazardous risk reduction SR 814.81, Annex 2.15, Batteries - Annex 2.15 of SR 814.81 applies for batteries containing cadmium and mercury. Note: Ordinance relating to environmentally hazardous substances, SR 814.013 of 1986-06-09 is no longer in force and superseded by SR 814.81 of 2009-02-01 (ChemRRV).		N/A
3.2.1.1	Supply cords of portable electrical appliances having a rated current not exceeding 10 A shall be provided with a plug complying with IEC 60884-1 (3rd Ed.) + Amd. 1, SEV 1011 and one of the following dimension sheets: - SEV 6533-2:2009, Plug type 11, L+N, 250 V, 10 A - SEV 6534-2:2009, Plug type 12, L+N+PE, 250 V, 10 A - SEV 6532-2:2009, Plug type 15, 3P+N+PE, 250/400 V, 10 A Supply cords of portable electrical appliances having a rated current not exceeding 16 A shall be provided with a plug complying with IEC 60884-1 (3rd Ed.) + Amd. 1, SEV 1011 and one of the following dimension sheets: - SEV 5933-2:2009, Plug type 21, L+N, 250 V, 16 A - SEV 5934-2:2009, Plug type 23, L+N+PE, 250 V, 16 A - SEV 5932-2:2009, Plug type 25, 3P+N+PE, 230/400 V, 16 A NOTE: 16 A plugs are not often used in Swiss domestic installation systems.		N/A
3.2.4	Requirements according to this annex 3.2.1.1 apply.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

USA / Canada - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
1.1.1	Equipment able to be installed in accordance with the National Electrical Code ANSI/NFPA 70 and the Canadian Electrical Code, Part1, and when applicable, the National Electrical Safety Code, IEEE C2.		Pass
1.1.1	Equipment able to be installed in accordance with ANSI/NFPA 75 and NEC Art. 645 unless intended for use outside of computer room and provided with such instructions.		Pass
1.1.2	Baby monitors are required to additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.		N/A
1.1.2	Equipment in wire-line communication facilities serving high-voltage electric power stations operating at greater than 1kV are excluded.		N/A
1.1.2	Special requirements apply to equipment intended for use outdoors.		N/A
1.4.14	For PLUGGABLE EQUIPMENT TYPE A, the protection in the installation is assumed to be 20 A.		Pass
1.5.1	All IEC standards for components identified in Annex P.1 replaced by the relevant requirements of CSA and UL component standards in Annex P.1.		Pass
1.5.1	All IEC standards for components identified in Annex P.2 alternatively satisfied by the relevant requirements of CSA and UL component standards in Annex P.2.		Pass
1.5.5	Interconnecting cables acceptable for the application regarding voltage, current, temperature, flammability, mechanical serviceability and the like.		N/A
1.5.5	For other than limited power and TNV circuits, the type of output circuit identified for output connector.		N/A
1.5.5	External cable assemblies that exceed 3.05 m in length to be types specified in the NEC and CEC.		N/A
1.5.5	Detachable external interconnecting cables 3.05 m or less in length and provided with equipment marked to identify the responsible organization and the designation for the cable.		N/A
1.5.5	Building wiring and cable for use in ducts, plenums and other air handling space subject to special requirements and excluded from scope.		N/A
1.5.5	Telephone line and extension cords and the like comply with UL 1863 and CSA C22.2 No. 233.		N/A
1.6.1.2	Equipment intended for connection to a d.c. power (mains) distribution system is subject to special circuit classification requirements (e.g., TNV-2)		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.6.1.2	Earthing of d.c. powered equipment provided.		N/A
1.7	Lamp replacement information indicated on lampholder in operator access area.		N/A
1.7.1	Special marking format for equipment intended for use on a supply system with an earthed neutral and more than one phase conductor.		N/A
1.7.1	Equipment voltage rating not higher than rating of the plug except under special conditions.		N/A
1.7.6	Special fuse replacement marking for operator accessible fuses.		N/A
1.7.7	Identification of terminal connection of the equipment earthing conductor.		N/A
1.7.7	Connectors and field wiring terminals for external Class 2 or Class 3 circuits provided with marking indicating minimum Class of wiring to be used.		N/A
1.7.7	Marking located adjacent to terminals and visible during wiring.		N/A
2.1.1.1	Bare TNV conductive parts in the interior of equipment normally protected against contact by a cover intended for occasional removal are exempt provided instructions include directions for disconnection of TNV prior to removal of the cover.		N/A
2.3.1.b	Other telecommunication signaling systems (e.g., message waiting) than described in 2.3.1(b) are subject to M.4.		N/A
2.3.1.b	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vp or 60 V d.c., the maximum current limit through a 2000 Ohm or greater resistor with loads disconnected is 7.1 mA peak or 30 mA d.c. under normal conditions.		N/A
2.3.1.b	Limits for measurements across 5000 ohm resistor in the event of a single fault are replaced after 200 ms with the limits of M.3.1.4.		N/A
2.3.2.1	In the event of a single fault, the limits of 2.2.3 apply to SELV circuits and accessible conductive parts.		N/A
2.5	Overcurrent protection device required for Class 2 and Class 3 limiting in accordance with the NEC, or for a Limited Power Source, not interchangeable with devices of higher ratings if operator replaceable.		N/A
2.6	Equipment having receptacles for output a.c. power connectors generated from an internal separately derived source have the earthed (grounded) circuit conductor suitably bonded to earth.		N/A
2.6.2	Equipment with functional earthing is required to be		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	marked with the functional earthing symbol (IEC 60417-6092).		
2.6.3.3	For PLUGGABLE EQUIPMENT TYPE A, if a) b) or c) are not applicable, the current rating of the circuit is taken as 20 A		Pass
2.6.3.3	The first column on Table 2D requirement: “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration."	Considered.	Pass
2.6.3.4	Capacity of connection between earthing terminal and parts required to be earthed subject to special conditions based on the current rating of the circuit.		N/A
2.6.3.4	Protective bonding conductors and their terminals of non-standard constructions (e.g. PWB traces) evaluated to limited short-circuit test of CSA C22.2 No.0.4.		N/A
2.6.4.1	Field wiring terminals for earthing conductors suitable for wire sizes (gauge) used in US and Canada.		N/A
2.7.1	Data for selection of special external branch circuit overcurrent devices marked on the equipment.		N/A
2.7.1	Standard supply outlets protected by overcurrent device in accordance with the NEC, and CEC, Part 1.		N/A
2.7.1	Overcurrent protection for individual transformers that distribute power to other units over branch circuit wiring.		N/A
2.7.1	Additional requirements for overcurrent protection apply to equipment provided with panelboards.		N/A
2.7.1	Non-motor-operated equipment requiring special overcurrent protective device marked with device rating.		N/A
2.10.5.12	Multi-layer winding wire subject to UL component wire requirements in addition to 2.10.5.12 and Annex U.		Pass
3.1.1	Permissible combinations of internal wiring/external cable sizes for overcurrent and short circuit protection.		Pass
3.1.1	All interconnecting cables protected against overcurrent and short circuit.		N/A
3.2	Wiring methods permit connection of equipment to primary power supply in accordance with the NEC and CEC, Part 1.	Equipment intended for built-in, to be determined in the end product.	N/A
3.2.1	Permitted use for flexible cords and plugs.		N/A
3.2.1	Flexible cords provided with attachment plug rated 125% of equipment current rating.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1	Any Class II equipment provided with 15 or 20 A standard supply outlets, Edison-base lampholders or single pole disconnect device provided with a polarized type attachment plug.		N/A
3.2.1.2	Equipment intended for connection to DC mains supply power systems complies with special wiring requirements (e.g., no permanent connection to supply by flexible cord).		N/A
3.2.1.2	Equipment with one pole of the DC mains supply connected to both the equipment mains input terminal and the main protective earthing terminal provided with special instructions and construction provisions for earthing.		N/A
3.2.1.2	Equipment with means for connecting supply to earthing electrode conductor has no switches or protective devices between supply connection and earthing electrode connection.		N/A
3.2.1.2	Special markings and instructions for equipment with provisions to connect earthed conductor of a DC supply circuit to earthing conductor at the equipment.		N/A
3.2.1.2	Special markings and instructions for equipment with earthed conductor of a DC supply circuit connected to the earthing conductor at the equipment.		N/A
3.2.1.2	Terminals and leads provided for permanent connection of DC powered equipment to supply marked to indicate polarity if reverse polarity may result in a hazard.		N/A
3.2.3	Permanently connected equipment has provision for connecting and securing a field wiring system (i.e. conduit, or leads etc.) per the NEC and CEC, Part 1.		N/A
3.2.3	Permanently connected equipment may have terminals or leads not smaller than No. 18 AWG (0.82 mm²) and not less than 150 mm in length for connection of field installed wiring.		N/A
3.2.3	If supply wires exceed 60 °C, marking indicates use of 75 °C or 90 °C wiring for supply connection as appropriate.		N/A
3.2.3	Equipment compatible with suitable trade sizes of conduits and cables.		N/A
3.2.5	Power supply cords are required to be no longer than 4.5 m in length. 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.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		
3.2.5	Conductors in power supply cords sized according to NEC and CEC, Part I.		N/A
3.2.5	Power supply cords and cord sets incorporate flexible cords suitable for the particular application.		N/A
3.2.6	Strain relief provided for non-detachable interconnecting cables not supplied by a limited power source.		N/A
3.2.9	Adequate wire bending space and volume of field wiring compartment required to properly make the field connections.		N/A
3.2.9	Equipment intended solely for installation in Restricted Access Locations using low voltage d.c. systems may not need provision for connecting and securing a field wiring system. A method of securing wiring or instructions provided to ensure the wiring is protected from abuse.		N/A
3.3	Field wiring terminals provided for interconnection of units for other than LPS or Class 2 circuits also comply with 3.3.	Equipment intended for built-in, to be determined in the end product.	N/A
3.3	Interconnection of units by LPS or Class 2 conductors may have field wiring connectors other than those specified in 3.3 if wiring is reliably separated.	Equipment intended for built-in, to be determined in the end product.	N/A
3.3.1	Terminals for the connection of neutral conductor identified by a distinctive white marking or other equally effective means.	Equipment intended for built-in, to be determined in the end product.	N/A
3.3.3	Wire binding screw terminal permitted for connection of No. 10 AWG (5.3 mm²) or smaller conductor if provided with upturned lugs, cupped washer or equivalent retention.		N/A
3.3.4	Terminals accept wire sizes (gauge) used in the U.S. and Canada.		N/A
3.3.4	Terminals accept current-carrying conductors rated 125% of the equipment current rating.		N/A
3.3.5	First column of Table 3E revised to require “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration."		N/A
3.3.6	Field wiring terminals marked to indicate the material(s) of the conductor appropriate for the terminals used.		N/A
3.3.6	Connection of an aluminum conductor not permitted to terminal for equipment earthing		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	conductor.		
3.3.6	Field wiring connections made through the use of suitable pressure connectors (including set screw type), solder lugs or splices to flexible leads.		N/A
3.4.2	Separate motor control device(s) required for cord-connected equipment rated more than 12 A, or with motor rated more than 1/3 hp or more than 120 V.		N/A
3.4.8	Vertically mounted disconnect devices oriented so up position of handle is "on".		N/A
3.4.11	For computer-room applications, equipment with battery systems capable of supplying 750 VA for 5 min require battery disconnect means.		N/A
4.2.8.1	Special opening restrictions for enclosures around CRTs with face dimension of 160 mm or more.		N/A
4.2.9	Compartment housing high-pressure lamp marked to indicate risk of explosion.		N/A
4.3.2	Loading test for equipment with handle(s) used to support more than 9 kg tested at four times the weight of the unit.		N/A
4.3.6	In addition to the IEC requirements, Direct Plug-in Equipment complies with UL 1310 or CSA 223 mechanical assembly requirements.		N/A
4.3.8	Battery packs for both portable and stationary applications are required to comply with special component requirements.		N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with ANSI/NFPA 30(Table NAE.6).		N/A
4.3.12	Equipment using replenishable liquids marked to indicate type of liquid to be used.		N/A
4.3.13.2	Equipment that produces x-radiation and does not comply with 4.3.12 under all conditions of servicing marked to indicate the presence of radiation where readily visible.		N/A
4.3.13.5.1	Requirements contained in the applicable national codes and regulations apply to lasers (21 CFR 1040 and REDR C1370).		N/A
4.7	Automated information storage equipment intended to contain more than 0.76 m^3 of combustible media requires provision for automatic sprinklers or a gaseous agent extinguishing system.		N/A
4.7.3.1	Equipment for use in environmental air space other than ducts or plenums provided with metal enclosure or with non-metallic enclosure having adequate fire-resistance and low smoke producing characteristics. Low smoke-producing characteristics evaluated according to UL 2043.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Equipment for installation in space used for environmental air as described in Sec. 300-22(c) of the NEC provided with instructions indicating suitability for installation in such locations.		
4.7.3.1	Flame spread rating for external surface of combustible material with exposed area greater than 0.9 m² or a single dimension greater than 1.8 m; 50 or less for computer room applications or 200 or less for other applications.		N/A
4.7.3.4	Wire marked "VW-1" or "FT-1" considered equivalent.		Pass
5.1.8.2	Special earthing provisions and instructions for equipment with high touch current due to telecommunication network connections.		N/A
5.1.8.3	Touch current due to ringing voltage for equipment containing telecommunication network leads.		N/A
5.3.7	Overloading of SELV connectors and printed wiring board receptacles accessible to the operator.		N/A
5.3.7	Tests interrupted by opening of a component repeated two additional times.		N/A
5.3.9.1	Test interrupted by opening of wire or trace subject to certain conditions.		N/A
6	Specialized instructions provided for telephones that may be connected to a telecommunications network.		N/A
6	Marking identifying function of telecommunication type connectors not used for connection to a telecommunication network.		N/A
6.3	Equipment remotely powered over telecommunication wiring systems provided with specialized markings adjacent to the connection.		N/A
6.3	Overcurrent protection incorporated into equipment to provide power over telecommunication wiring system not interchangeable with devices of higher ratings if operator replaceable.		N/A
6.4	Additional requirements for equipment intended for connection to a telecommunication network using cable subject to overvoltage from power line failures (Fig. 6C).		N/A
6.4	Where 26 AWG line cord required by Fig. 6C, either the cord is provided with the equipment or described in the safety instructions.		N/A
7	Equipment associated with the cable distribution system may need to be subjected to applicable parts of Chapter 8 of the NEC.		N/A
H	Ionizing radiation measurements made under single fault conditions in accordance with the		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	requirements of the Code of Federal Regulations 21 CFR 1020 and the Canadian Radiation Emitting Devices Act, REDR C1370.		
M.2	Continuous ringing signals evaluated to Method A subjected to special accessibility considerations.		N/A
M.4	Special requirements for message waiting and similar telecommunications signals.		N/A
NAC	Equipment intended for use with a generic secondary protector marked with suitable instructions.		N/A
NAC	Equipment intended for use with a specific primary or secondary protector marked with suitable instructions.		N/A
NAD	Acoustic pressure from an ear piece less than 140 dBA for short duration disturbances, and less than 125 dBA for handsets, 118 dBA for headsets and insert earphones, for long duration disturbances.		N/A
NAD	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.		N/A
EE.5	UL articulated accessibility probe (Fig. EE.3) required for assessing accessibility to document/media shredders, instead of Figure 2A test finger.		N/A

