

C B T E S T R E P O R T

50053586 001

for

MFP (Multi Function Printer)
TASKalfa 8052ci, TASKalfa 7052ci
8052ci, 7052ci

KYOCERA Document Solutions Inc.



This documentation consists of **343** pages (excluding this cover page).



Test Report issued under the responsibility of:





<p style="text-align: center;">TEST REPORT IEC 60950-1 Information technology equipment - Safety - Part 1: General requirements</p>
<p>Report Number..... : 50053586 001 Date of issue : 2016-09-01 Total number of pages : 343</p>
<p>Applicant's name : KYOCERA Document Solutions Inc. Address : 1-2-28, Tamatsukuri, Chuo-ku, Osaka-shi, Osaka, 540-8585 Japan</p>
<p>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</p>
<p>Test Report Form No. : IEC60950_1F Test Report Form(s) Originator : SGS Fimko Ltd Master TRF : Dated 2014-02 Copyright © 2014 IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE System). All rights reserved. This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context. 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.</p>
<p>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.</p>

IEC 60950-1

Test item description	:	MFP (Multi Function Printer)
Trade Mark	:	KYOCERA (on the products)
Manufacturer	:	(Same as Applicant)
Model/Type reference	:	1) TASKalfa 8052ci, TASKalfa 7052ci 2) 8052ci, 7052ci
Ratings	:	1) AC 220-240V, 50/60Hz, 10A 2) AC 120V, 60Hz, 16A

IEC 60950-1

Testing procedure and testing location:		
<input type="checkbox"/>	CB Testing Laboratory:	TÜV Rheinland Japan Ltd., Yokohama Laboratory
Testing location/ address		Global Technology Assessment Center (GTAC), 4-25-2 Kita-Yamata, Tsuzuki-ku, Yokohama 224-0021, Japan
<input type="checkbox"/>	Associated CB Testing Laboratory:	
Testing location/ address		
Tested by (name + signature).....		
Approved by (name + signature)		
<input checked="" type="checkbox"/>	Testing procedure: TMP/CTF Stage 1:	KYOCERA Document Solutions Inc.
Testing location/ address		1-2-28, Tamatsukuri, Chuo-ku, Osaka-shi, Osaka, 540-8585 Japan
Tested by (name + signature).....		N. Mukaijo 
Approved by (name + signature)		T. Izumi 
<input type="checkbox"/>	Testing procedure: WMT/CTF Stage 2:	
Testing location/ address		
Tested by (name + signature).....		
Witnessed by (name + signature)		
Approved by (name + signature)		
<input type="checkbox"/>	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).....		

IEC 60950-1
List of Attachments:
Attachments included in this Test Report:

- Measurement Section
- National Differences
- IEC/EN 60825-1 test report

Attachments separated from this Test Report:

- Photo Documentation

Summary of testing:
Test sample(s):

Serial No.: Production sample with serial number:

- 8052ci : ZA76600016
- TASKalfa 8052ci : ZA8600012

Relevant tests were performed on those models within the series that were considered to represent the worst case condition for the respective tests.

Test Condition 1: Continuous duplex copy. Scan from Document Processor, feed paper from the PF-740, punch the hole by the PH-7X, discharged to the tray A of the DF-7110.

Test Condition 2: Continuous duplex copy. Scan from Document Processor, feed paper from the PF-740, punch the hole by the PH-7X, discharged to the MT-730.

Test Condition 3: Continuous duplex copy. Scan from Document Processor, feed paper from the PF-740, discharged to the BF-730.

It is the "Test condition 1" of the current consumption is the largest.

Appended Table 4.5 Heating test data re-calculated by Max specified ambient temperature 35°C by customer's request.

Tests performed (name of test and test clause):
(see below)

Testing location:

(see "testing procedure and testing location" on the previous page)

Testing		Applicable (Yes/No)	Comments
Clause	Test description		
1.6.2	Input current	Yes	
1.7.11	Durability	Yes	
2.1.1.5	Energy hazards	Yes	
2.1.1.7	Discharge of capacitors in equipment	Yes	
2.1.1.8	Energy hazards - d.c. mains supply	No	
2.2.2	SELV/Voltage measurement under normal condition	Yes	
2.2.3	SELV/Voltage measurement under fault conditions	Yes	
2.3.5	Operating voltages generated externally	No	

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Testing		Applicable (Yes/No)	Comments
Clause	Test description		
2.4.2	Limited current circuits	Yes	
2.5	Limited power sources	Yes	
2.6.3.4	Resistance of earthing conductors and their terminations	Yes	
2.9.2	Humidity conditioning	Yes	
2.10	Creepage and Clearances, Distance through Insulation	Yes	
2.10.2.2/ 2.10.2.3	Determination of working voltage	Yes	
2.10.5	Solid insulation	Yes	
2.10.12	Enclosed and sealed parts	No	
3.2.6	Cord anchorages and strain relief	Yes	
4.1	Stability	Yes	
4.2	Mechanical strength	Yes	
4.3.6	Direct plug-in equipment	No	
4.3.8	Batteries	No	
4.3.13	Radiation	Yes	
4.5.2	Maximum Temperatures	Yes	
4.5.5	Resistance to abnormal heat	Yes	
5.1	Touch current and protective conductor current	Yes	
5.2	Electric strength	Yes	
5.3	Abnormal operating and fault conditions	Yes	
6.1.2	Separation of the telecommunication network from earth	Yes	
6.2	Protection of equipment users from overvoltages on telecom. networks	Yes	
6.3	Protection of the telecommunication wiring system from overheating	No	
7.2	Protection of equipment users from overvoltages on cable distribution system	No	
7.3	Insulation between primary and cable distribution system	No	

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Testing		Applicable (Yes/No)	Comments
Clause	Test description		
Annex A	Resistance to heat and fire	No	
Annex B	Locked-rotor overload test	Yes	
Annex C	Overload test	Yes	
Annex G	Determining minimum clearances	Yes	
Annex H	Ionizing radiation	No	
Annex K	Thermal controls	No	
Annex M	Criteria for telephone ringing signals	No	
Annex Q	Voltage dependent resistors (VDRs)	No	
Annex U	Insulated wire for use without interleaved insulation	No	
Annex Y	Ultraviolet light conditioning test	No	
Annex CC	Evaluation of Integrated circuit (IC) current limiters	No	
Annex DD	Requirements for the mounting means of rack-mounted equipment	No	
Annex EE	Household and home/office document/media shredders	No	

IEC 60950-1**Additionally evaluated Test specifications (see appended test report):**

EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013

IEC 60825-1:2014 / EN 60825-1:2014

UL 60950-1:2007 R10.14

CAN/CSA-C22.2 No. 60950-1-07, Amd 1:2011, Amd 2:2014

Summary of compliance with National Differences:**List of countries addressed:**

EU Group Differences, EU Special National Conditions, EU A-Deviations

AT, CA, DK, DE, IT, SE, TR, GB, US

AT=Austria, CA=Canada, DK=Denmark, DE=Germany, IT=Italy, SE=Sweden, TR=Turkey,
GB=United Kingdom, US=United States of America.

For National Differences see end of this test report.

Additional information:**- Customer's request. -**

Additional of National Differences for Australian and New Zealand National Differences according to AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013).

Additionally evaluated Test specifications IEC60825-1:2007 for North America.

See attached in this test report.

IEC 60950-1

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.

For AC220-240V models, Main unit

TASKalfa 8052ci

MFP
 220-240 V~ 50/60 Hz 10 A



www.tuv.com
 ID 1419032212



Apparatet må tilkoples jordet stikkontakt.
 Apparaten skall anslutas till jordat uttag.
 Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan.
 Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.

CLASS 1 LASER PRODUCT
KLASSE 1 LASER PRODUKT

KYOCERA Document Solutions Inc.
 2-28, 1-Chome, Tamatsukuri, Chuo-ku, Osaka, Japan

In Europe, Middle East, Africa and CIS distributed by
KYOCERA Document Solutions Europe B.V.
 Bloemlaan 4, 2132 NP, Hoofddorp The Netherlands
 Designed in Japan / Assembled in China >PS<

TASKalfa 7052ci

MFP
 220-240 V~ 50/60 Hz 10 A



www.tuv.com
 ID 1419032212



Apparatet må tilkoples jordet stikkontakt.
 Apparaten skall anslutas till jordat uttag.
 Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan.
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IEC 60950-1

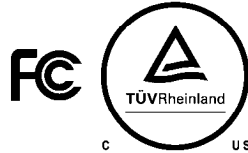
Copy of marking plate

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.

For AC120V models, Main Unit

8052ci

MFP
120 V~ 60 Hz 16.0 A



This device complies with Part 15 of the FCC Rules and RSS-Gen of IC Rules.
Operation is subject to the following two conditions : (1) This device may not cause harmful interference, and(2) this device must accept any interference received, including interference that may cause undesired operation.

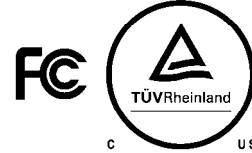
CAN ICES-3B/NMB-3B

Complies with FDA performance standards for laser products except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.

KYOCERA Document Solutions Inc.
2-28, 1-Chome, Tamatsukuri, Chuo-ku, Osaka, Japan
Designed in Japan / Assembled in China >PS<

7052ci

MFP
120 V~ 60 Hz 16.0 A



This device complies with Part 15 of the FCC Rules and RSS-Gen of IC Rules.
Operation is subject to the following two conditions : (1) This device may not cause harmful interference, and(2) this device must accept any interference received, including interference that may cause undesired operation.

CAN ICES-3B/NMB-3B

Complies with FDA performance standards for laser products except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.

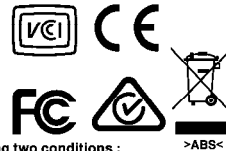
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The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

For all models, optional accessories

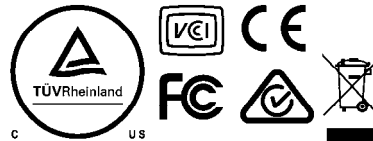
DF-7110 FINISHER

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions :
 (1) This device may not cause harmful interference, and (2) this device must accept any interference received,
 including interference that may cause undesired operation.
 CAN ICES-3B/NMB-3B

Designed in Japan / Assembled in China

京セラドキュメントソリューションズ株式会社
 KYOCERA Document Solutions Inc.
 2-28, 1-Chome, Tamatsukuri, Chuo-ku, Osaka, Japan

In Europe, Middle East, Africa and CIS distributed by
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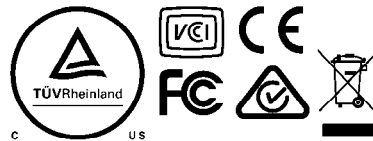
MT-730 MULTI TRAY UNIT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions :
 (1) This device may not cause harmful interference, and (2) this device must accept any interference received,
 including interference that may cause undesired operation.
 CAN ICES-3B/NMB-3B

Designed in Japan / Assembled in China

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BF-730 BOOKLET FOLDER

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions :
 (1) This device may not cause harmful interference, and (2) this device must accept any interference received,
 including interference that may cause undesired operation.
 CAN ICES-3B/NMB-3B

Designed in Japan / Assembled in China

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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.

For AC220-240V models, optional accessories

PF-730

CASSETTE FEEDING UNIT
220-240 V ~ 50/60 Hz



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PF-740

CASSETTE FEEDING UNIT
220-240 V ~ 50/60 Hz



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PF-7130

CASSETTE FEEDING UNIT
220-240 V ~ 50/60 Hz



Apparatet må tilkoples jordet stikkontakt.
Apparaten skall anslutas till jordat uttag.
Laitte on liitettävä suojakoskettimilla varustettuun pistorasiaan.
Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.
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PF-7120

PAPER FEEDER
220-240 V ~ 50/60 Hz



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IEC 60950-1

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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.

For AC120V models, optional accessories

PF-730

CASSETTE FEEDING UNIT
AC120V 60Hz



This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions : (1) This device may not cause harmful interference, and(2) this device must accept any interference received, including interference that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

KYOCERA Document Solutions Inc.
2-28 1-CHOME TAMATSUKURI CHUO-KU OSAKA JAPAN
Designed in Japan / Assembled in China >PS<

PF-740

CASSETTE FEEDING UNIT
AC120V 60Hz



This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions : (1) This device may not cause harmful interference, and(2) this device must accept any interference received, including interference that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

KYOCERA Document Solutions Inc.
2-28 1-CHOME TAMATSUKURI CHUO-KU OSAKA JAPAN
Designed in Japan / Assembled in China >PS<

PF-7130

CASSETTE FEEDING UNIT
120 V~ 60 Hz



This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions : (1) This device may not cause harmful interference, and(2) this device must accept any interference received, including interference that may cause undesired operation.

CAN ICES-3B/NMB-3B

KYOCERA Document Solutions Inc.
2-28 1-CHOME TAMATSUKURI CHUO-KU OSAKA JAPAN
Designed in Japan / Assembled in China >ABS<

PF-7120

PAPER FEEDER
120 V~ 60 Hz



This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions : (1) This device may not cause harmful interference, and(2) this device must accept any interference received, including interference that may cause undesired operation.

CAN ICES-3B/NMB-3B



KYOCERA Document Solutions Inc.
2-28 1-CHOME TAMATSUKURI CHUO-KU OSAKA JAPAN
Designed in Japan / Assembled in China >ABS<

IEC 60950-1

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.

Laser Caution Label for TASKalfa 8052ci, TASKalfa 7052ci, 8052ci and 7052ci:

警告 该产品为3B类激光产品。打开盖子后会有激光辐射。请避免光束照射。	경고 CLASS 3B 가시 레이저광선을 직접 보지마십시오.	 
警告 該產品為3B類雷射產品。打開蓋子後會有雷射輻射。請避免光束照射。	警告 ここを開くとクラス3Bのレーザ放射が出る。ビームの被ばくを避けること。	
CAUTION CLASS 3B LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.	CAUTION CLASS 3B LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.	
WARNUNG LASERSTRAHLUNG KLASSE 3B, WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN.	WARNUNG LASERSTRAHLUNG KLASSE 3B, WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN.	
AVERTISSEMENT CLASSE 3B RAYONNEMENT LASER EN CAS D'OUVERTURE, EXPOSITION DANGEREUSE AU FAISCEAU.	AVERTISSEMENT CLASSE 3B RAYONNEMENT LASER EN CAS D'OUVERTURE, EXPOSITION DANGEREUSE AU FAISCEAU.	
AVVERTIMENTO CLASSE 3B LASER RADIAZIONE IN CASO DI APERTURA. EVITARE L'ESPOSIZIONE AL FASCIO.	AVVERTIMENTO CLASSE 3B LASER RADIAZIONE IN CASO DI APERTURA. EVITARE L'ESPOSIZIONE AL FASCIO.	
VAROITUS RADIACÃO DE LASER CLASSE 3B QUANDO ABERTO EVITAR EXPOSIÇÃO DIRETA NO FEIXE.	VAROITUS RADIACÃO DE LASER CLASSE 3B QUANDO ABERTO EVITAR EXPOSIÇÃO DIRETA NO FEIXE.	
ADVERTENCIA CLASE 3B RADIACIONE LASER CUANDO SE ABRE. EVITAR EXPONERSE AL RAYO.	ADVERTENCIA CLASE 3B RADIACIONE LASER CUANDO SE ABRE. EVITAR EXPONERSE AL RAYO.	

Fuser Unit Temperature Caution Label:

 注意 表面高温。 请勿触碰。	CAUTION EXTREMELY HOT SURFACE Avoid contact.	VORSICHT SEHR HEISSE OBERFLÄCHE Nicht berühren.	ATTENTION SURFACE TRÈS CHAUDE Eviter le contact.	CAUTELA SUPERFICIE EXTREMAMENTE CALDA Evitare il contatto.	PRECAUCION SUPERFICIE EXTREMADAMENTE CALIENTE No tocar.	VOORZICHT EXTREM HEET OPPERVLAKTE Niet aanraken	ВНИМАНИЕ ПОВЕРХНОСТЬ ОЧЕНЬ ГОРЯЧАЯ Не трогать.	CUIDADO SUPERFICIE EM ALTA TEMPERATURA Evite contato.	注意 表面高温。 請勿觸碰。	주의 표면이 뜨겁습니다. 안지치 마세요.	注意 高温部に手を触れ ないでください。 火傷の原因となります。
--	--	---	--	---	--	---	--	--	----------------------	------------------------------------	---

Near the Cassette Heater on Main Unit:**Near the Cassette Heater inside of PF-730, PF-740 and PF-7130:**

 CAUTION EXTREMELY HOT SURFACE Avoid contact.	CUIDADO SUPERFICIE ALTAMENTE QUENTE. Evite contato.	CAUTELA SUPERFICIE ESTREMAMENTE CALDA Evitare il contatto.	VOORZICHTIG, EXTREM HEET. Vermijd ieder contact met dit onderdeel.	注意 表面灼熱。 避免觸碰。	注意 表面灼熱。 避免觸碰。	고온 주의
 VORSICHT SEHR HEISSE OBERFLÄCHE	PRECAUCION SUPERFICIE SUMAMENTE CALIENTE	ВНИМАНИЕ Поверхность очень горячая. Не дотрагиваться.	ATTENTION SURFACE TRÈS CHAUDE	注意 高温部に手を触れないでください。 火傷の原因となります。		

For Outlet:

OUTPUT
AC220 - 240V
50/60Hz, 0.2A

OUTPUT
AC120V 60Hz
0.3A

IEC 60950-1

Test item particulars	
Equipment mobility	<input type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input checked="" type="checkbox"/> stationary <input type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in (floor-standing)
Connection to the mains	<input checked="" type="checkbox"/> pluggable equipment <input checked="" type="checkbox"/> type A <input type="checkbox"/> type B <input type="checkbox"/> permanent connection <input checked="" type="checkbox"/> detachable power supply cord (for AC220-240V models) <input checked="" type="checkbox"/> non-detachable power supply cord (for AC120V models) <input type="checkbox"/> not directly connected to the mains
Operating condition	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> rated operating / resting time:
Access location	<input checked="" type="checkbox"/> operator accessible <input type="checkbox"/> restricted access location
Over voltage category (OVC)	<input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other:
Mains supply tolerance (%) or absolute mains supply values	±10%
Tested for IT power systems	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
IT testing, phase-phase voltage (V)	230V
Class of equipment	<input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Not classified
Considered current rating of protective device as part of the building installation (A)	16A (for Europe), 20A (for Canada, USA)
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
IP protection class	Not rated, indoor use only.
Altitude during operation (m)	Up to 3500
Altitude of test laboratory (m)	< 1000
Mass of equipment (kg)	8052ci, 7052ci, TASKalfa 8052ci, TASKalfa 7052ci: Approx. 180kg without optional accessories (Approx. 306.2kg full optional accessories)
Possible test case verdicts:	
- test case does not apply to the test object	N/A (or N)
- test object does meet the requirement.....	P (Pass)
- test object does not meet the requirement	F (Fail)
Testing	
Date of receipt of test item	N/A
Date(s) of performance of tests	2016-08-02 - 2016-08-22

IEC 60950-1

General remarks:

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

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

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60950-1:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided.....:

☒ **Yes**
☐ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies)

- 1) KYOCERA Document Technology (Dongguan) Co., Ltd.
 Kyocera Industrial Park
 3 Fangzheng East Rd, Shilong,
 Dongguan, Guangdong, P.R. China
- 2) YiHe PLASTIC & ELECTRONIC PRODUCTS (SHENZHEN) CO., LTD.
 EVA Industrial Garden, number 11 GuoTai Road,
 TangTou Community, ShiYan Town, BaoAn District,
 Shenzhen, P.R. China
- 3) Panasonic System Networks Co., Ltd.
 1471 Murata-machi, Tosu-shi, Saga, 841-8501 Japan
- 4) Panasonic System Networks (Zhuhai) Co., Ltd.
 3 Ping Xi 8 Lu, Nanping Keji Gongye Yuan, Zhuhai,
 Guangdong, P.R. China
- 5) KYOCERA Document Solutions Inc. Hirakata Plant
 1-38-12 Tsuda-Kita-machi, Hirakata-shi, Osaka 573-0121
 Japan

IEC 60950-1
General product information:
1) Application details / Description of the product:

The product tested is a multi-functional printer for use in a general office environment.

Max. specified ambient temperature (°C): 32.5 °C

Supply connection: Appliance inlet and detachable power supply cord.
 (for AC220-240V models)
 Non-detachable power supply cord.
 (for AC120V models)

Laser classification: Class 1

Non-approved building-in type switching power supplies in main unit were tested as part of the overall configuration of the equipment.

2) Differences between the models:

The models of main units are essentially the same except for the items described in the following table.

See appended table 1.5.1 including differences of motors and clutches in sec for details.

The following table shows differences in rating

Model	8052ci	7052ci	TASKalfa 8052ci	TASKalfa 7052ci
Item				
Ratings	AC120V, 60Hz 16A		AC220-240V, 50/60Hz 10A	
A4 size Copy Speed (sheet/min.)	80	70	80	70
Main SWPS Unit	MPW9215		MPW9216	
Sub SWPS Unit	MPW9213		MPW9214	
IH PWB	2NH0108		2NH0109	
IH Coil Wire in IH Coil Unit	Litz Wire 5/ 34/ 0.15		Litz Wire 5/ 17/ 0.15	
Press Heater Lamp in Fuser Unit	350W		400W	
Middle Front Cassette Heater (Optional)	11.5W		12W	
Middle Rear Cassette Heater (Optional)	11.5W		12W	
Bottom Cassette Heater (Optional)	15W		16W	
Connection to the mains	non-detachable power supply cord		detachable power supply cord	

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3) Options:

Finisher, Model DF-7110, supplied by SELV

Booklet Folder, Model BF-730, supplied by SELV

Multi Tray Unit, Model MT-730, supplied by SELV

Punch Unit, Model PH-7A/7B/7C/7D, supplied by SELV

Paper Feeder, Model PF-7120,
supplied by "AC220-240V, 50/60Hz; SELV" or "120V, 60Hz; SELV"

Cassette Feeding Unit, Model PF-730,
supplied by "AC220-240V, 50/60Hz; SELV" or "120V, 60Hz; SELV"

Cassette Feeding Unit, Model PF-740,
supplied by "AC220-240V, 50/60Hz; SELV" or "120V, 60Hz; SELV"

Cassette Feeding Unit, Model PF-7130,
supplied by "AC220-240V, 50/60Hz; SELV" or "120V, 60Hz; SELV"

Fax Kit, Model FAX System 12, supplied by SELV; TNV circuits

Mass of option:

Approx. 41.2kg for DF-7110

Approx. 10kg for MT-730

Approx. 20kg for BF-730

Approx. 3.0kg for PH-7X

Approx. 30kg for PF-730

Approx. 29kg for PF-740

Approx. 22kg for PF-7130

Approx. 28kg for PF-7120

Differences between the models(PF-7120, PF-7130, PF-730, PF-740):

Item \ Model	PF-7120		PF-730		PF-740		PF-7130	
	AC120V, 60Hz	AC220-240V, 50/60Hz	AC120V, 60Hz	AC220-240V, 50/60Hz	AC120V, 60Hz	AC220-240V, 50/60Hz	AC120V, 60Hz	AC220-240V, 50/60Hz
Rating								
Cassette Heater (Optional)	15W	16W	15W	16W	15W	16W	15W	16W
Paper capacity	3000 sheets		500 sheets/shelf x 2		1500 sheets/line x 2		500 sheets/shelf	
Installation	Right Side of the main unit		Under the PF-7130		Under the PF-7130		Right Side of the main unit	

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4) Insulation system:

- Secondary circuits are separated from primary by double/reinforced insulation.
- Primary circuits are separated from earth by at least basic insulation.
- All output / interface voltages are at SELV level.
- Secondary circuits are conductively connected to earth.
- High voltage is generated from SELV circuits, see cl. 2.2.4.
- Internal metal chassis and relevant accessible metal parts are reliably connected to protective bonding.
- TNV circuits are separated from primary by double/reinforced insulation.
- TNV circuits are separated from secondary circuits by basic insulation.

4.1) Sub-units (PCB's, ...)

With pri - sec separation: SWPS Units, IH PWB,
 Current Detection PWB in main unit (only AC120V models),
 Fuser Unit in main unit

With pri - parts only: IH Coil Unit

HV-unit(s): High Voltage PWBs (Secondary circuit) (see appended table 1.5.1)

4.2) Pri - sec components, which are not part of the above mentioned sub-units:

(none)

4.3) Non certified pri-components directly mounted to chassis:

(certified components were only checked for correct-application (see cl 1.5.1)

(none)

Abbreviations used in the report:

- normal conditions	N.C.	- single fault conditions	S.F.C
- functional insulation	FI	- basic insulation	BI
- double insulation	DI	- supplementary insulation	SI
- between parts of opposite polarity	BOP	- reinforced insulation	RI
- protective earth/protective bonding	PE/PB	- primary	Pri
- (switching) power supply	(SW)PS	- secondary	sec
- high voltage	HV	- ground	gnd
- printed circuit (wiring) board	PCB	- input/output	I/O
- triple insulated wire	TIW	- installation instruction	ii
- built-in application	B/I		

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	GENERAL		P
1.5	Components		P
1.5.1	General		P
	Comply with IEC 60950-1 or relevant component standard	(see appended tables 1.5.1)	P
1.5.2	Evaluation and testing of components	Components, which are certified for IEC and/or national standards, are used correctly within their ratings.	P
1.5.3	Thermal controls	Certified components used; correct application confirmed.	P
1.5.4	Transformers	(see Annex C)	P
1.5.5	Interconnecting cables	Interconnecting cable connected to PF-7120 or PF-7130, connecting the main unit for 220-240V ac or 120V ac is approved one. The other Interconnecting cables affixed to PF-7120, PF-7130, connecting the main unit is only for SELV.	P
1.5.6	Capacitors bridging insulation	Type X2 capacitors used between lines, type Y1 or Y2 capacitors used between line and earth, double or reinforced insulation bridged between primary and secondary by Y1 capacitors comply with IEC 60384-14. (see appended table 1.5.1)	P

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

1.5.7	Resistors bridging insulation	See below	P
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	Only resistors bridging functional insulations.	P
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits	No such components.	N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable	No such components.	N/A
1.5.8	Components in equipment for IT power systems	Line to PE components are rated for line to line voltage.	P
1.5.9	Surge suppressors	See below.	P
1.5.9.1	General	Only approved VDRs used in primary.	P
1.5.9.2	Protection of VDRs	Fuse (F1 on Main SWPS Unit, F1 on Sub SWPS Unit, YF1 on IH PWB) is installed in series.	P
1.5.9.3	Bridging of functional insulation by a VDR		P
1.5.9.4	Bridging of basic insulation by a VDR	No such VDRs.	N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR	No such VDRs.	N/A

1.6	Power interface		P
1.6.1	AC power distribution systems	TN, TN-S, IT (considered for Norway)	P
1.6.2	Input current	(see appended table 1.6.2)	P
1.6.3	Voltage limit of hand-held equipment	Not hand-held equipment.	N/A
1.6.4	Neutral conductor	Neutral insulated from earth and body like as line conductor. Components between neutral and earth are rated the same as for line to earth.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7	Marking and instructions		P
1.7.1	Power rating and identification markings	See below.	P
1.7.1.1	Power rating marking		P
	Multiple mains supply connections	Single mains supply connection.	N/A
	Rated voltage(s) or voltage range(s) (V)	1) 220-240V~ 2) 120V~	P
	Symbol for nature of supply, for d.c. only	AC supply.	N/A
	Rated frequency or rated frequency range (Hz) ...	1) 50/60Hz 2) 60Hz	P
	Rated current (mA or A)	1) 10A 2) 16A	P
1.7.1.2	Identification markings		P
	Manufacturer's name or trade-mark or identification mark	KYOCERA (on the products)	P
	Model identification or type reference	1): TASKalfa 8052ci, TASKalfa 7052ci 2): 8052ci, 7052ci	P
	Symbol for Class II equipment only	Class I equipment	N/A
	Other markings and symbols	(see copy of marking plate)	P

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Clause	Requirement + Test	Result - Remark	Verdict
1.7.1.3	Use of graphical symbols	Symbols placed on the equipment shall be explained in the user manual.	P
1.7.2	Safety instructions and marking	See below.	P
	<p>Operating Instructions provided to the operator, containing necessary instructions and caution information. English version checked. At least the safety relevant information is given in German or other applicable languages. Correct translation of safety relevant information for Germany confirmed.</p> <p>(In the following, relevant information may be given in an equivalent wording.) <u>Disconnect Device</u> according 3.4.3 described in the manual (pluggable equipment): "The socket outlet must be located close to the machine and be easily accessible." Dangerous levels of <u>ozone</u> not generated. Instruction for installation in a well-ventilated room is given. <u>Non-toxic toner</u> used. Proper disposal instructions provided (service manual). "Caution hot"; high temperature warning on fuser unit, as it does not immediately cool down when accessed during paper jam removal. <u>Laser label and warning label</u> is provided: "CLASS 1 LASER PRODUCT" and other warning label. Refer to IEC/EN 60825-1 report.</p>		—
1.7.2.1	General		P
1.7.2.2	Disconnect devices	Plug	P
1.7.2.3	Overcurrent protective device	Pluggable equipment type A	N/A
1.7.2.4	IT power distribution systems	Considered for Norway. No special modification, no instruction required.	P
1.7.2.5	Operator access with a tool	Only SELV voltages accessible to the operator without the use of another tool.	N/A
1.7.2.6	Ozone	See cl. 1.7.2.	P
1.7.3	Short duty cycles	Continuous operation.	N/A
1.7.4	Supply voltage adjustment	Single voltage range.	N/A
	Methods and means of adjustment; reference to installation instructions	--	—
1.7.5	Power outlets on the equipment	Only connected to PF-7120 or PF-7130, but marked anyway.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	<p>Fuses are clearly and adequately marked with fuse numbers and ratings.</p> <p>-SWPS Units-</p> <p>MPW9216 F1: T5AH 250V F2: T12AH 250V F3: T5AH 250V F391: T4A 250V F701: T3.15A 250V</p> <p>MPW9215 F1: T10AH 250V F2: 20A 250V F3: T12AH 250V F391: T4A 250V F701: T3.15A 250V</p> <p>MPW9214 F1: T5AH 250V F2: T12AH 250VP F391: T4A 250V F701: T3.15A 250V</p> <p>MPW9213 F1: T12AH 250VP F2: 20A 250V F391: T4A 250V F701: T3.15A 250V</p> <p>-IH PWBs-</p> <p>2NH0109 YF1: AC250V 12A YF2: AC250V T1AL</p> <p>2NH0108 YF1: AC250V 20A YF2: AC250V T1AL</p> <p>No user accessible fuse holder.</p>	P
1.7.7	Wiring terminals	See below.	P
1.7.7.1	Protective earthing and bonding terminals	Approved appliance inlet used. PB terminals, connecting to the chassis, are marked with symbol IEC 60417, No. 5017.	P
1.7.7.2	Terminals for a.c. mains supply conductors	Appliance inlet used.	N/A
1.7.7.3	Terminals for d.c. mains supply conductors	No connection to DC mains.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.7.8	Controls and indicators	See below.	P
1.7.8.1	Identification, location and marking	Safety related switches and controls: Power Switches: Functions are obvious by positioning and markings (see 1.7.8.3) Other indicators/controls provided for functional reasons, not affecting safety.	P
1.7.8.2	Colours	--	N/A
1.7.8.3	Symbols according to IEC 60417	Markings for power switch according to IEC 60417, No. 5007 "I" and 5009(stand-by) for main unit.	P
1.7.8.4	Markings using figures	Not used.	N/A
1.7.9	Isolation of multiple power sources	Single supply.	N/A
1.7.10	Thermostats and other regulating devices	No such thermostats or the like.	N/A
1.7.11	Durability		P
1.7.12	Removable parts	Safety relevant markings are located on fixed installed parts.	P
1.7.13	Replaceable batteries	Lithium battery not replaceable by user.	P
	Language(s)	English	—
1.7.14	Equipment for restricted access locations	Not intended for restricted access location.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

2	PROTECTION FROM HAZARDS		P
2.1	Protection from electric shock and energy hazards		P
2.1.1	Protection in operator access areas		P
2.1.1.1	Access to energized parts	See below.	P
	Test by inspection	Operator cannot contact any hazardous bare parts or parts with only basic insulation to hazardous voltage. No ELV circuits.	P
	Test with test finger (Figure 2A)	No access to hazardous parts.	P
	Test with test pin (Figure 2B)	The test pin cannot touch hazardous bare parts through any openings in the enclosure.	P
	Test with test probe (Figure 2C)	Test probe cannot touch TNV circuits.	P
2.1.1.2	Battery compartments	No battery compartment.	N/A
2.1.1.3	Access to ELV wiring	No ELV circuits.	N/A
	Working voltage (V_{peak} or V_{rms}); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring	Not accessible to operator.	P
2.1.1.5	Energy hazards	No energy hazards in operator access area.	P
2.1.1.6	Manual controls	Not connected to and sufficiently separated from hazardous voltages.	P
2.1.1.7	Discharge of capacitors in equipment		P
	Measured voltage (V); time-constant (s).....	(see appended table 2.1.1.7)	—
2.1.1.8	Energy hazards - d.c. mains supply	No d.c. mains supply.	N/A
	a) Capacitor connected to the d.c. mains supply ..:	--	N/A
	b) Internal battery connected to the d.c. mains supply	--	N/A
2.1.1.9	Audio amplifiers	Not provided.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.1.2	Protection in service access areas	Bare parts carrying hazardous voltage or energy levels are located or guarded properly to avoid unintentional contact and bridging. No unexpected hazard. TNV circuits are sufficiently protected against bridging and/or accidental contact.	P
2.1.3	Protection in restricted access locations	Not intended to be installed in a restricted access location.	N/A

2.2	SELV circuits		P
2.2.1	General requirements	(see appended table 2.2)	P
2.2.2	Voltages under normal conditions (V)	--	P
2.2.3	Voltages under fault conditions (V)	Limits of 71V peak and 120Vdc were not exceed, SELV limits not for longer than 0.2 seconds, (see appended table 2.2 and table 5.3)	P
2.2.4	Connection of SELV circuits to other circuits	SELV not connected to primary. HV-unit(s): supplied from SELV; if HV (anode) was shorted to SELV side, SELV was not exceeded at the output connections of the unit. When those outputs were (measured with oscilloscope) (see appended table 2.2 and table 5.3)	P

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Clause	Requirement + Test	Result - Remark	Verdict