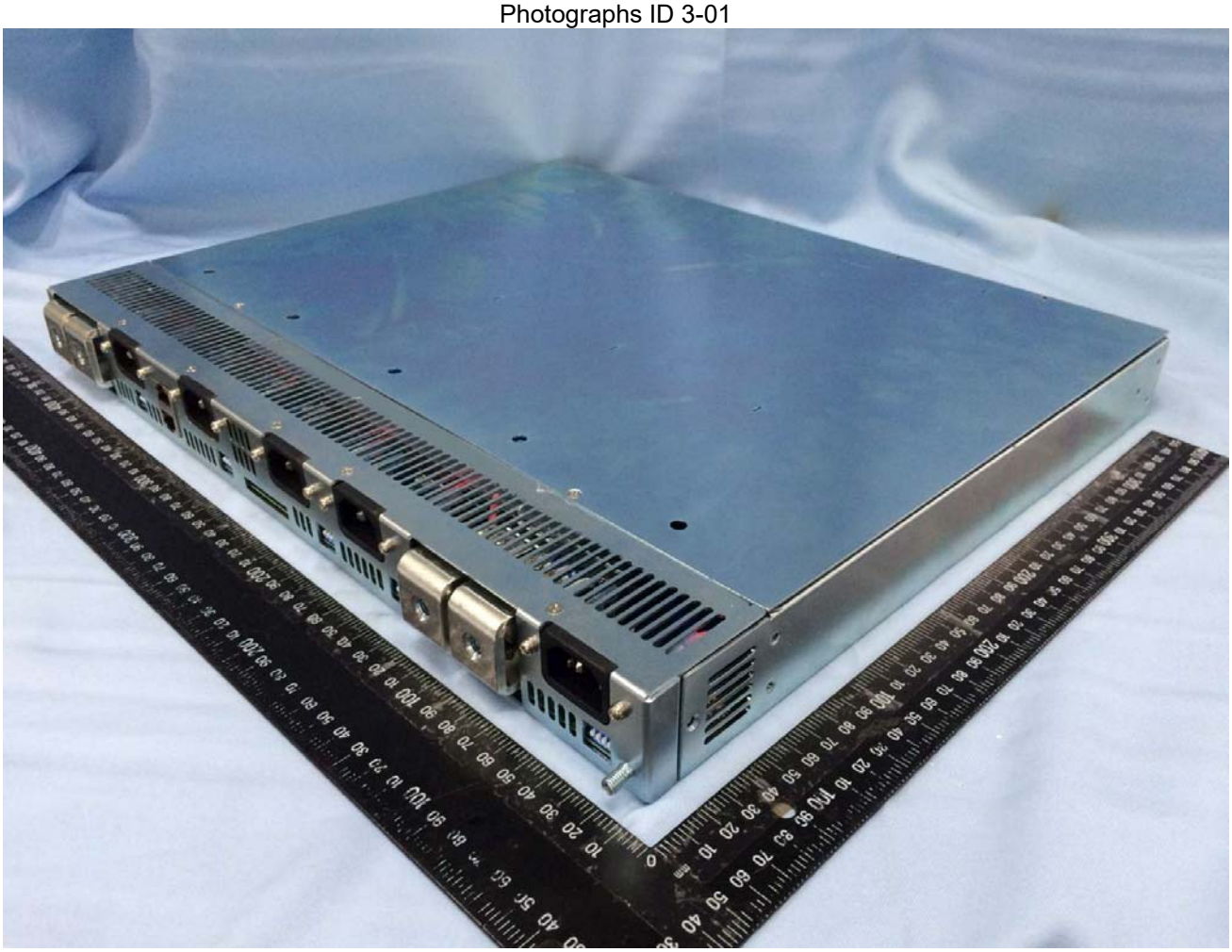
United Kingdom - Differences to IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013			
2.6.3.3	The current rating of the circuit shall be taken as 13 A, not 16 A.	Considered.	Pass
2.7.1	To protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.		N/A
3.2.1.1	Apparatus 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 and plug, shall be fitted with a "standard plug" in accordance with Statutory Instrument 1786: 1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations. NOTE: "Standard plug" is defined in SI 1786: 1994		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		
3.2.5.1	A power supply cord with conductor of 1.25 mm² is allowed for equipment with a rated current over 10A and up to and including 13A.	Equipment intended for built-in, to be determined in the end product.	N/A
3.3.4	The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current of over 10 A up to and including 13 A is 1.25 mm² to 1.5 mm² nominal cross-sectional area.		N/A
4.3.6	The torque test is performed using a socket outlet complying with BS 1363 and 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, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125°C.		N/A
4.3.6	Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		N/A

Enclosures

Type	Supplement Id	Description
Photographs	3-01	Rack System, front side (y = I)
Photographs	3-02	Rack System, front side (y = T)
Photographs	3-03	Rack System, resr side
Photographs	3-04	Rack System, internal view
Photographs	3-05	Rack System, Input board (y = I)
Photographs	3-06	Rack System, Input board (y = T)
Photographs	3-07	Rack System, Input to output board
Photographs	3-08	Switching Mode Power Supply, external view (1)
Photographs	3-09	Switching Mode Power Supply, external view (2)
Photographs	3-10	Switching Mode Power Supply, internal view
Photographs	3-11	Power Module, external view (1)
Photographs	3-12	Power Module, external view (2)
Photographs	3-13	Power Module, internal view
Diagrams	4-01	Transformer (T1) (for Model RCP-1600-12y, RSP-1600-12, RCB-1600-12y, RCB-1600-12zNE, RPB-1600-12y)
Diagrams	4-02	Transformer (T1) (for Model RCP-1600-24y, RSP-1600-24, RCB-1600-24y, RCB-1600-24zNE, RPB-1600-24y)
Diagrams	4-03	Transformer (T1) (for Model RCP-1600-48y, RSP-1600-48, RCB-1600-48y, RPB-1600-48y)
Diagrams	4-04	Transformer (T1) (for Model RSP-1600-27)
Diagrams	4-05	Transformer (T1) (for Model RSP-1600-36)
Diagrams	4-06	Transformer (T301)
Diagrams	4-07	Transformer (T600)
Miscellaneous	7-01	Addition test table
Miscellaneous	7-02	Rating List
Miscellaneous	7-03	Declaration Form For Factories

Photographs ID 3-01



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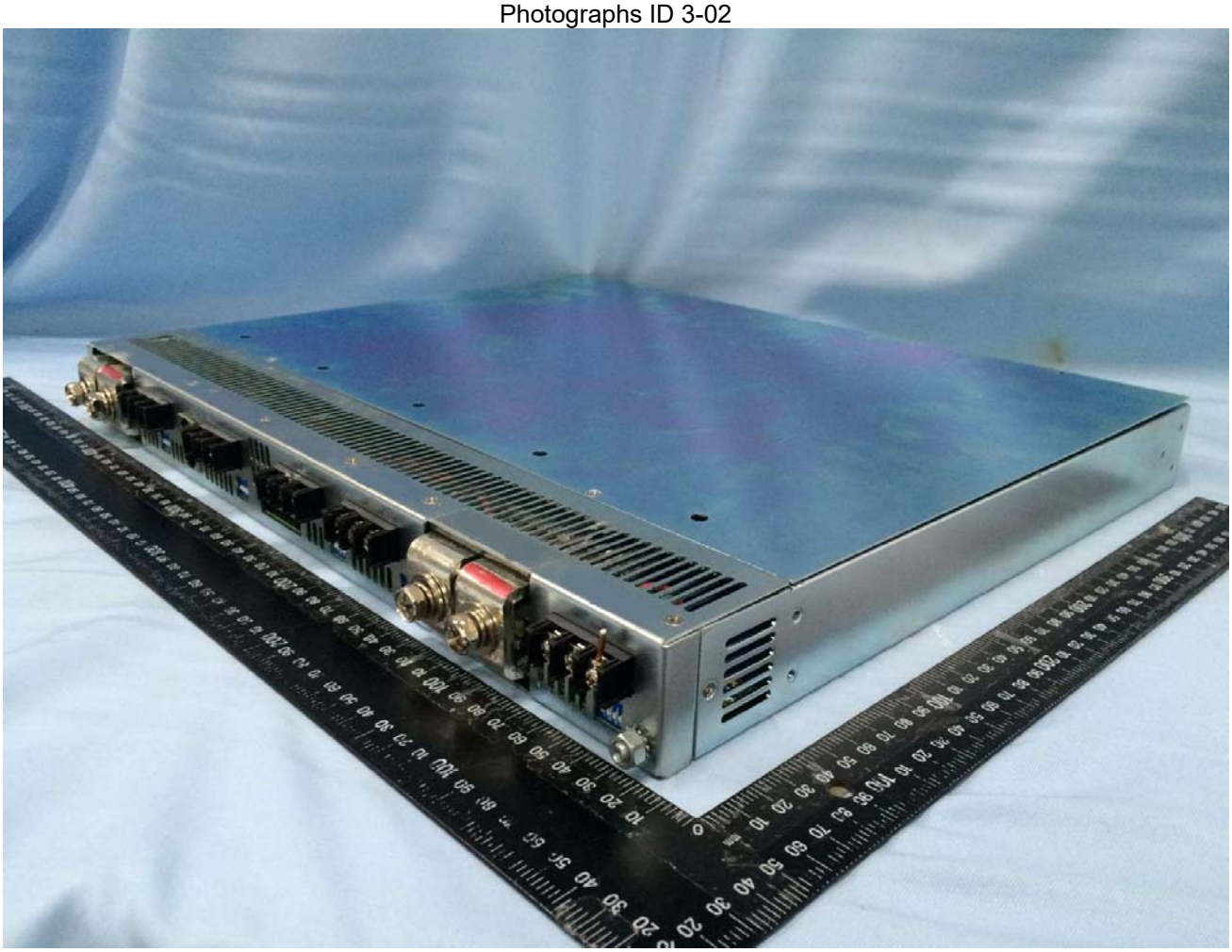

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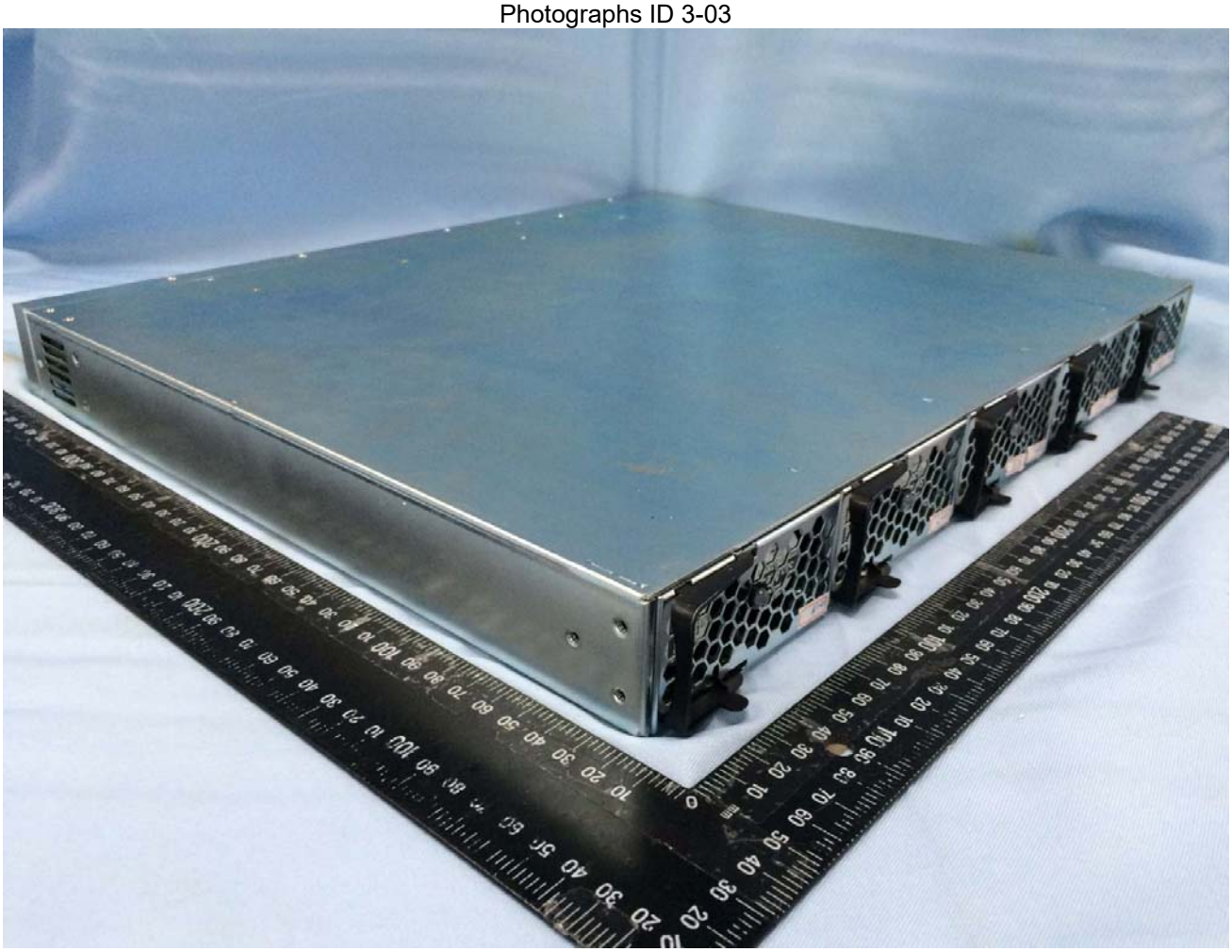
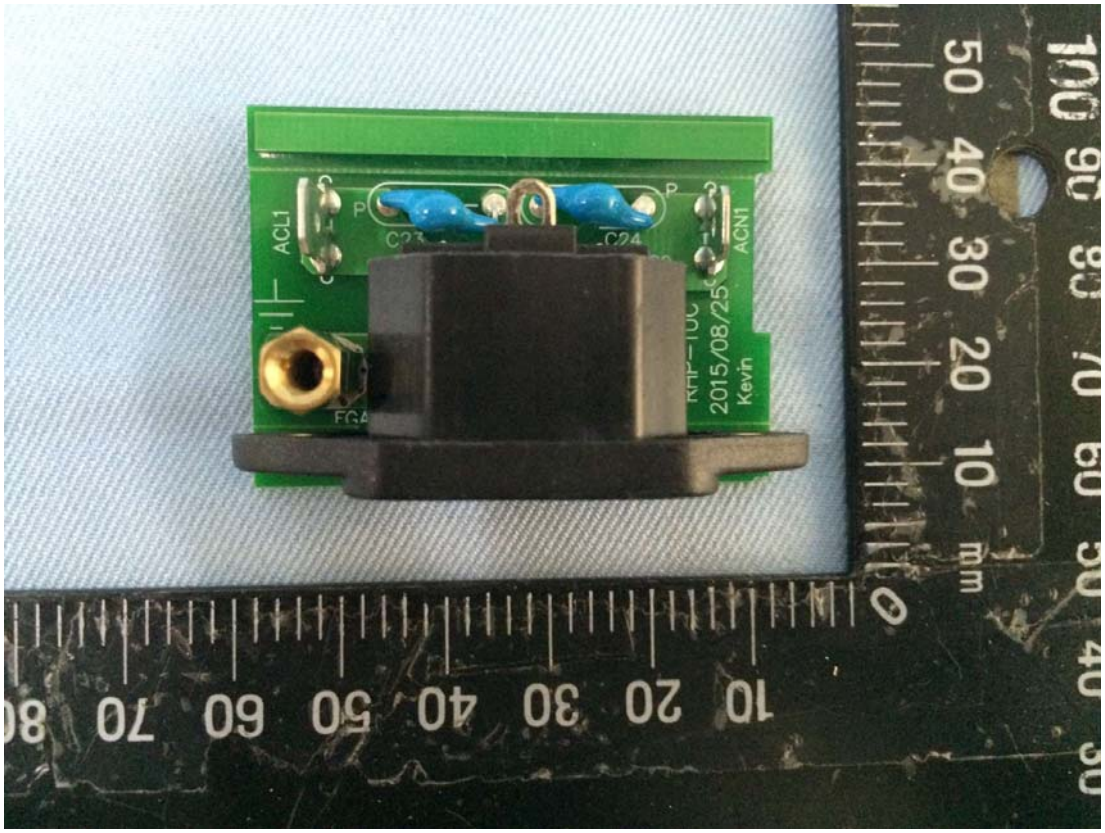


Photographs ID 3-04

Photographs ID 3-05



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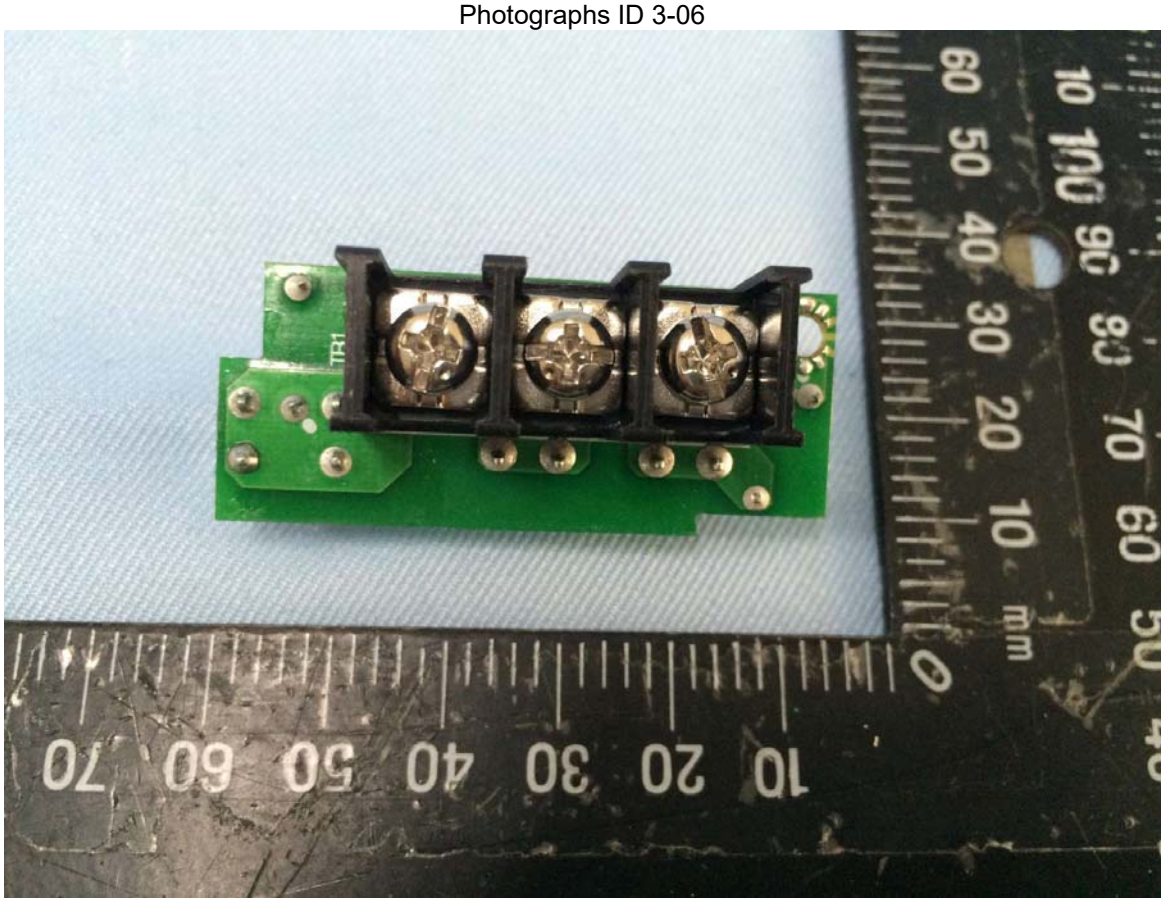