2.3	TNV circuits		P
2.3.1	Limits	Continuous voltages, combination of AC and DC values, are such that : $\frac{U_{ac}}{71} + \frac{U_{dc}}{120} \leq 1$	P
	Type of TNV circuits	TNV-3	—
2.3.2	Separation from other circuits and from accessible parts		P
2.3.2.1	General requirements	Separation between SELV and TNV-3 circuit. (see appended table 2.10.3 and 2.10.4)	P
2.3.2.2	Protection by basic insulation	Electric strength test: 1500V, 60 sec.	P
2.3.2.3	Protection by earthing		N/A
2.3.2.4	Protection by other constructions	--	N/A
2.3.3	Separation from hazardous voltages	Insulation between primary and TNV is reinforced insulation.	P
	Insulation employed	a)	—
2.3.4	Connection of TNV circuits to other circuits	Not connected to other circuits.	N/A
	Insulation employed	--	—
2.3.5	Test for operating voltages generated externally	Not applied	N/A

2.4	Limited current circuits <i>Test performed for evaluation of HV circuits.</i>		P
2.4.1	General requirements	See below.	P
2.4.2	Limit values	(see appended table 2.4.2)	P
	Frequency (Hz)	--	—
	Measured current (mA)	--	—
	Measured voltage (V)	--	—
	Measured circuit capacitance (nF or µF)	--	—
2.4.3	Connection of limited current circuits to other circuits	The limited current circuits are supplied from SELV circuits.	P

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Clause	Requirement + Test	Result - Remark	Verdict
2.5	Limited power sources <i>The following circuits were tested for limited power source:</i> <i>5V output for USB Connector (Type-A),</i> <i>5V output for Operation Panel,</i> <i>3.3V output for Operation Panel.</i>		P
	a) Inherently limited output		P
	b) Impedance limited output	(see appended table 2.5)	P
	c) Regulating network or IC current limiter, limits output under normal operating and single fault condition	(see appended table 2.5)	P
	Use of integrated circuit (IC) current limiters		N/A
	d) Overcurrent protective device limited output	(see appended table 2.5)	P
	Max. output voltage (V), max. output current (A), max. apparent power (VA).....:	(see appended table 2.5)	—
	Current rating of overcurrent protective device (A) :	Fuses YF1, YF2 and YF6 on Main PWB, rated 4A. Fuse YF5 on Main PWB, rated 0.5A. The fuses have the characteristics required in remark 4 of table 2C.	—

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Clause	Requirement + Test	Result - Remark	Verdict

2.6	Provisions for earthing and bonding		P
	Protective Bonding wire is on one side hooked in and soldered to Protective Earth pin of appliance inlet or soldered to the pin and additionally secured by heat-shrinkable tubing, the other side has ring terminal (fixed by double crimping). Ring terminal fitted with toothed lock is secured to chassis by M4 screw.		—
2.6.1	Protective earthing	a) Accessible basic insulated conductive parts are reliably bonded to the protective earth terminal. f) Ground of SELV circuits was earthed to reduce touch current.	P
2.6.2	Functional earthing	Functional earthing either separated from hazardous voltages by double- or reinforced insulation or safely connected to PB.	P
	Use of symbol for functional earthing.....:	--	N/A
2.6.3	Protective earthing and protective bonding conductors		P
2.6.3.1	General	2.6.1 a) metal parts: See below. 2.6.1 f) Ground of SELV: adequate construction for actual current.	P
2.6.3.2	Size of protective earthing conductors	(refers to table 3B, cl. 3.2.5)	P
	Rated current (A), cross-sectional area (mm ²), AWG	Rated 10A, 1.0mm ² Rated 16A, 12 AWG	—
2.6.3.3	Size of protective bonding conductors	Table 3B for PB wires connected to Inlet and Outlet in main unit, PF-7120 and PF-7130. Tested per cl. 2.6.3.4 anyway.	P
	Rated current (A), cross-sectional area (mm ²), AWG	Rated 10A, 16 AWG Rated 16A, 16 AWG	—
	Protective current rating (A), cross-sectional area (mm ²), AWG	--	—
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min)	(see appended table 2.6.3.4)	P

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Clause	Requirement + Test	Result - Remark	Verdict
2.6.3.5	Colour of insulation.....:	PE and PB conductors are green/yellow. Green/yellow wire not used for other connections.	P
2.6.4	Terminals		P
2.6.4.1	General	Appliance inlet used.	P
2.6.4.2	Protective earthing and bonding terminals	Tested per cl. 2.6.3.4	P
	Rated current (A), type, nominal thread diameter (mm).....:	Rated 16A, M4 screw used for PB terminals.	—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	For AC220-240V models: Appliance inlet used. For AC120V models: Plug on power supply cord used.	P
2.6.5	Integrity of protective earthing		P
2.6.5.1	Interconnection of equipment		P
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No switches or fuses in earthing conductors.	P
2.6.5.3	Disconnection of protective earth	Plug and Appliance inlet: It is not possible to disconnect earth without disconnecting mains.	P
2.6.5.4	Parts that can be removed by an operator	Plug and Appliance inlet: Earthing connected before and disconnected after hazardous voltage.	P
2.6.5.5	Parts removed during servicing	It is not necessary to disconnect earthing except for the removing of the earthed parts itself.	P
2.6.5.6	Corrosion resistance	All protective earth connections in compliance with Annex J. Specifically no direct Al - Cu contacts.	P
2.6.5.7	Screws for protective bonding	Thread cutting or space thread screwed connections not used for protective bonding connections.	N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system	The protective earthing of the equipment does not rely on the telecommunication network.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.7	Overcurrent and earth fault protection in primary circuits		P
2.7.1	Basic requirements	The built-in device fuse provides overcurrent protection. Pluggable equipment type A. Equipment relies on 16A or 20A rated fuse or circuit breaker of the building installation for short circuit and earth fault.	P
	Instructions when protection relies on building installation	Neither pluggable equipment type B nor permanent connection.	N/A
2.7.2	Faults not simulated in 5.3.7		P
2.7.3	Short-circuit backup protection	Pluggable equipment type A, the building installation is considered as providing short circuit protection. Additionally verification by short / abnormal tests	P
2.7.4	Number and location of protective devices:	Overcurrent protections in primary phase by fuses F1 and F3 on Main SWPS Unit Overcurrent protections in primary phase by fuses F1 on Sub SWPS Unit Overcurrent protections in primary phase by fuses YF1 on IH PWB, Model Earth fault protection by fuse or circuit breaker in the building installation.	P
2.7.5	Protection by several devices	Only these fuses in phase or line.	N/A
2.7.6	Warning to service personnel:	No unexpected hazard.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.8	Safety interlocks		P
2.8.1	General principles	Safety interlocks are provided and prevent operator from access to hazardous moving parts and hazardous voltages.	P
	<p><u>Main Unit:</u> Power (DC 24V) to the following parts is cut by Right Cover Interlock Switch located in secondary when Right Cover opened. HV Units, IH PWB, Transfer Motor, Resist Motor, Middle Feed Motor Power (DC 24V) to the following parts is cut by Interlock Switch on Document Processor located in secondary when PF Cover opened. All motors, Fans <u>Accessories:</u> Document Feeder: Power (DC 24V) to the following parts is cut by Interlock Switch located in secondary when the PF Cover. All motors, Solenoids, Fans and Clutches Finisher, Model DF-7110: Power (DC 24V) to the following parts is cut by Front Cover Interlock Switch or Eject Manual Staple Interlock Switch located in secondary when Front Cover opened, Turn Guide of DF-7110 opened respectively. All motors and Solenoids and Clutch, except for Eject Release Motor and Width Adjustment Motors. Booklet Folder, Model BF-730: Power (DC 24V) to the following parts is cut by each Interlock Switch located in secondary when the Eject Tray Base or Left Cover of BF-730 opened or when ejecting from DF-7110. All motors and Solenoid. Multi Tray Unit, Model MT-730: Power (DC 24V) to Feed Motor is cut by Interlock Switch located in secondary when the Right Cover of MT-730 opened. Punch Unit, Model PH-7A/7B/7C/7D: Power (DC 24V) to the following parts is cut by one of the interlock switches of DF-7110. All motors and Solenoid.</p>		—
2.8.2	Protection requirements	Hazardous voltages and energy levels are de-energized when interlock is activated; moving parts are stopped and/or slowed down to non hazardous speeds. No access to hazardous parts by test finger in interlocked areas.	P
2.8.3	Inadvertent reactivation	Inadvertent reactivation is not possible. Test finger can not override interlock system.	P
2.8.4	Fail-safe operation	Failure in interlock system will result in open circuit condition of the system, no hazard.	P
	Protection against extreme hazard		P

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Clause	Requirement + Test	Result - Remark	Verdict
2.8.5	Moving parts	Relevant doors are provided with levers, directly activating the approved interlock switches. No intermediate mechanism involved.	N/A
2.8.6	Overriding	No such systems.	N/A
2.8.7	Switches, relays and their related circuits	Interlock Switches comply with IEC 61058-1. No relays related to interlock.	P
2.8.7.1	Separation distances for contact gaps and their related circuits (mm)	Approved switches.	N/A
2.8.7.2	Overload test	Approved switches.	N/A
2.8.7.3	Endurance test	Approved switches.	N/A
2.8.7.4	Electric strength test	Not tested per 2.8.7.2/.3.	N/A
2.8.8	Mechanical actuators	Adequate design of the actuator/switch mechanism, no overstress.	P

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Clause	Requirement + Test	Result - Remark	Verdict
2.9	Electrical insulation		P
2.9.1	Properties of insulating materials	Natural rubber, asbestos or hygroscopic materials are not used.	P
2.9.2	Humidity conditioning	Humidity treatment conducted for 120h. Humidity conditioning was also conducted to Transformer, Photo Coupler and their alternate components.	P
	Relative humidity (%), temperature (°C)	93%, 40°C	—
2.9.3	Grade of insulation	Kind of insulation and working voltage considered.	P
2.9.4	Separation from hazardous voltages		P
	Method(s) used	Method 1: a, b Method 2	—

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Clause	Requirement + Test	Result - Remark	Verdict

2.10	Clearances, creepage distances and distances through insulation		P
2.10.1	General		P
2.10.1.1	Frequency	(see appended table 2.10.2)	P
2.10.1.2	Pollution degrees	Pollution degree 2.	P
2.10.1.3	Reduced values for functional insulation	5.3.4 a) not applied except for before fuse. (see appended table 2.10.3 and 2.10.4)	P
2.10.1.4	Intervening unconnected conductive parts	No considered.	N/A
2.10.1.5	Insulation with varying dimensions	No applied.	N/A
2.10.1.6	Special separation requirements		N/A
2.10.1.7	Insulation in circuits generating starting pulses	No such lamps used.	N/A
2.10.2	Determination of working voltage	The r.m.s. and the peak voltages were measured on all sources of the switching power supply.	P
2.10.2.1	General		P
2.10.2.2	RMS working voltage	(see appended table 2.10.2)	P
2.10.2.3	Peak working voltage	(see appended table 2.10.2)	P

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.3	Clearances		P
2.10.3.1	General	Comply with 2.10.3.3 and 2.10.3.4, Annex G applied.	P
2.10.3.2	Mains transient voltages	Not measured, normal transient levels considered.	P
	a) AC mains supply	2500V considered for the rating AC220-240V. 1500V considered for the rating AC120V.	P
	b) Earthed d.c. mains supplies	No direct connection to dc mains.	N/A
	c) Unearthed d.c. mains supplies	No direct connection to dc mains.	N/A
	d) Battery operation	No such batteries.	N/A
2.10.3.3	Clearances in primary circuits	(see appended table 2.10.3 and 2.10.4)	P
2.10.3.4	Clearances in secondary circuits	(see appended table 2.10.3 and 2.10.4)	P
2.10.3.5	Clearances in circuits having starting pulses	No such lamps used.	N/A
2.10.3.6	Transients from a.c. mains supply	(see cl. 2.10.3.9)	N/A
2.10.3.7	Transients from d.c. mains supply	--	N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems	Considered 1500V for TNV-3.	P
2.10.3.9	Measurement of transient voltage levels	Not measured, normal transient levels considered.	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
	b) Transients from a telecommunication network ..	--	N/A
2.10.4	Creepage distances	(see appended table 2.10.3 and 2.10.4)	P
2.10.4.1	General		P
2.10.4.2	Material group and comparative tracking index	See below.	P
	CTI tests.....	Material group IIIb is assumed to be used.	—
2.10.4.3	Minimum creepage distances	(see appended table 2.10.3 and 2.10.4)	P

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.5	Solid insulation		P
2.10.5.1	General		P
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	P
2.10.5.3	Insulating compound as solid insulation	No such insulations.	N/A
2.10.5.4	Semiconductor devices	Photo-couplers are approved components.	N/A
2.10.5.5	Cemented joints	Not considered.	N/A
2.10.5.6	Thin sheet material - General	<p>Provided for reinforced insulation within Transformers T301 used on Sub SWPS Units MPW9213 and MPW9214, T501 used on Sub SWPS Units MPW9213 and MPW9214, T501 used on Main SWPS Units MPW9215 and MPW9216.</p> <p>Only for as functional or basic insulation within Transformer T301 used on Main SWPS Units MPW9215 and MPW9216.</p>	P
2.10.5.7	Separable thin sheet material		P
	Number of layers (pcs)	<p>3 layers for the reinforced insulation within Transformers T301 used on Sub SWPS Units MPW9213 and MPW9214, T501 used on Sub SWPS Units MPW9213 and MPW9214, T501 used on Main SWPS Units MPW9215 and MPW9216.</p> <p>1 or 2 layers for as the functional or basic insulation within Transformer T301 used on Main SWPS Units MPW9215 and MPW9216.</p>	—
2.10.5.8	Non-separable thin sheet material	No such construction.	N/A
2.10.5.9	Thin sheet material - standard test procedure		N/A
	Electric strength test		—

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.10	Thin sheet material - alternative test procedure		P
	Electric strength test	(see appended table 2.10.5)	—
2.10.5.11	Insulation in wound components	(see cl. 2.10.5.14)	P
2.10.5.12	Wire in wound components	Not considered.	N/A
	Working voltage	--	N/A
	a) Basic insulation not under stress	--	N/A
	b) Basic, supplementary, reinforced insulation	--	N/A
	c) Compliance with Annex U	--	N/A
	Two wires in contact inside wound component; angle between 45° and 90°	--	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.13	Wire with solvent-based enamel in wound components	Not considered.	N/A
	Electric strength test		—
	Routine test		N/A
2.10.5.14	Additional insulation in wound components		P
	Working voltage	(see appended table 2.10.2.2)	P
	- Basic insulation not under stress	--	N/A
	- Supplementary, reinforced insulation	(see appended table 2.10.5)	P
2.10.6	Construction of printed boards	--	P
2.10.6.1	Uncoated printed boards	(see appended table 2.10.3 and 2.10.4)	P
2.10.6.2	Coated printed boards	Coating not tested.	N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		N/A
2.10.6.4	Insulation between conductors on different layers of a printed board	Not used to provide supplementary or double/reinforced insulation.	N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs)	--	N/A
2.10.7	Component external terminations	No such components.	N/A
2.10.8	Tests on coated printed boards and coated components	Coating not tested.	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

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.9	Thermal cycling	<p>Photo Coupler (PC301, PC501, PC502 and PC601) on Main SWPS units was tested.</p> <p>Photo Coupler (PC701) on Main SWPS units was certified</p> <p>Photo Coupler (PC301, PC501, PC502 and PC601) on Sub SWPS units was tested.</p> <p>Photo Coupler (PC701) on Sub SWPS units was certified</p> <p>Photo Coupler (NC1, NC2, NC3 and NC4) on IH PWB was tested.</p> <p>Optical Isolator (PC10) on Fax Kit was certified. (see appended table 1.5.1)</p> <p>Optical Isolator (PC10), Alternate on Fax Kit were certified. (see appended table 1.5.1)</p> <p>Optical Isolator (PC11) on Fax Kit, were certified. (see appended table 1.5.1)</p> <p>Optical Isolator (PC11), Alternate on Fax Kit were certified. (see appended table 1.5.1)</p>	P
2.10.10	Test for Pollution Degree 1 environment and insulating compound	Not applied.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.11	Tests for semiconductor devices and cemented joints	<p>Photo Coupler (PC301, PC501, PC502 and PC601) on Main SWPS units was tested.</p> <p>Photo Coupler (PC701) on Main SWPS units was certified</p> <p>Photo Coupler (PC301, PC501, PC502 and PC601) on Sub SWPS units was tested.</p> <p>Photo Coupler (PC701) on Sub SWPS units was certified.</p> <p>Photo Coupler (NC1, NC2, NC3 and NC4) on IH PWB was tested.</p> <p>Optical Isolator (PC10) on Fax Kit was certified. (see appended table 1.5.1)</p> <p>Optical Isolator (PC10), Alternate on Fax Kit were certified. (see appended table 1.5.1)</p> <p>Optical Isolator (PC11) on Fax Kit, were certified. (see appended table 1.5.1)</p> <p>Optical Isolator (PC11), Alternate on Fax Kit were certified. (see appended table 1.5.1)</p>	P
2.10.12	Enclosed and sealed parts		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

3	WIRING, CONNECTIONS AND SUPPLY		P
3.1	General		P
3.1.1	Current rating and overcurrent protection	Sufficient cross sectional area of internal wiring. Internal wires are UL recognized wires.	P
3.1.2	Protection against mechanical damage	Wires do not touch sharp edges and heat sinks that could damage the insulation and cause hazard.	P
3.1.3	Securing of internal wiring	Internal secondary wires with basic isolation are routed so that they are not close to any live bare components. Wires are adequately fixed to prevent excessive strain or damage of the conductors' insulation.	P
3.1.4	Insulation of conductors	The insulation of the individual conductors is suitable for the application and the working voltage.	P
3.1.5	Beads and ceramic insulators	Not used.	P
3.1.6	Screws for electrical contact pressure	Relevant electrical and bonding connections engage at least two complete threads into metal. No screws of insulating material are used for electrical and earthing connections.	P
3.1.7	Insulating materials in electrical connections	Relevant current carrying and all protective earthing/bonding connections are metal to metal.	P
3.1.8	Self-tapping and spaced thread screws	Where safety is involved, thread cutting or space thread screws not used for current carrying electrical connections.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.1.9	Termination of conductors	Conductors are suitable terminated, creepage and clearances maintained, second securing for soldered terminations provided.	P
	10 N pull test	10 N applied to relevant conductors.	P
3.1.10	Sleeving on wiring	Relevant sleeving on primary and secondary wirings reliably kept in position.	P

3.2	Connection to a mains supply		P
3.2.1	Means of connection		P
3.2.1.1	Connection to an a.c. mains supply	AC220-240V models: Appliance inlet AC120V models: Non-detachable power cord for connection to the supply by means of a plug.	P
3.2.1.2	Connection to a d.c. mains supply	No connection to DC mains.	N/A
3.2.2	Multiple supply connections		N/A
3.2.3	Permanently connected equipment	Not such equipment.	N/A
	Number of conductors, diameter of cable and conduits (mm)	--	—
3.2.4	Appliance inlets	AC220-240V models: The appliance inlet complies with IEC 60320-1 and is located at the rear of the unit. The power cord can be inserted without difficulties and does not support the unit.	P
3.2.5	Power supply cords		P
3.2.5.1	AC power supply cords	The power supply cord is provided with this unit.	P
	Type	(see appended table 1.5.1)	—
	Rated current (A), cross-sectional area (mm ²), AWG	Rated 10A, 1.0mm ² Rated 16A, 12 AWG	—
3.2.5.2	DC power supply cords	No connection to dc main.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.2.6	Cord anchorages and strain relief	Interconnecting cable of 1) PF-7120, 2) PF-7130 and 3) power cord of main unit for AC120V models tested.	P
	Mass of equipment (kg), pull (N)	100N	—
	Longitudinal displacement (mm)	1) 0.9mm 2) 0.8mm 3) 0.7mm	—
3.2.7	Protection against mechanical damage	No sharp points or cutting edges that may damage the power supply cord.	P
3.2.8	Cord guards	(see above)	N/A
	Diameter or minor dimension D (mm); test mass (g)	--	—
	Radius of curvature of cord (mm)	--	—
3.2.9	Supply wiring space	AC120V models: Non-detachable power supply cord used. AC220-240V models: Appliance inlet used.	P

3.3	Wiring terminals for connection of external conductors		P
3.3.1	Wiring terminals	AC120V models: non- detachable power supply cord used. Cord anchorage is a busing. AC220-240V models: appliance inlet and detachable power supply cord used.	P
3.3.2	Connection of non-detachable power supply cords	(see the appended table 4.5)	P
3.3.3	Screw terminals	No screw terminal.	N/A
3.3.4	Conductor sizes to be connected		N/A
	Rated current (A), cord/cable type, cross-sectional area (mm ²)	--	—
3.3.5	Wiring terminal sizes		N/A
	Rated current (A), type, nominal thread diameter (mm)	--	—
3.3.6	Wiring terminal design		N/A
3.3.7	Grouping of wiring terminals		N/A
3.3.8	Stranded wire		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

3.4	Disconnection from the mains supply		P
3.4.1	General requirement	Disconnect device is provided.	P
3.4.2	Disconnect devices	Plug or appliance coupler.	P
3.4.3	Permanently connected equipment	Pluggable equipment type A.	N/A
3.4.4	Parts which remain energized	No parts remain energized.	P
3.4.5	Switches in flexible cords	Not provided.	N/A
3.4.6	Number of poles - single-phase and d.c. equipment	The plug and appliance coupler disconnects both poles simultaneously.	P
3.4.7	Number of poles - three-phase equipment	Single phase equipment.	N/A
3.4.8	Switches as disconnect devices	Switch not used as disconnect device.	N/A
3.4.9	Plugs as disconnect devices		P
3.4.10	Interconnected equipment	No such interconnection	N/A
3.4.11	Multiple power sources		N/A

3.5	Interconnection of equipment		P
3.5.1	General requirements	See below.	P
3.5.2	Types of interconnection circuits	SELV to SELV. TNV-3 to TNV-3. Hazardous voltage to Hazardous voltage.	P
3.5.3	ELV circuits as interconnection circuits	No ELV circuits.	N/A
3.5.4	Data ports for additional equipment	Supplied from limited power source. (see original appended table 2.5)	P

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Clause	Requirement + Test	Result - Remark	Verdict

4	PHYSICAL REQUIREMENTS		P
4.1	Stability		P
	Angle of 10°	Stable mechanical construction, equipment does not overbalance when tilted to an angle of 10° from its normal upright position	P
	Test force (N)	250N, 800N tested anyway.	P

4.2	Mechanical strength		P
4.2.1	General	Outer enclosure shows sufficient strength to withstand expected handling conditions.	P
	Rack-mounted equipment.	Not rack-mounted.	N/A
4.2.2	Steady force test, 10 N	Applied to relevant parts, no hazard.	P
4.2.3	Steady force test, 30 N	30N applied to internal enclosure: Fuser Cover.	P
4.2.4	Steady force test, 250 N	250N applied to outer enclosure. Test points: (see appended table 4.2)	P
4.2.5	Impact test		P
	Fall test	(see appended table 4.2)	P
	Swing test	(see appended table 4.2)	P
4.2.6	Drop test; height (mm)	Neither direct plug-in nor hand held.	N/A
4.2.7	Stress relief test	After 7h at 76°C for enclosures, at 79°C for Fuser Cover, at 83°C for IH Coil Holder and cooling down to room temperature, no shrinkage, distortion or loosening of enclosure parts was noticeable on the unit.	P
4.2.8	Cathode ray tubes	No CRT.	N/A
	Picture tube separately certified	--	N/A
4.2.9	High pressure lamps	No such lamp.	N/A
4.2.10	Wall or ceiling mounted equipment; force (N)	Not intended for wall or ceiling mounting.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.3	Design and construction		P
4.3.1	Edges and corners	Edges and corners of the enclosure are rounded and smooth.	P
4.3.2	Handles and manual controls; force (N):	15N (Main switch)	P
4.3.3	Adjustable controls	Full range circuit, no voltage adjustment necessary. Operational controls not likely to cause any hazard.	N/A
4.3.4	Securing of parts	Electrical and mechanical connections can be expected to withstand usual mechanical stress. Relevant screws provided with lock-washer.	P
4.3.5	Connection by plugs and sockets	In operator and service areas, mismatching prevented by incompatible form or location.	P
4.3.6	Direct plug-in equipment	Not direct plug-in.	N/A
	Torque:	--	—
	Compliance with the relevant mains plug standard:	--	N/A
4.3.7	Heating elements in earthed equipment	IH Coil used and no hazards expected under the condition. Heating parts protected by certified thermal cutoff anyway. (see cl. 5.3.8 and appended table 5.3) Heater lamp protected by certified thermal cutoff in one phase and TRIAC in the other.	P
4.3.8	Batteries	Lithium battery (CR2032) circuits in Main PWB utilize a diode in series with a 1kΩ resistor.	P
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery	(see above)	P
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery	(see above)	P
4.3.9	Oil and grease	Insulation not in contact with oil or grease.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.10	Dust, powders, liquids and gases	Insulation not exposed to any possible paper dust or toner; separation by internal covers.	P
4.3.11	Containers for liquids or gases	No liquid contained.	N/A
4.3.12	Flammable liquids	No flammable liquids present.	N/A
	Quantity of liquid (l)	--	N/A
	Flash point (°C)	--	N/A
4.3.13	Radiation	See below.	P
4.3.13.1	General	Adequate construction confirmed.	P
4.3.13.2	Ionizing radiation	No 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	No ultraviolet (UV) radiation.	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		P
4.3.13.5.1	Lasers (including laser diodes)	For laser see IEC/EN 60825-1 test report.	P
	Laser class	Class 1	—
4.3.13.5.2	Light emitting diodes (LEDs)	Classified as Exempt group.	P
4.3.13.6	Other types	--	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.4	Protection against hazardous moving parts		P
4.4.1	General	Access to hazardous moving parts prevented by construction.	P
4.4.2	Protection in operator access areas:	Operator accessible moving parts represent no hazard, e.g. paper feeding / -exit areas. Hazardous moving parts are protected by interlock per cl.2.8.	P
	Household and home/office document/media shredders	Not shredder.	N/A
4.4.3	Protection in restricted access locations:	Not intended to be installed there.	N/A
4.4.4	Protection in service access areas	No unexpected hazard.	N/A
4.4.5	Protection against moving fan blades	No user accessible fan blade. Service accessible fan blade: see cl. 4.4.5.3.	P

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Clause	Requirement + Test	Result - Remark	Verdict
4.4.5.1	General	<p>1), LVU Fan Type: D08K-24TU 62B (AX) m = 0.065kg r = 40mm N = 3400rpm K = 721.34 a): 0.536</p> <p>2), LVU Fan 2, Type: 06025SS-24N-AL-D3 m = 0.050kg r = 28mm N = 4700rpm K = 519.56 a): 0.53</p> <p>3), Exhaust Fan, Drum DLP Fan 1, Type: D07F-24SS1 09 (EX) m = 0.1kg r = 29mm N = 3400rpm K = 583.32 a): 0.47</p> <p>4), IH Coil Fan, Rear Fuser Fan Type: D07F-24SS1 15B (EX) m = 0.1kg r = 29mm N = 3400rpm K = 583.32 a): 0.47</p> <p>5), Drum DLP Fan 2, Drum DLP Fan(BK), Drum DLP Fan(M), Drum DLP Fan(C), Drum DLP Fan(Y), Exit Fan, IH PWB Fan, Type: D06F-24SH 03 (EX) m = 0.45kg r = 22mm N = 4500rpm K = 264.63 a): 0.41</p> <p>6), Eject Fan, Type: 2410RL-05W-S60-C01 m = 0.06kg r = 30mm N = 4900rpm K = 777.92 a): 0.65</p> <p>7), Dust Box Fan 1, Dust Box Fan 2, Type: D06F-24SH 12B (EX) m = 0.055kg r = 22mm N = 4500rpm K = 323.43 a): 0.43</p>	P

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Clause	Requirement + Test	Result - Remark	Verdict
		Cont: 8), Exit Cooling Fan 1, Exit Cooling Fan 2, Type: D06R-24TH 04 (AX) m = 0.04kg r = 30mm N = 5000rpm K = 540.00 a): 0.56 9), Belt Fan 1, Belt Fan2, Bridge Fan Type: D08K-24TU 49 (AX) m = 0.065kg r = 40mm N = 3400rpm K = 721.34 a): 0.53 10), Controller Fan Type: D06R-05TM 12H1 (EX) m = 0.04kg r = 30mm N = 4200rpm K = 381.02 a):0.44 11), Fuser side Fan 1, Fuser side Fan 2, Type: AUB0524HB-AR56 m = 0.02kg r = 25mm N = 6300rpm K = 297.68 a):0.54 12), Driving Fan Type: D04R-24TM 19 (EX) m = 0.027kg r = 20mm N = 6000rpm K = 233.28 a):0.50 13), CIS Fan Type: D04X-24TH 52(V) m=0.026kg r=20mm N=7000rpm K=729.12 a):0.57 14), LSU Fan, Eject Fan (DF-7110) Type: BFB0524HHA-BN20 m = 0.025kg r = 25mm N = 5900rpm K = 326.34 a): 0.53	

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Clause	Requirement + Test	Result - Remark	Verdict
	Not considered to cause pain or injury. a)	$\frac{r/min}{15\,000} + \frac{K\ factor}{2\,400} = \text{Less than 1}$ (see above)	P
	Is considered to cause pain, not injury. b)	--	N/A
	Considered to cause injury. c).....	--	N/A
4.4.5.2	Protection for users	No user accessible fan blade.	N/A
	Use of symbol or warning	--	N/A
4.4.5.3	Protection for service persons	Inadvertent contact by service person is impossible.	N/A
	Use of symbol or warning.....	--	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	Thermal requirements		P
4.5.1	General		P
4.5.2	Temperature tests	(see appended table 4.5)	P
	Normal load condition per Annex L:	Method L.7	—
4.5.3	Temperature limits for materials	(see appended table 4.5)	P
4.5.4	Touch temperature limits	(see appended table 4.5)	P
4.5.5	Resistance to abnormal heat:	(see appended table 4.5.5)	P

4.6	Openings in enclosures		P
4.6.1	Top and side openings	No openings above parts with hazardous voltages. Side openings comply with the 5° angle projection. Requirements for fire enclosure considered.	P
	Dimensions (mm):	(see appended table 4.6.1) No relevant openings in optional accessories.	—
4.6.2	Bottoms of fire enclosures	Protection against emission of flame, molten metal, flaming or glowing particles or drops by constructions.	P
	Construction of the bottom, dimensions (mm):	No openings below parts requiring fire enclosure.	—
4.6.3	Doors or covers in fire enclosures	Doors and covers are interlocked per cl. 2.8.	P
4.6.4	Openings in transportable equipment	Not 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	Not used.	N/A
	Conditioning temperature (°C), time (weeks).....:	--	—

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Clause	Requirement + Test	Result - Remark	Verdict
4.7	Resistance to fire		P
4.7.1	Reducing the risk of ignition and spread of flame	Materials with the required flammability classes are used. Safety relevant components used within their specified rating. Electrical parts are not likely to ignite nearby materials. Temperatures see 4.5.1.	P
	Method 1, selection and application of components wiring and materials	(see appended table 1.5.1)	P
	Method 2, application of all of simulated fault condition tests	Not considered.	N/A
4.7.2	Conditions for a fire enclosure	See below.	P
4.7.2.1	Parts requiring a fire enclosure	Components with windings, wiring, semiconductor devices, resistors, capacitors and inductors are located inside a fire enclosure.	P
4.7.2.2	Parts not requiring a fire enclosure	The following parts are supplied from a LPS: Operation Panel	P

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Clause	Requirement + Test	Result - Remark	Verdict
4.7.3	Materials		P
4.7.3.1	General	<p>Materials with the required flammability classes are used.</p> <p>Main SWPS Units MPW9215 and MPW9216: For overheating of VDRs (Z1) by fault conditions, the VDRs were mounted on PCBs with min. V-1 and other components / materials (C1, F1, YC2, YC3, TH1) within 13 mm from VDRs were min. V-1 Class Material or approved components.</p> <p>Sub SWPS Units MPW9213 and MPW9214: For overheating of VDRs (Z1) by fault conditions, the VDRs were mounted on PCBs with min. V-1 and other components / materials (C1, F1) within 13 mm from VDRs were min. V-1 Class Material or approved components.</p> <p>IH PWBs 2NH0108 and 2NH0109: For overheating of VDRs (N2) by fault conditions, the VDRs were mounted on PCBs with min. V-1 and other components / materials (C14, C78, C79) within 13 mm from VDRs were min. V-1 Class Material or approved components.</p> <p>For overheating of VDRs (N4) by fault conditions, the VDRs were mounted on PCBs with min. V-1 and other components / materials (D1) within 13 mm from VDRs were min. V-1 Class Material or approved components.</p>	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.3.2	Materials for fire enclosures	Metal enclosure and Plastic enclosures: 5VB (see appended table 1.5.1)	P
4.7.3.3	Materials for components and other parts outside fire enclosures	Decorative parts rated at least HB75.	P
4.7.3.4	Materials for components and other parts inside fire enclosures	Internal components except small parts are V-2, HF-2 or better. Small parts were mounted on min. V-1 PCB.	P
4.7.3.5	Materials for air filter assemblies	Ozone filter rated V-1 or HF-1 except for others which contribution to fuelling a fire not expected.	P
4.7.3.6	Materials used in high-voltage components	Transformers main materials of flammability V-1 or better.	P

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

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		P
5.1	Touch current and protective conductor current		P
5.1.1	General	Tested for TN system.	P
5.1.2	Configuration of equipment under test (EUT)		P
5.1.2.1	Single connection to an a.c. mains supply	Single supply, independently tested.	P
5.1.2.2	Redundant multiple connections to an a.c. mains supply	Single-supply equipment.	N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit	Per figure 5A.	P
5.1.4	Application of measuring instrument	Per Annex D.	P
5.1.5	Test procedure		P
5.1.6	Test measurements		P
	Supply voltage (V)	(see appended table 5.1)	—
	Measured touch current (mA)	(see appended table 5.1)	—
	Max. allowed touch current (mA)	(see appended table 5.1)	—
	Measured protective conductor current (mA)	(see appended table 5.1)	—
	Max. allowed protective conductor current (mA)....	3.5 mA	—
5.1.7	Equipment with touch current exceeding 3,5 mA	Leakage current does not exceed 3.5mA	N/A
5.1.7.1	General	--	N/A
5.1.7.2	Simultaneous multiple connections to the supply	Single supply equipment.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks	Per figure 5A.	P
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		P
	Supply voltage (V):	(see appended table 5.1)	—
	Measured touch current (mA):	(see appended table 5.1)	—
	Max. allowed touch current (mA):	0.25 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 reference to protective earth		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