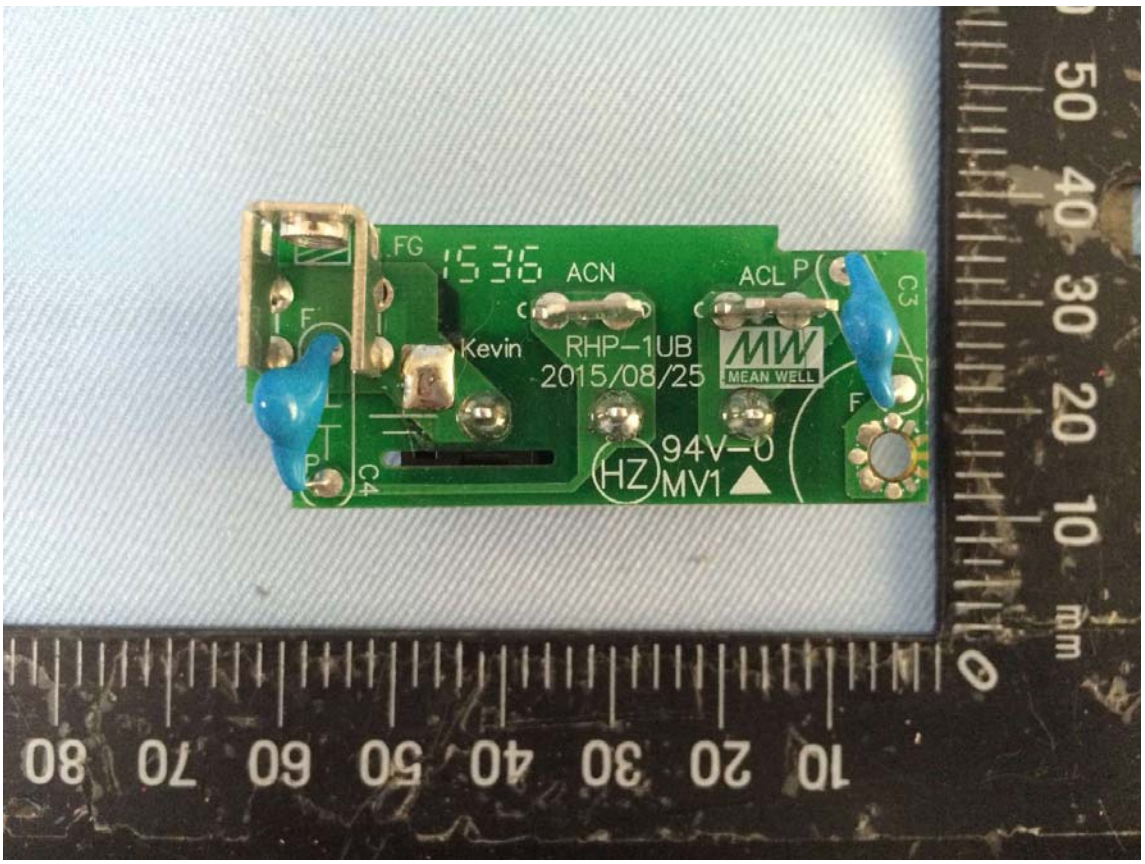

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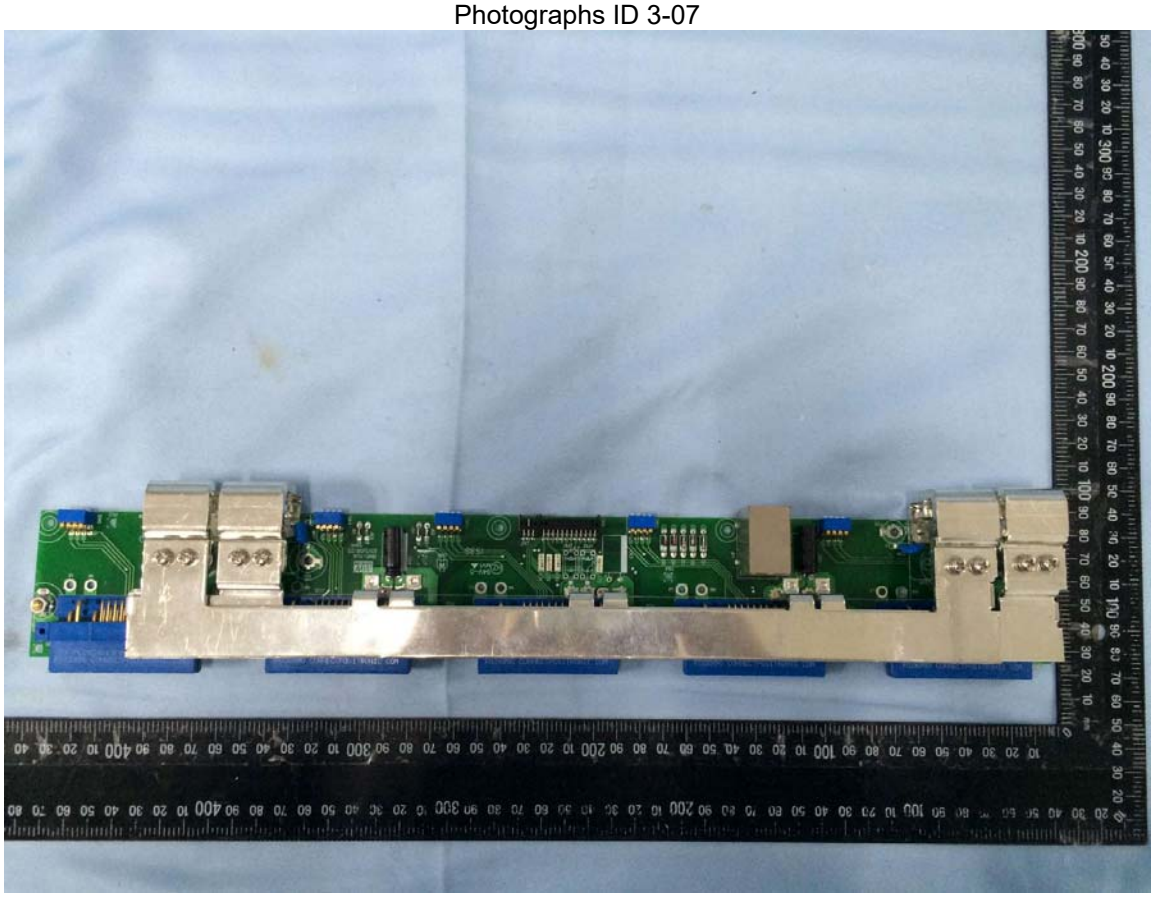

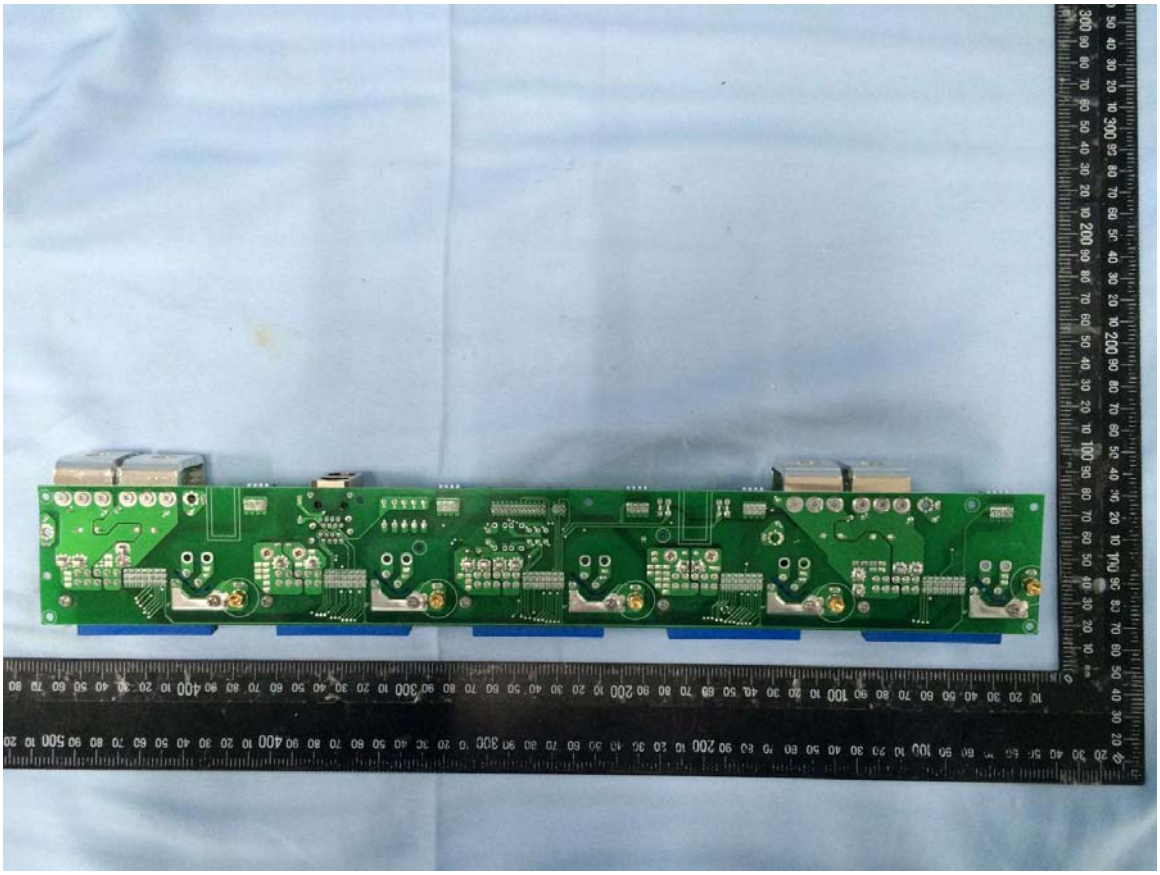

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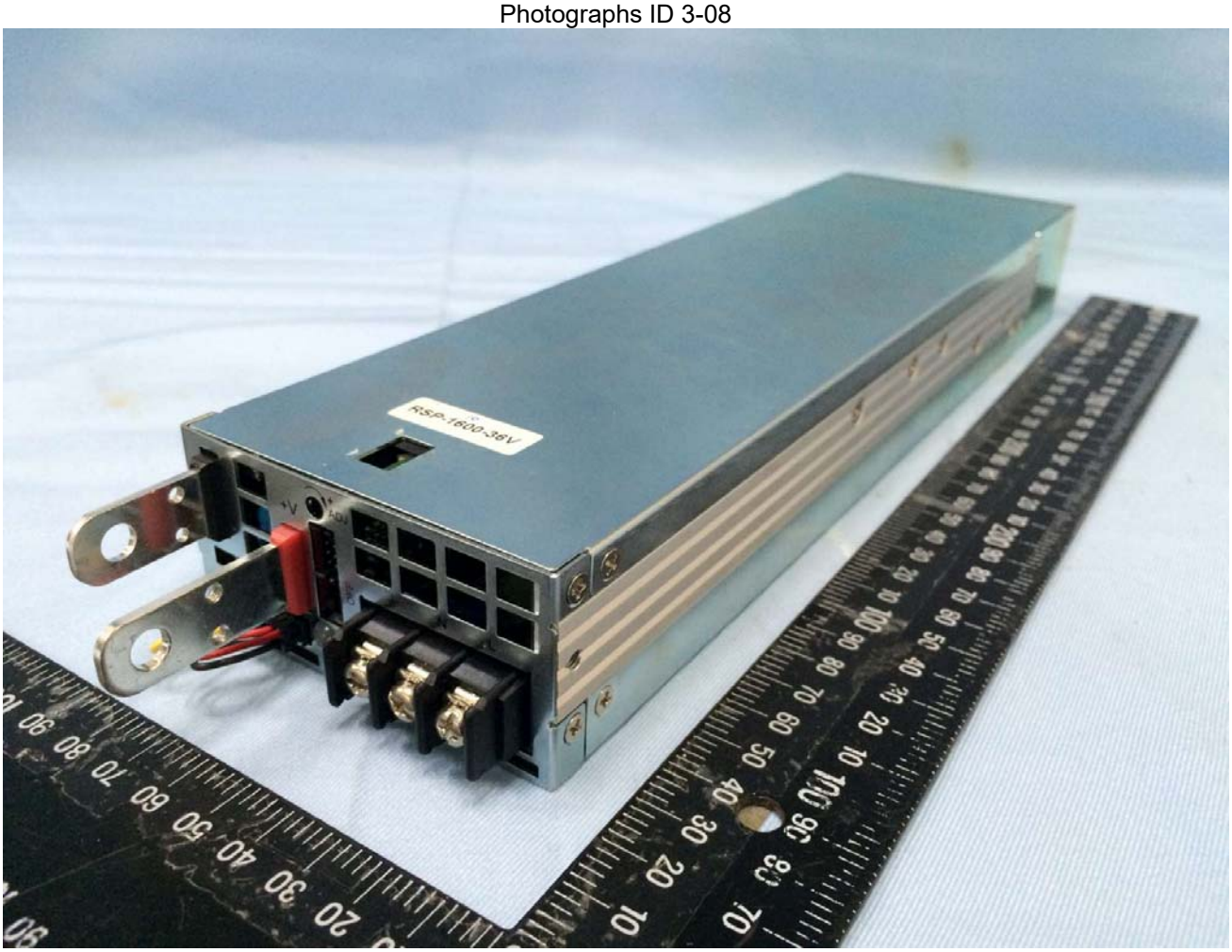
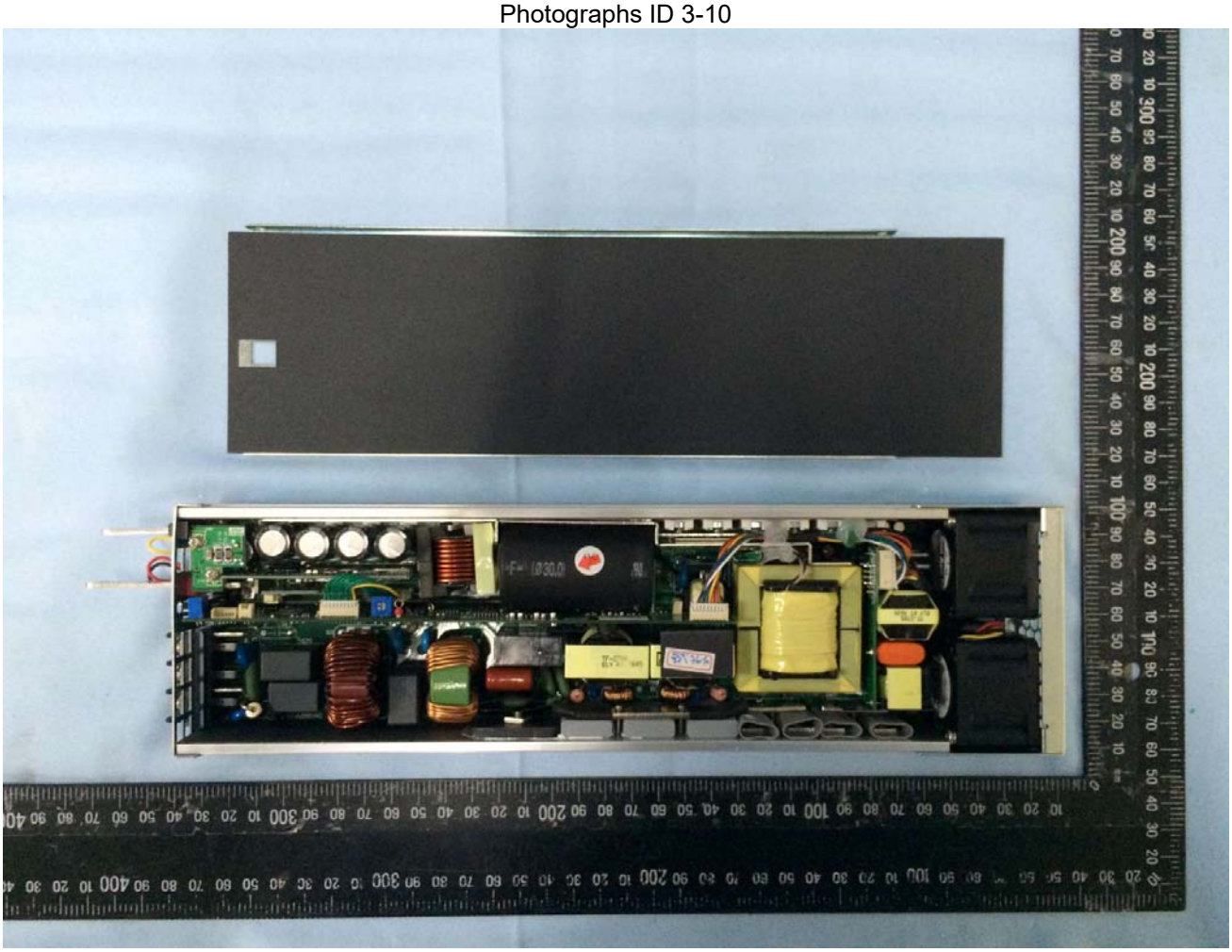


Photographs ID 3-09

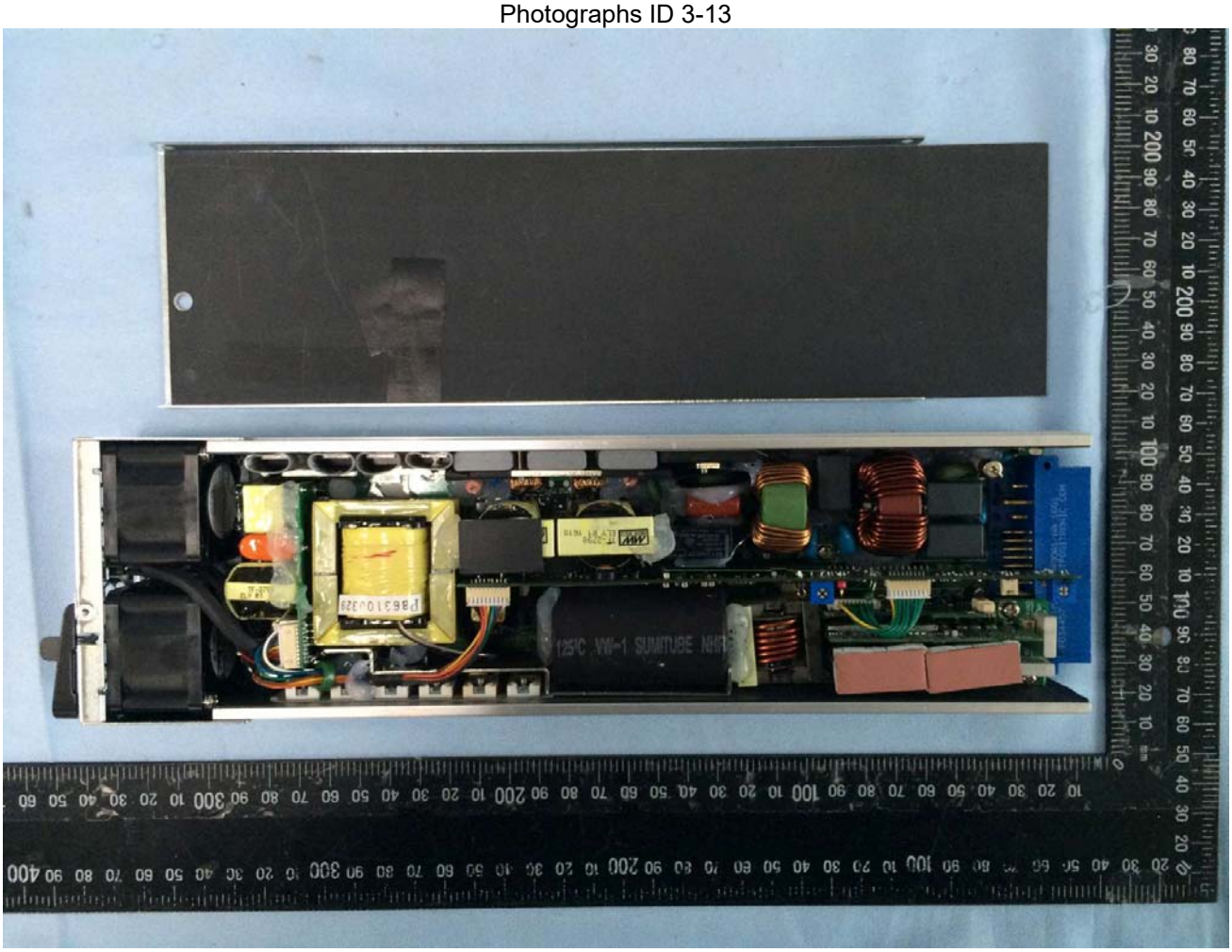
Photographs ID 3-10



Photographs ID 3-11

Photographs ID 3-12

Photographs ID 3-13



Diagrams ID 4-01

MEAN WELL MODEL: RSP-1600-12

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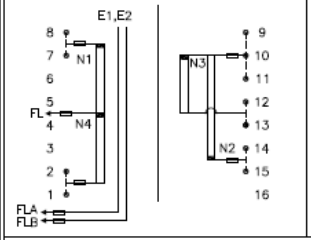
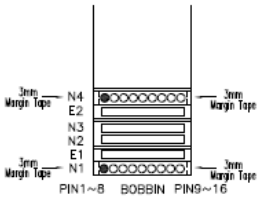
■ SAMPLE DRAW No:TF-2791-R2
□ OFFICIAL DATE: 2016-07-26

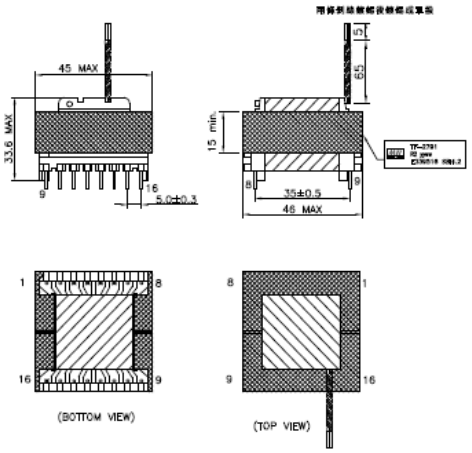
SCHEMATIC:
Primary Secondary



WINDING CONSTRUCTION:
(得出工廠請參照"磁性零件分包說明書"製作)



DIMENSIONS:(UNIT:mm)



NO.	START	FINISH	WIRE ø	TURNS	WINDING MODE	TAPE	INDUCTANCES uH	DCR(Max.) mΩ	REMARK
N1	7,8	FL	(0.25× 12)× 2	7.5	均線	1			
E1	FLA		2/1000"× 24			2			0.5ø(三層絕緣線)
N2	14,15	9,10,11	20/1000"× 24	1		0	4u	1.3	
N3	9,10,11	12,13	20/1000"× 24	1		2	4u	1.4	
E2	FLB		2/1000"× 24			1			0.5ø(三層絕緣線)
N4	FL	1,2	(0.25× 12)× 2	12.5	均線	2			
	7,8	1,2					1.8m	30	

NOTE:
1.N1,N4線材使用155°C等級
2.主線圈感量1,2-7,8 L=1.8mH±25%
3.N2,N3為同一銅箔繞製,PIN9~11為共同中心點,以1ø× 6條出線,PIN12~13與PIN14~15以1ø*4條出線
4.初級側漏感(N2及N3短接後量測)為4uH max.@100KHz/0.25V測試

NOTE:
1.N2,N3銅箔四邊反折6.5mm膠帶 ≧6.5mm
2.線包上緣至Bobbin檔牆下緣或至線包下緣的高度為33.6mm max.
3.鐵芯膠帶需包覆兩層
BOBBIN: 1.信銘HY4219 2.或同等級
CORE: 1.TDK PC47 ER42/22/15

Test Frequency: 1KHz/0.25V	Insulation Resistance: 500VDC>100MΩ	Insulation System: SBI4.2
Prim. —Sec:3.6KVAC,1mA/sec	Prim. — Core:1.8KVAC,1mA/sec	Sec — Core:1.8KVAC,1mA/sec
GAP:□中柱 □旁 □單:從上□ 下□ PIN_____~PIN_____膠入		Level: CLASS B

Revision:
2016-07-26
1.鐵芯膠帶需包覆兩層

MEAN WELL MODEL: RSP-1600-12

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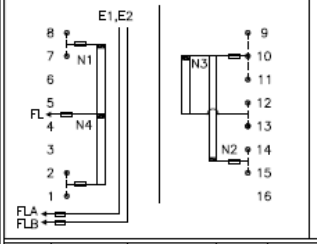
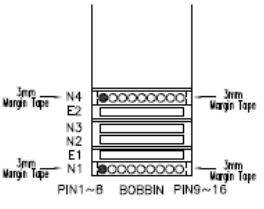
■ SAMPLE DRAW No:TF-2791A
□ OFFICIAL DATE: 2016-07-26

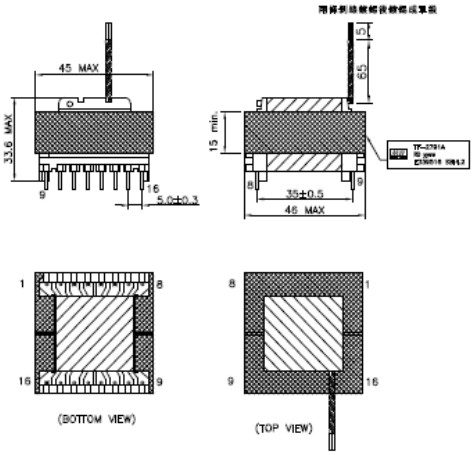
SCHEMATIC:
Primary Secondary



WINDING CONSTRUCTION:
(得出工廠請參照"磁性零件分包說明書"製作)



DIMENSIONS:(UNIT:mm)



NO.	START	FINISH	WIRE ø	TURNS	WINDING MODE	TAPE	INDUCTANCES uH	DCR(Max.) mΩ	REMARK
N1	7,8	FL	(0.25× 12)× 2	7.5	均線	1			
E1	FLA		2/1000"× 24			2			0.5ø
N2	14,15	9,10,11	20/1000"× 24	1		0	4u	1.3	
N3	9,10,11	12,13	20/1000"× 24	1		2	4u	1.4	
E2	FLB		2/1000"× 24			1			0.5ø
N4	FL	1,2	(0.25× 12)× 2	12.5	均線	2			
	7,8	1,2					1.8m	30	

NOTE:
1.N1,N4線材使用155°C等級
2.主線圈感量1,2-7,8 L=1.8mH±25%
3.N2,N3為同一銅箔繞製,PIN9~11為共同中心點,以1ø× 6條出線,PIN12~13與PIN14~15以1ø*4條出線
4.初級側漏感(N2及N3短接後量測)為4uH max.@100KHz/0.25V測試

NOTE:
1.N2,N3銅箔四邊反折6.5mm膠帶 ≧6.5mm
2.線包上緣至Bobbin檔牆下緣或至線包下緣的高度為33.6mm max.
3.FLA及FLB出線須加套兩層套管(物料限用Great Holding Industrial Co. Ltd.的TFS系列)
4.鐵芯膠帶需包覆兩層
BOBBIN: 1.信銘HY4219 2.或同等級
CORE: 1.TDK PC47 ER42/22/15

Test Frequency: 1KHz/0.25V	Insulation Resistance: 500VDC>100MΩ	Insulation System: SBI4.2
Prim. —Sec:3.6KVAC,1mA/sec	Prim. — Core:1.8KVAC,1mA/sec	Sec — Core:1.8KVAC,1mA/sec
GAP:□中柱 □旁 □單:從上□ 下□ PIN_____~PIN_____膠入		Level: CLASS B

Revision:

Diagrams ID 4-02

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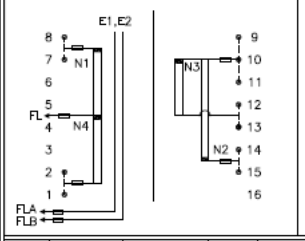
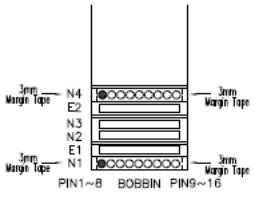
MEAN WELL MODEL: RSP-1600-24

■ SAMPLE DRAW No:TF-2792-R3
□ OFFICIAL DATE: 2016-07-26

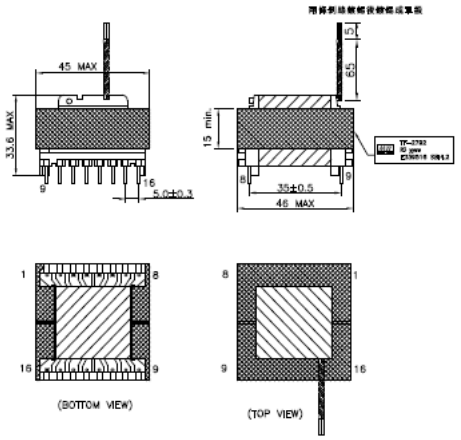
SCHEMATIC:



WINDING CONSTRUCTION:
(得泰工廠請參照"磁性零件分包說明書"製作)



DIMENSIONS:(UNIT:mm)



NO.	START	FINISH	WIRE ø	TURNS	WINDING MODE	TAPE	INDUCTANCES uH	DCR(Max.) mΩ	REMARK
N1	7,8	FL	(0.25×12)×2	7.5	均繞	1			
E1	FLA		2/1000"×24			2			0.5ø(三層絕緣線)
N2	14,15	9,10,11	10/1000"×24	2		0	16u	1.5	
N3	9,10,11	12,13	10/1000"×24	2		2	16u	2	
E2	FLB		2/1000"×24			1			0.5ø(三層絕緣線)
N4	FL	1,2	(0.25×12)×2	12.5	均繞	2			
	7,8	1,2					1.8m	30	

NOTE:
1.N1,N4線材使用155°C等級
2.主線圈感量1,2-7,8 L=1.8mH±25%
3.N2,N3為同一銅箔繞製,PIN9~11為共同中心點,以1ø×6條出線,PIN12~13與PIN14~15以1ø*4條出線
4.初級側漏感(N2及N3短接後量測)為4uH max.@100KHz/0.25V測試

NOTE:
1.N2,N3銅箔四邊反折6.5mm膠帶 ≧6.5mm
2.線包上緣至Bobbin檔牆下緣或至線包下緣的高度為33.6mm max.
3.鐵芯膠帶需包覆兩層

BOBBIN: 1.信誠HY4219 2.或同等級
CORE: 1.TDK PC47 ER42/22/15

Test Frequency: 1KHz/0.25V	Insulation Resistance: 500VDC>100MΩ	Insulation System: SBI4.2
Prim. —Sec:3.6KVAC,1mA/sec	Prim. — Core:1.8KVAC,1mA/sec	Sec — Core:1.8KVAC,1mA/sec
GAP:□中柱 □旁 □單:從上□ 下□ PIN_____~PIN_____綁入		Level: CLASS B