5.2	Electric strength		P
5.2.1	General	(see appended table 5.2)	P
5.2.2	Test procedure		P

5.3	Abnormal operating and fault conditions		P
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	P
5.3.2	Motors	Motors locked, stepping motors excluded. Temperature limits of Annex B not exceeded. (see appended Annex B)	P
5.3.3	Transformers	Adequate protection against overload provided. (see appended table 5.3)	P
5.3.4	Functional insulation.....:	Short circuit tests. (see appended table 5.3)	P
5.3.5	Electromechanical components	Movement locked. Solenoids and clutches continuously energized. (see appended table 5.3)	P
5.3.6	Audio amplifiers in ITE:	Not provided.	N/A
5.3.7	Simulation of faults	(see appended table 5.3)	P
5.3.8	Unattended equipment	Fault condition in temperature regulating circuit for IH PWB, IH Coil Unit and heater lamps did not result in a hazard. (see appended table 5.3)	P
5.3.9	Compliance criteria for abnormal operating and fault conditions		P
5.3.9.1	During the tests	No fire propagated beyond the equipment. No molten metal was emitted.	P
5.3.9.2	After the tests	Electric strength test primary to SELV passed.	P

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

6	CONNECTION TO TELECOMMUNICATION NETWORKS		P
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		P
6.1.1	Protection from hazardous voltages		P
6.1.2	Separation of the telecommunication network from earth		P
6.1.2.1	Requirements	Sufficient insulation provided. Operating voltage: DC 500V or DC 1000V. Limit: $U_{peak} + \Delta U_{sp} + \Delta U_{sa}$ = 460V max for DC 500V or 560V max. for DC 1000V Tested with 1.5kV, surge suppressors SA10, SA11 removed.	P
	Supply voltage (V)	240V	—
	Current in the test circuit (mA)	Measured leakage current with surge suppressors: 0.35mA	—
6.1.2.2	Exclusions	--	N/A

6.2	Protection of equipment users from overvoltages on telecommunication networks		P
6.2.1	Separation requirements		P
6.2.2	Electric strength test procedure	See below.	P
6.2.2.1	Impulse test	Tested with 1.5kV on surge suppressors SA10, SA11 (RA-102M-C6 and RA-501M-C6) required by cl. 6.2.2.2.	P
6.2.2.2	Steady-state test	Operation Panel: 3.0kV SA10, SA11 removed for the followings. Enclosure (PE): 1.5kV I/O connectors: 1.5kV Voltages applied for were requested by the manufacturer.	P
6.2.2.3	Compliance criteria	No flashover or breakdown.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
6.3	Protection of the telecommunication wiring system from overheating		N/A
	Max. output current (A) :	Line is not used for power distribution.	—
	Current limiting method :	--	—
7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS <i>No Cable Distribution System.</i>		N/A
7.1	General		N/A
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system		N/A
7.4	Insulation between primary circuits and cable distribution systems		N/A
7.4.1	General		N/A
7.4.2	Voltage surge test		N/A
7.4.3	Impulse test		N/A

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

A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE <i>Not tested; flammability data were taken from available literature.</i>		N/A
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N/A
A.1.1	Samples	--	—
	Wall thickness (mm)	--	—
A.1.2	Conditioning of samples; temperature (°C)	--	N/A
A.1.3	Mounting of samples	--	N/A
A.1.4	Test flame (see IEC 60695-11-3)		N/A
	Flame A, B, C or D	--	—
A.1.5	Test procedure		N/A
A.1.6	Compliance criteria		N/A
	Sample 1 burning time (s)	--	—
	Sample 2 burning time (s)	--	—
	Sample 3 burning time (s)	--	—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
A.2	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)		N/A
A.2.1	Samples, material.....:	--	—
	Wall thickness (mm)	--	—
A.2.2	Conditioning of samples; temperature (°C)	--	N/A
A.2.3	Mounting of samples	--	N/A
A.2.4	Test flame (see IEC 60695-11-4)		N/A
	Flame A, B or C	--	—
A.2.5	Test procedure		N/A
A.2.6	Compliance criteria		N/A
	Sample 1 burning time (s)	--	—
	Sample 2 burning time (s)	--	—
	Sample 3 burning time (s)	--	—
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9		N/A
	Sample 1 burning time (s)	--	—
	Sample 2 burning time (s)	--	—
	Sample 3 burning time (s)	--	—
A.3	Hot flaming oil test (see 4.6.2)		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		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)		P
B.1	General requirements		P
	Position	(see appended table 1.5.1)	—
	Manufacturer	(see appended table 1.5.1)	—
	Type	(see appended table 1.5.1)	—
	Rated values	(see appended table 1.5.1)	—
B.2	Test conditions	Motors were locked inside the equipment or in a bench test set-up. For stepping motors no test performed. (see appended table annex B)	P
B.3	Maximum temperatures	(see appended table annex B)	P
B.4	Running overload test	DC motors in secondary only.	N/A
B.5	Locked-rotor overload test	DC motors in secondary only.	N/A
	Test duration (days)	--	—
	Electric strength test: test voltage (V)	--	—
B.6	Running overload test for d.c. motors in secondary circuits	See below	P
B.6.1	General	See below	P
B.6.2	Test procedure	(tested per B.6.3)	N/A
B.6.3	Alternative test procedure	(see appended table annex B)	P
B.6.4	Electric strength test; test voltage (V)	--	N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		P
B.7.1	General	See below.	P
B.7.2	Test procedure	(tested per B.7.3)	N/A
B.7.3	Alternative test procedure	(see appended table annex B)	P
B.7.4	Electric strength test; test voltage (V)	--	N/A
B.8	Test for motors with capacitors	(none)	N/A
B.9	Test for three-phase motors	(none)	N/A
B.10	Test for series motors	(none)	N/A
	Operating voltage (V)	--	—

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

C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		P
	Position	Pri - sec transformers: T301 and T501 on Main SWPS unit, T301 and T501 on Sub SWPS Unit.	—
	Manufacturer	(see appended table 1.5.1)	—
	Type	(see appended table 1.5.1)	—
	Rated values	(see appended table 1.5.1)	—
	Method of protection.....	--	—
C.1	Overload test	(see appended table 5.3)	P
C.2	Insulation	(see appended table 2.10.5, 5.2)	P
	Protection from displacement of windings	Adequate construction; for further details, see appended table 2.10.3 and 2.10.4.	P

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

E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13) <i>Thermocouples used.</i>		N/A
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F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G) <i>Measured accordingly.</i>		P
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		P
G.1	Clearances	Applied for interlock in sec.	P
G.1.1	General		P
G.1.2	Summary of the procedure for determining minimum clearances		P
G.2	Determination of mains transient voltage (V)		P
G.2.1	AC mains supply	2500V considered.	P
G.2.2	Earthed d.c. mains supplies	No d.c. mains.	N/A
G.2.3	Unearthed d.c. mains supplies	--	N/A
G.2.4	Battery operation	No such operation.	N/A
G.3	Determination of telecommunication network transient voltage (V)	1500V considered.	P
G.4	Determination of required withstand voltage (V)		P
G.4.1	Mains transients and internal repetitive peaks	1500V, rule 3) b3) used.	P
G.4.2	Transients from telecommunication networks	(see G.3)	P
G.4.3	Combination of transients		N/A
G.4.4	Transients from cable distribution systems	No such systems.	N/A
G.5	Measurement of transient voltages (V)		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
	b) Transients from a telecommunication network		N/A
G.6	Determination of minimum clearances	(see appended table 2.10.3 and 2.10.4)	P

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

H	ANNEX H, IONIZING RADIATION (see 4.3.13) <i>No ionizing radiation source.</i>		N/A
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J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		P
	Metal(s) used	Mild steel/ Ni on steel.	—

K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		N/A
K.1	Making and breaking capacity		N/A
K.2	Thermostat reliability; operating voltage (V)	--	N/A
K.3	Thermostat endurance test; operating voltage (V) :	--	N/A
K.4	Temperature limiter endurance; operating voltage (V)	--	N/A
K.5	Thermal cut-out reliability		N/A
K.6	Stability of operation		N/A

L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)		P
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	Tested at continuous printing and others.	P

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Clause	Requirement + Test	Result - Remark	Verdict

M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1) <i>No ringing signals generated.</i>		N/A
M.1	Introduction		N/A
M.2	Method A		N/A
M.3	Method B		N/A
M.3.1	Ringing signal		N/A
M.3.1.1	Frequency (Hz)	--	—
M.3.1.2	Voltage (V)	--	—
M.3.1.3	Cadence; time (s), voltage (V)	--	—
M.3.1.4	Single fault current (mA)	--	—
M.3.2	Tripping device and monitoring voltage	--	N/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N/A
M.3.2.2	Tripping device		N/A
M.3.2.3	Monitoring voltage (V)	--	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)		P
N.1	ITU-T impulse test generators		P
N.2	IEC 60065 impulse test generator		N/A

P	ANNEX P, NORMATIVE REFERENCES		—
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Q	ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1) <i>Approved Surge Suppressor used.</i>		P
	- Preferred climatic categories	40/085/56	P
	- Maximum continuous voltage	(see appended table 1.5.1)	P
	- Combination pulse current	--	P
	Body of the VDR Test according to IEC60695-11-5.....	--	P
	Body of the VDR. Flammability class of material (min V-1).....	--	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		P
S.1	Test equipment		P
S.2	Test procedure		P
S.3	Examples of waveforms during impulse testing		P
T	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2) <i>Not applied.</i>		N/A
U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4) <i>Not used.</i>		N/A
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1) <i>Considered.</i>		P
V.1	Introduction		P
V.2	TN power distribution systems		P
W	ANNEX W, SUMMATION OF TOUCH CURRENTS <i>Considered.</i>		P
W.1	Touch current from electronic circuits		P
W.1.1	Floating circuits		N/A
W.1.2	Earthed circuits		P
W.2	Interconnection of several equipments		N/A
W.2.1	Isolation		N/A
W.2.2	Common return, isolated from earth		N/A
W.2.3	Common return, connected to protective earth		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1) <i>Considered.</i>		P
X.1	Determination of maximum input current		P
X.2	Overload test procedure		P
Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3) <i>No ultraviolet light source.</i>		N/A
Y.1	Test apparatus: --		N/A
Y.2	Mounting of test samples: --		N/A
Y.3	Carbon-arc light-exposure apparatus: --		N/A
Y.4	Xenon-arc light exposure apparatus: --		N/A
Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2) <i>Considered.</i>		P
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8) <i>Not applied.</i>		N/A
BB	ANNEX BB, CHANGES IN THE SECOND EDITION		—
CC	ANNEX CC, Evaluation of integrated circuit (IC) current limiters <i>Not applied.</i>		N/A
CC.1	General		N/A
CC.2	Test program 1: --		N/A
CC.3	Test program 2: --		N/A
CC.4	Test program 3: --		N/A
CC.5	Compliance: -		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

DD	ANNEX DD, Requirements for the mounting means of rack-mounted equipment <i>Not applied.</i>		N/A
DD.1	General		N/A
DD.2	Mechanical strength test, variable N..... :	--	N/A
DD.3	Mechanical strength test, 250N, including end stop :	--	N/A
DD.4	Compliance :	--	N/A

EE	ANNEX EE, Household and home/office document/media shredders <i>Not applied.</i>		N/A
EE.1	General		N/A
EE.2	Markings and instructions		N/A
	Use of markings or symbols :	--	N/A
	Information of user instructions, maintenance and/or servicing instructions :	--	N/A
EE.3	Inadvertent reactivation test..... :	--	N/A
EE.4	Disconnection of power to hazardous moving parts:	--	N/A
	Use of markings or symbols :	--	N/A
EE.5	Protection against hazardous moving parts	--	N/A
	Test with test finger (Figure 2A) :	--	N/A
	Test with wedge probe (Figure EE1 and EE2) :	--	N/A

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

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Power Supply Cord for AC220 - 240V Models(Optional)	Interchangeable	Plug: Interchangeable Cord: Interchangeable Connector: Interchangeable	250V, 16A 1.0 mm ² x 3 250V, 10A	IEC/EN 60799 or IEC/EN 60884 IEC/EN 60227 IEC/EN 60320	--	
Power Supply Cord for AC120V Models	Volex	Plug: PS520 Cord: SJT	125V, 20A 12 AWG x 3 Max. 4.5m long, min. 1.5m long	UL817 or UL498 UL62	UL(E62405) UL(E159216) UL(E156136)	
Appliance Inlet for AC220-240V Models	Rong Feng Industrial Co., Ltd.	SS-120 Series	250Vac, 10A	IEC/EN60320-1	VDE	
Appliance Inlet for AC220-240V Models, Alternate	Echo Electric Co., Ltd.	AC-P20	250Vac, 10A	IEC/EN60320-1	SEMKO	
Appliance Inlet for AC220-240V Models, Alternate	Supercom Wire & Cable Co. Ltd. or Supercom Electronics Co., Ltd.	SC-8 Series	250Vac, 10A	IEC/EN60320-1	VDE	
Strain Relief Bushing for AC120V Models	Heyco Products Inc	SR-31-2	Suitable for hole size and cord size.	UL635	UL(E15331)	
AC Outlet for Cassette Heater for optional accessories (Optional)	Rong Feng Industrial Co., Ltd.	SS-130 Series	250Vac, 10A (for 220-240V models) 250Vac, 15A (for 120V models)	EN60320-1/-2-2 IEC60320-1 UL498	TUV UL(E95905)	

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

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Switch						
Main Switch	Otax Co., Ltd.	LLN55C1	20A, 125/250Vac, 6,000 Cycles	IEC/EN61058-1 UL1054	TUV UL(E58109)	
Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles (VDE) 100,000 Cycles (UL)	IEC/EN61058-1 UL1054	ENEC(VDE) UL(E41515)	
Fuser Unit						
Thermal Cutoff (Press Roller)	Wako Electronics Co., Ltd.	CS-7TA-35	250Vac, 17A, 175°C	IEC/EN60730-2-9 UL60730	TUV UL(E50367)	
Thermal Cutoff (Heat Belt)	The Hosho Corp. or Portage Electric Products Inc.	H4-195C016 (H4 series)	15Vdc, Max.0.2A , 50Vdc, Max.0.5A , 195°C	IEC/EN60730-2-9 UL873	TUV UL(E37151)	
Thermistor A3, Thermistor Press	Shibaura Electronics Co., Ltd.	PT9-312 (PSB series) or PT9S- 312-M4	1.379kohm (Zero- power resistance at 185°C)	--	Evaluated together with unit	
Thermistor Contact	Shibaura Electronics Co., Ltd.	PT7-312 (PSB series) or PT7S- 312-M6	1.379kohm (Zero- power resistance at 185°C)	--	Evaluated together with unit	
Thermistor Center	Semitec Corporation	NC-EV-10W010 (NC-series)	7kohm(Zero-power resistance at 180°C)	--	Evaluated together with unit	
Main Heater Lamp for AC220 - 240V Models	Ushio Inc.	QIR 240-400 MKRA	240V, 400W	--	Evaluated together with unit	
Main Heater Lamp for AC120V Models	Ushio Inc.	QIR 120-350 MKRA	120V, 350W	--	Evaluated together with unit	
Front Fan Motor, Rear Fan Motor	Delta Electronics Component Co., Ltd.	BFB0412HHA- AR60	12Vdc,Max.0.1A	--	Evaluated together with unit	
Press Release Motor	Mabuchi Motor Co., Ltd.	RS-385PH-16140	24Vdc,Max.110mA	--	Evaluated together with unit	

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

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Front Fuser Cover, Rear Fuser Cover, Right Fuser Cover, Exit Left Fuser Cover, Cooling Fuser F Duct, Cooling Fuser F Cover, Cooling Fuser R Duct, Cooling Fuser R Cover, Heater Cover	Kaneka Corp.	3401NX	V-0, Min.1.5mm thick	UL94	UL(E48854)	
Harness Fuser Holder, Harness Fuser B Holder	Toray Industries Inc.	A390M65 or A390M65B	V-0, Min. 0.72mm thick	UL94	UL(E41797)	
Right Guide Cover	Asahi Kasei Chemicals Corp. or Asahi Kasei Corp.	X583V	V-1, Min.1.5mm thick	UL94	UL(E82268)	
IH Coil Unit						
IH Coil Wire for AC220 -240V Models	Totoku Electric Co., Ltd.	1-AILOCKBT	Litz Wire 5/ 17/ 0.15	--	Evaluated together with unit	
IH Coil Wire for AC120V Models	Totoku Electric Co., Ltd.	1-AILOCKBT	Litz Wire 5/ 34/ 0.15	--	Evaluated together with unit	
IH Coil Holder	Polyplastics Co., Ltd.	E481i	V-0, Min. 0.4mm thick	UL94	UL(E106764)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Main Switching Power Supply Unit for AC220 - 240V Models						
Switching Power Supply Unit	Murata Mfg. Co., Ltd.	MPW9216	Input: AC 220 - 240 V Output: 24V/14.6A, 5V/10.8A	--	Evaluated together with unit	
CAP Discharge IC (IC502)	Fuji Electric Co., Ltd.	FA8A01N (Marking: 8A01)	VH pin: 500V/10mA VCC pin: 28V/20mA	IEC/EN60950-1	NEMKO CB (NO81148)	
Bleeding Resistor (R18, R19, R20, R21, R22, R23)	Interchangeable	Interchangeable	3.9 kohm, 1/4 W	--	Evaluated together with unit	
Surge Suppressor (Z1)	Nippon Chemi-Con Corp.	TNR14SE471K or TND14SE471K	300 Vac	IEC/EN 61051 IEC/EN 60950-1 Ed2.2: 2013/ Annex Q	VDE	
X - Capacitor (C1, C2)	Okaya Electric Industries Co., Ltd.	LE series	310V, 1.0uF X2	IEC/EN60384-14	ENEC(SEMKO)	
X - Capacitor (C1, C2), Alternate	Panasonic Electronic Devices Japan Co., Ltd. or Panasonic	ECQUL	275V, 1.0uF X2	IEC/EN60384-14	VDE	
X - Capacitor (C1, C2), Alternate	Pilkor Electronics Co., Ltd.	PCX2 337	275V/305V, 1.0uF X2	IEC/EN60384-14	ENEC(SEMKO)	
X - Capacitor (C1, C2), Alternate	Zhuhai Sung Ho Electronics Co., Ltd.	CMPP	275V, 1.0uF X2	IEC/EN60384-14	VDE	
Y -Capacitors (C5, C6)	Murata Mfg. Co., Ltd.	KX	300V/250V, 2200pF Y1	IEC/EN60384-14	SEMKO	
Y -Capacitors (C5, C6), Alternate	TDK-EPC Corp.	CS	250V, 2200pF Y2	IEC/EN60384-14	SEMKO	
Y -Capacitors (C5, C6), Alternate	TDK-EPC Corp.	CD	250V, 2200pF Y1	IEC/EN60384-14	SEMKO	
Y -Capacitors (C5, C6), Alternate	Murata Mfg. Co., Ltd.	KH	300V/250V, 2200pF Y2	IEC/EN60384-14	SEMKO	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Y -Capacitor (C400)	Murata Mfg. Co., Ltd.	KX	300V/250V, 470pF Y1	IEC/EN60384-14	SEMKO	
Y -Capacitor (C400), Alternate	TDK-EPC Corp.	CS	250V, 470pF Y2	IEC/EN60384-14	SEMKO	
Y -Capacitor (C400), Alternate	TDK-EPC Corp.	CD	250V, 470pF Y1	IEC/EN60384-14	SEMKO	
Y -Capacitor (C400), Alternate	Murata Mfg. Co., Ltd.	KH	300V/250V, 470pF Y2	IEC/EN60384-14	SEMKO	
Y -Capacitors (C300, C500)	Murata Mfg. Co., Ltd.	KX	300V/250V, 1000pF Y1	IEC/EN60384-14	SEMKO	
Y -Capacitors (C300, C500), Alternate	TDK-EPC Corp.	CD	250V, 1000pF Y1	IEC/EN60384-14	SEMKO	
Electrolytic Capacitor (C401)	Interchangeable	Interchangeable	450V, 330uF	--	Evaluated together with unit	
Inductor (L1)	Tokyo Parts Industrial Co., Ltd.	TLF-28A (Marking: 2R7A502A)	Max.120 °C	--	Evaluated together with unit	
Inductor (L2)	Tokyo Parts Industrial Co., Ltd.	TLF-24A (Marking: 2R7A182A)	Max.140 °C	--	Evaluated together with unit	
Inductor (L401)	Murata Mfg. Co., Ltd.	1P019	Max.130 °C	--	Evaluated together with unit	
Bridge Rectifier (D1)	Interchangeable	Interchangeable	Min. 600V, Min. 15A	--	Evaluated together with unit	
FET (Q301, Q320)	Toshiba Corporation Semiconductor Company	TK12A50 or TK12A50D	500V,12A	--	Evaluated together with unit	
FET (Q401)	Fuji Electric Co., Ltd.	FMV16N60ES (Marking:16N60E)	600V, 16A	--	Evaluated together with unit	
FET (Q501)	Fuji Electric Co., Ltd.	FMV06N90 or FMV06N90E (Marking:06N90E)	900V, 6A	--	Evaluated together with unit	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Triac (TRA701)	Interchangeable	Interchangeable	Min. 800V, Min. 8A	--	Evaluated together with unit	
Photo Coupler (PC301, PC501, PC502, PC601)	Everlight Electronics Co., Ltd.	EL816M2 (Marking: EL816)	Isolation thickness: ≥0.5 mm, Ext. cr.: ≥7.7 mm, Int. cr.: ≥6 mm Isolation voltage: min. AC 4800V	IEC/EN60950-1 IEC/EN60065	SEMKO	
Photo Coupler (PC701)	Toshiba Corp.	TLP363JF (Marking: P363JF)	Isolation thickness: > 0.4 mm, Ext. cr.: > 8 mm, Int. cr. = thermal cycling tested (2.10.11), Isolation voltage: min. AC 5000V	IEC/EN60950-1 IEC/EN60747-5-2	SEMKO	
Transformer (T301)	Tabuchi Electric Co., Ltd.	2614QS002 (Marking: 2614QS2)	Max.130 °C Class B	--	Evaluated together with unit	
Transformer (T501)	Murata Mfg. Co., Ltd.	2Q154	Max.130 °C Class B	--	Evaluated together with unit	
Fuse (F1, F3)	Cooper Bussmann Inc.	S505 (-R series)	250V, T5AH	IEC/EN60127-2	SEMKO	
Fuse (F1, F3), Alternate	SkyGate Co., Ltd.	SG5063	250V, T5AH	IEC/EN60127-2	SEMKO	
Fuse (F1, F3), Alternate	Littelfuse Inc. or Suzhou Littelfuse OVS Ltd.	215 series	250V, T5AH	IEC/EN60127-2	SEMKO	
Fuse (F2)	Littelfuse Inc. or Suzhou Littelfuse OVS Ltd.	215 series	250V, T12AH (Marking:250VP)	IEC/EN60127-2	SEMKO	
Fuse (F391)	SkyGate Co., Ltd.	SCT	250 V, T4A	IEC/EN60127-3	VDE	
Fuse (F391), Alternate	Hollyland Co., Ltd.	5ET	250 V, T4A	IEC/EN60127-3	SEMKO	
Fuse (F701)	SkyGate Co., Ltd.	SCT	250 V, T3.15A	IEC/EN60127-3	VDE	
Fuse (F701), Alternate	Hollyland Co., Ltd.	5ET	250 V, T3.15A	IEC/EN60127-3	SEMKO	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Posistor (TH391)	Tyco Electronics Corp. (Raychem)	RUEF300 (Marking: U300)	30Vdc, 3.0A	IEC/EN60730	TUV	
Connector (YC1, YC2)	Hirose Electric Co., Ltd.	DF22 series	600V, 15A (AWG 16; 1, 2 or 3 contacts), 14A (AWG 16; 4 or 5 contacts)	IEC/EN61984	TUV	
Connector (YC3)	Japan Solderless Terminal Mfg Co., Ltd.	Type H, series VH	250V, 10A (AWG 16)	IEC/EN61984	TUV	
Connector (YC4)	Japan Solderless Terminal Mfg Co., Ltd.	Type H, series XH	250V, 3A (AWG 22)	IEC/EN61984	TUV	
Fixing Bond for R443, R445, R446	Konishi Co., Ltd.	FB500HW or FB500HB	V-0	UL 94	UL(E325882)	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Main Switching Power Supply Unit for AC120V Models						
Switching Power Supply Unit	Murata Mfg. Co., Ltd.	MPW9215	Input: AC 100 - 127 V Output: 24V/14.6A, 5V/10.8A	--	Evaluated together with unit	
CAP Discharge IC (IC502)	Fuji Electric Co., Ltd.	FA8A01N (Marking: 8A01)	VH pin: 500V/10mA VCC pin: 28V/20mA	--	Evaluated together with unit	
Bleeding Resistor (R18, R19, R20, R21, R22, R23)	Interchangeable	Interchangeable	3.9 kohm, 1/4 W	--	Evaluated together with unit	
Surge Suppressor (Z1)	Nippon Chemi-Con Corp.	TNR14SE471K or TND14SE471K	300 Vac	UL1449	UL(E323623)	
X - Capacitor (C1, C2)	Okaya Electric Industries Co., Ltd.	LE series	310V, 1.0uF X2	UL60384-14	UL(E47474)	
X - Capacitor (C1, C2), Alternate	Panasonic Electronic Devices Japan Co., Ltd. or Panasonic	ECQUL	275V, 1.0uF X2	UL60384-14	UL(E62674)	
X - Capacitor (C1, C2), Alternate	Pilkor Electronics Co., Ltd.	PCX2 337	275V/305V, 1.0uF X2	UL60384-14	UL(E165646)	
X - Capacitor (C1, C2), Alternate	Zhuhai Sung Ho Electronics Co., Ltd.	CMPP	275V, 1.0uF X2	UL60384-14	UL(E327138)	
Y -Capacitors (C5, C6)	Murata Mfg. Co., Ltd.	KX	300V/250V, 2200pF Y1	UL60384-14	UL(E37921)	
Y -Capacitors (C5, C6), Alternate	TDK-EPC Corp.	CS	250V, 2200pF Y2	UL60384-14	UL(E37861)	
Y -Capacitors (C5, C6), Alternate	TDK-EPC Corp.	CD	250V, 2200pF Y1	UL60384-14	UL(E37861)	
Y -Capacitor (C400)	Murata Mfg. Co., Ltd.	KX	300V/250V, 470pF Y1	UL60384-14	UL(E37921)	
Y -Capacitor (C400), Alternate	TDK-EPC Corp.	CS	250V, 470pF Y2	UL60384-14	UL(E37861)	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Y -Capacitor (C400), Alternate	TDK-EPC Corp.	CD	250V, 470pF Y1	UL60384-14	UL(E37861)	
Y -Capacitor (C400), Alternate	Murata Mfg. Co., Ltd.	KH	300V/250V, 470pF Y2	UL60384-14	UL(E37921)	
Y -Capacitors (C300, C500)	Murata Mfg. Co., Ltd.	KX	300V/250V, 1000pF Y1	UL60384-14	UL(E37921)	
Y -Capacitors (C300, C500), Alternate	TDK-EPC Corp.	CD	250V, 1000pF Y1	UL60384-14	UL(E37861)	
Electrolytic Capacitor (C401)	Interchangeable	Interchangeable	450V, 330uF	--	Evaluated together with unit	
Inductor (L1)	Tokyo Parts Industrial Co., Ltd.	DRB25 (DRB25- 06A103NP)	Max.130 °C	--	Evaluated together with unit	
Inductor (L2)	Tokyo Parts Industrial Co., Ltd.	TLF-28A (Marking: 5R0A182A)	Max.120 °C	--	Evaluated together with unit	
Inductor (L401)	Murata Mfg. Co., Ltd.	1P019	Max.130 °C	--	Evaluated together with unit	
Bridge Rectifier (D1)	Interchangeable	Interchangeable	Min. 600V, Min. 15A	--	Evaluated together with unit	
FET (Q301, Q320)	Toshiba Corporation Semiconductor Company	TK12A50 or TK12A50D	500V,12A	--	Evaluated together with unit	
FET (Q401, Q402)	Fuji Electric Co., Ltd.	FMA19N60E (Marking:19N60E)	600V, 19A	--	Evaluated together with unit	
FET (Q501)	Fuji Electric Co., Ltd.	FMV06N90 or FMV06N90E (Marking:06N90E)	900V, 6A	--	Evaluated together with unit	
Triac (TRA701)	Interchangeable	Interchangeable	Min. 800V, Min. 8A	--	Evaluated together with unit	
Photo Coupler (PC301, PC501, PC502, PC601)	Everlight Electronics Co., Ltd.	EL816M2 (Marking: EL816)	Isolation thickness: ≥0.5 mm, Ext. cr.: ≥7.7 mm, Int. cr.: ≥6 mm Isolation voltage: min. AC 5000V	UL1577	UL(E214129)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Photo Coupler (PC701)	Toshiba Corp.	TLP363JF (Marking: P363JF)	Isolation thickness: > 0.4 mm, Ext. cr.: > 8 mm, Int. cr. = thermal cycling tested (2.10.11), Isolation voltage: min. AC 5000V	UL1577	UL(E67349)	
Transformer (T301)	Tabuchi Electric Co., Ltd.	2614QS002 (Marking: 2614QS2)	Max.130 °C Class B	UL1446	Evaluated together with unit UL(E57091)	
Transformer (T501)	Murata Mfg. Co., Ltd.	2Q154	Max.130 °C Class B	UL1446	Evaluated together with unit UL(E247878)	
Fuse (F1)	Cooper Bussmann Inc.	S505 (-R series)	250V, T10AH	UL248-1/ UL248-14	UL(E19180)	
Fuse (F1), Alternate	SkyGate Co., Ltd.	SG5063	250V, T10AH	UL248-1/ UL248-14	UL(E195833)	
Fuse (F1), Alternate	Littelfuse Inc. or Suzhou Littelfuse OVS Ltd.	215 series	250V, T10AH	UL248-1/ UL248-14	UL(E10480)	
Fuse (F2)	Hollyland Co., Ltd.	65TS(P)	250V, 20A	UL248-1/ UL248-14	UL(E156471)	
Fuse (F3)	Littelfuse Inc. or Suzhou Littelfuse OVS Ltd.	215 series	250V, T12AH (Marking:250VP)	UL248-1/ UL248-14	UL(E10480)	
Fuse (F391)	SkyGate Co., Ltd.	SCT	250 V, T4A	UL248-1/ UL248-14	UL(E195833)	
Fuse (F391), Alternate	Hollyland Co., Ltd.	5ET	250 V, T4A	UL248-1/ UL248-14	UL(E156471)	
Fuse (F701)	SkyGate Co., Ltd.	SCT	250 V, T3.15A	UL248-1/ UL248-14	UL(E195833)	
Fuse (F701), Alternate	Hollyland Co., Ltd.	5ET	250 V, T3.15A	UL248-1/ UL248-14	UL(E156471)	
Posistor (TH391)	Tyco Electronics Corp. (Raychem)	RUEF300 (Marking: U300)	30Vdc, 3.0A	UL1434	UL(E74889)	
Connector (YC1, YC2)	Hirose Electric Co., Ltd.	DF22 series	600V, 15A (AWG 16; 1, 2 or 3 contacts), 14A (AWG 16; 4 or 5 contacts)	UL1977	UL(E52653)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Connector (YC3)	Japan Solderless Terminal Mfg Co., Ltd.	Type H, series VH	250V, 10A (AWG 16)	UL1977	UL(E60389)	
Connector (YC4)	Japan Solderless Terminal Mfg Co., Ltd.	Type H, series XH	250V, 3A (AWG 22)	UL1977	UL(E60389)	
Fixing Bond for R443, R445, R446	Konishi Co., Ltd.	FB500HW or FB500HB	V-0	UL 94	UL(E325882)	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Sub Switching Power Supply Unit for AC220 - 240V Models						
Switching Power Supply Unit	Murata Mfg. Co., Ltd.	MPW9214	Input: AC 220 - 240 V Output: 24V/9.5A	--	Evaluated together with unit	
PWM Control IC (IC502)	Fuji Electric Co., Ltd.	FA8A01N (Marking: 8A01)	VH pin: 500V/10mA VCC pin: 28V/20mA	IEC/EN60950-1	NEMKO CB (NO81148)	
Bleeding Resistor (R18, R19, R20, R21, R22, R23)	Interchangeable	Interchangeable	3.9 kohm, 1/4 W	--	Evaluated together with unit	
Surge Suppressor (Z1)	Nippon Chemi-Con Corp.	TNR14SE471K or TND14SE471K	300Vac	IEC/EN 61051 IEC/EN 60950-1 Ed2.2: 2013/ Annex Q	VDE	
X - Capacitor (C1)	Okaya Electric Industries Co., Ltd.	LE series	310V, 0.47uF X2	IEC/EN60384-14	ENEC(SEMKO)	
X - Capacitor (C1), Alternate	Panasonic Electronic Devices Japan Co., Ltd. or Panasonic	ECQUL	275V, 0.47uF X2	IEC/EN60384-14	VDE	
X - Capacitor (C1), Alternate	Pilkor Electronics Co., Ltd.	PCX2 337	275V/305V, 0.47uF X2	IEC/EN60384-14	ENEC(SEMKO)	
X - Capacitor (C1), Alternate	Zhuhai Sung Ho Electronics Co., Ltd.	CMPP	275V, 0.47uF X2	IEC/EN60384-14	VDE	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
X - Capacitor (C2)	Okaya Electric Industries Co., Ltd.	LE series	310V, 0.22uF X2	IEC/EN60384-14	ENEC(SEMKO)	
X - Capacitor (C2), Alternate	Panasonic Electronic Devices Japan Co., Ltd. or Panasonic	ECQUL	275V, 0.22uF X2	IEC/EN60384-14	VDE	
X - Capacitor (C2), Alternate	Pilkor Electronics Co., Ltd.	PCX2 337	275V/305V, 0.22uF X2	IEC/EN60384-14	ENEC(SEMKO)	
X - Capacitor (C2), Alternate	Zhuhai Sung Ho Electronics Co., Ltd.	CMPP	275V, 0.22uF X2	IEC/EN60384-14	VDE	
Y -Capacitors (C5, C6)	Murata Mfg. Co., Ltd.	KX	300V/250V, 470pF Y1	IEC/EN60384-14	SEMKO	
Y -Capacitors (C5, C6), Alternate	TDK-EPC Corp.	CS	250V, 470pF Y2	IEC/EN60384-14	SEMKO	
Y -Capacitors (C5, C6), Alternate	TDK-EPC Corp.	CD	250V, 470pF Y1	IEC/EN60384-14	SEMKO	
Y -Capacitors (C5, C6), Alternate	Murata Mfg. Co., Ltd.	KH	300V/250V, 470pF Y2	IEC/EN60384-14	SEMKO	
Y -Capacitors (C300, C500)	Murata Mfg. Co., Ltd.	KX	300V/250V, 2200pF Y1	IEC/EN60384-14	SEMKO	
Y -Capacitors (C300, C500), Alternate	TDK-EPC Corp.	CD	250V, 2200pF Y1	IEC/EN60384-14	SEMKO	
Electrolytic Capacitor (C10)	Interchangeable	Interchangeable	450V, 330uF	--	Evaluated together with unit	
Inductor (L1)	Tokyo Parts Industrial Co., Ltd.	DRB25 (DRB25- 06A103NP)	Max.130 °C	--	Evaluated together with unit	
Inductor (L2)	Tokyo Parts Industrial Co., Ltd.	TLF-24A (Marking: 2R7A182A)	Max.140 °C	--	Evaluated together with unit	
Inductor (L3)	Tabuchi Electric Co., Ltd.	EMD15163B	Max.155 °C	--	Evaluated together with unit	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Bridge Rectifier (D1)	Interchangeable	Interchangeable	Min. 600V, Min. 15A	--	Evaluated together with unit	
FET (Q301, Q302, Q501)	Fuji Electric Co., Ltd.	FMV06N90 or FMV06N90E (Marking:06N90E)	900V, 6A	--	Evaluated together with unit	
Triac (TRA701)	Interchangeable	Interchangeable	Min. 800V, Min. 8A	--	Evaluated together with unit	
Photo Coupler (PC301, PC501, PC502, PC601)	Everlight Electronics Co., Ltd.	EL816M2 (Marking: EL816)	Isolation thickness: ≥0.5 mm, Ext. cr.: ≥7.7 mm, Int. cr.: ≥6 mm Isolation voltage: min. AC 4800V	IEC/EN60950-1, IEC/EN60065	SEMKO	
Photo Coupler (PC701)	Toshiba Corp.	TLP363JF (Marking: P363JF)	Isolation thickness: > 0.4 mm, Ext. cr.: > 8 mm, Int. cr. = thermal cycling tested (2.10.11), Isolation voltage: min. AC 5000V	IEC/EN60950-1, IEC/EN60747-5-2	SEMKO	
Transformer (T301)	Murata Mfg. Co., Ltd.	2V121	Max.130 °C Class B	--	Evaluated together with unit	
Transformer (T501)	Murata Mfg. Co., Ltd.	2Q154	Max.130 °C Class B	--	Evaluated together with unit	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Fuse (F1)	Cooper Bussmann Inc.	S505 (-R series)	250V, T5AH	EN60127-2, IEC60127-2	SEMKO	
Fuse (F1), Alternate	SkyGate Co., Ltd.	SG5063	250V, T5AH	EN60127-2, IEC60127-2	SEMKO	
Fuse (F1), Alternate	Littelfuse Inc. or Suzhou Littelfuse OVS Ltd.	215 series	250V, T5AH	EN60127-2, IEC60127-2	SEMKO	
Fuse (F391)	SkyGate Co., Ltd.	SCT	250 V, T4A	EN60127-3, IEC60127-3	VDE	
Fuse (F391), Alternate	Hollyland Co., Ltd.	5ET	250 V, T4A	EN60127-3, IEC60127-3	SEMKO	
Fuse (F701)	SkyGate Co., Ltd.	SCT	250V, T3.15A	EN60127-3, IEC60127-3	VDE	
Fuse (F701), Alternate	Hollyland Co., Ltd.	5ET	250 V, T3.15A	EN60127-3, IEC60127-3	SEMKO	
Posistor (TH391)	Tyco Electronics Raychem	RUEF300 (Marking: U300)	30Vdc, 3.0A	IEC/EN60370	TUV	
Connector (YC1)	Hirose Electric Co., Ltd.	DF22 series	600V, 15A (AWG 16; 1, 2 or 3 contacts), 14A (AWG 16; 4 or 5 contacts)	IEC/EN61984	TUV	
Connector (YC4)	Japan Solderless Terminal Mfg Co., Ltd.	Type H, series XH	250V, 3A (AWG 22)	IEC/EN61984	TUV	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Sub Switching Power Supply Unit for AC120V Models						
Switching Power Supply Unit	Murata Mfg. Co., Ltd.	MPW9213	Input: AC 100 - 127 V Output: 24V/9.5A	--	Evaluated together with unit	
PWM Control IC (IC502)	Fuji Electric Co., Ltd.	FA8A01N (Marking: 8A01)	VH pin: 500V/10mA VCC pin: 28V/20mA	--	Evaluated together with unit	
Bleeding Resistor (R18, R19, R20, R21, R22, R23)	Interchangeable	Interchangeable	3.9 kohm, 1/4 W	--	Evaluated together with unit	
Surge Suppressor (Z1)	Nippon Chemi-Con Corp.	TNR14SE471K or TND14SE471K	300 Vac	UL1449	UL(E323623)	
X - Capacitor (C1)	Okaya Electric Industries Co., Ltd.	LE series	310V, 0.47uF X2	UL60384-14	UL(E47474)	
X - Capacitor (C1), Alternate	Panasonic Electronic Devices Japan Co., Ltd. or Panasonic	ECQUL	275V, 0.47uF X2	UL60384-14	UL(E62674)	
X - Capacitor (C1), Alternate	Pilkor Electronics Co., Ltd.	PCX2 337	275V/305V, 0.47uF X2	UL60384-14	UL(E165646)	
X - Capacitor (C1), Alternate	Zhuhai Sung Ho Electronics Co., Ltd.	CMPP	275V, 0.47uF X2	UL60384-14	UL(E327138)	
X - Capacitor (C2)	Okaya Electric Industries Co., Ltd.	LE series	310V, 0.22uF X2	UL60384-14	UL(E47474)	
X - Capacitor (C2), Alternate	Panasonic Electronic Devices Japan Co., Ltd. or Panasonic	ECQUL	275V, 0.22uF X2	UL60384-14	UL(E62674)	
X - Capacitor (C2), Alternate	Pilkor Electronics Co., Ltd.	PCX2 337	275V/305V, 0.22uF X2	UL60384-14	UL(E165646)	
X - Capacitor (C2), Alternate	Zhuhai Sung Ho Electronics Co., Ltd.	CMPP	275V, 0.22uF X2	UL60384-14	UL(E327138)	
Y -Capacitors (C5, C6)	Murata Mfg. Co., Ltd.	KX	300V/250V, 1000pF Y1	UL60384-14	UL(E37921)	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Y -Capacitors (C5, C6), Alternate	TDK-EPC Corp.	CS	250V, 1000pF Y2	UL60384-14	UL(E37861)	
Y -Capacitors (C5, C6), Alternate	TDK-EPC Corp.	CD	250V, 1000pF Y1	UL60384-14	UL(E37861)	
Y -Capacitors (C5, C6), Alternate	Murata Mfg. Co., Ltd.	KH	300V/250V, 1000pF Y2	UL60384-14	UL(E37921)	
Y -Capacitors (C300, C500)	Murata Mfg. Co., Ltd.	KX	300V/250V, 2200pF Y1	UL60384-14	UL(E37921)	
Y -Capacitors (C300, C500), Alternate	TDK-EPC Corp.	CD	250V, 2200pF Y1	UL60384-14	UL(E37861)	
Electrolytic Capacitor (C10)	Interchangeable	Interchangeable	200V, 1800uF	--	Evaluated together with unit	
Inductor (L1)	Tokyo Parts Industrial Co., Ltd.	DRB25 (DRB25- 06A103NP)	Max.130 °C	--	Evaluated together with unit	
Inductor (L2)	Tokyo Parts Industrial Co., Ltd.	TLF-28A (Marking: 5R0A182A)	Max.120 °C	--	Evaluated together with unit	
Bridge Rectifier (D1)	Interchangeable	Interchangeable	Min. 600V, Min. 15A	--	Evaluated together with unit	
FET (Q301, Q302)	Toshiba Corporation Semiconductor Company	TK12A50 or TK12A50D	500V,12A	--	Evaluated together with unit	
FET (Q501)	Toshiba Corporation Semiconductor Company	TK8A50 or TK8A50D	500V,8A	--	Evaluated together with unit	
Triac (TRA701)	Interchangeable	Interchangeable	Min. 800V, Min. 8A	--	Evaluated together with unit	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Photo Coupler (PC301, PC501, PC502, PC601)	Everlight Electronics Co., Ltd.	EL816M2 (Marking: EL816)	Isolation thickness: ≥0.5 mm, Ext. cr.: ≥7.9 mm, Int. cr.: ≥6 mm, Isolation voltage: min. AC 5000V	UL1577	UL(E214129)	
Photo Coupler (PC701)	Toshiba Corp.	TLP363JF (Marking: P363JF)	Isolation thickness: > 0.4 mm, Ext. cr.: > 8 mm, Int. cr. = thermal cycling tested (2.10.11), Isolation voltage: min. AC 5000V	UL1577	UL(E67349)	
Transformer (T301)	Murata Mfg. Co., Ltd.	2V120	Max.130 °C Class B	UL1446	UL(E247878)	
Transformer (T501)	Murata Mfg. Co., Ltd.	2Q152	Max.130 °C Class B	UL1446	UL(E247878)	
Fuse (F1)	Littelfuse Inc.	215 series	250V, T12AH (Marking: 250VP)	UL248-1/ UL248-14	UL(E10480)	
Fuse (F391)	SkyGate Co., Ltd.	SCT	250 V, T4A	UL248-1/ UL248-14	UL(E195833)	
Fuse (F391), Alternate	Hollyland Co., Ltd.	5ET	250 V, T4A	UL248-1/ UL248-14	UL(E156471)	
Fuse (F701)	SkyGate Co., Ltd.	SCT	250V, T3.15A	UL248-1/ UL248-14	UL(E195833)	
Fuse (F701), Alternate	Hollyland Co., Ltd.	5ET	250 V, T3.15A	UL248-1/ UL248-14	UL(E156471)	
Posistor (TH391)	Tyco Electronics Raychem	RUEF300 (Marking: U300)	30Vdc, 3.0A	UL1434	UL(E74889)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Relay (RL1)	Daiichi Electric Co., Ltd.	DG1U series	Contact: 250V, 10A Coil: 24 Vdc	UL508, UL60947	UL(E98688)	
Relay (RL1), Alternate	Panasonic Electric Works Co., Ltd. or Panasonic	LK series (LKP1aF-12V)	Contact: 250/277V, 10A Coil: 24 Vdc	UL508, UL60947	UL(E43149)	
Relay (RL1), Alternate	Fujitsu Component Ltd.	FTR-H2 series	Contact: 250V, 10A Coil: 24 Vdc	UL508, UL60947	UL(E63614)	
Connector (YC1)	Hirose Electric Co., Ltd.	DF22 series	600V, 15A (AWG 16; 1, 2 or 3 contacts), 14A (AWG 16; 4 or 5 contacts)	UL1977	UL(E52653)	
Connector (YC4)	Japan Solderless Terminal Mfg Co., Ltd.	Type H, series XH	250V, 3A (AWG 22)	IEC/EN61984 UL1977	TUV UL(E60389)	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
IH PWB for AC220-240V Models						
IH PWB	KYOCERA Document Solutions Inc.	2NH0109	Input: 220 - 240 Vac	--	Evaluated together with unit	
Bleeding Resistor (R1, R2)	Interchangeable	Interchangeable	220 kohm, 1/4 W	--	Evaluated together with unit	
Varistor (N1, N2, N4)	Panasonic Corporation	E11471	300 Vac	IEC/EN61051 IEC/EN60950-1 Ed2.2:2013/ Annex Q	VDE	
Varistor (N1, N2, N4), Alternate	Panasonic Corporation	V14471U (ERZV14471U)	300 Vac	IEC/EN 61051 IEC/EN 60950-1 Ed2.2: 2013/ Annex Q	VDE	
Varistor (N1, N2, N4), Alternate	Nippon Chemi-Con Corp.	TNR14SE471K or TND14SE471K	300 Vac	IEC/EN 61051 IEC/EN 60950-1 Ed2.2: 2013/ Annex Q	VDE	
X-Capacitor (C7, C8)	Okaya Electric Industries Co., Ltd.	LE series (Marking: LE105)	310V, 1uF X2	IEC/EN60384-14	ENEC(SEMKO)	
Y-Capacitor (C5, C6)	Murata Mfg. Co., Ltd.	KX	300V/250V, 4700pF Y1	IEC/EN60384-14	SEMKO	
Y-Capacitor (C15)	Murata Mfg. Co., Ltd.	KX	300V/250V, 470pF Y1	IEC/EN60384-14	SEMKO	
Capacitor (C2, C12)	Interchangeable	Interchangeable	1250V, Min.0.2uF	--	Evaluated together with unit	
Capacitor (C4, C11)	Interchangeable	Interchangeable	450V, 0.05uF	--	Evaluated together with unit	
Capacitor (C14, C78, C79)	Interchangeable	Interchangeable	450V, 4.7uF	--	Evaluated together with unit	
Bridge Diode (D1)	Interchangeable	Interchangeable	Min. 600V, Min. 20A	--	Evaluated together with unit	
IGBT (Q1, Q2)	Interchangeable	Interchangeable	Min. 600V, Min. 30A	--	Evaluated together with unit	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Photo Coupler (NC1)	Toshiba	TLP2768 (Marking: P2768)	Isolation thickness: ≥0.4 mm, Ext. cr.: ≥7 mm Isolation voltage: min. AC 5000V	IEC/EN60747-5 UL1577	VDE UL(E67349)	
Photo Coupler (NC2, NC3, NC4)	Toshiba	TLP785 (Marking: P785)	Isolation thickness: > 0.6 mm, Ext. cr.: > 8 mm, Int. cr.: > 5.2 mm Isolation voltage: min. AC 4800V	IEC/EN60950-1 IEC/EN60065	SEMKO	
Current Transformer (T1)	Kami Electronics Ind. Co., Ltd.	CT-19G26RF (Marking: CT1901)	Class A	--	Evaluated together with unit	
Current Transformer (T1) Bobbin	Sumitomo Bakelite Co., Ltd.	PM-9820	Max.150 °C	UL94	UL(E41429)	
Relay (RY1)	Panasonic.	LKG1aF-24V-16-1 (ALKG8221)	Contact: 250/125V, 16A Coil: 24 Vdc	IEC/EN61810-1	TUV	
Relay (RY1), Alternate	Panasonic Electric Works Co., Ltd.	ALE1PB24	Contact: 250/277V, 16A Coil: 24 Vdc	IEC/EN61810-1	VDE	
Relay (RY1), Alternate	Fujitsu Component Ltd.	FTR-K1 series	Contact: 250/277V, 16A Coil: 24 Vdc	IEC/EN61810-1	VDE	
Fuse (YF1)	Hollyland Co., Ltd.	65TS(P)	125/250V, 12A	IEC/EN60127-2	TUV	
Fuse (YF2)	Hollyland Co., Ltd.	5ET	125/250/300V, T1AL	IEC/EN60127-3	VDE	
Fuse (YF2), Alternate	SkyGate Co., Ltd.	SCT	250V, T1AL	IEC/EN60127-3	VDE	
Connector (YC1)	Hirose Electric Co., Ltd.	DF22 series	600V, 15A (AWG 16)	IEC/EN61984	TUV	
Connector (YC2, YC3)	Kyocera Connector Products Corp.	9229 series	V-0	--	--	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
IH PWB for AC120V Models						
IH PWB	KYOCERA Document Solutions Inc.	2NH0108	Input: 120 Vac	--	Evaluated together with unit	
Bleeding Resistor (R1, R2)	Interchangeable	Interchangeable	220 kohm, 1/4 W	--	Evaluated together with unit	
Varistor (N1, N2, N4)	Panasonic Corporation	E11471	300 Vac	UL1449	UL(E321499)	
Varistor (N1, N2, N4), Alternate	Panasonic Corporation	V14471U (ERZV14471U)	300 Vac	UL1449	UL(E321499)	
Varistor (N1, N2, N4), Alternate	Nippon Chemi-Con Corp.	TNR14SE471K or TND14SE471K	300 Vac	UL1449	UL(E323623)	
Varistor (N1, N2, N4), Alternate	Panasonic Corporation	E11391	250 Vac	UL1449	UL(E321499)	
Varistor (N1, N2, N4), Alternate	Panasonic Corporation	V14391U (ERZV14391U)	250 Vac	UL1449	UL(E321499)	
X-Capacitor (C7, C8)	Okaya Electric Industries Co., Ltd.	LE series (Marking: LE105)	310V, 1uF X2	UL60384-14	UL(E47474)	
Y-Capacitor (C5, C6)	Murata Mfg. Co., Ltd.	KX	300V/250V, 4700pF Y1	UL60384-14	SEMKO UL(E37921)	
Y-Capacitor (C15)	Murata Mfg. Co., Ltd.	KX	300V/250V, 470pF Y1	UL60384-14	UL(E37921)	
Capacitor (C2, C3, C12, C13)	Interchangeable	Interchangeable	630V, Min.0.4uF	--	Evaluated together with unit	
Capacitor (C4, C11)	Interchangeable	Interchangeable	630V, 0.15uF	--	Evaluated together with unit	
Capacitor (C14, C78, C79)	Interchangeable	Interchangeable	450V, 4.7uF	--	Evaluated together with unit	
Inductor (L3)	TMP Inc.	TC25V-39215R	Max.120 °C Class A	--	Evaluated together with unit	
Bridge Diode (D1)	Interchangeable	Interchangeable	Min. 600V, Min. 20A	--	Evaluated together with unit	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
IGBT (Q1, Q2)	Interchangeable	Interchangeable	Min. 600V, Min. 30A	--	Evaluated together with unit	
Photo Coupler (NC1)	Toshiba	TLP2768 (Marking: P2768)	Isolation thickness: ≥0.4 mm, Ext. cr.: ≥7 mm Isolation voltage: min. AC 5000V	UL1577	UL(E67349)	
Photo Coupler (NC2, NC3, NC4)	Toshiba	TLP785 (Marking: P785)	Isolation thickness: > 0.6 mm, Ext. cr.: > 8 mm, Int. cr.: > 5.2 mm Isolation voltage: min. AC 5000V	UL1577	UL(E67349)	
Current Transformer (T1)	Kami Electronics Ind. Co., Ltd.	CT-19G26RF (Marking: CT1901)	Class A	--	Evaluated together with unit	
Current Transformer (T1) Bobbin	Sumitomo Bakelite Co., Ltd.	PM-9820	Max.150 °C	UL94	UL(E41429)	
Relay (RY1, RY2)	Panasonic.	LKG1aF-24V-16-1 (ALKG8221)	Contact: 250/125V, 16A Coil: 24 Vdc	UL508, UL60947	UL(E43149)	
Relay (RY1, RY2), Alternate	Panasonic Electric Works Co., Ltd.	ALE1PB24	Contact: 250/277V, 16A Coil: 24 Vdc	UL508, UL60947	UL(E43149)	
Relay (RY1, RY2), Alternate	Fujitsu Component Ltd.	FTR-K1 series	Contact: 250/277V, 16A Coil: 24 Vdc	UL508, UL60947	UL(E63614)	
Fuse (YF1)	Hollyland Co., Ltd.	65TS(P)	125/250V, 20A	UL248-1/ UL248-14	UL(E156471)	
Fuse (YF2)	Hollyland Co., Ltd.	5ET	125/250/300V, T1AL	UL248-1/ UL248-14	UL(E156471)	
Fuse (YF2), Alternate	SkyGate Co., Ltd.	SCT	250V, T1AL	UL248-1/ UL248-14	UL(E195833)	
Connector (YC1)	Hirose Electric Co., Ltd.	DF22 series	600V, 15A (AWG 16)	UL1977	UL(E52653)	
Connector (YC2, YC3)	Kyocera Connector Products Corp.	9229 series	V-0	UL 94 UL1977	UL(E67646)	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Main High Voltage Unit						
High Voltage Unit	Power Supply Technology Co., Ltd.	EUK9MQC70H	Inputs: 24Vdc, max. 2A Output: M: AC 1150Vp-p, DC max. 1000V, Vslv: AC 1600Vp-p, DC max. 350V, Vmag: AC 2300Vp-p, DC max. 700V,	--	Evaluated together with unit	
High Voltage Unit - Transformer (T009, T010, T011, T012)	Power Supply Technology Co., Ltd.	ETB16GKL19	Class A	--	Evaluated together with unit	
High Voltage Unit - Transformer (T101, T102, T201, T202)	Power Supply Technology Co., Ltd.	ETB28NK30	Class A	--	Evaluated together with unit	
High Voltage Unit - Transformer (T301, T401, T501, T601)	Power Supply Technology Co., Ltd.	ETB28RK4	Class A	--	Evaluated together with unit	
High Voltage Unit - Transformer (T302, T402, T502, T602)	Power Supply Technology Co., Ltd.	ETB28RK5	Class A	--	Evaluated together with unit	
High Voltage Unit - Transformer (T701)	Power Supply Technology Co., Ltd.	ETB16GKM13Y	Class A	--	Evaluated together with unit	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Transfer High Voltage Unit						
High Voltage Unit	Power Supply Technology Co., Ltd.	EUK9MQC95H	Inputs: 24Vdc, max. 0.6A Output: T1: DC max. - 4500V, T2: DC max.10kV, SP: DC max.6500V, CL:DC max.- 5500V, PB:DC max.2000V	--	Evaluated together with unit	
High Voltage Unit - Transformer (T205)	Power Supply Technology Co., Ltd.	ETB16GKL23	Class A	--	Evaluated together with unit	
High Voltage Unit - Transformer (T101, T204)	Power Supply Technology Co., Ltd.	ETB20DKB16A	Class A	--	Evaluated together with unit	
High Voltage Unit - Transformer (T102, T203)	Power Supply Technology Co., Ltd.	ETB20DKB17A	Class A	--	Evaluated together with unit	
High Voltage Unit - Transformer (T201)	Power Supply Technology Co., Ltd.	ETB20DKE6A	Class A	--	Evaluated together with unit	
High Voltage Unit - Transformer (T301)	Power Supply Technology Co., Ltd.	ETB20DKB14A	Class A	--	Evaluated together with unit	
High Voltage Unit - Transformer (T302)	Power Supply Technology Co., Ltd.	ETB20DKB2A	Class A	--	Evaluated together with unit	
High Voltage Unit – High Voltage Block (T202)	Power Supply Technology Co., Ltd.	MS18CTP1	Class A	--	Evaluated together with unit	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Fuser High Voltage Unit						
Fuser High Voltage Unit	Power Supply Technology Co., Ltd.	EUK9SQD06H	Inputs: 24Vdc, max. 0.3A Output: FH: max. 6800V	--	Evaluated together with unit	
Fuser High Voltage Unit - Transformer (T101)	Power Supply Technology Co., Ltd.	ETB20DKB14A	Class A	--	Evaluated together with unit	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Current Detection PWB for AC120V Models						
Current Transformer (T2)	Kami Electronics Ind. Co., Ltd.	CT-19G26RF (Marking: CT1901)	Class A	--	Evaluated together with unit	
Current Transformer (T2) Bobbin	Sumitomo Bakelite Co., Ltd.	PM-9820	Max.150 °C	UL94	UL(E41429)	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	
Fan Motor, Motor, Clutch, Solenoid						
LVU Fan 1	Nidec Corp.	D08K-24TU 62B (AX)	24Vdc, max.0.143A	--	Evaluated together with unit	
LVU Fan 2	Minebea Co., Ltd.	06025SS-24N-AL-D3 (Marking:06025SS-24N-AL)	24Vdc, max.0.11A	--	Evaluated together with unit	
Exhaust Fan , Drum DLP Fan 1	Nidec Corp.	D07F-24SS1 09 (EX)	24Vdc, max.0.2A	--	Evaluated together with unit	
LSU Fan	Delta Electronics Inc.	BFB0524HHA-BN20	Four provided. 24Vdc, max.0.2A	--	Evaluated together with unit	
IH Coil Fan, Rear Fuser Fan	Nidec Corp.	D07F-24SS1 15B (EX)	24Vdc, max.0.20A	--	Evaluated together with unit	
Drum DLP Fan 2, Drum DLP Fan(BK), Drum DLP Fan(M), Drum DLP Fan(C), Drum DLP Fan(Y), Exit Fan, IH PWB Fan	Nidec Corp.	D06F-24SH 03 (EX)	24Vdc, max.0.192A	--	Evaluated together with unit	
Rear Eject Fan	Minebea Motor Manufacturing Corp. or Minebea Co., Ltd.	2410RL-05W-S60-C01 (Marking:2410RL-05W-S60)	24Vdc, max.0.12A	--	Evaluated together with unit	
Dust Box Fan1, Dust Box Fan2	Nidec Corp.	D06F-24SH 12B (EX)	24Vdc, max.0.198A	--	Evaluated together with unit	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Exit Cooling Fan 1, Exit Cooling Fan 2	Nidec Corp.	D06R-24TH 04 (AX)	24Vdc, max.0.11A	--	Evaluated together with unit	
Belt Fan 1, Belt Fan 2, Bridge Fan	Nidec Corp.	D08K-24TU 49 (AX)	24Vdc, max.0.143A	--	Evaluated together with unit	
Controller Fan	Nidec Corp.	D06R-05TM 12H1 (EX)	5Vdc, max.0.41A	--	Evaluated together with unit	
Fuser Side Fan 1, Fuser Side Fan 2	Delta Electronics Component Co., Ltd.	AUB0524HB-AR56	24Vdc, max.0.11A	--	Evaluated together with unit	
Bridge Conveying Motor 1, Bridge Conveying Motor 2, Decurl Motor, Guide Motor, S/B Motor, EX Motor, Job Separator Conveying Motor, DU Feed Motor 1, DU Feed Motor 2	Oki Micro Engineering Co., Ltd.	KCL42SCK560A	Stepper Type 24Vdc,500mA	--	Evaluated together with unit	
Polygon Motor (BK), Polygon Motor (M), Polygon Motor (C), Polygon Motor (Y)	Nidec Copal Electronics Corp.	PT22ERG-KDB200- 445-SD	24Vdc, max.1.0A	--	Evaluated together with unit	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Middle Hopper Motor (Y), Middle Hopper Motor (C), Middle Hopper Motor (M), Middle Hopper Motor (BK), Toner Supply Motor (Y), Toner Supply Motor (C), Toner Supply Motor (M), Transfer Roller Press Release Motor, Belt Tension Motor	Mabuchi Motor Co., Ltd.	RK-370CA-11670	24Vdc, max.130mA	--	Evaluated together with unit	
IH Center Core Motor	Minebea Motor Manufacturing Corp. or Minebea Co., Ltd.	PM25S-048-MIL7	Stepper Type 24Vdc, 400mA	--	Evaluated together with unit	
Waste Toner Conveying Motor, Waste Toner Recover Motor	Nidec Corp.	13H069H030	24Vdc, max.0.14A	--	Evaluated together with unit	
LSU Cleaning Motor, Toner Supply Motor (BK)	Mabuchi Motor Co., Ltd.	RS-360SH-12420	24Vdc, max.340mA	--	Evaluated together with unit	
Vibration Motor (BK), Vibration Motor (Y), Vibration Motor (C), Vibration Motor (M), Dust Box Vibration Motor	Nidec Copal Corp.	LA4-467BC2	Max.3.6Vdc, max.160mA	--	Evaluated together with unit	
Resist Motor, Feed Motor, Vertical Feed Motor, Middle Feed Motor	Mabuchi Motor Co., Ltd.	ID-519XW-3567	24Vdc, max.0.19A	--	Evaluated together with unit	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Middle Transfer Motor, Drum Motor (C), Drum Motor (Y), Drum Motor (M), Drum Motor (BK)	Nidec Corp.	48M069F201	24Vdc, max.5A	--	Evaluated together with unit	
Middle Transfer ICL Motor,	Nidec Corp.	48M069F261	24Vdc, max.1.6A	--	Evaluated together with unit	
Fuser Motor	Nidec Corp.	48M069F271	24Vdc, max.2.2A	--	Evaluated together with unit	
DLP Motor (Y), DLP Motor (C), DLP Motor (M), DLP Motor (BK)	Nidec Corp.	48M069F231	24Vdc, max.2.2A	--	Evaluated together with unit	
1 Bin Lift Motor, 2 Bin Lift Motor	Mabuchi Motor Co., Ltd.	RK-370CA-081050	24Vdc, max.110mA	--	Evaluated together with unit	
MPF Lift Motor, Meandering Correction Motor	Mabuchi Motor Co., Ltd.	RK-370CA-081050	24Vdc, max.110mA	--	Evaluated together with unit	
Deck Lift Motor 1, Deck Lift Motor 2	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	303NF4401	24Vdc, max. 550mA	--	Evaluated together with unit	
Deck Motor	Nidec Corp.	48M069F271	24Vdc, max.2.2A	--	Evaluated together with unit	
Scanner Motor	Minebea Motor Manufacturing Corp. or Minebea Co., Ltd.	17PM- K246CP01CF	Stepper type 24Vdc, 1.4A	--	Evaluated together with unit	
Container Lock Solenoid(BK), Container Lock Solenoid(M), Container Lock Solenoid(C), Container Lock Solenoid(Y)	TDS Co., Ltd.	TDS-05C-465 (Marking:TDS-05C)	24Vdc, 160mA	--	Evaluated together with unit	
Colour Release Check Solenoid	TDS Co., Ltd.	TDS-K07A-92R (Marking:TDS- K07A)	24Vdc, max.899mA	--	Evaluated together with unit	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
JS Solenoid, Junction Guide Solenoid	TDS Co., Ltd.	TDS-08A-1091 (Marking:TDS-08A)	24Vdc, 400mA	--	Evaluated together with unit	
Job Separator Solenoid	TDS Co., Ltd.	TDS-07A-103 (Marking:TDS-07A)	24Vdc, max.204mA	--	Evaluated together with unit	
Cleaning Solenoid	TDS Co., Ltd.	TDS-08G-553 (Marking:TDS-08G)	24Vdc, 1.15A	--	Evaluated together with unit	
Deck Solenoid (Optional)	TDS Co., Ltd.	TDS-08A-1092 (Marking:TDS-08A)	24Vdc, max.1A	--	Evaluated together with unit	
MPF Feed Clutch, 1bin Feed Clutch, 2bin Feed Clutch 3bin Feed Clutch, 4bin Feed Clutch, Deck Clutch 1, Deck Clutch 2, Deck Clutch 3	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.104A	--	Evaluated together with unit	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Other Components on Main Unit						
Laser Diode	Ushio Opto Semiconductors, Inc.	HL67130MC01	Four Provided. Class 3B, Wavelength: 670nm, Output Power: 18mW	--	Evaluated together with unit	
Scanner LED	KYOCERA Document Solutions Inc.	302ND0106 or A0926XLE+GH (X may be any alphabetical number)	24Vdc max. Classified as Exempt Group	IEC/EN62471	Evaluated together with unit	
Middle Rear Cassette Heater for AC220 - 240V Models (Optional)	Kurabe Industrial Co., Ltd.	302R44407	240V, 12W	--	Evaluated together with unit	
Middle Rear Cassette Heater for AC220 - 240V Models (Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	G4A50128C	250V, 10A, 128°C	IEC/EN60691 UL60691	VDE UL(E40667)	
Middle Front Cassette Heater for AC220 - 240V Models (Optional)	Kurabe Industrial Co., Ltd.	302NH4408	240V, 12W	--	Evaluated together with unit	
Middle Front Cassette Heater for AC220 - 240V Models (Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	G4A50128C	250V, 10A, 128°C	IEC/EN60691 UL60691	VDE UL(E40667)	
Bottom Cassette Heater for AC220 - 240V Models(Optional)	Kurabe Industrial Co., Ltd.	302RH4405	240V, 16W	--	Evaluated together with unit	
Bottom Cassette Heater for AC220 - 240V Models(Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	G4A50128C	250V, 10A, 128°C	IEC/EN60691 UL60691	VDE UL(E40667)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Middle Rear Cassette Heater for AC120V Models (Optional)	Kurabe Industrial Co., Ltd.	302R44406	120V, 11.5W	--	Evaluated together with unit	
Middle Rear Cassette Heater for AC120V Models (Optional) - Thermal Fuse (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	G4A50128C	250V, 10A, 128°C	IEC/EN60691 UL60691	VDE UL(E40667)	
Middle Front Cassette Heater for AC120V Models (Optional)	Kurabe Industrial Co., Ltd.	302NH4407	120V, 11.5W	--	Evaluated together with unit	
Middle Front Cassette Heater for AC120V Models (Optional) - Thermal Fuse (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	G4A50128C	250V, 10A, 128°C	IEC/EN60691 UL60691	VDE UL(E40667)	
Bottom Cassette Heater for AC120V Models (Optional)	Kurabe Industrial Co., Ltd.	302RH4404	120V, 15W	--	Evaluated together with unit	
Bottom Cassette Heater for AC120V Models (Optional) - Thermal Fuse (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	G4A50128C	250V, 10A, 128°C	IEC/EN60691 UL60691	VDE UL(E40667)	
Relay connector for Cassette Heater	Molex Incorporated	5559 series	Three provided 600V, 4A (22AWG)	UL1977	UL(E29179)	
Relay connector for Cassette Heater	Japan Solderless Terminal Mfg Co., Ltd.	ELR-04V	300V, 4A (22AWG)	IEC/EN61984 UL1977	TUV UL(E60389)	
Relay connector for Cassette Heater	Japan Solderless Terminal Mfg Co., Ltd.	ELR-02V	Two Provided. 300V, 4A (22AWG)	IEC/EN61984 UL1977	TUV UL(E60389)	
Relay connector for Cassette Heater	Japan Solderless Terminal Mfg Co., Ltd.	ELP-04V	300V, 4A (22AWG)	IEC/EN61984 UL1977	TUV UL(E60389)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Relay connector for Cassette Heater (Optional)	Japan Solderless Terminal Mfg Co., Ltd.	ELP-02V	Two Provided. 300V, 4A (22AWG)	IEC/EN61984 UL1977	TUV UL(E60389)	
Lithium Battery (BAT1) on Main PWB	Interchangeable	CR2032	3 V; max. 10mA reverse charging current. Protected by a diode and a 1 kohm resistor. Max.70 °C	UL1642	UL	
Hard Disk Drive	Seagate Singapore International Headquarters Pte Ltd.	ST320LT012 or equivalent	5Vdc, max.0.55A	IEC/EN60950-1 UL 60950-1	TUV UL(E190397)	
Fuse (YF1) on Main PWB for 5V Line of Panel Main PWB	Skygate Co., Ltd.	1206FT series	32Vdc, 4A	UL248-1/ UL248-14	UL(E195833)	
Fuse (YF2) on Main PWB for 5V Line of USB Hub PWB	Skygate Co., Ltd.	1206FT series	32Vdc, 4A	UL248-1/ UL248-14	UL(E195833)	
Fuse (YF6) on Main PWB for 5V Line of USB	Skygate Co., Ltd.	1206FT series	32Vdc, 4A	UL248-1/ UL248-14	UL(E195833)	
Fuse (YF5) on Main PWB for 3.3V Line of Panel Main PWB	Skygate Co., Ltd.	0603FT series	32Vdc, 0.5A	UL248-1/ UL248-14	UL(E195833)	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Enclosures						
Front Upper A Cover, Front Middle Cover, Right Lower R Cover	Teijin Limited Resin and Plastic	TN-7280	5VB	UL94	UL(E98529)	
ISU Front Cover, ISU Left Inner Cover, ISU Left Sub Cover, Lid Controller, Lid Disposal B	Teijin Limited Resin and Plastic	TN-7900	5VB	UL94	UL(E98529)	
ISU Right Cover	Teijin Limited Resin and Plastic	TN-7900 or TN-9500	5VB	UL94	UL(E98529)	
Right Middle R Cover, Left Upper Cover, Left Lower Cover, Deck Rear Cover	Teijin Limited Resin and Plastic	TN-7280	5VB, 2.1 mm thick	UL94	UL(E98529)	
ISU Rear Cover,	Teijin Limited Resin and Plastic	TN-7280	5VB, 2.3 mm thick	UL94	UL(E98529)	
Right Upper Cover	Teijin Limited Resin and Plastic	TN-7280	5VB, 2.5 mm thick	UL94	UL(E98529)	
Right Cover, Interface Cover	Teijin Limited Resin and Plastic	TN-7900	5VB, 2.1 mm thick	UL94	UL(E98529)	
Rear Upper A Cover, Rear Upper B Cover, Rear Lower M Cover, Lid Option	Interchangeable	Interchangeable	Steel, 0.6 mm thick	--	--	
Lid Vender	Interchangeable	Interchangeable	Steel, 1.0 mm thick	--	--	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Document Processor (Standard)						
Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles (VDE) 100,000 Cycles (UL)	IEC/EN61058-1 UI1054	ENEC(VDE) UL(E41515)	
Driving Fan	Nidec Corp.	D04R-24TM 19 (EX)	24Vdc, 0.08A max.	--	Evaluated together with unit	
CIS Fan	Nidec Corp.	D04X-24TH 52 (V)	24Vdc, 0.088A max.	--	Evaluated together with unit	
Rotary Guide Motor	Minebea Co., Ltd.	PM35L-048-MIL4	Stepper type 24Vdc, 700mA (Peak)	--	Evaluated together with unit	
Conveying Motor 1, Conveying Motor 2	Nidec Servo Corp.	KV4239-N3B002	Stepper type 24Vdc, 0.95A	--	Evaluated together with unit	
Resist Motor	Nidec Servo Corp.	KV4239-N3B002A	Stepper type 24Vdc, 0.95A	--	Evaluated together with unit	
DU Motor	Shinano Kenshi Co., Ltd.	STP-42H1004	Stepper type 24Vdc, 1.28A	--	Evaluated together with unit	
CIS	Canon Components Inc.	FA8CFC-01 or 303R845010	3.9Vdc max. Classified as Exempt Group	IEC/EN62471	Evaluated together with unit	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Front Top Cover	Bayer Material Science or Covestro Deutschland AG	FR3006 HF	5VB, 2 mm thick	UL94	UL(E41613)	
Left Rear Cover, Right Rear Cover	Bayer Material Science or Covestro Deutschland AG	FR3006 HF	5VB, 2.1 mm thick	UL94	UL(E41613)	
PF Cover	Bayer Material Science or Covestro Deutschland AG	FR3006 HF	5VB, 3 mm thick	UL94	UL(E41613)	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Finisher, Model DF-7110 (Option)						
Front Interlock Switch, Eject Manual Staple Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles (VDE) 100,000 Cycles (UL)	IEC/EN61058-1 UL1054	ENEC(VDE) UL(E41515)	
Eject Fan	Delta Electronics, Inc.	BFB0524HHA-BN20	Three provided. 24Vdc, 0.20A max.	--	Evaluated together with unit	
Carry Motor Middle Motor, Eject Motor	Minebea Motor Manufacturing Corp. or Minebea Co., Ltd.	17PM-J349-G2VS	Stepper type 24Vdc, 1.3A	--	Evaluated together with unit	
Staple Motor	Fuji Micro Co., Ltd.	FM-116K-7PA-CF	24Vdc, 1.09A	--	Evaluated together with unit	
Staple Motor, Alternate	Nidec Servo Co., Ltd.	DME35BF-001	24Vdc, 1.09A	--	Evaluated together with unit	
Stapler Shift Motor	Oki Micro Engineering Co., Ltd.	KFL42LCB661A	Stepper type 24Vdc, 650mA	--	Evaluated together with unit	
Eject Release Motor, Shift Motor, Shift Release Motor, Shelter Motor, Width Adjustment Motor, Knock Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	--	Evaluated together with unit	
Tray Motor	Nidec Corp.	48M069G010	24V dc, 2.6A max.	--	Evaluated together with unit	
Eject Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.104A	--	Evaluated together with unit	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Sub Tray Junction Solenoid, Drum Junction Solenoid, BF Junction Solenoid	TDS Co., Ltd.	TDS-08A-1091 (Marking:TDS-08A)	24V dc, 400mA max.	--	Evaluated together with unit	
Top Cover, Eject Tray B Cover, Top Front Lid, Top Rear Lid, Front Upper Cover, Handle Cover, Front Middle Cover, Inner Upper Cover, Inner Lower Cover, Front Left Upper Cover, Front Lower Cover, Main Exit Cover, Turn Guide, Retaining Guide, Finisher Partition, Left Lower Cover, Rear Upper Cover, Rear Lower Cover, Rear Cover Lid, Rear Cover S Lid (Optional)	Teijin Limited Resin and Plastic or Maveriq Partners Inc.	TN-7900 or TN- 9500 or TN- 7280EF	5VB, Min. 1.8 mm thick	UL94	UL(E98529) UL(E358645)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Main Exit Cursor	Asahi Kasei Chemicals Corp.	LZ750	Min. HB75	UL94	UL(E48285)	
Operation Cover	Techno Polymer Co., Ltd.	LM100D1	Min. HB75	UL94	UL(E54297)	
Main Tray Up, Main Tray Low, Main Exit Slider F, Main Exit Slider R, Main Exit Cap F, Main Exit Cap R, Slider Tray B, Stapler Key	Styrolution Koeln GmbH or Styrolution (Thailand) Co., Ltd.	P2H-AT or P2H-AT LNS501	Min. HB75	UL94	UL(E326278) UL(E256400)	
Select Key	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Booklet Folder, Model BF-730 (Option) for Finisher Model DF-7110						
Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	Three provided 40Vdc/5A, 30Vdc/10A 50,000 Cycles (VDE) 100,000 Cycles (UL)	IEC/EN61058-1 UL1054	ENEC(VDE) UL(E41515)	
Adjustment Motor, Width Motor, Carry Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Two provided Stepper type 24Vdc, 300mA	--	Evaluated together with unit	
Blade Motor	Nidec Corp.	48M069G010	24Vdc, 2.6A max.	--	Evaluated together with unit	
Fold Motor	Nidec Corp.	48M069F052	24Vdc, 2.6A max.	--	Evaluated together with unit	
Staple Motor	Fuji Micro Co., Ltd.	FM-116K-7PA-CF	24Vdc, 1.09A	--	Evaluated together with unit	
Staple Motor, Alternate	Nidec Servo Co., Ltd.	DME35BF-001	24Vdc, 1.09A	--	Evaluated together with unit	
Junction Solenoid	TDS Co., Ltd.	TDS-08A-1091 (Marking:TDS-08A)	24V dc, 400mA max.	--	Evaluated together with unit	
Enclosure Eject Tray Base, Exit Open Cover, Left Cover, Front Saddle Cover, Rear Saddle Cover	Teijin Chemicals Ltd., Research & Development Div. or Teijin Limited Resin and Plastic or Maveriq Partners Inc.	TN-7900 or TN-9500 or TN-7280EF	5VB, Min. 1.8 mm thick	UL94	UL(E98529) UL(E358645)	
Stock Tray, Eject Arm Holder, Eject Holder Cover, Exit Cover Lid	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Multi Tray Unit, Model MT-730 (Option) for Finisher Model DF-7110						
Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles (VDE) 100,000 Cycles (UL)	IEC/EN61058-1 UL1054	ENEC(VDE) UL(E41515)	
Feed Motor	Mitsumi Electronic Co., Ltd.	M49SP-2K	Stepper type 24Vdc, 0.8A (Peak)	--	Evaluated together with unit	
Side Covers (Front and Rear), Top Cover, Vertical Cover	Bayer MaterialScience or Covestro Deutschland AG or Teijin Limited Resin and Plastic	FR3000 or TN-7280EF	5VB, Min. 2.0mm thick	UL94	UL(E41613) UL(E98529)	
Rear Cover Lid, Front Cover Lid	Teijin Chemicals Ltd., Research & Development Div. or Teijin Limited Resin and Plastic or Maveriq Partners Inc.	TN-7900 or TN-9500 or TN-7280EF	5VB, Min. 1.8 mm thick	UL94	UL(E98529) UL(E358645)	
Eject Bins, Vertical Cover Lever	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	
Punch Unit, Model PH-7X (X: A, B, C or D) (Option) for Finisher Model DF-7110						
Punch Motor	Shenzhen Weizhen Motor Co., Ltd.	WRS-555PH-3049	24Vdc, 5.5A max.	--	Evaluated together with unit	
Punch Shift Motor	Oki Micro Engineering Co., Ltd.	KFL42LCB661A	Stepper type 24Vdc, 650mA	--	Evaluated together with unit	
Punch Solenoid	TDS Co., Ltd.	TDS-KN12SB (TDS-KN12SB- 347)	24Vdc, 1.2A max.	--	Evaluated together with unit	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Paper Feeder, Model PF-7120 (Option)						
Conveying Motor	Minebea Co., Ltd.	DIA42B20W22A	24Vdc, 1Arms max.	--	Evaluated together with unit	
Lift Motor	Nisca Corp.	NA4056A11C	24Vdc, 2A max.	--	Evaluated together with unit	
Feed Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.104A	--	Evaluated together with unit	
Feed Solenoid	TDS Co., Ltd.	TDS-08A-1092 (Marking:TDS-08A)	24Vdc, 1A max.	--	Evaluated together with unit	
Appliance Inlet	Rong Feng Industrial Co., Ltd.	SS-120 Series	250Vac, 10A (for 220 - 240V) 250Vac, 15A (for 120V)	IEC/EN60320-1 UL498	VDE UL(E102641)	
Power Supply Cord (Optional)	Hirakawa Hewtech Corp.	Plug: VM0301 Cord: SVT H05VV- F Connector: VM0303B	250V, 10A 1.0 mm ² (17 AWG) x 3 250V, 10A	IEC/EN60799 HD21.5 S3 IEC/EN60320-1/-2- 2 UL62,UI817	SEMKO UL(E35708)	
Power Supply Cord (Optional), Alternate	Interchangeable	Plug: Interchangeable Cord: Interchangeable Connector: Interchangeable	250V, 10A 1.0 mm ² (17 AWG) x 3 250V, 10A	IEC/EN 60799 UL817 or IEC/EN 60884 UL498 IEC/EN 60227 UL62 IEC/EN 60320 UL498	-- UL	
Cassette Heater for AC220 - 240V Models (Optional)	Kurabe Industrial Co., Ltd.	302RH4405	240V, 16W	--	Evaluated together with unit	
Cassette Heater for AC220 - 240V Models (Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	G4A50128C	250V, 10A, 128°C	IEC/EN60691 UL60691	VDE UL(E40667)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Cassette Heater for AC120V Models (Optional)	Kurabe Industrial Co., Ltd.	302RH4404	120V, 15W	--	Evaluated together with unit	
Cassette Heater for AC120V Models (Optional) - Thermal Fuse (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	G4A50128C	250V, 10A, 128°C	IEC/EN60691 UL60691	VDE UL(E40667)	
Interconnecting Cable	Interchangeable	Interchangeable	Style 21119, AWG 26 x 10 + AWG 20 x 2, max. 3.05m long, VW-1; Style 3385, AWG 20 x 1 earthed wire	UL758	UL	
Top Cover, Front Cover, Front Low Cover, Right Cover, Right Low Cover, Rear Cover, Rear Low Cover	Bayer MaterialScience or Covestro Deutschland AG or Teijin Limited Resin and Plastic	FR3006 HF or TN- 7280EF	5VB, Min. 1.8 mm thick	UL94	UL(E41613) UL(E98529)	
Wire Cover	Teijin Limited Resin and Plastic	TN-7900 or TN- 7280EF	5VB, Min. 1.8 mm thick	UL94	UL(E98529)	
Left Cover	Interchangeable	Interchangeable	Steel, Min. 1.2 mm thick	--	--	
Cover Handle, Switch Lever	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Switch Guide	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Cassette Feeding Unit, Model PF-730 (Option)						
Main Motor	Nidec Corp.	48M069F271	24Vdc, 2.2A max.	--	Evaluated together with unit	
Lift Motor	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	302K34403	Two provided 24Vdc, 150mA max.	--	Evaluated together with unit	
Feed Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	Two provided 24Vdc, 0.104A	--	Evaluated together with unit	
Conveying Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	Two provided 24Vdc, 0.104A	--	Evaluated together with unit	
Primary Feed Solenoid (Optional)	TDS Co., Ltd.	TDS-08A	Two provided 24Vdc, 1A max.	--	Evaluated together with unit	
Cassette Heater for AC220 - 240V Models (Optional)	Kurabe Industrial Co., Ltd.	302H74508	240V, 16W	--	Evaluated together with unit	
Cassette Heater for AC220 - 240V Models (Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	E4A50167C	Two provided. 250V, 10A, 167°C	IEC/EN60691 UL60691	VDE UL(E40667)	
Cassette Heater for AC120V Models (Optional)	Kurabe Industrial Co., Ltd.	302H74509	120V, 15W	--	Evaluated together with unit	
Cassette Heater for AC120V Models (Optional) - Thermal Fuse (optional)	Therm-O-Disc (Emerson Japan Ltd.)	E4A50167C	250V, 10A, 167°C	IEC/EN60691 UL60691	VDE UL(E40667)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Enclosure Rear Cover, Left Cover, Right Cover, Feed Low Cover, Interface Cover	Teijin Chemicals Ltd., Research & Development Div. or Teijin Limited Resin and Plastic or Maveriq Partners Inc.	TN-7900 or TN-9500	5VB, Min. 2.0 mm thick	UL94	UL(E98529) UL(E358645)	
Enclosure Connector Cover	Teijin Chemicals Ltd., Research & Development Div. or Teijin Limited Resin and Plastic or Maveriq Partners Inc.	TN-7500 or TN-9500	5VB, Min. 2.2 mm thick	UL94	UL(E98529) UL(E358645)	
Cassettes, Front Upper Cover, Front Lower Cover, Front Right Cover, Cord Cover, Feed Low Cover Handle	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1, min. 105°C	UL796	UL	