Revision:
2016-07-26
1.鐵芯膠帶需包覆兩層

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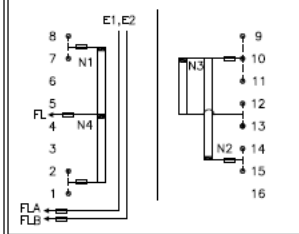
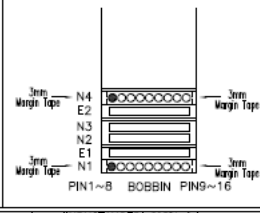
MEAN WELL MODEL: RSP-1600-24

■ SAMPLE DRAW No:TF-2792A
□ OFFICIAL DATE: 2016-07-26

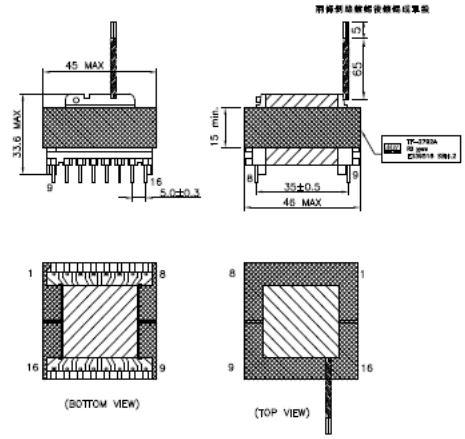
SCHEMATIC:



WINDING CONSTRUCTION:
(得泰工廠請參照"磁性零件分包說明書"製作)



DIMENSIONS:(UNIT:mm)



NO.	START	FINISH	WIRE ø	TURNS	WINDING MODE	TAPE	INDUCTANCES uH	DCR(Max.) mΩ	REMARK
N1	7,8	FL	(0.25×12)×2	7.5	均繞	1			
E1	FLA		2/1000"×24			2			0.5ø
N2	14,15	9,10,11	10/1000"×24	2		0	16u	1.5	
N3	9,10,11	12,13	10/1000"×24	2		2	16u	2	
E2	FLB		2/1000"×24			1			0.5ø
N4	FL	1,2	(0.25×12)×2	12.5	均繞	2			
	7,8	1,2					1.8m	30	

NOTE:
1.N1,N4線材使用155°C等級
2.主線圈感量1,2-7,8 L=1.8mH±25%
3.N2,N3為同一銅箔繞製,PIN9~11為共同中心點,以1ø×6條出線,PIN12~13與PIN14~15以1ø*4條出線
4.初級側漏感(N2及N3短接後量測)為4uH max.@100KHz/0.25V測試

NOTE:
1.N2,N3銅箔四邊反折6.5mm膠帶 ≧6.5mm
2.線包上緣至Bobbin檔牆下緣或至線包下緣的高度為33.6mm max.
3.FLA及FLB出線須加套兩層套管(物料採用Great Holding Industrial Co. Ltd.的TFS系列)
4.鐵芯膠帶需包覆兩層

BOBBIN: 1.信誠HY4219 2.或同等級
CORE: 1.TDK PC47 ER42/22/15

Test Frequency: 1KHz/0.25V	Insulation Resistance: 500VDC>100MΩ	Insulation System: SBI4.2
Prim. —Sec:3.6KVAC,1mA/sec	Prim. — Core:1.8KVAC,1mA/sec	Sec — Core:1.8KVAC,1mA/sec
GAP:□中柱 □旁 □單:從上□ 下□ PIN_____~PIN_____綁入		Level: CLASS B

Revision:

Diagrams ID 4-03

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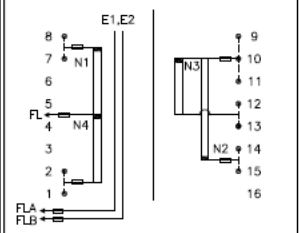
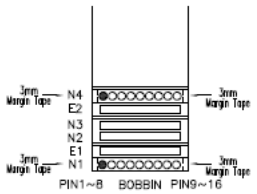
MEAN WELL MODEL: RSP-1600-48

■ SAMPLE DRAW No:TF-2793-R2
□ OFFICIAL DATE: 2016-07-26

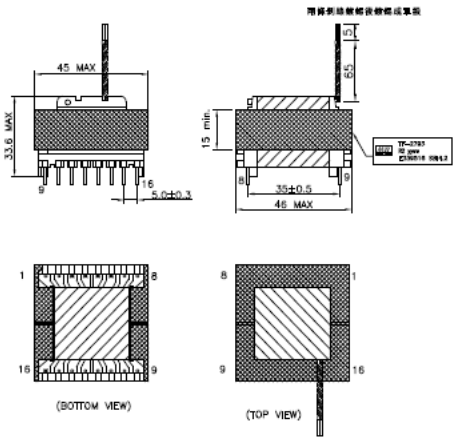
SCHEMATIC:



WINDING CONSTRUCTION:
(得準工藝請參照"敏性零件分包說明書"製作)



DIMENSIONS:(UNIT:mm)



NO.	START	FINISH	WIRE ø	TURNS	WINDING MODE	TAPE	INDUCTANCES uH	DCR(Max.) mΩ	REMARK
N1	7,8	FL	(0.25×12)×2	7.5	均繞	1			
E1	FLA		2/1000"×24			2			0.5ø(三層絕緣線)
N2	14,15	9,10,11	4/1000"×24	4		0	64u	3.5	
N3	9,10,11	12,13	4/1000"×24	4		2	64u	4	
E2	FLB		2/1000"×24			1			0.5ø(三層絕緣線)
N4	FL	1,2	(0.25×12)×2	12.5	均繞	2			
	7,8	1,2					1.8m	30	

NOTE:
1.N1,N4線材使用155°C等級
2.主線圈感量1,2-7,8 L=1.8mH±25%
3.N2,N3為同一銅箔繞製,PIN9~11為共同中心點,以1ø×6條出線,PIN12~13與PIN14~15以1ø*4條出線
4.初級側漏感(N2及N3短接後量測)為4uH max.@100KHz/0.25V測試

NOTE:
1.N2,N3銅箔四邊反折6.5mm膠帶 ≧6.5mm
2.線包上緣至Bobbin檔牆下緣或至線包下緣的高度為33.6mm max.
3.鐵芯膠帶需包覆兩層

BOBBIN: 1.信錦HY4219 2.或同等級
CORE: 1.TDK PC47 ER42/22/15

Test Frequency: 1KHz/0.25V	Insulation Resistance: 500VDC>100MΩ	Insulation System: SBI4.2
Prim. —Sec:3.6KVAC,1mA/sec	Prim. —Core:1.8KVAC,1mA/sec	Sec — Core:1.8KVAC,1mA/sec
GAP:□中柱 □旁 □單:從上□ 下□ PIN_____~PIN_____導入		Level: CLASS B

Revision:
2016-07-26
1.建立圖面

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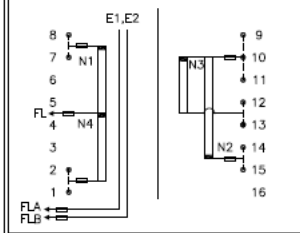
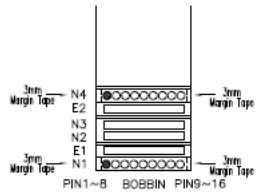
MEAN WELL MODEL: RSP-1600-48

■ SAMPLE DRAW No:TF-2793A
□ OFFICIAL DATE: 2016-07-26

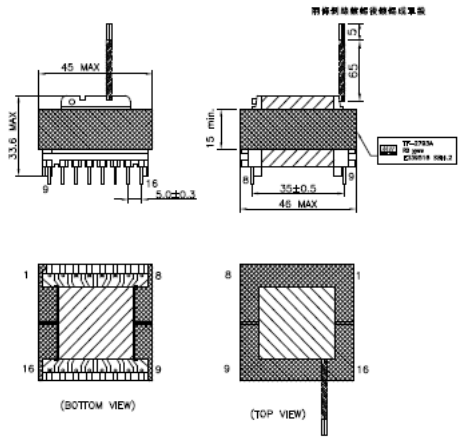
SCHEMATIC:



WINDING CONSTRUCTION:
(得準工藝請參照"敏性零件分包說明書"製作)



DIMENSIONS:(UNIT:mm)



NO.	START	FINISH	WIRE ø	TURNS	WINDING MODE	TAPE	INDUCTANCES uH	DCR(Max.) mΩ	REMARK
N1	7,8	FL	(0.25×12)×2	7.5	均繞	1			
E1	FLA		2/1000"×24			2			0.5ø
N2	14,15	9,10,11	4/1000"×24	4		0	64u	3.5	
N3	9,10,11	12,13	4/1000"×24	4		2	64u	4	
E2	FLB		2/1000"×24			1			0.5ø
N4	FL	1,2	(0.25×12)×2	12.5	均繞	2			
	7,8	1,2					1.8m	30	

NOTE:
1.N1,N4線材使用155°C等級
2.主線圈感量1,2-7,8 L=1.8mH±25%
3.N2,N3為同一銅箔繞製,PIN9~11為共同中心點,以1ø×6條出線,PIN12~13與PIN14~15以1ø*4條出線
4.初級側漏感(N2及N3短接後量測)為4uH max.@100KHz/0.25V測試

NOTE:
1.N2,N3銅箔四邊反折6.5mm膠帶 ≧6.5mm
2.線包上緣至Bobbin檔牆下緣或至線包下緣的高度為33.6mm max.
3.FLA及FLB出線須加套兩層套管(物料需用Great Holding Industrial Co. Ltd.的TFS系列)
4.鐵芯膠帶需包覆兩層

BOBBIN: 1.信錦HY4219 2.或同等級
CORE: 1.TDK PC47 ER42/22/15

Test Frequency: 1KHz/0.25V	Insulation Resistance: 500VDC>100MΩ	Insulation System: SBI4.2
Prim. —Sec:3.6KVAC,1mA/sec	Prim. —Core:1.8KVAC,1mA/sec	Sec — Core:1.8KVAC,1mA/sec
GAP:□中柱 □旁 □單:從上□ 下□ PIN_____~PIN_____導入		Level: CLASS B

Revision:

Diagrams ID 4-04

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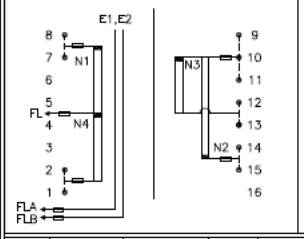
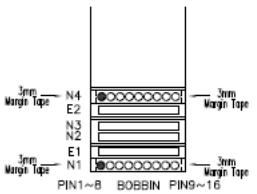
MEAN WELL MODEL: RSP-1600-27

■ SAMPLE DRAW No:TF-2837-R2
□ OFFICIAL DATE: 2016-07-26

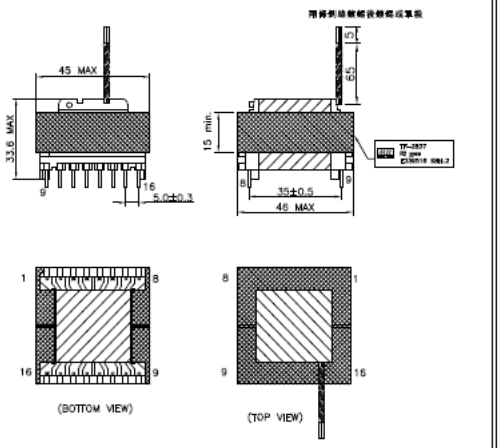
SCHEMATIC:
Primary Secondary



WINDING CONSTRUCTION:
(繞線工藝請參照"磁性零件分包說明書"製作)



DIMENSIONS:(UNIT:mm)



NO.	START	FINISH	WIRE ø	TURNS	WINDING MODE	TAPE	INDUCTANCES uH	DCR(Max.) mΩ	REMARK
N1	7,8	FL	0.8×2	10.5	均繞	1			
E1	FLA		1/1000"×24			2			0.5ø(三層絕緣線)
N2	14,15	9,10,11	8/1000"×24	3		0	36u	2	
N3	9,10,11	12,13	8/1000"×24	3		2	36u	2.1	
E2	FLB		1/1000"×24			1			0.5ø(三層絕緣線)
N4	FL	1,2	0.8×2	16.5	均繞	2			
	7,8	1,2					3.28m	52	

NOTE:
1.N1,N4線材使用155°C等級
2.主線圈感量1,2-7,8 L=3.28mH±25%
3.N2,N3為同一銅箔繞製,PIN9~11為共同中心點,以1ø×6條出線,PIN12~13與PIN14~15以1ø*4條出線
4.初級側漏感(N2及N3短接後量測)為4uH max.@100KHz/0.25V測試

NOTE:
1.N2,N3銅箔四邊反折6.5mm膠帶 ≧6.5mm
2.線包上緣至Bobbin檔牆下緣或至線包下緣的高度為33.6mm max.
3.鐵芯膠帶需包覆兩層
BOBBIN: 1.信飾HY4219 2.或同等級
CORE: 1.TDK PC47 ER42/22/15

Test Frequency: 1KHz/0.25V	Insulation Resistance: 500VDC>100MΩ	Insulation System: SBI4.2
Prim. —Sec:3.6KVAC,1mA/sec	Prim. — Core:1.8KVAC,1mA/sec	Sec — Core:1.8KVAC,1mA/sec
GAP:□中柱 □旁 □單:在上□ 下□ PIN_____~PIN_____膠入		Level: CLASS B

Revision:
2016-07-26
1.鐵芯膠帶需包覆兩層

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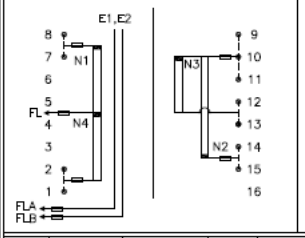
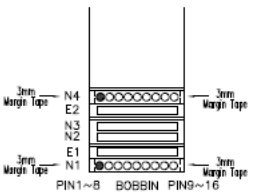
MEAN WELL MODEL: RSP-1600-27

■ SAMPLE DRAW No:TF-2837A
□ OFFICIAL DATE: 2016-07-26

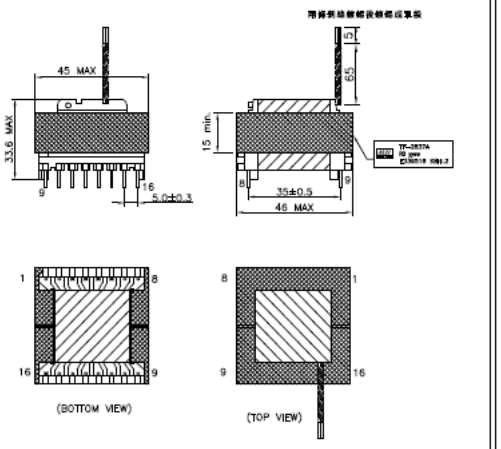
SCHEMATIC:
Primary Secondary



WINDING CONSTRUCTION:
(繞線工藝請參照"磁性零件分包說明書"製作)



DIMENSIONS:(UNIT:mm)



NO.	START	FINISH	WIRE ø	TURNS	WINDING MODE	TAPE	INDUCTANCES uH	DCR(Max.) mΩ	REMARK
N1	7,8	FL	0.8×2	10.5	均繞	1			
E1	FLA		1/1000"×24			2			0.5ø
N2	14,15	9,10,11	8/1000"×24	3		0	36u	2	
N3	9,10,11	12,13	8/1000"×24	3		2	36u	2.1	
E2	FLB		1/1000"×24			1			0.5ø
N4	FL	1,2	0.8×2	16.5	均繞	2			
	7,8	1,2					3.28m	52	

NOTE:
1.N1,N4線材使用155°C等級
2.主線圈感量1,2-7,8 L=3.28mH±25%
3.N2,N3為同一銅箔繞製,PIN9~11為共同中心點,以1ø×6條出線,PIN12~13與PIN14~15以1ø*4條出線
4.初級側漏感(N2及N3短接後量測)為4uH max.@100KHz/0.25V測試

NOTE:
1.N2,N3銅箔四邊反折6.5mm膠帶 ≧6.5mm
2.線包上緣至Bobbin檔牆下緣或至線包下緣的高度為33.6mm max.
3.FLA及FLB出線須加套兩層套管(物料限用Great Holding Industrial Co. Ltd.的TFS系列)
4.鐵芯膠帶需包覆兩層
BOBBIN: 1.信飾HY4219 2.或同等級
CORE: 1.TDK PC47 ER42/22/15

Test Frequency: 1KHz/0.25V	Insulation Resistance: 500VDC>100MΩ	Insulation System: SBI4.2
Prim. —Sec:3.6KVAC,1mA/sec	Prim. — Core:1.8KVAC,1mA/sec	Sec — Core:1.8KVAC,1mA/sec
GAP:□中柱 □旁 □單:在上□ 下□ PIN_____~PIN_____膠入		Level: CLASS B

Revision:
2016-07-26
1.鐵芯膠帶需包覆兩層

Diagrams ID 4-05

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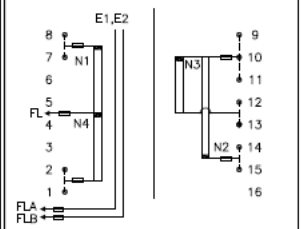
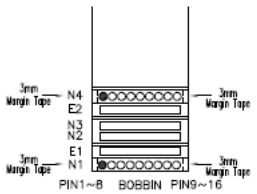
MEAN WELL MODEL: RSP-1600-36

■ SAMPLE DRAW No:TF-2838A
□ OFFICIAL DATE: 2016-07-26

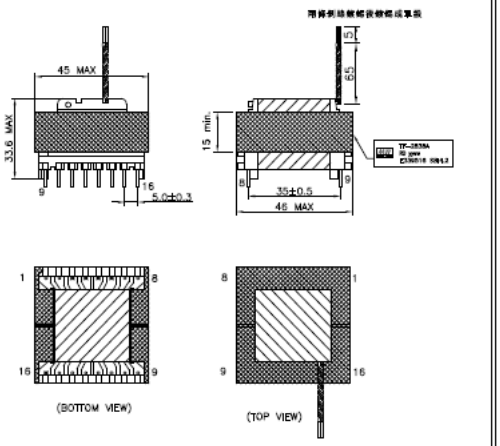
SCHEMATIC:



WINDING CONSTRUCTION:
(轉換工藝請參照"磁性零件分包說明書"製作)



DIMENSIONS:(UNIT:mm)



NO.	START	FINISH	WIRE ø	TURNS	WINDING MODE	TAPE	INDUCTANCES uH	DCR(Max.) mΩ	REMARK
N1	7,8	FL	(0.25× 12)× 2	7.5	均繞	1			
E1	FLA		2/1000"× 24			2			0.5ø
N2	14,15	9,10,11	6/1000"× 24	3		0	32u	2	
N3	9,10,11	12,13	6/1000"× 24	3		2	32u	2.2	
E2	FLB		2/1000"× 24			1			0.5ø
N4	FL	1,2	(0.25× 12)× 2	12.5	均繞	2			
	7,8	1,2					1.8m	30	

NOTE:
1.N1,N4線材使用155°C等級
2.主線圈感量1,2-7,8 L=1.8mH±25%
3.N2,N3為同一銅箔繞製,PIN9~11為共同中心點,以1ø× 6條出線,PIN12~13與PIN14~15以1ø*4條出線
4.初級側漏感(N2及N3短接後量測)為4uH max.@100KHz/0.25V測試

NOTE:
1.N2,N3銅箔四邊反折6.5mm膠帶 ≧6.5mm
2.線包上緣至Bobbin槽腳下緣或至線包下緣的高度為33.6mm max.
3.FLA及FLB出線須加套兩層套管(物料限用Great Holding Industrial Co. Ltd.的TFS系列)
4.鐵芯膠帶需包覆兩層

BOBBIN: 1.信錦HY4219 2.或同等級
CORE: 1.TDK PC47 ER42/22/15

Test Frequency: 1KHz/0.25V	Insulation Resistance: 500VDC>100MΩ	Insulation System: SBI4.2
Prim. —Sec:3.6KVAC,1mA/sec	Prim.—Core:1.8KVAC,1mA/sec	Sec — Core:1.8KVAC,1mA/sec
GAP:□中柱 □旁 □單:從上□ 下□ PIN ~PIN 穿入		Level: CLASS B

Revision:

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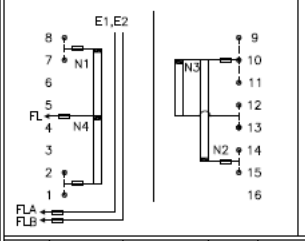
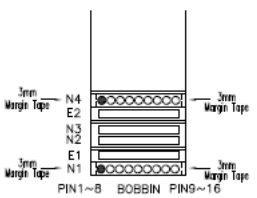
MEAN WELL MODEL: RSP-1600-36

■ SAMPLE DRAW No:TF-2838-R2
□ OFFICIAL DATE: 2016-07-26

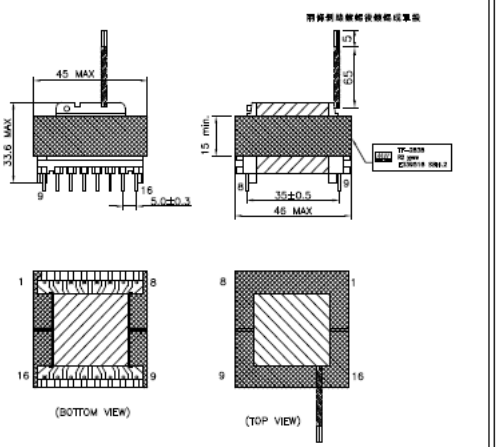
SCHEMATIC:



WINDING CONSTRUCTION:
(轉換工藝請參照"磁性零件分包說明書"製作)



DIMENSIONS:(UNIT:mm)



NO.	START	FINISH	WIRE ø	TURNS	WINDING MODE	TAPE	INDUCTANCES uH	DCR(Max.) mΩ	REMARK
N1	7,8	FL	(0.25× 12)× 2	7.5	均繞	1			
E1	FLA		2/1000"× 24			2			0.5ø(三層絕緣線)
N2	14,15	9,10,11	6/1000"× 24	3		0	32u	2	
N3	9,10,11	12,13	6/1000"× 24	3		2	32u	2.2	
E2	FLB		2/1000"× 24			1			0.5ø(三層絕緣線)
N4	FL	1,2	(0.25× 12)× 2	12.5	均繞	2			
	7,8	1,2					1.8m	30	

NOTE:
1.N1,N4線材使用155°C等級
2.主線圈感量1,2-7,8 L=1.8mH±25%
3.N2,N3為同一銅箔繞製,PIN9~11為共同中心點,以1ø× 6條出線,PIN12~13與PIN14~15以1ø*4條出線
4.初級側漏感(N2及N3短接後量測)為4uH max.@100KHz/0.25V測試

NOTE:
1.N2,N3銅箔四邊反折6.5mm膠帶 ≧6.5mm
2.線包上緣至Bobbin槽腳下緣或至線包下緣的高度為33.6mm max.
3.鐵芯膠帶需包覆兩層

BOBBIN: 1.信錦HY4219 2.或同等級
CORE: 1.TDK PC47 ER42/22/15

Test Frequency: 1KHz/0.25V	Insulation Resistance: 500VDC>100MΩ	Insulation System: SBI4.2
Prim. —Sec:3.6KVAC,1mA/sec	Prim.—Core:1.8KVAC,1mA/sec	Sec — Core:1.8KVAC,1mA/sec
GAP:□中柱 □旁 □單:從上□ 下□ PIN ~PIN 穿入		Level: CLASS B

Revision:
2016-07-26
1.鐵芯膠帶需包覆兩層

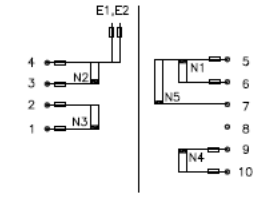
Diagrams ID 4-06

明 緯 企 業 股 份 有 限 公 司
變 壓 器 圖 面

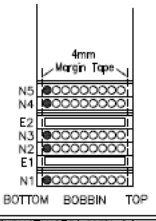
MEAN WELL MODEL: RSP-1600

☐ SAMPLE DRAW No:TF-2789-R2
■ OFFICIAL DATE: 2016-06-17

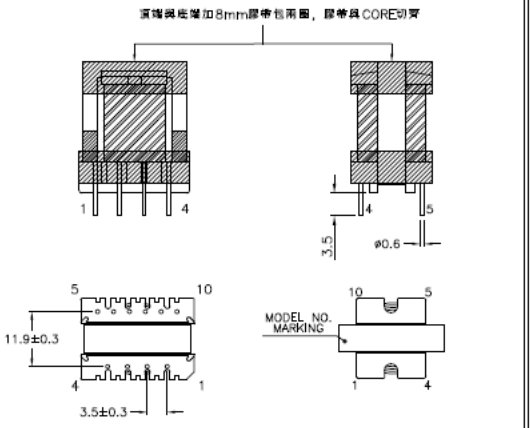
SCHEMATIC:



WINDING CONSTRUCTION:
(有關工藝請參照"磁性零件分包說明書"製作)



DIMENSIONS:(UNIT:mm)



NO.	START	FINISH	WIRE ø	TURNS	WINDING MODE	TAPE	INDUCTANCES uH	DCR(Max.) mΩ	REMARK
N1	5	6	0.25	74	密繞	3	225u	0.96Ω	
E1	4		1/1000"×10	1		1			0.3ø
N2	3	4	0.2×3	15	密繞	1	9.2u	126	
N3	1	2	0.2×3	17	密繞	1	11.9u	150	
E2	4		1/1000"×10	1		3			0.3ø
N4	9	10	0.2×3	14	中密繞	1	8.1u	144	
N5	7	5	0.25	74	密繞	2	225u	1.56Ω	
	7	6					900u		

NOTE:
1.主感量7-6 L=900uH±5%

NOTE:
1.TE Core包覆一層Tape

BOBBIN: 1.臥式TF-1916-1 2.或同等級
CORE: 1.TDK PC47 EEL-19

Test Frequency: 1KHz/0.25V	Insulation Resistance: 500VDC>100MΩ	Insulation System: SBI4.2
Prim.—Sec:3.6KVAC,1mA/sec	Prim.—Core:1.8KVAC,1mA/sec	Sec— Core:1.8KVAC,1mA/sec
GAP:■中柱 □旁 ■單:從上■ 下□ PIN_____~PIN_____插入		Level: CLASS B