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

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Cassette Feeding Unit, Model PF-740 (Option)						
Main Motor	Nidec Corp.	48M069F271	24Vdc, 2.2A max.	--	Evaluated together with unit	
Lift Motor	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	303NF4401	Two provided 24Vdc, 550mA max.	--	Evaluated together with unit	
Feed Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	Two provided 24Vdc, 0.104A	--	Evaluated together with unit	
Conveying Clutch, Upper Conveying Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.104A	--	Evaluated together with unit	
Primary Feed Solenoid (Optional)	TDS Co., Ltd.	TDS-08A	Two provided 24Vdc, 1A max.	--	Evaluated together with unit	
Cassette Heater for AC220 - 240V Models (Optional)	Kurabe Industrial Co., Ltd.	302H74508	240V, 16W	--	Evaluated together with unit	
Cassette Heater for AC220 - 240V Models (Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	E4A50167C	Two provided. 250V, 10A, 167°C	IEC/EN60691 UL60691	VDE UL(E40667)	
Cassette Heater for AC120V Models (Optional)	Kurabe Industrial Co., Ltd.	302H74509	120V, 15W	--	Evaluated together with unit	
Cassette Heater for AC120V Models (Optional) - Thermal Fuse (optional)	Therm-O-Disc (Emerson Japan Ltd.)	E4A50167C	250V, 10A, 167°C	IEC/EN60691 UL60691	VDE UL(E40667)	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Enclosure Rear Cover, Left Cover, Right Cover, Feed Low Cover, Interface Cover	Teijin Chemicals Ltd., Research & Development Div. or Teijin Limited Resin and Plastic or Maveriq Partners Inc.	TN-7900 or TN-9500	5VB, Min. 2.0 mm thick	UL94	UL(E98529) UL(E358645)	
Enclosure Connector Cover	Teijin Chemicals Ltd., Research & Development Div. or Teijin Limited Resin and Plastic or Maveriq Partners Inc.	TN-7500 or TN-9500	5VB, Min. 2.2 mm thick	UL94	UL(E98529) UL(E358645)	
Deck Cassettes, Front Right Cover, Cord Cover, Slider Mount Cover, Feed Low Cover Handle	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1, min. 105°C	UL796	UL	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Cassette Feeding Unit, Model PF-7130 for Model PF-730,PF-740 (Option)						
Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles (VDE) 100,000 Cycles (UL)	IEC/EN61058-1 UL1054	ENEC(VDE) UL(E41515)	
Main Motor	Nidec Corp.	48M069F271	24Vdc,Max.2.2A	--	Evaluated together with unit	
Inner BL Motor	Mabuchi Motor Co., Ltd.	ID-519XW-3567	24Vdc,Max.0.19A	--	Evaluated together with unit	
Deck Lift Motor	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	302K34403	24Vdc,Max.150mA	--	Evaluated together with unit	
Feed Clutch, Upper Conveying Clutch, Conveying Clutch 2	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.104A	--	Evaluated together with unit	
Junction Solenoid	TDS Co., Ltd.	TDS-08A-1091 (Marking:TDS-08A)	24Vdc, 400mA	--	Evaluated together with unit	
Appliance Inlet	Rong Feng Industrial Co., Ltd.	SS-120 Series	250Vac, 10A (for 220 - 240V) 250Vac, 15A (for 120V)	IEC/EN60320-1 UL498	VDE UL(E102641)	
Power Supply Cord (Optional)	Hirakawa Hewtech Corp.	Plug: VM0301 Cord: SVT H05VV- F Connector: VM0303B	250V, 10A 1.0 mm ² (17 AWG) x 3 250V, 10A	IEC/EN60799 HD21.5 S3 IEC/EN60320-1/-2- 2 UL62,UI817	SEMKO UL(E35708)	
Power Supply Cord (Optional), Alternate	Interchangeable	Plug: Interchangeable Cord: Interchangeable Connector: Interchangeable	250V, 10A 1.0 mm ² (17 AWG) x 3 250V, 10A	IEC/EN 60799 UL817 or IEC/EN 60884 UL498 IEC/EN 60227 UL62 IEC/EN 60320 UL498	-- UL	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Cassette Heater for AC220-240V Models (Optional)	Kurabe Industrial Co., Ltd.	302H74508	240V, 16W	--	Evaluated together with unit	
Cassette Heater for AC220-240V Models (Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	E4A50167C	Two provided. 250V, 10A, 167°C	IEC/EN60691 UL60691	VDE UL(E40667)	
Cassette Heater for AC120V Models (Optional)	Kurabe Industrial Co., Ltd.	302H74509	120V, 15W	--	Evaluated together with unit	
Cassette Heater for AC120V Models (Optional) - Thermal Fuse (optional)	Therm-O-Disc (Emerson Japan Ltd.)	E4A50167C	250V, 10A, 167°C	IEC/EN60691 UL60691	VDE UL(E40667)	
Top F Cover, Right R Cover, Front Up Cover, Rear Cover	Teijin Limited Resin and Plastic	TN-7900	5VB, Min. 1.8 mm thick	UL94	UL(E98529)	
Front R Cover, Top R Cover, Right F Cover, Top L Cover, Up R Cover	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1, min. 105°C	UL796	UL	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Fax Kit, Model FAX System 12 (Option)						
NCU Board	--	--	Comprised of the following components:	--	--	
Surge Absorbers (SA10, SA11)	Okaya Electric Industries Co., Ltd.	RA-102M-C6	1kV	UL1449	UL (E322107)	
Surge Absorbers (SA10, SA11), Alternate	Okaya Electric Industries Co., Ltd.	RA-501M-C6	500V	UL1449	UL (E322107)	
Surge Absorber (SA12)	Littelfuse/Teccor	SIDACtor type, P3100SCLRP	Switching Voltage 350V	UL497B	UL (E133083)	
Optical Isolator (PC10)	Cosmo Electronics Corporation	K3010	Ext. cr.: ≥ 5 mm, Int. cr. ≥ 4 mm, Isolation voltage: min. AC 5000V	IEC/EN60950-1 UL 1577	FIMKO UL(E169586)	
Optical Isolator (PC10), Alternate	Toshiba Corp., Semiconductor Co. Discrete Semiconductor Div.	TLP620, TLP627, TLP621	Ext. cr.: > 8 mm, Int. cr. = thermal cycling tested (2.10.11), Isolation voltage: min. AC 5000V	IEC/EN60950-1 UL 1577	BSI UL(E67349) UL(E152349)	
Optical Isolator (PC10), Alternate	Toshiba Corp., Semiconductor Co. Discrete Semiconductor Div.	TLP320, TLP629	Ext. cr.: > 6.4 mm, Int. cr. = thermal cycling tested (2.10.11), Isolation voltage: min. AC 5000V	IEC/EN60950-1 UL 1577	BSI UL(E67349) UL(E152349)	
Optical Isolator (PC10), Alternate	Lite-On Technology Corp.	LTV-814H	Ext. cr.: ≥ 7 mm, Int. cr. ≥ 1.5 mm, Isolation voltage: min. AC 5300V	IEC/EN60950-1 UL 1577	VDE UL(E113898)	
Optical Isolator (PC11)	Toshiba Corp., Semiconductor Co. Discrete Semiconductor Div.	TLP620, TLP627, TLP621	Ext. cr.: > 8 mm, Int. cr. = thermal cycling tested (2.10.11), Isolation voltage: min. AC 5000V	IEC/EN60950-1 UL 1577	BSI UL(E67349) UL(E152349)	
Optical Isolator (PC11), Alternate	Toshiba Corp., Semiconductor Co. Discrete Semiconductor Div.	TLP320, TLP629	Ext. cr.: > 6.4 mm, Int. cr. = thermal cycling tested (2.10.11), Isolation voltage: min. AC 5000V	IEC/EN60950-1 UL 1577	BSI UL(E67349) UL(E152349)	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Optical Isolator (PC11), Alternate	Lite-On Technology Corp.	LTV-814H	Ext. cr.: ≥ 7 mm, Int. cr.: ≥ 1.5 mm, Isolation voltage: min. AC 5300V	IEC/EN60950-1 UL 1577	VDE UL(E113898)	
Capacitors (C12, C13)	Murata Mfg. Co., Ltd.	KY	250V, 220pF-680pF, Y2 type	IEC/EN60384-14 UL60384-14	SEMKO UL(E37921)	
Relay (RLY10)	Fujitsu Components	FTR-C2	Contact: 30Vdc, 1.0A Coil: 5Vdc	IEC/EN60950-1 UL508	BSI UL(E63615)	
Relay (RLY12) for AC220 - 240V Models	Tyco Electronics	OUAZ	Contact: 24Vdc, 1.0A Coil: 5Vdc	IEC/EN61810-1 UL508	TUV UL(E82292)	
Relay (RLY12) for AC220 - 240V Models, Alternate	Xiamen Hongfa Electroacoustic Co., Ltd.	HFD41 or HFD41A	Contact: 30Vdc, 1.0A Coil: 5Vdc	UL508	UL(E133481)	
Fuse (F11) for AC220 - 240V Models	Littelfuse Inc.	461 Series	1.25A, 600V	UL248-1/ UL248-14	UL(E10480)	
Fuse (F11) for AC220 - 240V Models, Alternate	Skygate Co., Ltd.	20N	1.25A, 125V	UL248-1/ UL248-14	UL(E195833)	
PTC Thermistor (POS10) for AC120V Models	Murata Mfg. Co., Ltd.	PTGL06BB220N*** *** (*: any alphanumeric)	Vmax: 250V, Imax: 0.6A, 22 ohms at 25°C	UL1434	UL(E137188)	
Modular Jacks (JK10, JK11)	JST Mfg. Co., Ltd.	MJ-62J-RD	Type RJ-11	UL1863	UL(E174260)	
Modular Jacks (JK10, JK11), Alternate	Wenzhou Yihua Connector Co., Ltd.	JK002	Type RJ-11	UL1863	UL(E166108)	
Connector (CN10)	Iriso Electronics Co., Ltd	IMSA-9210 Series	250V, 3A	UL1977	UL(E115889)	
PWB	Interchangeable	Interchangeable	Min. V-1, Min. 105°C	UL796	UL	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
FCB Board	--	--	Comprised of the following components:	--	--	
Capacitors (C206, C207)	Murata Mfg. Co., Ltd.	GF	250V, 33pF, Y2 type	EN/IEC60384-14 UL60950-1	SEMKO UL(E316111)	
Capacitors (C206, C207), Alternate	Murata Mfg. Co., Ltd.	KY	250V, 33pF, Y2 type	IEC/EN60384-14 UL60384-14	SEMKO UL(E37921)	
Capacitor (C205) (Optional)	Murata Mfg. Co., Ltd.	GF	250V, 10pF-220pF, Y2 type	EN/IEC60384-14 UL60950-1	SEMKO UL(E316111)	
Capacitor (C205) (Optional), Alternate	Murata Mfg. Co., Ltd.	KY	250V, 10pF-220pF, Y2 type	IEC/EN60384-14 UL60384-14	SEMKO UL(E37921)	
PWB	Interchangeable	Interchangeable	Min. V-1, Min. 105°C	UL796	UL	
Supplementary information:						
1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.						

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: Opto Electronic Devices	P
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 appended table 1.5.1 for details		

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Clause	Requirement + Test	Result - Remark	Verdict

1.6.2	TABLE: Electrical data (in normal conditions)						P
U (V)	I (A)	I _{rated} (A)	P (W)	Fuse #	I _{fuse} (A)	Condition/status	
Model 8052ci							
AC120V/60Hz	17.0	16	2005	*1	1.64 / 14.5 / 0.86	Warm up	
AC120V/60Hz	0.98	16	89	*1	0.42 / 0.21 / 0.35	Standby	
AC120V/60Hz	14.5	16	1673	*1	3.3 / 9.7 / 1.5	Test Condition 1	
Model TASKalfa 8052ci							
AC220V/50Hz	9.1	10	1979	*1	0.72 / 8.0 / 0.38	Warm up	
AC220V/50Hz	0.59	10	85	*1	0.25 / 0.14 / 0.20	Standby	
AC220V/50Hz	7.5	10	1610	*1	1.73 / 5.0 / 0.77	Test Condition 1	
AC220V/60Hz	9.1	10	1980	*1	0.8 / 8.0 / 0.39	Warm up	
AC220V/60Hz	0.62	10	85	*1	0.28 / 0.16 / 0.18	Standby	
AC220V/60Hz	7.5	10	1609	*1	1.72 / 5.0 / 0.78	Test Condition 1	
AC240V/50Hz	8.4	10	1985	*1	0.32 / 7.7 / 0.38	Warm up	
AC240V/50Hz	0.58	10	86	*1	0.24 / 0.15 / 0.19	Standby	
AC240V/50Hz	6.8	10	1607	*1	1.38 / 4.7 / 0.72	Test Condition 1	
AC240V/60Hz	8.4	10	1986	*1	0.32 / 7.7 / 0.38	Warm up	
AC240V/60Hz	0.62	10	85	*1	0.25 / 0.18 / 0.19	Standby	
AC240V/60Hz	6.8	10	1609	*1	1.38 / 4.7 / 0.72	Test Condition 1	
supplementary information:							
*1: F1 on Main SWPS Unit / F2 on Main SWPS Unit / F3 on Main SWPS Unit Specifications F3 on Main SWPS Unit and F1 on Sub SWPS Unit are the same. Warm up: From the power On to Standby.							

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Clause	Requirement + Test	Result - Remark	Verdict

2.1.1.5 c) ¹⁾	TABLE: max. V, A, VA test				P
Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)	
Main SWPS Unit, Model MPW9215 (for AC120V models)					
24V output	--	23.9	20.0	478 ¹⁾	
5V output	--	4.72	19.8	93.5 ¹⁾	
Sub SWPS Unit, Model MPW9213 (for AC120V models)					
24V output	--	24.0	21.6	518.4 ¹⁾	
5V output	--	4.76	17.7	84.3 ¹⁾	
Main SWPS Unit, Model MPW9216 (for AC220-240V models)					
24V output	--	23.8	20.2	481.4 ¹⁾	
5V output	--	4.68	20.1	94.1 ¹⁾	
Sub SWPS Unit, Model MPW9214 (for AC220-240V models)					
24V output	--	24.1	21.3	513.3 ¹⁾	
5V output	--	4.73	17.9	84.7 ¹⁾	
supplementary information:					
¹⁾ not possible to bridge with the test finger.					

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

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Clause	Requirement + Test	Result - Remark	Verdict

2.2	TABLE: evaluation of voltage limiting components in SELV circuits			P
Component (measured between)		max. voltage (V) (normal operation)		Voltage Limiting Components
		V peak	V d.c.	
Supply Voltage: AC132V 60Hz				
Main SWPS Unit, Model MPW9215				
T301	Pin 6 to Pin 16	-46.0	--	
D351, D352 cathode - T301 pin 16		--	27.0	D351, D352
T501	Pin 9 to Pin 16	-34.6	--	T501
Sub SWPS Unit, Model MPW9213				
T301	Pin 6 to Pin 16	-90.5	--	
D351, D352 cathode - T301 pin 16			26.3	D351, D352
T501	Pin 9 to Pin 16	-26.4	--	T501
Supply Voltage: AC264V 50Hz				
Main SWPS Unit, Model MPW9216				
T301	Pin 6 to Pin 16	-45.2	--	
D351, D352 cathode - T301 pin 16		--	26.7	D351, D352
T501	Pin 9 to Pin 16	-33.2	--	T501
Sub SWPS Unit, Model MPW9214				
T301	Pin 6 to Pin 16	-68.1	--	
D351, D352 cathode - T301 pin 16		--	25.9	D351, D352
T501	Pin 9 to Pin 16	-28.8	--	T501

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Clause	Requirement + Test	Result - Remark	Verdict

2.2	TABLE: evaluation of voltage limiting components in SELV circuits			P
Component (measured between)		max. voltage (V) (normal operation)		Voltage Limiting Components
		V peak	V d.c.	
Supply Voltage: DC24V				
High Voltage Unit, Model EUK9MQC70H				
T101 / T102 / T201 / T202 for output M(K) / M(M) / M(C) / M(Y) pin1 - T101 pin2 (GND)		--	5.25	T101 / T102 / T201 / T202
T101 / T102 / T201 / T202 pin10 - T101 / T102 / T201 / T202 pin2 (GND)		--	920	
T101 / T102 / T201 / T202 pin9 - T101 / T102 / T201 / T202 pin2 (GND)		--	880	
T101 / T102 / T201 / T202 pin7 - T101 pin2 (GND)		--	920	
T302 / T402 / T502 / T602 for output Vmag(K) / Vmag(M) / Vmag(C) / Vmag(Y) pin4 - T302 / T402 / T502 / T602 pin1 (GND)		10.8	--	T302 / T402 / T502 / T602
T302 / T402 / T502 / T602 for output Vmag(K) / Vmag(M) / Vmag(C) / Vmag(Y) pin6 - T302 / T402 / T502 / T602 pin1 (GND)		1.52kV	--	
T302 / T402 / T502 / T602 for output Vmag(K) / Vmag(M) / Vmag(C) / Vmag(Y) pin5 - T302 / T402 / T502 / T602 pin1 (GND)		610	--	
T301 / T401 / T501 / T601 for output Vslv(K) / Vslv(M) / Vslv(C) / Vslv(Y) pin4 - T301 / T401 / T501 / T601 pin1 (GND)		10.3	--	T301 / T401 / T501 / T601
T301 / T401 / T501 / T601 for output Vslv(K) / Vslv(M) / Vslv(C) / Vslv(Y) pin6 - T301 / T401 / T501 / T601 pin1 (GND)		1.42kV	--	
T301 / T401 / T501 / T601 for output Vslv(K) / Vslv(M) / Vslv(C) / Vslv(Y) pin5 - T301 / T401 / T501 / T601 pin1 (GND)		533	--	

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Clause	Requirement + Test	Result - Remark	Verdict

2.2	TABLE: evaluation of voltage limiting components in SELV circuits			P
Component (measured between)		max. voltage (V) (normal operation)		Voltage Limiting Components
		V peak	V d.c.	
Transfer High Voltage Unit, Model EUK9MQC95H				
T103 / T104 / T102 / T101 for output T1(K) / T1(M) T1(C) / T1(Y) pin 11 to gnd		-2.00k	--	
T103 / T104 / T102 / T101 pin1 to gnd		9.8	--	T103 / T104 / T102 / T101
T103 / T104 / T102 / T101 pin2 to gnd		--	24.5	T103 / T104 / T102 / T101
T103 / T104 / T102 / T101 pin3 to gnd		--	24.5	T103 / T104 / T102 / T101
T103 / T104 / T102 / T101 pin4 to gnd		--	24.5	T103 / T104 / T102 / T101
T103 / T104 / T102 / T101 pin5 to gnd		--	2.05	T103 / T104 / T102 / T101
T202 for output T2 to gnd		--	9.5k	
T202 for output T2 pin1 to gnd		--	24.2	T202
T202 for output T2 pin2 to gnd		--	24.2	T202
T202 for output T2 pin3 to gnd		-8.40	--	T202
T201 for output PB, pin 8 to gnd		-790	--	
T201 pin11 to gnd		-1.54k	--	
T201 pin9 to gnd		--	0.5	T201
T201 pin7 to gnd		--	2.37	T201
T201 pin1 to gnd		--	24.5	T201
T201 pin2 to gnd		--	24.5	T201
T201 pin4 to gnd		--	0.2	T201
T302 for output CL, pin 11 to gnd		-4.00k	--	
T302 pin 7 to gnd		--	2.35	T302
T302 pin6 to gnd		--	1.88	T302
T302 pin1 to gnd		--	24.5	T302
T302 pin2 to gnd		--	24.5	T302
T302 pin3 to gnd		--	0.5	T302
T302 pin4 to gnd		--	1.87	T302

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Clause	Requirement + Test	Result - Remark	Verdict

2.2	TABLE: evaluation of voltage limiting components in SELV circuits		P
Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components
	V peak	V d.c.	
T301 for output SP, pin 11 to gnd	3.28k	--	
T301 pin1 to gnd	--	24.5	T301
T301 pin2 to gnd	--	24.5	T301
T301 pin3 to gnd	4.42	--	T301
T301 pin4 to gnd	--	0.52	T301
T301 pin6 to gnd	4.42	--	T301
T301 pin7 to gnd	--	4.98	T301
Fuser High Voltage Unit, Model EUK9SQD06HA			
T101 pin11 to gnd	3.9k	--	T101
T101 pin1 to gnd	--	24.8	T101
T101 pin2 to gnd	--	0.3	T101
T101 pin3 to gnd	--	0.2	T101
T101 pin4 to gnd	--	0.2	T101
supplementary information:			
--			

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Clause	Requirement + Test	Result - Remark	Verdict

2.2	TABLE: evaluation of voltage limiting components in SELV circuits - continued		P
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)	
Supply Voltage: AC132V, 60Hz			
Main SWPS Unit, Model MPW9215			
D351, D352 cathode - T301 pin 16 (GND) (PC301 shorted.)		30.2 Vpeak (Output shut down in 0.1 sec.)	
D351 shorted		24V output shut down in 0.1sec after D351 shorted	
D352 shorted		24V output shut down in 0.1sec after D352 shorted	
T501 pin 9 - pin 16 (GND) (PC501 shorted.)		-33.6 Vpeak (Output shut down in 0.1 sec.)	
Sub SWPS Unit, Model MPW9213			
D351, D352 cathode - T301 pin 16 (GND) (PC301 shorted.)		30.4 Vdc (Output shut down in 0.1 sec.)	
D351 shorted		24V output shutdown in 0.1sec after D351 shorted.	
D352 shorted		24V output shutdown in 0.1sec after D352 shorted.	
T501 pin 9 - pin 16 (GND) (PC501 shorted.)		-23.6 Vpeak (Output shut down in 0.1 sec.)	