Revision:
2016-06-17
1.更正繞線圖切法看

Diagrams ID 4-07

明 緯 企 業 股 份 有 限 公 司

廠商編號:

機種: RSP-3000

變壓器圖面

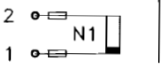
□試樣圖面 ☑正式圖面

圖號: LF-511-R1

日期:2009-03-04

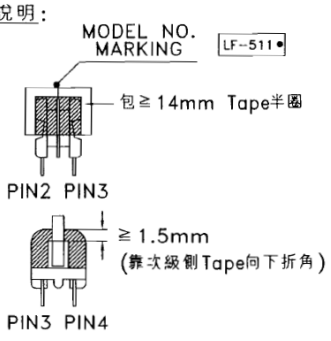
線路圖

初級 次級



剖面圖

外觀說明:



線繞層次	相位始末	線徑(ø)	圈數(T)	線繞方式	膠帶層數(L)	電感(H)	DC.R(Max.) mΩ
N1	1-2	0.85ø ×2	1			1.3u	1.6
N2	4-3	0.15ø	100	密繞	1	13m	3Ω

說明

1. 主線圈感量 4 - 3 L= 13mH±25%
2. AL=1300nH/N²
3. N1加一層套管厚度≧0.4mm
4. N2圈數及感量均須符合要求
5. N2對Core間需加Tape(如外觀圖)使N2對Core沿面距離>3.4mm
6. 同等級Bobbin須使用底部中間檔濶≧3mm
7. N2出線時須至少反折1次以上,再纏繞於Bobbin Pin腳上
8. MODEL NO. MARKING LF-511•,"•"號須靠次級側(不可貼反如外觀說明)

BOBBIN	1.品翔P-1005-32. 或同等級		
CORE	1. TDK HS72 UU9.8 2. 參照鐵芯共用表		
GAP	有	無 √	Test Frequency:1KHz/0.25V
耐壓規範	初級 ⟷ 次級		3.6KVac 1mA/sec
	初級 ⟷ Core		1.8KVac 1mA/sec
	次級 ⟷ Core		1.8KVac 1mA/sec
絕緣阻抗	500VDC > 100 MΩ		
安規要求	☑IEC60950-1 CLASS[B]		
修訂	98年03月04日	1.修改說明3 3.修改外觀說明 2.增說明8	
審核		設計	98.3.4
確認	研發部 2009.3.4 許淑惠	製圖	98.3.4

2004-09-14

Miscellaneous ID 7-01

2.1.1.7	TABLE: discharge test			**Pass**
Condition	τ calculated (s) τ =	τ measured (s)	t u→ 0V (s)	Comments
Line - Neutral, Fuse In	1.89	0.02	--	Vo= 340 V, 37% of Vo= 125.8 V, after 1 sec. at 0V
Note(s): Test voltage: 240Vac, 60Hz X-Capacitor (C1) = 2.2 uF, (C2) = 1.0 uF, (C10) = 1.0 uF Bleeder Resistor (R1, R2, R3) = each 150 k ohm				

2.4.2	TABLE: limited current circuit measurement				**Pass**
Location (量測位置)	Voltage (V)	Current (mA)	Freq. (kHz)	Limit (mA)	Comments
C31 secondary pin to earth	1.08	0.54	0.06	0.7	Normal condition Test method: 2kW.
C80 secondary pin to earth	1.07	0.535	0.06	0.7	Normal condition Test method: 2kW.
Note(s): Test voltage: 264Vac, 60Hz. Bridging Capacitor (C31, C80) =3300 pF					

Miscellaneous ID 7-01

2.6.3.4	TABLE: Resistance of earthing measurement	**Pass**
Location	Resistance measured (mΩ)	Comments
Test on Model RCP-1600-48	--	--
Earthing Pin of terminal block to rear chassis	7.8	Test Current= 32A, 2 minute. Voltage drop= 0.25V
Earthing Pin of terminal block to rear chassis	8.3	Test Current= 40A, 2 minutes. Voltage drop= 0.332 V
Earthing Pin of terminal block to C4 trace	2.9	Test Current= 32A, 2 minute. Voltage drop= 0.093V
Earthing Pin of terminal block to C4 trace	3.6	Test Current= 40A, 2 minutes. Voltage drop= 0.144 V
Earthing Pin of terminal block to C3 trace	3.7	Test Current= 32A, 2 minute. Voltage drop= 0.119V
Earthing Pin of terminal block to C3 trace	4.2	Test Current= 40A, 2 minutes. Voltage drop= 0.168V
Earthing Pin of terminal block to C30 trace	4.6	Test Current= 32A, 2 minute. Voltage drop= 0.148V
Earthing Pin of terminal block to C30 trace	5.2	Test Current= 40A, 2 minutes. Voltage drop= 0.208V
Test on Model RSP-1600-48	--	--
Earthing Pin of terminal block to C3A trace	2.9	Test Current= 32A, 2 minute. Voltage drop= 0.093V
Earthing Pin of terminal block to C3A trace	3.6	Test Current= 40A, 2 minutes. Voltage drop= 0.144 V
Earthing Pin of terminal block to rear chassis	7.9	Test Current= 32A, 2 minute. Voltage drop= 0.253V
Earthing Pin of terminal block to rear chassis	8.5	Test Current= 40A, 2 minutes. Voltage drop= 0.34 V
Test on Model: RHP-8K1U (RCP-1600-48)	--	--
Earthing Pin of AC Inlet to rear chassis	0.1	Test Current= 32A, 2 minute. Voltage drop= 0.003V
Earthing Pin of AC Inlet to rear chassis	0.1	Test Current= 40A, 2 minutes. Voltage drop= 0.004 V
Earthing Pin of AC Inlet to C23 / C24 earthed trace	2.4	Test Current= 32A, 2 minute. Voltage drop= 0.077V
Earthing Pin of AC Inlet to C23 / C24 earthed trace	3.0	Test Current= 40A, 2 minutes. Voltage drop= 0.12V
Earthing Pin of terminal block to C4 trace	2.7	Test Current= 32A, 2 minute. Voltage drop= 0.087V
Earthing Pin of terminal block to C4 trace	3.4	Test Current= 40A, 2 minutes. Voltage drop= 0.136 V
Earthing Pin of terminal block to C3 trace	3.6	Test Current= 32A, 2 minute. Voltage drop= 0.116V
Earthing Pin of terminal block to C3 trace	4.1	Test Current= 40A, 2 minutes. Voltage drop= 0.164V
Note(s):		

Miscellaneous ID 7-01

4.2.3; 4.2.4	TABLE: Steady Force Test		
Part/Location	Thickness (mm)	Test Conditions	Comments
Test on Model: RCP-1600-12	--	--	--
Enclosure top side near T1	0.8	250N (25.6Kg)	No denting
Enclosure Bottom side near PWB	0.8	250N (25.6Kg)	No denting
Right Side Enclosure on Heat Sink	0.8	250N (25.6Kg)	No denting
Left Side Enclosure on Heat Sink	0.8	250N (25.6Kg)	No denting
Metal Chassis near Fan side	0.8	250N (25.6Kg)	No denting
Internal component	--	10N (1.1 kg)	clearance and creepage were complied
Test on Model: RSP-1600-12	--	--	--
Metal Chassis near Terminal block side	1.5	250N (25.6Kg)	No denting
Test on Model: RHP-8K1UI-12 (with five module: RCP-1600-12)	--	--	--
Metal Chassis near Terminal block side	1.5	250N (25.6Kg)	No denting

4.2.5	TABLE: Impact Test		
Part/Location	Thickness (mm)	Test Conditions	Comments
Test on Model: RCP-1600-12	--	--	--
Fan side near handle body	0.8	Steel ball (50 mm in dia., 500 g) falling from a 1.3 m	Denting, No hazardous
Enclosure top side near T1	0.8	Steel ball (50 mm in dia., 500 g) falling from a 1.3 m	Denting, No hazardous
Enclosure Bottom side near PWB	0.8	Steel ball (50 mm in dia., 500 g) falling from a 1.3 m	Denting, No hazardous
Right Side Enclosure on Heat Sink	0.8	Steel ball (50 mm in dia., 500 g) falling from a 1.3 m	Denting, No hazardous
Left Side Enclosure on Heat Sink	0.8	Steel ball (50 mm in dia., 500 g) falling from a 1.3 m	Denting, No hazardous
Test on Model: RSP-1600-12	--	--	--
Enclosure chassis near Terminal block side	0.8	Steel ball (50 mm in dia., 500 g) falling from a 1.3 m	Denting, No hazardous
Test on Model: RHP-8K1UI-12 (with five module: RCP-1600-12)	--	--	--
Enclosure chassis near Terminal block side	0.8	Steel ball (50 mm in dia., 500 g) falling from a 1.3 m	Denting, No hazardous

Miscellaneous ID 7-01

4.3.2	TABLE: Knob Pull/Handle Loading		
Weight of equipment	Number of handles tested	Force applied	Comments
1.6 kg	1 handle	6.4 Kg (1.6 kg X 4 X 9.8 = 62.72 N 62.72 N = 6.4 Kg)	No damaged.

Miscellaneous ID 7-02

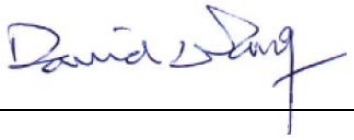
Model	Input rating	Input frequency	Output rating
RCP-1600-12y, RSP-1600-12	100-109Vac, 12.5A	50/60Hz	12Vdc/75A
	110-199Vac, 13A		12Vdc/87.5A
	200-240Vac, 10A		12Vdc/125A
RCP-1600-24y, RSP-1600-24	100-109Vac, 13.5A		24Vdc/40.5A
	110-199Vac, 14A		24Vdc/47A
	200-240Vac, 10.5A		24Vdc/67A
RSP-1600-27	100-109Vac, 13.5A		27Vdc/35.5A
	110-199Vac, 14A		27Vdc/41.5A
	200-240Vac, 10.5A		27Vdc/59A
RSP-1600-36	100-109Vac, 13.5A		36Vdc/26.7A
	110-199Vac, 14A		36Vdc/31.2A
	200-240Vac, 10.5A		36Vdc/44.5A
RCP-1600-48y, RSP-1600-48	100-109Vac, 13.5A		48Vdc/20.1A
	110-199Vac, 14A		48Vdc/23.5A
	200-240Vac, 10.5A		48Vdc/33.5A
RCB-1600-12y, RCB-1600-12NE, RPB-1600-12y	100-109Vac, 12.5A		14.4Vdc/60A
	110-199Vac, 13A		14.4Vdc/70A
	200-240Vac, 10A		14.4Vdc/100A
RCB-1600-24y, RCB-1600-24NE, RPB-1600-24y	100-109Vac, 13.5A		28.8Vdc/33A
	110-199Vac, 14A		28.8Vdc/38.5A
	200-240Vac, 10.5A		28.8Vdc/55A
RCB-1600-48y, RPB-1600-48y	100-109Vac, 13.5A		57.6Vdc/16.5A
	110-199Vac, 14A		57.6Vdc/19.5A
	200-240Vac, 10.5A		57.6Vdc/27.5A
RHP-1Uy (with RCP-1600-12y), RHP-8K1Uy-12	100-109Vac, 12.5A		12Vdc/375A
	110-199Vac, 13A		12Vdc/437.5A
	200-240Vac, 10A		12Vdc/625A
RHP-1Uy (with RCP-1600-24y), RHP-8K1Uy-24	100-109Vac, 13.5A		24Vdc/202.5A
	110-199Vac, 14A		24Vdc/235A
	200-240Vac, 10.5A		24Vdc/335A
RHP-1Uy (with RCP-1600-48y), RHP-8K1Uy-48	100-109Vac, 13.5A		48Vdc/100.5A
	110-199Vac, 14A		48Vdc/117.5A
	200-240Vac, 10.5A		48Vdc/167.5A
RHP-1Uy (with RCB-1600-12y) RHB-8K1Uy-12	100-109Vac, 12.5A		14.4Vdc/300A
	110-199Vac, 13A		14.4Vdc/350A
	200-240Vac, 10A		14.4Vdc/500A
RHP-1Uy (with RCB-1600-24y) RHB-8K1Uy-24	100-109Vac, 13.5A		28.8Vdc/165A
	110-199Vac, 14A		28.8Vdc/192.5A
	200-240Vac, 10.5A		28.8Vdc/275A
RHP-1Uy (with RCB-1600-48y) RHB-8K1Uy-48	100-109Vac, 13.5A		57.6Vdc/82.5A
	110-199Vac, 14A		57.6Vdc/97.5A
	200-240Vac, 10.5A		57.6Vdc/137.5A

Miscellaneous ID 7-03

DECLARATION FORM FOR FACTORIES

Name and address of the Manufacturer MEAN WELL ENTERPRISES CO LTD
28 WUQUAN 3RD RD WUGU DIST NEW TAIPEI, 248
TAIWAN

Multiple Factories – This confirms that samples submitted for certification are representative of the products from each factory. The factories are as noted in this CB test report.

Signed:  **Dated:** 2016-07-21