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Clause	Requirement + Test	Result - Remark	Verdict

2.2	TABLE: evaluation of voltage limiting components in SELV circuits - continued		P
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)	
Supply Voltage: AC264V, 50Hz			
Main SWPS Unit, Model MPW9216			
D351, D352 cathode - T301 pin 16 (GND) (PC301 shorted.)		29.7 Vpeak (Output shut down in 0.1 sec.)	
D351 shorted		24V output shut down in 0.1sec after D351 shorted	
D352 shorted		24V output shut down in 0.1sec after D352 shorted	
T501 pin 9 - pin 16 (GND) (PC501 shorted.)		-35.2 Vpeak (Output shut down in 0.1 sec.)	
Sub SWPS Unit, Model MPW9214			
D351, D352 cathode - T301 pin 16 (GND) (PC301 shorted.)		30.7 Vpeak (Output shut down in 0.1 sec.)	
D351 short		24V output shutdown in 0.1sec after D351 shorted	
D352 short		24V output shutdown in 0.1sec after D352 shorted	
T501 pin 9 - pin 16 (GND) (PC501 shorted.)		-26.4 Vpeak (Output shut down in 0.1 sec.)	

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Clause	Requirement + Test	Result - Remark	Verdict

2.2	TABLE: evaluation of voltage limiting components in SELV circuits - continued		P
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)	
Supply Voltage: 24Vdc			
High Voltage Unit, Model EUK9MQC70H			
T101 / T102 / T201 / T202 for output M(K) / M(M) / M(C) / M(Y) pin1 - T101 / T102 / T201 / T202 pin10 short		5.35Vpeak	
T101 / T102 / T201 / T202 for output M(K) / M(M) / M(C) / M(Y) pin1 - T101 / T102 / T201 / T202 pin9 short		5.35Vpeak	
T101 / T102 / T201 / T202 for output M(K) / M(M) / M(C) / M(Y) pin1 - T101 / T102 / T201 / T202 pin7 short		5.35Vpeak	
T302 / T402 / T502 / T602 for output Vmag(K) / Vmag(M) / Vmag(C) / Vmag(Y) pin4 - T302 / T402 / T502 / T602 pin6		10.6Vpeak	
T302 / T402 / T502 / T602 for output Vmag(K) / Vmag(M) / Vmag(C) / Vmag(Y) pin4 - T302 / T402 / T502 / T602 pin5		10.6Vpeak	
T301 / T401 / T501 / T601 for output Vslv(K) / Vslv(M) / Vslv(C) / Vslv(Y) pin4 - T301 / T401 / T501 / T601 pin6		10.8Vpeak	
T301 / T401 / T501 / T601 for output Vslv(K) / Vslv(M) / Vslv(C) / Vslv(Y) pin4 - T301 / T401 / T501 / T601 pin5		10.8Vpeak	

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Clause	Requirement + Test	Result - Remark	Verdict

2.2	TABLE: evaluation of voltage limiting components in SELV circuits - continued		P
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)	
Transfer High Voltage Unit, Model EUK9MQC95H			
T202 for output T2 - T202 for output T2 pin1 short		24.8Vpeak	
T202 for output T2 - T202 for output T2 pin2 short		24.8Vpeak	
T202 for output T2 - T202 for output T2 pin3 short		-10.3Vpeak	
T103 / T104 / T102 / T101 pin 11 - T103 / T104 / T102 / T101 pin1 short		12.8Vpeak	
T103 / T104 / T102 / T101 pin 11 - T103 / T104 / T102 / T101 pin2 short		24.8Vpeak	
T103 / T104 / T102 / T101 pin 11 - T103 / T104 / T102 / T101 pin3 short		24.8Vpeak	
T103 / T104 / T102 / T101 pin 11 - T103 / T104 / T102 / T101 pin4 short		24.8Vpeak	
T103 / T104 / T102 / T101 pin 11 - T103 / T104 / T102 / T101 pin5 short		24.8Vpeak	
T201 pin 8 - T201 pin9 short		1.31Vpeak	
T201 pin 8 - T201 pin7 short		3.66Vpeak	
T201 pin 8 - T201 pin1 short		24.8Vpeak	
T201 pin 8 - T201 pin2 short		24.8Vpeak	
T201 pin 8 - T201 pin4 short		1.31Vpeak	
T201 pin 11 - T201 pin9 short		1.31Vpeak	
T201 pin 11 - T201 pin7 short		3.66Vpeak	
T201 pin 11 - T201 pin1 short		24.8Vpeak	
T201 pin 11 - T201 pin2 short		24.8Vpeak	
T201 pin 11 - T201 pin4 short		1.31Vpeak	
T302 pin 11 - T302 pin7 short		3.80Vpeak	
T302 pin 11 - T302 pin6 short		3.80Vpeak	
T302 pin 11 - T302 pin1 short		24.8Vpeak	
T302 pin 11 - T302 pin2 short		24.8Vpeak	
T302 pin 11 - T302 pin3 short		3.65Vpeak	
T302 pin 11 - T302 pin4 short		3.86Vpeak	

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Clause	Requirement + Test	Result - Remark	Verdict

2.2	TABLE: evaluation of voltage limiting components in SELV circuits - continued		P
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)	
T301 pin 11 - T301 pin1 short		26.4Vpeak	
T301 pin 11 - T301 pin2 short		26.4Vpeak	
T301 pin 11 - T301 pin3 short		5.88Vpeak	
T301 pin 11 - T301 pin4 short		3.64Vpeak	
T301 pin 11 - T301 pin6 short		5.88Vpeak	
T301 pin 11 - T301 pin7 short		6.35Vpeak	
supplementary information:			
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Clause	Requirement + Test	Result - Remark	Verdict

2.4.2	TABLE: Limited current circuit measurement					P
Location	Voltage (V)	Current (mA)	Freq. (kHz)	Limit (mA)	Comments	
Fuser High Voltage Unit Model: EUK9SQD06HA (Input 24Vdc)						
Output FH (No fault)	6.24kVdc	0.03	--	0.7	Measured by Annex D.	
Output FH (D111 open)	7.24kVdc	0.01	--	0.7	Measured by Annex D. Capacitance of output was 0.11nF. Limit 45/7.24=6.22nF.	
Transfer High Voltage Unit Model: EUK9MQC95HA (Input 24V)						
Output SP (No fault)	6.20kVdc	0.02	--	0.7	Measured by Annex D.	
Output SP (R357 short)	6.50kVdc	0.06	--	0.7	Measured by Annex D. Capacitance of output was 0.17nF. Limit 45/8.1=5.56nF.	
Output T1(K) / T1(M) / T1(C) / T1(Y) (No fault)	-3.4kVdc	0.12	--	0.7	Measured by Annex D.	
Output T1(K) / T1(M) / T1(C) / T1(Y) (IC101 pin1-8 / IC103 pin1-8 / IC102 pin1-8 / IC102 pin7-8 short)	-7.12kVdc	0.35	--	0.7	Measured by Annex D. Capacitance of output was 0.31nF. Limit 45/7.12=6.32nF.	
Output T2 (No fault)	9.5kV	0.25	--	0.7	Measured by Annex D	
Output T2(Q208 C-E short)	10.3kV	0.41	--	0.7	Measured by Annex D Capacitance of output was 0.20nF. Limit 45/10.3=4.37nF.	
Output PB(No fault)	676Vdc	0.02	--	0.7	Measured by Annex D	
Output PB(IC101 pin7-8short)	880Vdc	0.03	--	0.7	Measured by Annex D Capacitance of output was 0.13nF. Limit 45/0.88=51.1nF.	
Output CL(No fault)	-4.92kVdc	0.08	--	0.7	Measured by Annex D	
Output CL(IC302 pin1-8 short)	-7.20kVdc	0.11	--	0.7	Measured by Annex D Capacitance of output was 0.25nF. Limit 45/7.2=6.25nF.	

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Clause	Requirement + Test	Result - Remark	Verdict

2.4.2	TABLE: Limited current circuit measurement					P
High Voltage Unit Model: EUK9MQC70HB (Input 24V)						
Output M(K) / M(M) / M(C) / M(Y) (No fault)	920Vdc	1.3	--	2.0	Measured by 2kΩ resistor	
Output M(K) / M(M) / M(C) / M(Y) (R42 / R47 / R115 / R098 open)	3.48kVdc	1.52	--	2.0	Measured by 2kΩ resistor Capacitance of output was 11.3nF. Limit 45/3.48=12.9nF.	
Output Vmag(K) / Vmag(M) / Vmag(C) / Vmag(Y) (No fault)	1.52kVmax, - 0.81kVmin	0.36	--	0.7	Measured by Annex D	
Output Vmag(K) / Vmag(M) / Vmag(C) / Vmag(Y) (IC301 pin 1-8 / IC301 pin 7-8 / IC501 pin 1-8 / IC501 pin 7-8 Short)	2.66kVmax, - 1.31kVmin	1.85	--	0.7	Measured by Annex D. Not LCC. Capacitance of output was 9.3nF. Limit 45/2.66=16.9nF.	
Output Vslv(K) / Vslv(M) / Vslv(C) / Vslv(Y) (No fault)	1.22kVmax, - 0.88kVmin	1.15	--	0.7	Measured by Annex D. Not LCC	
Output Vslv(K) / Vslv(M) / Vslv(C) / Vslv(Y) (D305 / D405 / D505 /D605 short)	1.39kVmax, - 0.91kVmin	1.2	--	0.7	Measured by Annex D. Not LCC. Capacitance of output was 4.6nF. Limit 45/1.39=32.3nF.	
supplementary information:						
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Clause	Requirement + Test	Result - Remark	Verdict

2.5	TABLE: Limited power sources				P
Circuit output tested: (see below)					
Note: Measured Uoc (V) with all load circuits disconnected: (see below)					
Location	Uoc (V)	I _{sc} (A)		VA	
		Meas.	Limit	Meas.	Limit
table 2C is applied					
5V output (for Operation Unit) after Fuse YF1 on Main PWB of TASKalfa 8052ci, TASKalfa 7052ci, 8052ci and 7052ci, 4A (YF1 bypassed)	5	6.0	200	28.2	250
5V output (for Card Reader, Key Board and Front USB Connector) after Fuse YF2 on Main PWB of TASKalfa 8052ci, TASKalfa 7052ci, 8052ci and 7052ci, 4A (YF2 bypassed)	5	5.97	200	28.1	250
5V output (for Left Side USB Connector type-A) after Fuse YF6 on Main PWB of TASKalfa 8052ci, TASKalfa 7052ci, 8052ci and 7052ci, 4A (YF6 bypassed)	5	1.9	200	5.9	250
3.3V output (for Operation Panel) after Fuse YF5 on Main PWB of TASKalfa 8052ci, TASKalfa 7052ci, 8052ci and 7052ci, 0.5A (YF5 bypassed)	3.3	7.02	303.03	22.3	250
supplementary information:					
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Clause	Requirement + Test	Result - Remark	Verdict

2.6.3.4	TABLE: Resistance of earthing measurement		P
Location		Voltage drop (V)	Comments
TASKalfa 8052ci			
Inlet earth - Main SWPS Unit Box		0.56	Limit: 2.5V
Inlet earth - Sub SWPS Unit Box		0.67	Limit: 2.5V
Inlet earth - IH PWB Box		0.63	Limit: 2.5V
Inlet earth - Fuser Frame		0.71	Limit: 2.5V
8052ci			
Plug of power cord - Main SWPS Unit Box		0.65	Limit: 2.5V
Plug of power cord - Sub SWPS Unit Box		0.74	Limit: 2.5V
Plug of power cord - IH PWB Box		0.74	Limit: 2.5V
Plug of power cord - Fuser Frame		0.83	Limit: 2.5V
supplementary information:			
Tested current 40A, 2min			

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.2	Table: working voltage measurement			P
Location		RMS voltage (V)	Peak voltage (V)	Comments
Input AC120V, 60Hz				
Main SWPS Unit, Model MPW9215				
T301 pin 1 - pin 6	210	418	72.33kHz	
T301 pin 1 - pin 8	200	388	76.06kHz	
T301 pin 3 - pin 6	237	450	73.58kHz	
T301 pin 3 - pin 8	256	438	74.40kHz	
T501 pin 1 - pin 10	86.3	204	58.07kHz	
T501 pin 2 - pin 10	89.2	280	58.1kHz	
T501 pin 3 - pin 10	347	468	55.6kHz	
T501 pin 4 - pin 10	360	562	58.1kHz	
T501 pin 6 - pin 10	389	668	55.6kHz	
T501 pin 1 - pin 13	80.5	184	60.02Hz	
T501 pin 2 - pin 13	94.8	296	59.48kHz	
T501 pin 3 - pin 13	346	426	60.04Hz	
T501 pin 4 - pin 13	358	570	58.4kHz	
T501 pin 6 - pin 13	390	682	55.48kHz	

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.2	Table: working voltage measurement			P
Location		RMS voltage (V)	Peak voltage (V)	Comments
Sub SWPS Unit, Model MPW9213				
T301 pin 1 - pin 10		108	224	97.61kHz
T301 pin 3 - pin 10		108	262	94.7kHz
T301 pin 5 - pin 10		101	242	93.3kHz
T301 pin 7 - pin 10		120	326	95.4kHz
T301 pin 1 - pin 16		99.4	172	60.28Hz
T301 pin 3 - pin 16		100	226	60.0Hz
T301 pin 5 - pin 16		110	288	96.03kHz
T301 pin 7 - pin 16		144	376	96.12kHz
T501 pin 1 - pin 12		100	176	19.10kHz
T501 pin 2 - pin 12		103	214	64.8kHz
T501 pin 3 - pin 12		101	200	4.338kHz
T501 pin 4 - pin 12		108	280	66.5kHz
T501 pin 6 - pin 12		127	360	62.82kHz
T501 pin 1 - pin 15		98.8	176	59.92Hz
T501 pin 2 - pin 15		108	234	65.8kHz
T501 pin 3 - pin 15		99.6	208	1.742kHz
T501 pin 4 - pin 15		111	296	68.7kHz
T501 pin 6 - pin 15		132	364	67.9kHz
IH PWB, 2NH0108				
C15 (Pri - Earth)		94.3	172	60.02Hz
YC3 - GND(Pri - Earth)		120	304	25.37kHz

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.2	Table: working voltage measurement			P
Location		RMS voltage (V)	Peak voltage (V)	Comments
Input AC220V, 50Hz				
Main SWPS Unit, Model MPW9216				
T301 pin 1 - pin 6	205	426	75.17kHz	
T301 pin 1 - pin 8	195	396	73.38kHz	
T301 pin 3 - pin 6	235	466	74.84kHz	
T301 pin 3 - pin 8	252	450	72.29kHz	
T501 pin 1 - pin 10	153	342	50.0Hz	
T501 pin 2 - pin 10	157	408	50.0Hz	
T501 pin 3 - pin 10	325	466	50.0Hz	
T501 pin 4 - pin 10	330	570	61.0kHz	
T501 pin 6 - pin 10	363	686	60.08kHz	
T501 pin 1 - pin 13	153	332	50.11Hz	
T501 pin 2 - pin 13	159	432	60.79kHz	
T501 pin 3 - pin 13	323	436	49.93Hz	
T501 pin 4 - pin 13	336	576	62.5kHz	
T501 pin 6 - pin 13	371	700	59.85kHz	

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.2	Table: working voltage measurement			P
Location		RMS voltage (V)	Peak voltage (V)	Comments
Input AC220V, 50Hz				
Sub SWPS Unit, Model MPW9214				
T301 pin 1 - pin 9	191	356	94.7kHz	
T301 pin 3 - pin 9	182	374	102kHz	
T301 pin 5 - pin 9	192	466	99.2kHz	
T301 pin 7 - pin 9	252	654	96.93kHz	
T301 pin 1 - pin 13	183	310	50.02Hz	
T301 pin 3 - pin 13	176	356	50.0Hz	
T301 pin 5 - pin 13	213	490	104.6kHz	
T301 pin 7 - pin 13	280	688	101.1kHz	
T501 pin 1 - pin 12	186	328	4.834kHz	
T501 pin 2 - pin 12	189	390	46.3kHz	
T501 pin 3 - pin 12	179	344	5.263kHz	
T501 pin 4 - pin 12	190	464	44.6kHz	
T501 pin 6 - pin 12	229	576	53.58kHz	
T501 pin 1 - pin 15	186	314	49.90Hz	
T501 pin 2 - pin 15	193	400	48.26kHz	
T501 pin 3 - pin 15	177	332	49.86Hz	
T501 pin 4 - pin 15	195	468	47.6kHz	
T501 pin 6 - pin 15	235	586	47.66kHz	
IH PWB, 2NH0109				
C15 (Pri - Earth)	152	324	49.99Hz	
YC3 - GND(Pri - Earth)	215	472	25.55kHz	

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.2	Table: working voltage measurement			P
Location		RMS voltage (V)	Peak voltage (V)	Comments
Input AC240V, 50Hz				
Main SWPS Unit, Model MPW9216				
T301 pin 1 - pin 6	208	344	75.93kHz	
T301 pin 1 - pin 8	198	396	73.35kHz	
T301 pin 3 - pin 6	236	454	74.81kHz	
T301 pin 3 - pin 8	255	446	72.33kHz	
T501 pin 1 - pin 10	168	368	50.0Hz	
T501 pin 2 - pin 10	171	432	50.0Hz	
T501 pin 3 - pin 10	319	464	50.0Hz	
T501 pin 4 - pin 10	328	572	62.5kHz	
T501 pin 6 - pin 10	359	682	50.0Hz	
T501 pin 1 - pin 13	168	366	49.68Hz	
T501 pin 2 - pin 13	172	462	50.0Hz	
T501 pin 3 - pin 13	319	438	49.47Hz	
T501 pin 4 - pin 13	332	586	60.2kHz	
T501 pin 6 - pin 13	367	694	59.67kHz	

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.2	Table: working voltage measurement			P
Location		RMS voltage (V)	Peak voltage (V)	Comments
Sub SWPS Unit, Model MPW9214				
T301 pin 1 - pin 9		207	384	98.99kHz
T301 pin 3 - pin 9		197	402	97.7kHz
T301 pin 5 - pin 9		208	498	96.2kHz
T301 pin 7 - pin 9		274	678	98.67kHz
T301 pin 1 - pin 13		199	336	50.38Hz
T301 pin 3 - pin 13		195	396	50.36Hz
T301 pin 5 - pin 13		224	522	99.26kHz
T301 pin 7 - pin 13		296	714	97.47kHz
T501 pin 1 - pin 12		206	354	49.80Hz
T501 pin 2 - pin 12		207	418	45.0kHz
T501 pin 3 - pin 12		195	372	50.04Hz
T501 pin 4 - pin 12		206	490	46.3kHz
T501 pin 6 - pin 12		244	598	47.12kHz
T501 pin 1 - pin 15		203	344	50.25Hz
T501 pin 2 - pin 15		208	422	45.00kHz
T501 pin 3 - pin 15		193	354	50.15Hz
T501 pin 4 - pin 15		210	496	45.5kHz
T501 pin 6 - pin 15		251	602	46.76kHz
IH PWB, 2NH0109				
C15 (Pri - Earth)		167	350	50.15Hz
YC3 - GND(Pri - Earth)		233	528	25.72kHz
supplementary information:				
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Clause	Requirement + Test	Result - Remark	Verdict

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm) *1)	cl (mm)	Required cr (mm) *2)	cr (mm)	
Main SWPS Unit - PCB MPW9215 (pri, gnd, sec)							
Functional:							
Pri - pri (before fuse)	< 210	< 125	0.7	3.1	1.5	3.1	
Basic / supplementary:							
Pri - gnd (traces at C5, C6)	< 210	< 125	1.3	6.9	1.5	6.9	
Pri - gnd (traces at T301)	450	256	2.0	8.0	3.2	8.0	
Pri - gnd (traces at T501)	682	390	2.0	8.0	4.0	8.0	
Pri - gnd (C401 - chassis)	682	390	2.0	5.5	4.0	-- *8)	
Reinforced:							
Pri - sec (traces at T301)	450	256	2.8	8.0	6.4	8.0	
Pri - sec (traces at T501)	682	390	3.9	8.0	7.8	8.0	
Pri - sec (traces at PC301, PC501, PC502, PC601, PC701)	682	< 125	3.9	8.0	3.9	6.8	
Sub SWPS Unit - PCB MPW9213 (pri, gnd, sec)							
Functional:							
Pri - pri (before fuse)	< 210	< 125	0.7	3.1	1.5	3.1	
Basic / supplementary:							
Pri - gnd (traces at C5, C6)	< 210	< 125	1.3	6.9	1.5	6.9	
Pri - gnd (traces at T301)	376	144	1.5	4.9	1.6	4.9	
Pri - gnd (traces at T501)	364	132	1.5	4.9	1.6	4.9	
Pri - gnd (C401 - chassis)	376	144	1.5	10.9	1.6	-- *8)	
Reinforced:							
Pri - sec (traces at T301)	376	144	3.0	21.2	3.0	21.2	
Pri - sec (traces at T501)	364	132	3.0	7.8	3.2	7.8	
Pri - sec (traces at PC301, PC501, PC502, PC601, PC701)	376	144	3.0	8.0	3.2	8.0	

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm) *1)	cl (mm)	Required cr (mm) *2)	cr (mm)	
Main SWPS Unit - PCB MPW9216 (pri, gnd, sec)							
Functional:							
Pri - pri (before fuse)	< 420	< 250	1.9	3.1	2.5	3.1	
Basic / supplementary:							
Pri - gnd (traces at C5, C6)	< 420	< 250	2.5	6.9	2.5	6.9	
Pri - gnd (traces at T301)	466	255	2.6	8.0	3.2	8.0	
Pri - gnd (traces at T501)	700	371	3.2	8.0	4.0	8.0	
Pri - gnd (C401 - chassis)	700	371	3.2	5.5	4.0	-- *8)	
Reinforced:							
Pri - sec (traces at T301)	466	255	5.6	8.0	6.4	8.0	
Pri - sec (traces at T501)	700	371	5.9	8.0	7.5	8.0	
Pri - sec (traces at PC301, PC501, PC502, PC601, PC701)	700	< 250	5.9	6.8	5.9	6.8	
SubSWPS Unit - PCB MPW9214 (pri, gnd, sec)							
Functional:							
Pri - pri (before fuse)	< 420	< 250	1.9	3.1	2.5	3.1	
Basic / supplementary:							
Pri - gnd (traces at C5, C6)	< 420	< 250	2.5	6.9	2.5	6.9	
Pri - gnd (traces at T301)	714	296	3.1	4.9	3.2	4.9	
Pri - gnd (traces at T501)	602	251	2.8	4.9	3.2	4.9	
Pri - gnd (C401 - chassis)	714	296	3.1	5.5	3.2	-- *8)	
Reinforced:							
Pri - sec (traces at T301)	714	296	6.1	21.2	6.4	21.2	
Pri - sec (traces at T501)	602	251	5.6	7.8	6.4	7.8	
Pri - sec (traces at PC301, PC501, PC502, PC601, PC701)	714	296	6.1	8.0	6.4	8.0	

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm) ^{*1)}	cl (mm)	Required cr (mm) ^{*2)}	cr (mm)	
Transformer T301 of MPW9215 and MPW9216							
Basic / supplementary:							
Pri - core ^{*3)} (external)	--	--	--	5.7	--	6.4	
Pri - core ^{*3)} (internal)	--	--	--	5.6	--	5.6	
Sec - core ^{*3)} (external)	--	--	--	3.5	--	3.5	
Sec - core ^{*3)} (internal)	--	--	--	5.6	--	5.6	
Reinforced:							
Pri - sec (internal)	466	256	5.2	9.1	6.4	9.1	
Pri - sec (external)	466	256	5.2	6.0	6.4	11.0	
	Construction details of Transformer type: 2614QS002: ^{*3)} core is floating; no electric potential defined. Distances from core to any pri- component: dcl: min. 4.2mm, dcr: min. 22.1mm Distances from core to any sec- component: dcl: min. 4.1mm, dcr: min. 17.0mm						
Transformer T501 of MPW9214, MPW9215 and MPW9216							
Basic / supplementary:							
Pri - core ^{*3)}	--	--	--	4.6	--	4.6	
Sec - core ^{*3)}	--	--	--	4.4	--	4.4	
Reinforced:							
Pri - core - sec	700	390	5.9	9.0	8.0	9.0	
Pri - sec (internal)	700	390	5.9	6.5	5.9 ^{*4)}	6.5	
	Construction details of Transformer type: 2Q154 ^{*3)} core is floating; no electric potential defined. ^{*4)} Material Group I used. CTI ≥ 600 Distances from core to any pri- component: dcl: min. 7.2mm, dcr: min. 19.8mm Distances from core to any sec- component: dcl: min. 7.2mm, dcr: min. 18.1mm						

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm) ^{*1)}	cl (mm)	Required cr (mm) ^{*2)}	cr (mm)	
Transformer T301 of MPW9213							
Basic / supplementary:							
Pri - core ^{*3}	--	--	--	4.5	--	4.5	
Sec - core ^{*3}	--	--	--	4.0	--	4.0	
Reinforced:							
Pri - core - sec	376	144	3.0	8.5	3.0	8.5	
Pri - sec (internal)	376	144	3.0	3.2	3.0	3.2	
	Construction details of Transformer type: 2V120: ^{*3)} core is floating; no electric potential defined. Distances from core to any pri- component: dcl: min. 8.0mm, dcr: min. 22.1mm Distances from core to any sec- component: dcl: min. 8.0mm, dcr: min. 20.2mm						
Transformer T501 of MPW9213							
Basic / supplementary:							
Pri - core ^{*3}	--	--	--	4.6	--	4.6	
Sec - core ^{*3}	--	--	--	3.8	--	3.8	
Reinforced:							
Pri - core - sec	364	132	3.0	8.4	3.0	8.4	
Pri - sec (internal)	364	132	3.0	3.3	3.0	3.3	
	Construction details of Transformer type: 2Q152: ^{*3)} core is floating; no electric potential defined. Distances from core to any pri- component: dcl: min. 6.5mm, dcr: min. 15.7mm Distances from core to any sec- component: dcl: min. 6.9mm, dcr: min. 23.3mm						

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm) * ¹⁾	cl (mm)	Required cr (mm) * ²⁾	cr (mm)	
Transformer T301 of MPW9214							
Basic / supplementary:							
Pri - core * ³⁾	--	--	--	4.5	--	4.5	
Sec - core * ³⁾	--	--	--	4.0	--	4.0	
Reinforced:							
Pri - core - sec	714	296	5.9	8.5	6.0	8.5	
Pri - sec (internal)	714	296	5.9	6.4	6.0	6.4	
	Construction details of Transformer type: 2V121: * ³⁾ core is floating; no electric potential defined. Distances from core to any pri- component: dcl: min. 8.0mm, dcr: min. 20.4mm Distances from core to any sec- component: dcl: min. 8.0mm, dcr: min. 20.2mm						

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm) ^{*1)}	cl (mm)	Required cr (mm) ^{*2)}	cr (mm)	
Current Detection PWB- PCB (pri. gnd, sec)							
Functional:							
-	--	--	--	-	--	--	
Basic / supplementary:							
Pr - gnd (chassis)	< 210	< 125	1.3	26.2	1.5	42.4	
Reinforced:							
Pri - sec (traces at T2)	< 210	< 125	2.5	5.6	3.0	5.6	
Current Transformer T2 of Current Detection PWB							
Basic / supplementary:							
Pri - core ^{*3)} (external)	--	--	--	7.2	--	7.2	
Pri - core ^{*3)} (internal)	--	--	--	5.6	--	5.6	
Sec - core ^{*3)} (external)	--	--	--	4.6	--	4.6	
Sec - core ^{*3)} (internal)	--	--	--	2.2	--	2.2	
Reinforced:							
Pri (internal) - sec (pin)	< 210	< 125	2.5	7.4	3.0	7.4	
Pri - sec (external)	< 210	< 125	2.5	11.8	3.0	11.8	
	Construction details of Transformer type: CT-19G26RF ^{*3)} core is floating; no electric potential defined. Distances from core to any pri- component: 						

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm) *1)	cl (mm)	Required cr (mm) *2)	cr (mm)	
IH PWB, Model 2NH0108							
Functional:							
--	--	--	--	--	--	--	--
Basic / supplementary							
Pri - gnd (traces at C5)	< 210	< 125	1.3	3.4	1.5	3.4	
Pri - gnd (traces at C6)	< 210	< 125	1.3	4.6	1.5	4.6	
Pri - gnd (traces at C15)	< 210	< 125	1.3	2.9	1.5	2.9	
Pri - gnd (traces)	< 210	< 125	1.3	3.1	1.5	3.1	
Pri - gnd (chassis)	< 210	< 125	1.3	2.6	1.5	2.6	
Pri - gnd (YC3 - chassis)	304	120	1.5	7.6	1.5	38.0	
Reinforced:							
Pri - sec (traces at NC1)	< 210	< 125	2.5	5.5	3.0	5.5	
Pri - sec (traces at NC2, NC3, NC4)	< 210	< 125	2.5	5.4	3.0	5.4	
Pri - sec (traces at RY1)	< 210	< 125	2.5	6.5	3.0	6.5	

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm) *1)	cl (mm)	Required cr (mm) *2)	cr (mm)	
IH PWB, Model 2NH0109							
Functional:							
--	--	--	--	--	--	--	--
Basic / supplementary:							
Pri - gnd (traces at C5)	< 420	< 250	2.5	3.4	2.5	3.4	
Pri - gnd (traces at C6)	< 420	< 250	2.5	4.6	2.5	4.6	
Pri - gnd (traces at C15)	< 420	< 250	2.5	2.9	2.5	2.9	
Pri - gnd (traces)	< 420	< 250	2.5	3.1	2.5	3.1	
Pri - gnd (chassis)	< 420	< 250	2.5	2.6	2.5	2.6	
Pri - gnd (YC3 - chassis)	528	233	3.5	7.6	3.5	38.0	
Reinforced:							
Pri - sec (traces at NC1)	< 420	< 250	4.9	5.5	5.0	5.5	
Pri - sec (traces at NC2, NC3, NC4)	< 420	< 250	4.9	5.4	5.0	5.4	
Pri - sec (traces at RY1)	< 420	< 250	4.9	6.5	5.0	6.5	

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm) * ¹⁾	cl (mm)	Required cr (mm) * ²⁾	cr (mm)	
Interlock system (PCB traces)							
Basic:							
Main Unit							
Before interlock switch - after interlock switch	DC 24	DC 24	1.0 * ⁵⁾	1.0 * ⁶⁾	1.0	1.0 * ⁶⁾	
Document Processor (Standard)							
Before interlock switch - after interlock switch	DC 24	DC 24	1.0 * ⁵⁾	1.0 * ⁶⁾	1.0	1.0 * ⁶⁾	
Front Interlock system, DF-7110							
Before interlock switch - after interlock switch	DC 24	DC 24	1.0 * ⁵⁾	1.0 * ⁶⁾	1.0	1.0 * ⁶⁾	
Eject Manual Staple Interlock system, DF-7110							
Before interlock switch - after interlock switch	DC 24	DC 24	1.0 * ⁵⁾	1.0 * ⁶⁾	1.0	1.0 * ⁶⁾	
Interlock system, BF-730							
Before interlock switch - after interlock switch	DC 24	DC 24	1.0 * ⁵⁾	1.0 * ⁶⁾	1.0	1.0 * ⁶⁾	
Interlock system, MT-730							
Before interlock switch - after interlock switch	DC 24	DC 24	1.0 * ⁵⁾	1.0 * ⁶⁾	1.0	1.0 * ⁶⁾	
Interlock system, PF-7130							
Before interlock switch - after interlock switch	DC 24	DC 24	1.0 * ⁵⁾	1.0 * ⁶⁾	1.0	1.0 * ⁶⁾	
Fuser Unit							
Basic:							
Pri - Earth	< 420	< 250	2.5	4.0	2.5	5.0	
a) Thermal Cutoff: pri - cap	--	--	--	4.0	--	--	
b) Thermal Cutoff cap - Press Roller **)	--	--	--	1.2	--	--	
c) Thermistor * ⁷⁾ (sec) - Press Roller	--	--	--	0.0	--	--	
a)+b)+c)	< 420	< 250	4.9	5.2	5.0	-- * ⁸⁾	

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm) ^{*1)}	cl (mm)	Required cr (mm) ^{*2)}	cr (mm)	
FAX Kit, Model Fax System 12							
NCU Board							
Basic:							
TNV- SELV (traces at Relay RLY12)	120	71	1.3	2.5	1.5	2.5	
TNV- SELV (traces at Relay RLY10)	120	71	1.3	2.5	1.5	2.5	
TNV - gnd (traces at SA10)	120	71	1.3	2.7	1.5	2.7	
TNV - gnd (traces at SA11)	120	71	1.3	2.8	1.5	2.8	
TNV - gnd (traces at C12, C13)	120	71	1.3	2.8	1.5	2.8	
TNV- SELV (traces at IC10 pins 2 - 3)	120	71	1.3	3.1	1.5	3.1	
TNV - SELV (traces at CN10 pins 2 - 4)	120	71	1.3	2.5	1.5	2.5	
TNV - SELV (traces at PC10, PC11)	120	71	1.3	2.6	1.5	2.6	
TNV - Chassis	120	71	1.3	2.6	1.5	2.6	
FCB Board							
Basic							
TNV - Chassis	120	71	1.3	2.6	1.5	2.6	
TNV - SELV (traces at CN402 pin 1 - SELV)	120	71	1.3	2.7	1.5	2.7	
TNV - SELV (traces at C206, C207)	120	71	1.3	2.9	1.5	2.9	
Supplementary information:							
^{*1)} ...Altitude 3500 m (x1.215) was considered for clearance. ^{*2)} ...Minimum required clearance considered. ^{*5)} ...Annex G used. ^{*6)} ...Measured three times. ^{*7)} ...Press Roller is insulated by coating and Thermistor is contacted to Heater Roller through a thin film, but they are not considered as insulation. ^{*8)} ...Sufficient creepage distance have secured for standard requirement.							

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.5	TABLE: Distance through insulation measurements					P
Distance through insulation (DTI) at/of:		U peak (V)	U rms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
Reinforced:						
Insulation Tape between Primary winding to Secondary winding of Transformer Type: CT(YELLOW)		714	390	AC 3000 (2 of 3 layers)	3 layers	3 layers
Insulation Tape between Primary winding to Secondary winding of Transformer Type: 631S #25		714	390	AC 3000 (2 of 3 layers)	3 layers	3 layers
Insulation Tape between Primary winding to Secondary winding of Transformer Type: 630F #25		714	390	AC 3000 (2 of 3 layers)	3 layers	3 layers
Bobbin for 2614QS002		466	256	AC 3000	0.4	0.9
Core Case of Transformer 2614QS002		466	256	AC 3000	0.4	0.5
Bobbin for Transformer 2Q154		700	390	AC 3000	0.4	0.8
Bobbin for Transformer 2V121		714	296	AC 3000	0.4	0.8
Bobbin for Transformer 2V120		376	144	AC 3000	0.4	0.8
Bobbin for Transformer 2Q152		364	132	AC 3000	0.4	0.8
Bobbin for Current Transformer CT-19G26RF		< 210	< 125	AC 3000	0.4	0.6
Insulation Wire UL3122 AWG18 for Heater Lamp		< 420	< 250	AC 3000	0.4	0.4
Supplementary information:						
1): Double Insulation between Outer Shield and secondary wire.						

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition A and B at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> A and B: Standby / 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		A: 108V, 60Hz		B: 132V, 60Hz		
t _{amb1} (°C):		A: -- B: --		t _{amb2} (°C): A: 24 B: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		A T (°C)	B T (°C)	A T (°C)	B T (°C)	
Main SWPS Unit YC1 body		30	29	41	39	85
Main SWPS Unit YC2 body		33	29	44	39	85
Main SWPS Unit YC3 body		32	29	43	39	85
Main SWPS Unit Z1 body		33	29	44	39	85
Main SWPS Unit L1 coil		35	29	46	39	90
Main SWPS Unit L2 coil		38	32	49	42	90
Main SWPS Unit C6 body		36	30	47	40	125
Main SWPS Unit L401 coil		41	34	52	44	90
Main SWPS Unit C401 body		32	29	43	39	105
Main SWPS Unit C400 body		31	29	42	39	125
Main SWPS Unit C300 body		51	42	62	52	125
Main SWPS Unit PC301 body		41	33	52	43	110
Main SWPS Unit PC502 body		44	38	55	48	110
Main SWPS Unit PC701 body		40	35	51	45	150
Main SWPS Unit T301 coil		64	51	75	61	110
Main SWPS Unit T301 core		68	53	79	63	110
Main SWPS Unit T501 coil		60	46	71	56	110
Main SWPS Unit T501 core		53	39	64	49	110
Main SWPS Unit IC502 body		41	39	52	49	150
Main SWPS Unit Q301 Heatsink		51	45	62	55	105
IH PWB YC1 body		31	28	42	38	85
IH PWB YC2 body		32	27	43	37	120
IH PWB YC7 body		32	27	43	37	85
IH PWB N1 body		31	28	42	38	85
IH PWB L3 coil		30	28	41	38	90
IH PWB RY2 Ambience		33	29	44	39	85
IH PWB NC3 body		35	28	46	38	115

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition A and B at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> A and B: Standby / 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		A: 108V, 60Hz		B: 132V, 60Hz		
t _{amb1} (°C):		A: -- B: --		t _{amb2} (°C): A: 24 B: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		A T (°C)	B T (°C)	A T (°C)	B T (°C)	
IH PWB NC5 body		36	28	47	38	150
IH PWB Q1 Heatsink		32	27	43	37	105
IH PWB T1 coil		30	28	41	38	90
Sub SWPS Unit YC1 body		26	26	37	36	85
Sub SWPS Unit YC4 body		25	26	36	36	85
Sub SWPS Unit Z1 body		26	26	37	36	85
Sub SWPS Unit L1 coil		27	26	38	36	90
Sub SWPS Unit L2 coil		27	26	38	36	90
Sub SWPS Unit C6 body		27	26	38	36	125
Sub SWPS Unit C10 body		26	26	37	36	105
Sub SWPS Unit C500 body		28	27	39	37	125
Sub SWPS Unit C300 body		32	29	43	39	90
Sub SWPS Unit PC301 body		29	27	40	37	110
Sub SWPS Unit PC502 body		28	27	39	37	110
Sub SWPS Unit PC701 body		30	28	41	38	150
Sub SWPS Unit T301 coil		35	31	46	41	110
Sub SWPS Unit T501 coil		29	27	40	37	110
Sub SWPS Unit IC502 body		27	27	38	37	150
Sub SWPS Unit Q301 Heatsink		32	31	43	41	105
Sub SWPS Unit Relay ambience		34	31	45	41	85
IH Coil		36	29	47	39	--
IH Coil Holder		37	32	48	42	--
Fuser Unit Thermistor Center		41	46	52	56	--
Fuser Unit Thermistor Contact		40	39	51	49	--
Fuser Unit Thermistor Press		48	48	59	58	--
Fuser Unit Thermal cuoff (Heat Belt)		42	49	53	59	--
Fuser Unit Thermal cuoff (Press Roller)		51	68	62	78	--
Fuse Unit Cover (plastic)		40	32	51	42	95
Fuse Unit Cover (metal)		40	32	51	42	70
Fuse Unit Primary wiring		41	50	52	60	200
Fuse Unit Secondary wiring		40	39	51	49	150

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition A and B at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> A and B: Standby / 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		A: 108V, 60Hz		B: 132V, 60Hz		
t _{amb1} (°C):		A: -- B: --		t _{amb2} (°C): A: 24 B: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		A T (°C)	B T (°C)	A T (°C)	B T (°C)	
Fuser Unit knob		42	34	53	44	85
Transfer unit metal plate		31	27	42	37	70
Transfer unit plastic plate		36	30	47	40	95
Operation panel		28	26	39	36	85
Paper cassette handle		24	25	35	35	85
Bridge unit plastic cover		36	26	47	36	95
Bridge unit Metal cover		35	26	46	36	70
Bridge unit plastic knob		32	26	43	36	85
Interlock Switch body		28	27	39	37	105
Machine rear cover metal		28	26	39	36	70
Machine rear cover plastic		28	23	39	33	95
Contact glass		30	26	41	36	80
Right Tray cover (plastic)		37	26	48	36	95
Front SW Cover (plastic)		26	25	37	35	95
Lithium Battery		45	34	56	44	70
Hard Disk Drive		39	33	50	43	90
Fuser Unit connector		32	27	43	37	85
Left Rear Cover on Document Processor		27	25	38	35	95
Conveying Motor 1 on Document Processor		29	26	40	36	100
Power Cord Bushing		25	25	36	35	105
Main Switch body		26	26	37	36	70
Primary wiring to Main SWPS Unit		27	27	38	37	80
Current Detection PWB T1 coil		26	26	37	36	90
Supplementary information:						
Temperatures measured with winding resistance method: Not used.						

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition C and D at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> C and D: Simplex Copy / 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		C: 108V, 60Hz		D: 132V, 60Hz		
t _{amb1} (°C):		C: -- D: --		t _{amb2} (°C): C: 25 D: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		C T (°C)	D T (°C)	C T (°C)	D T (°C)	
Main SWPS Unit YC1 body		56	53	66	63	85
Main SWPS Unit YC2 body		50	49	60	59	85
Main SWPS Unit YC3 body		51	49	61	59	85
Main SWPS Unit Z1 body		50	49	60	59	85
Main SWPS Unit L1 coil		62	57	72	67	90
Main SWPS Unit L2 coil		64	59	74	69	90
Main SWPS Unit C6 body		48	48	58	58	125
Main SWPS Unit L401 coil		63	60	73	70	90
Main SWPS Unit C401 body		44	44	54	54	105
Main SWPS Unit C400 body		41	41	51	51	125
Main SWPS Unit C300 body		49	49	59	59	125
Main SWPS Unit PC301 body		41	41	51	51	110
Main SWPS Unit PC502 body		46	46	56	56	110
Main SWPS Unit PC701 body		48	48	58	58	150
Main SWPS Unit T301 coil		57	57	67	67	110
Main SWPS Unit T301 core		65	66	75	76	110
Main SWPS Unit T501 coil		56	56	66	66	110
Main SWPS Unit T501 core		53	53	63	63	110
Main SWPS Unit IC502 body		46	45	56	55	150
Main SWPS Unit Q301 Heatsink		48	49	58	59	105
IH PWB YC1 body		51	49	61	59	85
IH PWB YC2 body		64	62	74	72	120
IH PWB YC7 body		49	48	59	58	85
IH PWB N1 body		50	48	60	58	85
IH PWB L3 coil		52	49	62	59	90
IH PWB RY2 Ambience		49	48	59	58	85
IH PWB NC3 body		57	56	67	66	115
IH PWB NC5 body		49	47	59	57	150
IH PWB Q1 Heatsink		90	88	100	98	105
IH PWB T1 coil		50	48	60	58	90

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition C and D at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> C and D: Simplex Copy / 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		C: 108V, 60Hz		D: 132V, 60Hz		
t _{amb1} (°C):		C: -- D: --		t _{amb2} (°C): C: 25 D: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		C T (°C)	D T (°C)	C T (°C)	D T (°C)	
Sub SWPS Unit YC1 body		40	39	50	49	85
Sub SWPS Unit YC4 body		33	33	43	43	85
Sub SWPS Unit Z1 body		41	40	51	50	85
Sub SWPS Unit L1 coil		51	47	61	57	90
Sub SWPS Unit L2 coil		51	47	61	57	90
Sub SWPS Unit C6 body		42	41	52	51	125
Sub SWPS Unit C10 body		40	39	50	49	105
Sub SWPS Unit C500 body		45	44	55	54	125
Sub SWPS Unit C300 body		64	63	74	73	90
Sub SWPS Unit PC301 body		52	51	62	61	110
Sub SWPS Unit PC502 body		43	43	53	53	110
Sub SWPS Unit PC701 body		46	44	56	54	150
Sub SWPS Unit T301 coil		79	79	89	89	110
Sub SWPS Unit T501 coil		50	49	60	59	110
Sub SWPS Unit IC502 body		38	37	48	47	150
Sub SWPS Unit Q301 Heatsink		72	72	82	82	105
Sub SWPS Unit Relay ambience		47	46	57	56	85
IH Coil		67	68	77	78	--
IH Coil Holder		55	53	65	63	--
Fuser Unit Thermistor Center		118	114	128	124	--
Fuser Unit Thermistor Contact		96	96	106	106	--
Fuser Unit Thermistor Press		41	54	51	64	--
Fuser Unit Thermal cuoff (Heat Belt)		124	120	134	130	--
Fuser Unit Thermal cuoff (Press Roller)		44	54	54	64	--
Fuse Unit Cover (plastic)		46	50	56	60	95
Fuse Unit Cover (metal)		54	59	64	69	70
Fuse Unit Primary wiring		62	66	72	76	200
Fuse Unit Secondary wiring		94	90	104	100	150
Fuser Unit knob		34	38	44	48	85
Transfer unit metal plate		32	36	42	46	70

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition C and D at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> C and D: Simplex Copy / 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		C: 108V, 60Hz		D: 132V, 60Hz		
t _{amb1} (°C):		C: -- D: --		t _{amb2} (°C): C: 25 D: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		C T (°C)	D T (°C)	C T (°C)	D T (°C)	
Transfer unit plastic plate		45	50	55	60	95
Operation panel		31	31	41	41	85
Paper cassette handle		25	26	35	36	85
Bridge unit plastic cover		43	48	53	58	95
Bridge unit Metal cover		41	45	51	55	70
Bridge unit plastic knob		40	43	50	53	85
Interlock Switch body		44	44	54	54	105
Machine rear cover metal		40	40	50	50	70
Machine rear cover plastic		40	40	50	50	95
Contact glass		40	43	50	53	80
Right Tray cover (plastic)		32	37	42	47	95
Front SW Cover (plastic)		32	33	42	43	95
Lithium Battery		50	50	60	60	70
Hard Disk Drive		50	51	60	61	90
Fuser Unit connector		49	48	59	58	85
Left Rear Cover on Document Processor		35	35	45	45	95
Conveying Motor 1 on Document Processor		66	63	76	73	100
Power Cord Bushing		42	41	52	51	105
Main Switch body		48	46	58	56	70
Primary wiring to Main SWPS Unit		48	47	58	57	80
Current Detection PWB T1 coil		49	47	59	57	90
Supplementary information:						
Temperatures measured with winding resistance method: Not used.						

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition E and F at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> E and F: Duplex Copy / 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		E: 108V, 60Hz		F: 132V, 60Hz		
t _{amb1} (°C):		E: -- F: --		t _{amb2} (°C):		
				E: 24 F: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		E T (°C)	F T (°C)	E T (°C)	F T (°C)	
Main SWPS Unit YC1 body		53	51	64	61	85
Main SWPS Unit YC2 body		48	48	59	58	85
Main SWPS Unit YC3 body		49	49	60	59	85
Main SWPS Unit Z1 body		48	49	59	59	85
Main SWPS Unit L1 coil		62	58	73	68	90
Main SWPS Unit L2 coil		64	60	75	70	90
Main SWPS Unit C6 body		47	48	58	58	125
Main SWPS Unit L401 coil		63	60	74	70	90
Main SWPS Unit C401 body		42	44	53	54	105
Main SWPS Unit C400 body		39	41	50	51	125
Main SWPS Unit C300 body		48	49	59	59	125
Main SWPS Unit PC301 body		39	41	50	51	110
Main SWPS Unit PC502 body		44	46	55	56	110
Main SWPS Unit PC701 body		47	48	58	58	150
Main SWPS Unit T301 coil		56	57	67	67	110
Main SWPS Unit T301 core		65	67	76	77	110
Main SWPS Unit T501 coil		54	56	65	66	110
Main SWPS Unit T501 core		51	53	62	63	110
Main SWPS Unit IC502 body		44	46	55	56	150
Main SWPS Unit Q301 Heatsink		47	49	58	59	105
IH PWB YC1 body		47	47	58	57	85
IH PWB YC2 body		57	57	68	67	120
IH PWB YC7 body		46	46	57	56	85
IH PWB N1 body		46	46	57	56	85
IH PWB L3 coil		47	46	58	56	90
IH PWB RY2 Ambience		46	46	57	56	85
IH PWB NC3 body		52	53	63	63	115
IH PWB NC5 body		45	46	56	56	150
IH PWB Q1 Heatsink		77	78	88	88	105
IH PWB T1 coil		46	46	57	56	90

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition E and F at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> E and F: Duplex Copy / 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		E: 108V, 60Hz		F: 132V, 60Hz		
t _{amb1} (°C):		E: -- F: --		t _{amb2} (°C): E: 24 F: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		E T (°C)	F T (°C)	E T (°C)	F T (°C)	
Sub SWPS Unit YC1 body		37	38	48	48	85
Sub SWPS Unit YC4 body		32	33	43	43	85
Sub SWPS Unit Z1 body		39	40	50	50	85
Sub SWPS Unit L1 coil		48	47	59	57	90
Sub SWPS Unit L2 coil		48	47	59	57	90
Sub SWPS Unit C6 body		39	40	50	50	125
Sub SWPS Unit C10 body		38	39	49	49	105
Sub SWPS Unit C500 body		41	43	52	53	125
Sub SWPS Unit C300 body		60	63	71	73	90
Sub SWPS Unit PC301 body		49	52	60	62	110
Sub SWPS Unit PC502 body		41	42	52	52	110
Sub SWPS Unit PC701 body		43	44	54	54	150
Sub SWPS Unit T301 coil		74	79	85	89	110
Sub SWPS Unit T501 coil		45	48	56	58	110
Sub SWPS Unit IC502 body		36	37	47	47	150
Sub SWPS Unit Q301 Heatsink		69	71	80	81	105
Sub SWPS Unit Relay ambience		46	47	57	57	85
IH Coil		62	63	73	73	--
IH Coil Holder		51	51	62	61	--
Fuser Unit Thermistor Center		112	110	123	120	--
Fuser Unit Thermistor Contact		88	87	99	97	--
Fuser Unit Thermistor Press		72	77	83	87	--
Fuser Unit Thermal cuoff (Heat Belt)		117	115	128	125	--
Fuser Unit Thermal cuoff (Press Roller)		80	84	91	94	--
Fuse Unit Cover (plastic)		57	59	68	69	95
Fuse Unit Cover (metal)		59	60	70	70	70
Fuse Unit Primary wiring		65	65	76	75	200
Fuse Unit Secondary wiring		88	86	99	96	150
Fuser Unit knob		55	57	66	67	85
Transfer unit metal plate		38	37	49	47	70
Transfer unit plastic plate		55	56	66	66	95

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition E and F at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> E and F: Duplex Copy / 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		E: 108V, 60Hz		F: 132V, 60Hz		
t _{amb1} (°C):		E: -- F: --		t _{amb2} (°C): E: 24 F: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		E T (°C)	F T (°C)	E T (°C)	F T (°C)	
Operation panel		30	31	41	41	85
Paper cassette handle		25	25	36	35	85
Bridge unit plastic cover		54	52	65	62	95
Bridge unit Metal cover		49	48	60	58	70
Bridge unit plastic knob		45	45	56	55	85
Interlock Switch body		42	43	53	53	105
Machine rear cover metal		39	39	50	49	70
Machine rear cover plastic		40	39	51	49	95
Contact glass		40	43	51	53	80
Right Tray cover (plastic)		38	37	49	47	95
Front SW Cover (plastic)		32	32	43	42	95
Lithium Battery		49	50	60	60	70
Hard Disk Drive		50	51	61	61	90
Fuser Unit connector		46	47	57	57	85
Left Rear Cover on Document Processor		34	35	45	45	95
Conveying Motor 1 on Document Processor		52	58	63	68	100
Power Cord Bushing		40	41	51	51	105
Main Switch body		45	46	56	56	70
Primary wiring to Main SWPS Unit		45	46	56	56	80
Current Detection PWB T1 coil		46	46	57	56	90
Supplementary information:						
Temperatures measured with winding resistance method: Not used.						

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition G and H at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> G and H: Standby / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		G: 198V, 50Hz		H: 242V, 50Hz		
t _{amb1} (°C):		G: -- --		t _{amb2} (°C):	G: 24 H: 24	
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		G T (°C)	H T (°C)	G T (°C)	H T (°C)	
Main SWPS Unit YC1 body		33	32	44	43	85
Main SWPS Unit YC2 body		36	35	47	46	85
Main SWPS Unit YC3 body		37	36	48	47	85
Main SWPS Unit Z1 body		38	37	49	48	85
Main SWPS Unit L1 coil		38	37	49	48	90
Main SWPS Unit L2 coil		39	38	50	49	90
Main SWPS Unit C6 body		38	38	49	49	125
Main SWPS Unit L401 coil		38	37	49	48	90
Main SWPS Unit C401 body		33	32	44	43	105
Main SWPS Unit C400 body		31	31	42	42	125
Main SWPS Unit C300 body		52	52	63	63	125
Main SWPS Unit PC301 body		42	42	53	53	110
Main SWPS Unit PC502 body		45	45	56	56	110
Main SWPS Unit PC701 body		41	41	52	52	150
Main SWPS Unit T301 coil		67	67	78	78	110
Main SWPS Unit T301 core		76	75	87	86	110
Main SWPS Unit T501 coil		60	60	71	71	110
Main SWPS Unit T501 core		57	56	68	67	110
Main SWPS Unit IC502 body		39	39	50	50	150
Main SWPS Unit Q301 Heatsink		55	55	66	66	105
IH PWB YC1 body		30	30	41	41	85
IH PWB YC2 body		29	28	40	39	120
IH PWB YC7 body		29	29	40	40	85
IH PWB N1 body		29	29	40	40	85
IH PWB L3 Coil		29	29	40	40	90
IH PWB RY2 Ambience		31	31	42	42	85
IH PWB NC3 Body		29	29	40	40	115
IH PWB NC5 Body		29	29	40	40	150
IH PWB Q1 Heatsink		28	28	39	39	105

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition G and H at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> G and H: Standby / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		G: 198V, 50Hz		H: 242V, 50Hz		
t _{amb1} (°C):		G: -- --		t _{amb2} (°C):	G: 24 H: 24	
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		G T (°C)	H T (°C)	G T (°C)	H T (°C)	
IH PWB T1 Coil		29	29	40	40	90
Sub SWPS Unit YC1 Body		26	26	37	37	85
Sub SWPS Unit YC4 Body		25	25	36	36	85
Sub SWPS Unit Z1 body		27	26	38	37	85
Sub SWPS Unit L1 Coil		28	28	39	39	90
Sub SWPS Unit L2 Coil		27	27	38	38	90
Sub SWPS Unit L3 Coil		27	27	38	38	90
Sub SWPS Unit C6 body		27	27	38	38	125
Sub SWPS Unit C10 Body		26	26	37	37	105
Sub SWPS Unit C500 Body		29	29	40	40	125
Sub SWPS Unit C300 Body		34	34	45	45	90
Sub SWPS Unit PC301 Body		31	31	42	42	110
Sub SWPS Unit PC502 Body		28	28	39	39	110
Sub SWPS Unit PC701 Body		28	28	39	39	150
Sub SWPS Unit T301 Coil		39	39	50	50	110
Sub SWPS Unit T501 Coil		29	29	40	40	110
Sub SWPS Unit IC502 Body		27	27	38	38	150
SWPS MPW9214 Q301 Heatsink		32	34	43	45	105
IH Coil		31	31	42	42	--
IH Coil Holder		35	35	46	46	--
Fuser Unit Thermistor Center		43	43	54	54	--
Fuser Unit Thermistor Contact		44	43	55	54	--
Fuser Unit Thermistor Press		86	87	97	98	--
Fuser Unit Thermal cuoff (Heat Belt)		44	44	55	55	--
Fuser Unit Thermal cuoff (Press Roller)		65	65	76	76	--
Fuse Unit Cover (plastic)		59	59	70	70	95
Fuse Unit Cover (metal)		42	42	53	53	70
Fuse Unit Primary wiring		57	57	68	68	200
Fuse Unit Secondary wiring		39	39	50	50	150
Fuser Unit knob		44	44	55	55	85

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition G and H at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> G and H: Standby / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		G: 198V, 50Hz		H: 242V, 50Hz		
t _{amb1} (°C):		G: -- --		t _{amb2} (°C): G: 24 H: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		G T (°C)	H T (°C)	G T (°C)	H T (°C)	
Transfer unit metal plate		33	33	44	44	70
Transfer unit plastic plate		39	38	50	49	95
Operation panel		28	27	39	38	85
Paper cassette handle		24	24	35	35	85
Bridge unit plastic cover		35	34	46	45	95
Bridge unit Metal cover		34	33	45	44	70
Bridge unit plastic knob		31	30	42	41	85
Interlock Switch body		31	31	42	42	105
Machine rear cover metal		29	28	40	39	70
Machine rear cover plastic		29	28	40	39	95
Contact glass		28	28	39	39	80
Right Tray cover (plastic)		30	30	41	41	95
Front SW Cover (plastic)		26	25	37	36	95
Lithium Battery		46	45	57	56	70
Hard Disk Drive		43	42	54	53	90
Fuser Unit connector		29	29	40	40	85
Left Rear Cover on Document Processor		27	26	38	37	95
Conveying Motor 1 on Document Processor		28	27	39	38	100
Inlet Body		25	25	36	36	105
Main Switch body		26	26	37	37	70
Primary wiring to Main SWPS Unit		28	28	39	39	80
Supplementary information:						
Temperatures measured with winding resistance method: Not used.						

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition I at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> I: Standby / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		I: 264V, 60Hz				
t _{amb1} (°C):		I: --		t _{amb2} (°C): I: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		I T (°C)	--	I T (°C)	--	
Main SWPS Unit YC1 body		32	--	43	--	85
Main SWPS Unit YC2 body		35	--	46	--	85
Main SWPS Unit YC3 body		35	--	46	--	85
Main SWPS Unit Z1 body		36	--	47	--	85
Main SWPS Unit L1 coil		37	--	48	--	90
Main SWPS Unit L2 coil		38	--	49	--	90
Main SWPS Unit C6 body		38	--	49	--	125
Main SWPS Unit L401 coil		36	--	47	--	90
Main SWPS Unit C401 body		32	--	43	--	105
Main SWPS Unit C400 body		31	--	42	--	125
Main SWPS Unit C300 body		51	--	62	--	125
Main SWPS Unit PC301 body		42	--	53	--	110
Main SWPS Unit PC502 body		45	--	56	--	110
Main SWPS Unit PC701 body		40	--	51	--	150
Main SWPS Unit T301 coil		67	--	78	--	110
Main SWPS Unit T301 core		75	--	86	--	110
Main SWPS Unit T501 coil		60	--	71	--	110
Main SWPS Unit T501 core		56	--	67	--	110
Main SWPS Unit IC502 body		39	--	50	--	150
Main SWPS Unit Q301 Heatsink		54	--	65	--	105
IH PWB YC1 body		30	--	41	--	85
IH PWB YC2 body		28	--	39	--	120
IH PWB YC7 body		28	--	39	--	85
IH PWB N1 body		29	--	40	--	85
IH PWB L3 Coil		28	--	39	--	90
IH PWB RY2 Ambience		30	--	41	--	85
IH PWB NC3 Body		28	--	39	--	115
IH PWB NC5 Body		29	--	40	--	150
IH PWB Q1 Heatsink		28	--	39	--	105
IH PWB T1 Coil		28	--	39	--	90

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition I at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> I: Standby / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		I: 264V, 60Hz				
t _{amb1} (°C):		I: --		t _{amb2} (°C): I: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		I T (°C)	--	I T (°C)	--	
Sub SWPS Unit YC1 Body		26	--	37	--	85
Sub SWPS Unit YC4 Body		25	--	36	--	85
Sub SWPS Unit Z1 body		26	--	37	--	85
Sub SWPS Unit L1 Coil		27	--	38	--	90
Sub SWPS Unit L2 Coil		27	--	38	--	90
Sub SWPS Unit L3 Coil		27	--	38	--	90
Sub SWPS Unit C6 body		27	--	38	--	125
Sub SWPS Unit C10 Body		26	--	37	--	105
Sub SWPS Unit C500 Body		29	--	40	--	125
Sub SWPS Unit C300 Body		34	--	45	--	90
Sub SWPS Unit PC301 Body		31	--	42	--	110
Sub SWPS Unit PC502 Body		28	--	39	--	110
Sub SWPS Unit PC701 Body		28	--	39	--	150
Sub SWPS Unit T301 Coil		39	--	50	--	110
Sub SWPS Unit T501 Coil		29	--	40	--	110
Sub SWPS Unit IC502 Body		27	--	38	--	150
SWPS MPW9214 Q301 Heatsink		34	--	45	--	105
IH Coil		30	--	41	--	--
IH Coil Holder		34	--	45	--	--
Fuser Unit Thermistor Center		42	--	53	--	--
Fuser Unit Thermistor Contact		42	--	53	--	--
Fuser Unit Thermistor Press		84	--	95	--	--
Fuser Unit Thermal cuoff (Heat Belt)		43	--	54	--	--
Fuser Unit Thermal cuoff (Press Roller)		64	--	75	--	--
Fuse Unit Cover (plastic)		59	--	70	--	95
Fuse Unit Cover (metal)		41	--	52	--	70
Fuse Unit Primary wiring		54	--	65	--	200
Fuse Unit Secondary wiring		38	--	49	--	150
Fuser Unit knob		44	--	55	--	85
Transfer unit metal plate		32	--	43	--	70

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition I at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> I: Standby / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		I: 264V, 60Hz				
t _{amb1} (°C):		I: --		t _{amb2} (°C): I: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		I T (°C)	--	I T (°C)	--	
Transfer unit plastic plate		38	--	49	--	95
Operation panel		27	--	38	--	85
Paper cassette handle		24	--	35	--	85
Bridge unit plastic cover		31	--	42	--	95
Bridge unit Metal cover		30	--	41	--	70
Bridge unit plastic knob		28	--	39	--	85
Interlock Switch body		30	--	41	--	105
Machine rear cover metal		28	--	39	--	70
Machine rear cover plastic		28	--	39	--	95
Contact glass		26	--	37	--	80
Right Tray cover (plastic)		29	--	40	--	95
Front SW Cover (plastic)		25	--	36	--	95
Lithium Battery		44	--	55	--	70
Hard Disk Drive		41	--	52	--	90
Fuser Unit connector		28	--	39	--	85
Left Rear Cover on Document Processor		26	--	37	--	95
Conveying Motor 1 on Document Processor		26	--	37	--	100
Inlet Body		24	--	35	--	105
Main Switch body		26	--	37	--	70
Primary wiring to Main SWPS Unit		28	--	39	--	80
Supplementary information:						
Temperatures measured with winding resistance method: Not used.						

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition J and K at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> J and K: Simplex Copy / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		J: 198V, 50Hz		K: 242V, 50Hz		
t _{amb1} (°C):		J: -- K: --		t _{amb2} (°C): J: 25 K: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		J T (°C)	K T (°C)	J T (°C)	K T (°C)	
Main SWPS Unit YC1 body		46	46	56	57	85
Main SWPS Unit YC2 body		47	47	57	58	85
Main SWPS Unit YC3 body		51	50	61	61	85
Main SWPS Unit Z1 body		51	50	61	61	85
Main SWPS Unit L1 coil		60	56	70	67	90
Main SWPS Unit L2 coil		55	52	65	63	90
Main SWPS Unit C6 body		47	47	57	58	125
Main SWPS Unit L401 coil		51	49	61	60	90
Main SWPS Unit C401 body		42	42	52	53	105
Main SWPS Unit C400 body		40	40	50	51	125
Main SWPS Unit C300 body		47	48	57	59	125
Main SWPS Unit PC301 body		40	40	50	51	110
Main SWPS Unit PC502 body		45	45	55	56	110
Main SWPS Unit PC701 body		45	45	55	56	150
Main SWPS Unit T301 coil		53	53	63	64	110
Main SWPS Unit T301 core		59	60	69	71	110
Main SWPS Unit T501 coil		52	52	62	63	110
Main SWPS Unit T501 core		51	52	61	63	110
Main SWPS Unit IC502 body		42	43	52	54	150
Main SWPS Unit Q301 Heatsink		50	50	60	61	105
IH PWB YC1 body		44	44	54	55	85
IH PWB YC2 body		48	49	58	60	120
IH PWB YC7 body		44	44	54	55	85
IH PWB N1 body		43	43	53	54	85
IH PWB L3 Coil		42	42	52	53	90
IH PWB RY2 Ambience		44	44	54	55	85
IH PWB NC3 Body		45	46	55	57	115
IH PWB NC5 Body		42	42	52	53	150
IH PWB Q1 Heatsink		56	56	66	67	105
IH PWB T1 Coil		42	42	52	53	90

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition J and K at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> J and K: Simplex Copy / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		J: 198V, 50Hz		K: 242V, 50Hz		
t _{amb1} (°C):		J: -- K: --		t _{amb2} (°C): J: 25 K: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		J T (°C)	K T (°C)	J T (°C)	K T (°C)	
Sub SWPS Unit YC1 Body		37	37	47	48	85
Sub SWPS Unit YC4 Body		32	32	42	43	85
Sub SWPS Unit Z1 body		39	39	49	50	85
Sub SWPS Unit L1 Coil		47	46	57	57	90
Sub SWPS Unit L2 Coil		47	46	57	57	90
Sub SWPS Unit L3 Coil		53	51	63	62	90
Sub SWPS Unit C6 body		41	41	51	52	125
Sub SWPS Unit C10 Body		36	35	46	46	105
Sub SWPS Unit C500 Body		43	43	53	54	125
Sub SWPS Unit C300 Body		61	62	71	73	90
Sub SWPS Unit PC301 Body		53	55	63	66	110
Sub SWPS Unit PC502 Body		41	41	51	52	110
Sub SWPS Unit PC701 Body		44	44	54	55	150
Sub SWPS Unit T301 Coil		84	88	94	99	110
Sub SWPS Unit T501 Coil		44	45	54	56	110
Sub SWPS Unit IC502 Body		35	36	45	47	150
SWPS MPW9214 Q301 Heatsink		70	71	80	82	105
IH Coil		55	54	65	65	--
IH Coil Holder		73	73	83	84	--
Fuser Unit Thermistor Center		111	112	121	123	--
Fuser Unit Thermistor Contact		99	101	109	112	--
Fuser Unit Thermistor Press		45	44	55	55	--
Fuser Unit Thermal cuoff (Heat Belt)		120	121	130	132	--
Fuser Unit Thermal cuoff (Press Roller)		42	40	52	51	--
Fuse Unit Cover (plastic)		32	32	42	43	95
Fuse Unit Cover (metal)		53	52	63	63	70
Fuse Unit Primary wiring		68	66	78	77	200
Fuse Unit Secondary wiring		94	95	104	106	150
Fuser Unit knob		48	47	58	58	85
Transfer unit metal plate		32	32	42	43	70

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition J and K at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> J and K: Simplex Copy / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		J: 198V, 50Hz		K: 242V, 50Hz		
t _{amb1} (°C):		J: -- K: --		t _{amb2} (°C): J: 25 K: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		J T (°C)	K T (°C)	J T (°C)	K T (°C)	
Transfer unit plastic plate		42	42	52	53	95
Operation panel		30	30	40	41	85
Paper cassette handle		25	25	35	36	85
Bridge unit plastic cover		46	45	56	56	95
Bridge unit Metal cover		42	41	52	52	70
Bridge unit plastic knob		41	41	51	52	85
Interlock Switch body		42	42	52	53	105
Machine rear cover metal		36	36	46	47	70
Machine rear cover plastic		40	40	50	51	95
Contact glass		39	40	49	51	80
Right Tray cover (plastic)		32	31	42	42	95
Front SW Cover (plastic)		31	32	41	43	95
Lithium Battery		49	49	59	60	70
Hard Disk Drive		49	50	59	61	90
Fuser Unit connector		43	43	53	54	85
Left Rear Cover on Document Processor		35	35	45	46	95
Conveying Motor 1 on Document Processor		65	65	75	76	100
Inlet Body		40	40	50	51	105
Main Switch body		43	43	53	54	70
Primary wiring to Main SWPS Unit		43	43	53	54	80
Supplementary information:						
Temperatures measured with winding resistance method: Not used.						

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition L at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition>L: Simplex Copy / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		L: 264V, 60Hz				
t _{amb1} (°C):		L: --		t _{amb2} (°C): L: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		L T (°C)	--	L T (°C)	--	
Main SWPS Unit YC1 body		45	--	55	--	85
Main SWPS Unit YC2 body		47	--	57	--	85
Main SWPS Unit YC3 body		50	--	60	--	85
Main SWPS Unit Z1 body		50	--	60	--	85
Main SWPS Unit L1 coil		55	--	65	--	90
Main SWPS Unit L2 coil		51	--	61	--	90
Main SWPS Unit C6 body		46	--	56	--	125
Main SWPS Unit L401 coil		47	--	57	--	90
Main SWPS Unit C401 body		42	--	52	--	105
Main SWPS Unit C400 body		40	--	50	--	125
Main SWPS Unit C300 body		48	--	58	--	125
Main SWPS Unit PC301 body		40	--	50	--	110
Main SWPS Unit PC502 body		45	--	55	--	110
Main SWPS Unit PC701 body		45	--	55	--	150
Main SWPS Unit T301 coil		53	--	63	--	110
Main SWPS Unit T301 core		60	--	70	--	110
Main SWPS Unit T501 coil		52	--	62	--	110
Main SWPS Unit T501 core		52	--	62	--	110
Main SWPS Unit IC502 body		43	--	53	--	150
Main SWPS Unit Q301 Heatsink		50	--	60	--	105
IH PWB YC1 body		44	--	54	--	85
IH PWB YC2 body		49	--	59	--	120
IH PWB YC7 body		44	--	54	--	85
IH PWB N1 body		43	--	53	--	85
IH PWB L3 Coil		42	--	52	--	90
IH PWB RY2 Ambience		44	--	54	--	85
IH PWB NC3 Body		46	--	56	--	115
IH PWB NC5 Body		42	--	52	--	150
IH PWB Q1 Heatsink		55	--	65	--	105

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition L at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition>L: Simplex Copy / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		L: 264V, 60Hz				
t _{amb1} (°C):		L: --		t _{amb2} (°C): L: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		L T (°C)	--	L T (°C)	--	
IH PWB T1 Coil		42	--	52	--	90
Sub SWPS Unit YC1 Body		37	--	47	--	85
Sub SWPS Unit YC4 Body		32	--	42	--	85
Sub SWPS Unit Z1 body		39	--	49	--	85
Sub SWPS Unit L1 Coil		45	--	55	--	90
Sub SWPS Unit L2 Coil		45	--	55	--	90
Sub SWPS Unit L3 Coil		50	--	60	--	90
Sub SWPS Unit C6 body		40	--	50	--	125
Sub SWPS Unit C10 Body		35	--	45	--	105
Sub SWPS Unit C500 Body		42	--	52	--	125
Sub SWPS Unit C300 Body		62	--	72	--	90
Sub SWPS Unit PC301 Body		54	--	64	--	110
Sub SWPS Unit PC502 Body		40	--	50	--	110
Sub SWPS Unit PC701 Body		43	--	53	--	150
Sub SWPS Unit T301 Coil		87	--	97	--	110
Sub SWPS Unit T501 Coil		44	--	54	--	110
Sub SWPS Unit IC502 Body		35	--	45	--	150
SWPS MPW9214 Q301 Heatsink		71	--	81	--	105
IH Coil		56	--	66	--	--
IH Coil Holder		73	--	83	--	--
Fuser Unit Thermistor Center		111	--	121	--	--
Fuser Unit Thermistor Contact		101	--	111	--	--
Fuser Unit Thermistor Press		48	--	58	--	--
Fuser Unit Thermal cuoff (Heat Belt)		120	--	130	--	--
Fuser Unit Thermal cuoff (Press Roller)		45	--	55	--	--
Fuse Unit Cover (plastic)		34	--	44	--	95
Fuse Unit Cover (metal)		55	--	65	--	70
Fuse Unit Primary wiring		69	--	79	--	200
Fuse Unit Secondary wiring		94	--	104	--	150
Fuser Unit knob		50	--	60	--	85

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition L at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition>L: Simplex Copy / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		L: 264V, 60Hz				
t _{amb1} (°C):		L: --		t _{amb2} (°C): L: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		L T (°C)	--	L T (°C)	--	
Transfer unit metal plate		34	--	44	--	70
Transfer unit plastic plate		44	--	54	--	95
Operation panel		31	--	41	--	85
Paper cassette handle		25	--	35	--	85
Bridge unit plastic cover		47	--	57	--	95
Bridge unit Metal cover		44	--	54	--	70
Bridge unit plastic knob		43	--	53	--	85
Interlock Switch body		42	--	52	--	105
Machine rear cover metal		37	--	47	--	70
Machine rear cover plastic		41	--	51	--	95
Contact glass		41	--	51	--	80
Right Tray cover (plastic)		36	--	46	--	95
Front SW Cover (plastic)		32	--	42	--	95
Lithium Battery		50	--	60	--	70
Hard Disk Drive		50	--	60	--	90
Fuser Unit connector		44	--	54	--	85
Left Rear Cover on Document Processor		35	--	45	--	95
Conveying Motor 1 on Document Processor		61	--	71	--	100
Inlet Body		40	--	50	--	105
Main Switch body		43	--	53	--	70
Primary wiring to Main SWPS Unit		43	--	53	--	80
Supplementary information:						
Temperatures measured with winding resistance method: Not used.						

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition M and N at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> M and N: Duplex Copy / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		M: 198V, 50Hz		N: 242V, 50Hz		
t _{amb1} (°C):		M: -- N: --		t _{amb2} (°C): M: 24 N: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		M T (°C)	N T (°C)	M T (°C)	N T (°C)	
Main SWPS Unit YC1 body		45	45	56	56	85
Main SWPS Unit YC2 body		46	46	57	57	85
Main SWPS Unit YC3 body		50	50	61	61	85
Main SWPS Unit Z1 body		50	50	61	61	85
Main SWPS Unit L1 coil		61	56	72	67	90
Main SWPS Unit L2 coil		55	52	66	63	90
Main SWPS Unit C6 body		46	46	57	57	125
Main SWPS Unit L401 coil		51	48	62	59	90
Main SWPS Unit C401 body		41	41	52	52	105
Main SWPS Unit C400 body		38	39	49	50	125
Main SWPS Unit C300 body		46	47	57	58	125
Main SWPS Unit PC301 body		39	40	50	51	110
Main SWPS Unit PC502 body		43	44	54	55	110
Main SWPS Unit PC701 body		44	45	55	56	150
Main SWPS Unit T301 coil		52	53	63	64	110
Main SWPS Unit T301 core		59	60	70	71	110
Main SWPS Unit T501 coil		50	51	61	62	110
Main SWPS Unit T501 core		50	51	61	62	110
Main SWPS Unit IC502 body		41	42	52	53	150
Main SWPS Unit Q301 Heatsink		49	50	60	61	105
IH PWB YC1 body		44	44	55	55	85
IH PWB YC2 body		48	48	59	59	120
IH PWB YC7 body		43	43	54	54	85
IH PWB N1 body		42	42	53	53	85
IH PWB L3 Coil		41	42	52	53	90
IH PWB RY2 Ambience		43	43	54	54	85
IH PWB NC3 Body		45	45	56	56	115
IH PWB NC5 Body		41	42	52	53	150
IH PWB Q1 Heatsink		55	54	66	65	105
IH PWB T1 Coil		41	41	52	52	90

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition M and N at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> M and N: Duplex Copy / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		M: 198V, 50Hz		N: 242V, 50Hz		
t _{amb1} (°C):		M: -- N: --		t _{amb2} (°C): M: 24 N: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		M T (°C)	N T (°C)	M T (°C)	N T (°C)	
Sub SWPS Unit YC1 Body		36	36	47	47	85
Sub SWPS Unit YC4 Body		31	31	42	42	85
Sub SWPS Unit Z1 body		38	38	49	49	85
Sub SWPS Unit L1 Coil		46	45	57	56	90
Sub SWPS Unit L2 Coil		48	45	59	56	90
Sub SWPS Unit L3 Coil		54	50	65	61	90
Sub SWPS Unit C6 body		41	40	52	51	125
Sub SWPS Unit C10 Body		35	35	46	46	105
Sub SWPS Unit C500 Body		41	42	52	53	125
Sub SWPS Unit C300 Body		59	60	70	71	90
Sub SWPS Unit PC301 Body		52	53	63	64	110
Sub SWPS Unit PC502 Body		39	40	50	51	110
Sub SWPS Unit PC701 Body		43	43	54	54	150
Sub SWPS Unit T301 Coil		83	84	94	95	110
Sub SWPS Unit T501 Coil		43	43	54	54	110
Sub SWPS Unit IC502 Body		34	34	45	45	150
SWPS MPW9214 Q301 Heatsink		68	67	79	78	105
IH Coil		56	56	67	67	--
IH Coil Holder		70	71	81	82	--
Fuser Unit Thermistor Center		111	110	122	121	--
Fuser Unit Thermistor Contact		97	98	108	109	--
Fuser Unit Thermistor Press		60	60	71	71	--
Fuser Unit Thermal cuoff (Heat Belt)		119	119	130	130	--
Fuser Unit Thermal cuoff (Press Roller)		57	57	68	68	--
Fuse Unit Cover (plastic)		40	40	51	51	95
Fuse Unit Cover (metal)		54	54	65	65	70
Fuse Unit Primary wiring		68	68	79	79	200
Fuse Unit Secondary wiring		93	93	104	104	150
Fuser Unit knob		58	57	69	68	85
Transfer unit metal plate		36	36	47	47	70

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition M and N at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> M and N: Duplex Copy / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		M: 198V, 50Hz		N: 242V, 50Hz		
t _{amb1} (°C):		M: -- N: --		t _{amb2} (°C): M: 24 N: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		M T (°C)	N T (°C)	M T (°C)	N T (°C)	
Transfer unit plastic plate		47	47	58	58	95
Operation panel		30	30	41	41	85
Paper cassette handle		24	24	35	35	85
Bridge unit plastic cover		56	56	67	67	95
Bridge unit Metal cover		50	50	61	61	70
Bridge unit plastic knob		46	46	57	57	85
Interlock Switch body		41	41	52	52	105
Machine rear cover metal		36	37	47	48	70
Machine rear cover plastic		40	40	51	51	95
Contact glass		39	41	50	52	80
Right Tray cover (plastic)		39	39	50	50	95
Front SW Cover (plastic)		32	32	43	43	95
Lithium Battery		49	49	60	60	70
Hard Disk Drive		49	50	60	61	90
Fuser Unit connector		43	43	54	54	85
Left Rear Cover on Document Processor		34	34	45	45	95
Conveying Motor 1 on Document Processor		54	55	65	66	100
Inlet Body		39	40	50	51	105
Main Switch body		42	42	53	53	70
Primary wiring to Main SWPS Unit		42	42	53	53	80
Supplementary information:						
Temperatures measured with winding resistance method: Not used.						

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition O at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> O :Duplex copy / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		O: 264V, 60Hz				
t _{amb1} (°C):		O: --		t _{amb2} (°C): O: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		O T (°C)	--	O T (°C)	--	
Main SWPS Unit YC1 body		45	--	56	--	85
Main SWPS Unit YC2 body		46	--	57	--	85
Main SWPS Unit YC3 body		49	--	60	--	85
Main SWPS Unit Z1 body		49	--	60	--	85
Main SWPS Unit L1 coil		55	--	66	--	90
Main SWPS Unit L2 coil		50	--	61	--	90
Main SWPS Unit C6 body		46	--	57	--	125
Main SWPS Unit L401 coil		47	--	58	--	90
Main SWPS Unit C401 body		41	--	52	--	105
Main SWPS Unit C400 body		39	--	50	--	125
Main SWPS Unit C300 body		47	--	58	--	125
Main SWPS Unit PC301 body		40	--	51	--	110
Main SWPS Unit PC502 body		44	--	55	--	110
Main SWPS Unit PC701 body		45	--	56	--	150
Main SWPS Unit T301 coil		53	--	64	--	110
Main SWPS Unit T301 core		59	--	70	--	110
Main SWPS Unit T501 coil		52	--	63	--	110
Main SWPS Unit T501 core		51	--	62	--	110
Main SWPS Unit IC502 body		42	--	53	--	150
Main SWPS Unit Q301 Heatsink		50	--	61	--	105
IH PWB YC1 body		44	--	55	--	85
IH PWB YC2 body		47	--	58	--	120
IH PWB YC7 body		43	--	54	--	85
IH PWB N1 body		42	--	53	--	85
IH PWB L3 Coil		41	--	52	--	90
IH PWB RY2 Ambience		43	--	54	--	85
IH PWB NC3 Body		45	--	56	--	115
IH PWB NC5 Body		42	--	53	--	150
IH PWB Q1 Heatsink		53	--	64	--	105
IH PWB T1 Coil		41	--	52	--	90

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements				P
Temperatures were measured according cl. 1.4.5. Test in condition O at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> O :Duplex copy / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.					
test voltage(s) (V):		O: 264V, 60Hz			
t _{amb1} (°C):		O: --		t _{amb2} (°C): O: 24	
Temperature of part/at: (measured with thermocouples)	Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
	O T (°C)	--	O T (°C)	--	
Sub SWPS Unit YC1 Body	36	--	47	--	85
Sub SWPS Unit YC4 Body	31	--	42	--	85
Sub SWPS Unit Z1 body	38	--	49	--	85
Sub SWPS Unit L1 Coil	44	--	55	--	90
Sub SWPS Unit L2 Coil	44	--	55	--	90
Sub SWPS Unit L3 Coil	49	--	60	--	90
Sub SWPS Unit C6 body	40	--	51	--	125
Sub SWPS Unit C10 Body	34	--	45	--	105
Sub SWPS Unit C500 Body	41	--	52	--	125
Sub SWPS Unit C300 Body	60	--	71	--	90
Sub SWPS Unit PC301 Body	53	--	64	--	110
Sub SWPS Unit PC502 Body	40	--	51	--	110
Sub SWPS Unit PC701 Body	42	--	53	--	150
Sub SWPS Unit T301 Coil	85	--	96	--	110
Sub SWPS Unit T501 Coil	43	--	54	--	110
Sub SWPS Unit IC502 Body	34	--	45	--	150
SWPS MPW9214 Q301 Heatsink	68	--	79	--	105
IH Coil	55	--	66	--	--
IH Coil Holder	69	--	80	--	--
Fuser Unit Thermistor Center	109	--	120	--	--
Fuser Unit Thermistor Contact	96	--	107	--	--
Fuser Unit Thermistor Press	63	--	74	--	--
Fuser Unit Thermal cuoff (Heat Belt)	117	--	128	--	--
Fuser Unit Thermal cuoff (Press Roller)	60	--	71	--	--
Fuse Unit Cover (plastic)	41	--	52	--	95
Fuse Unit Cover (metal)	55	--	66	--	70
Fuse Unit Primary wiring	69	--	80	--	200
Fuse Unit Secondary wiring	91	--	102	--	150
Fuser Unit knob	58	--	69	--	85
Transfer unit metal plate	37	--	48	--	70

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements				P
Temperatures were measured according cl. 1.4.5. Test in condition O at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> O :Duplex copy / TASKalfa 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.					
test voltage(s) (V):		O: 264V, 60Hz			
t _{amb1} (°C):		O: --		t _{amb2} (°C):	O: 24
Temperature of part/at: (measured with thermocouples)	Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
	O T (°C)	--	O T (°C)	--	
Transfer unit plastic plate	47	--	58	--	95
Operation panel	30	--	41	--	85
Paper cassette handle	25	--	36	--	85
Bridge unit plastic cover	55	--	66	--	95
Bridge unit Metal cover	49	--	60	--	70
Bridge unit plastic knob	46	--	57	--	85
Interlock Switch body	41	--	52	--	105
Machine rear cover metal	37	--	48	--	70
Machine rear cover plastic	40	--	51	--	95
Contact glass	41	--	52	--	80
Right Tray cover (plastic)	39	--	50	--	95
Front SW Cover (plastic)	33	--	44	--	95
Lithium Battery	49	--	60	--	70
Hard Disk Drive	50	--	61	--	90
Fuser Unit connector	43	--	54	--	85
Left Rear Cover on Document Processor	35	--	46	--	95
Conveying Motor 1 on Document Processor	55	--	66	--	100
Inlet Body	40	--	51	--	105
Main Switch body	42	--	53	--	70
Primary wiring to Main SWPS Unit	42	--	53	--	80
Supplementary information:					
Temperatures measured with winding resistance method: Not used.					

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition P and Q at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> P: Sleep / 8052ci Q: Sleep / 8052ci Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		P: 108V, 60Hz		Q: 132V, 60Hz		
t _{amb1} (°C):		P: -- Q: --		t _{amb2} (°C): P: 24 Q: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		P T (°C)	Q T (°C)	P T (°C)	Q T (°C)	
Middle Front Cassette Heater body, in Cassette 2		52	60	63	71	-- *
Middle Rear Cassette Heater body, in Cassette 2		57	72	68	83	-- *
Cassette Heater body, in Cassette 3 and Cassette 4		60	74	71	85	-- *
Supplementary information:						
*: Unlikely unintentional contacted and provided suitable warning labels. Temperatures measured with winding resistance method: Not used.						

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition R and S at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> R: Sleep / TASKalfa 8052ci S: Sleep / TASKalfa 8052ci Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		R: 198V, 50Hz		S: 242V, 50Hz		
t _{amb1} (°C):		R: -- S: --		t _{amb2} (°C): R: 25 S: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		R T (°C)	S T (°C)	R T (°C)	S T (°C)	
Middle Front Cassette Heater body, in Cassette 2		54	65	64	75	-- *
Middle Rear Cassette Heater body, in Cassette 2		59	74	69	84	-- *
Cassette Heater body, in Cassette 3 and Cassette 4		49	60	59	70	-- *
Supplementary information:						
*: Unlikely unintentional contacted and provided suitable warning labels. Temperatures measured with winding resistance method: Not used.						

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements					P
Temperatures were measured according cl. 1.4.5. Test in condition T at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> T: Sleep / TASKalfa 8052ci Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of <u>35°C(T_{ma})</u> , as specified by the manufacturer.						
test voltage(s) (V):		T: 264V, 60Hz				
t _{amb1} (°C):		T: --		t _{amb2} (°C):		T: 25
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		T T (°C)	--	T T (°C)	--	
Middle Front Cassette Heater body, in Cassette 2		86	--	96	--	-- *
Middle Rear Cassette Heater body, in Cassette 2		86	--	96	--	-- *
Cassette Heater body, in Cassette 3 and Cassette 4		66	--	76	--	-- *
Supplementary information:						
*: Unlikely unintentional contacted and provided suitable warning labels. Temperatures measured with winding resistance method: Not used.						

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition U at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> U: Simplex Copy / 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		U: 120V, 60Hz				
t _{amb1} (°C):		U: --		t _{amb2} (°C): U: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		U T (°C)	--	U T (°C)	--	
PF-7130 Knob		27	--	38	--	85
PF-7130 Interlock SW body		30	--	41	--	105
PF-7130 Metal Plate		29	--	40	--	70
PF-7130 Plastic cover		30	--	41	--	95
Supplementary information:						
Temperatures measured with winding resistance method: Not used.						

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition V and W at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> V: Test Condition 1 / 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 W: Test Condition 2 / 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		V: 120V, 60Hz		W: 120V, 60Hz		
t _{amb1} (°C):		V: -- W: --		t _{amb2} (°C):		
				V: 24	W: 24	
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		V T (°C)	W T (°C)	V T (°C)	W T (°C)	
DF-7110 A Tray (Plastic)		36	25	47	36	95
DF-7110 D1 knob		35	33	46	44	85
DF-7110 Metal Frame		35	34	46	45	70
DF-7110 Staple Bottom		28	27	39	38	85
DF-7110 Interlock SW Front		27	27	38	38	105
DF-7110 Interlock SW Staple		29	28	40	39	105
DF-7110 Rear side cover (Plastic)		29	26	40	37	95
MT-730 Knob		31	34	42	45	85
MT-730 Rear cover (plastic)		30	31	41	42	95
MT-730 Base (metal)		32	32	43	43	70
MT-730 Interlock SW		34	34	45	45	105
BF-730 Interlock SW right		25	24	36	35	105
BF-730 Interlock SW middle		24	24	35	35	105
BF-730 Interlock SW left		24	24	35	35	105
BF-730 Output tray		24	25	35	36	95
BF-730 Left side knob		24	24	35	35	85
BF-730 Metal frame of inner unit		24	24	35	35	70
Supplementary information:						
Temperatures measured with winding resistance method: Not used.						

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition X at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values.						
<Condition> X: Test Condition 3 / 8052ci with DF-7110, MT-730, BF-730, PH-7, PF-740, PF-7130 and FAX System 12						
Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		X: 120V, 60Hz				
t _{amb1} (°C):		X: --		t _{amb2} (°C): X: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		X T (°C)	--	X T (°C)	--	
DF-7110 A Tray (Plastic)		34	--	45	--	95
DF-7110 D1 knob		35	--	46	--	85
DF-7110 Metal Frame		35	--	46	--	70
DF-7110 Staple Bottom		28	--	39	--	85
DF-7110 Interlock SW Front		28	--	39	--	105
DF-7110 Interlock SW Staple		31	--	42	--	105
DF-7110 Rear side cover (Plastic)		27	--	38	--	95
MT-730 Knob		29	--	40	--	85
MT-730 Rear cover (plastic)		29	--	40	--	95
MT-730 Base (metal)		31	--	42	--	70
MT-730 Interlock SW		33	--	44	--	105
BF-730 Interlock SW right		25	--	36	--	105
BF-730 Interlock SW middle		25	--	36	--	105
BF-730 Interlock SW left		25	--	36	--	105
BF-730 Output tray		30	--	41	--	95
BF-730 Left side knob		24	--	35	--	85
BF-730 Metal frame of inner unit		25	--	36	--	70
Supplementary information:						
Temperatures measured with winding resistance method: Not used.						

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Clause	Requirement + Test			Result - Remark	Verdict	
4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition Y and Z at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> Y: Fax Receiving / TASKalfa 8052ci with FAX System 12 Z: Fax Receiving / 8052ci with FAX System 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 35°C(T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		Y: 240 V, 50 Hz		Z: 120 V, 60 Hz		
t _{amb1} (°C):		Y: -- Z: --	t _{amb2} (°C):		Y: 23 Z: 23	
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		Y T (°C)	Z T (°C)	Y T (°C)	Z T (°C)	
FAX SYSTEM 12 C12 body		39	40	51	52	125
Supplementary information:						
Temperatures measured with winding resistance method: Not used.						

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Clause	Requirement + Test	Result - Remark	Verdict

4.5.5	TABLE: Ball pressure test of thermoplastic parts			P
	Allowed impression diameter (mm)	≤ 2 mm		—
Part		Test temperature (°C)	Impression diameter (mm)	
Main SWPS Unit YC1, YC2 and Sub SWPS Unit YC1, and IH PWB YC1 /Polyamide		125	1.5	
Main SWPS Unit YC3, YC4 and IH PWB YC7 /Nylon		125	1.4	
Case of DRB25, Sub SWPS Unit L1 case /PBT, CRN7000, Wintech Polymer Ltd.		125	1.6	
Bobbin of TLF-28 and TLF-24 /PBT5115-202FV, Chang Chun Plastics Co. , LTD.		125	1.5	
Main SWPS Unit T301 bobbin / Phenol		--	--	
Main SWPS Unit T501 bobbin / Phenol		--	--	
Sub SWPS Unit T301 bobbin / Phenol		--	--	
Sub SWPS Unit T501 bobbin / Phenol		--	--	
IH Coil Holder / LCP Type E481i, Polyplastics Co., Ltd.		110	0.9	
Relay connector for Cassette Heater, 5559 series, Molex /Nylon		125	1.4	
Relay connector for Cassette Heater and Heater lamp, ELR series, JST /Nylon		125	1.4	
Relay connector for Cassette Heater and Heater lamp, ELP series, JST /Nylon		125	1.4	
Cassette Heater Connector, 5557 series, Molex /Nylon		125	1.4	
Supplementary information:				
--				

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Clause	Requirement + Test	Result - Remark	Verdict

4.7	TABLE: Resistance to fire					P
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence	
--	--	--	--	--	--	
Supplementary information:						
(see appended table 1.5.1)						

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Clause	Requirement + Test	Result - Remark	Verdict

5.1	TABLE: touch current measurement						P
	Test voltage (V).....: (see below)					—	
Measurement location		Polarity (normal) [mA]		Polarity (reverse) [mA]		Limit (mA)	Comments
(Terminal A connected to...)		Switch: ON	Switch: OFF	Switch: ON	Switch: OFF		
Model 8052ci							
Earth terminal ("e" = open)		0.58	--	0.56	--	3.5	AC 132V, 60Hz Standby Mode
Earth terminal ("e" = open)		0.37	--	0.36	--	3.5	AC 132V, 60Hz Plug in off Mode
Earth terminal ("e" = open)		0.31	--	0.29	--	3.5	AC 132V, 60Hz Sleep Mode
Earth terminal ("e" = open)		--	0.035	--	0.015	3.5	AC 132V, 60Hz
LAN Connector ("e" = close)		0.001	0.001	0.001	0.001	0.25	AC 132V, 60Hz
FAX System 12 TNV Connector "e" = close)		0.001	0.001	0.001	0.001	0.25	AC 132V, 60Hz
Model TASKalfa 8052ci							
Earth terminal ("e" = open)		1.35	--	1.34	--	3.5	AC 264V, 60Hz Standby Mode
Earth terminal ("e" = open)		0.82	--	1.92	--	3.5	AC 264V, 60Hz Plug in off Mode
Earth terminal ("e" = open)		0.81	--	1.91	--	3.5	AC 264V, 60Hz Sleep Mode
Earth terminal ("e" = open)		--	0.036	--	0.035	3.5	AC 264V, 60Hz
LAN Connector ("e" = close)		0.001	0.001	0.001	0.001	0.25	AC 264V, 60Hz
FAX System 12 TNV Connector ("e" = close)		0.001	0.001	0.001	0.001	0.25	AC 264V, 60Hz
Supplementary information:							
--							

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Clause	Requirement + Test	Result - Remark	Verdict

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests			P
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Functional:				
--		--	--	--
Basic / supplementary:				
8052ci (Primary - Earth)		AC	2050	No
TASKalfa 8052ci (Primary - Earth)		AC	2060	No
Main SWPS Unit, Model MPW9215 (Primary- Earth)		AC	2050	No
Sub SWPS Unit, Model MPW9213 (Primary- Earth)		AC	1500	No
Main SWPS Unit, Model MPW9216 (Primary- Earth)		AC	2050	No
Sub SWPS Unit, Model MPW9214 (Primary- Earth)		AC	2060	No
IH PWB for AC120V models (Primary- Earth)		AC	1500	No
IH PWB for AC220-240V models (Primary- Earth)		AC	1850	No
Transformer T301 on SWPS Unit MPW9215 and MPW9216 (Primary - Core)		AC	1700	No
Transformer T301 on SWPS Unit MPW9215 and MPW9216 (Secondary - Core)		AC	1700	No
Transformer T501 on SWPS Unit MPW9215, MPW9216 and MPW9214 (Primary - Core)		AC	2050	No
Transformer T501 on SWPS Unit MPW9215, MPW9216 and MPW9214 (Secondary - Core)		AC	2050	No
Transformer T301 on SWPS Unit MPW9213 (Primary - Core)		AC	1500	No
Transformer T301 on SWPS Unit MPW9213 (Secondary - Core)		AC	1500	No
Transformer T301 on SWPS Unit MPW9214 (Primary - Core)		AC	2060	No
Transformer T301 on SWPS Unit MPW9214 (Secondary - Core)		AC	2060	No
Transformer T501 on SWPS Unit MPW9213 (Primary - Core)		AC	1500	No
Transformer T501 on SWPS Unit MPW9213 (Secondary - Core)		AC	1500	No
Optical Isolator (PC10, PC11) on Fax System 12 (TNV - secondary) Cosmo Electronics Corporation, Type: K3010		AC	1500	No
Optical Isolator (PC10, PC11) on Fax System 12 (TNV - secondary) Toshiba Corp., Type: TLP620		AC	1500	No

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Clause	Requirement + Test	Result - Remark	Verdict

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests			P
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Optical Isolator (PC10, PC11) on Fax System 12 (TNV - secondary) Toshiba Corp., Type: TLP627		AC	1500	No
Optical Isolator (PC10, PC11) on Fax System 12 (TNV - secondary) Toshiba Corp., Type: TLP621		AC	1500	No
Optical Isolator (PC10, PC11) on Fax System 12 (TNV - secondary) Toshiba Corp., Type: TLP320		AC	1500	No
Optical Isolator (PC10, PC11) on Fax System 12 (TNV - secondary) Toshiba Corp., Type: TLP629		AC	1500	No
Optical Isolator (PC10, PC11) on Fax System 12 (TNV - secondary) Lite-On Technology Corp., Type: LTV-814H		AC	1500	No

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Clause	Requirement + Test	Result - Remark	Verdict

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests			P
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Reinforced:				
8052ci (Primary - Secondary)		AC	3000	No
TASKalfa 8052ci (Primary - Secondary)		AC	3000	No
Main SWPS Unit, Model MPW9215 (Primary - Secondary)		AC	3000	No
Sub SWPS Unit, Model MPW9213 (Primary - Secondary)		AC	3000	No
Main SWPS Unit, Model MPW9216 (Primary - Secondary)		AC	3000	No
Sub SWPS Unit, Model MPW9214 (Primary - Secondary)		AC	3000	No
IH PWB for AC120V models (Primary - Secondary)		AC	3000	No
IH PWB for AC220-240V models (Primary - Secondary)		AC	3000	No
Transformer T301 on SWPS Unit MPW9215 and MPW9216 (Primary - Secondary)		AC	3000	No
Transformer T501 on SWPS Unit MPW9215 and MPW9216 (Primary - Secondary)		AC	3000	No
Transformer T301 on SWPS Unit MPW9213 (Primary - Secondary)		AC	3000	No
Transformer T301 on SWPS Unit MPW9214 (Primary - Secondary)		AC	3000	No
Transformer T501 on SWPS Unit MPW9213 (Primary - Secondary)		AC	3000	No
Supplementary information:				
Test voltages applied for 1 min. each.				

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				23 (see Observation)	—
	Power source for EUT: Manufacturer, model/type, output rating				--	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9215 T301	24V output overload with Fan	132V, 60Hz	1.5h	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.35 0.001 0.42 0.42	24V Output of Main SWPS Unit shut down Maximum temp. of T301: 113 °C * ²⁾ Ambient temp.: 24 °C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 T501	5V output overload with Fan	132V, 60Hz	4.0 h	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.10 0.001 0.42 0.42	5V Output of Main SWPS Unit shut down Maximum temp. of T501: 117 °C * ²⁾ Ambient temp.: 23 °C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 T301	24V output overload without Fan	132V, 60Hz	3.5h	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.35 0.001 0.42 0.42	24V Output of Main SWPS Unit shut down Maximum temp. of T301: 123 °C * ²⁾ Ambient temp.: 25 °C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests						P
	Ambient temperature (°C)				23 (see Observation)		—
	Power source for EUT: Manufacturer, model/type, output rating				--		—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation	
Main SWPS Unit, Model MPW9215 T501	5V output overload without Fan	132V, 60Hz	5.0 h	F1 ^{*1)} F2 ^{*1)} F3 ^{*1)} F1 ^{*3)}	0.10 0.001 0.42 0.42	5V Output of Main SWPS Unit shut down Maximum temp. of T501: 130 °C ^{*2)} Ambient temp.: 23 °C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.	
Main SWPS Unit, Model MPW9216 T301	24V output overload with Fan	264V, 50Hz	1.5h	F1 ^{*1)} F2 ^{*1)} F3 ^{*1)} F1 ^{*3)}	0.16 0.001 0.18 0.18	24V Output of Main SWPS Unit shut down Maximum temp. of T301: 127 °C ^{*2)} Ambient temp.: 27 °C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.	
Main SWPS Unit, Model MPW9216 T501	5V output overload with Fan	264V, 50Hz	4.0 h	F1 ^{*1)} F2 ^{*1)} F3 ^{*1)} F1 ^{*3)}	0.05 0.001 0.18 0.18	5V Output of Main SWPS Unit shut down Maximum temp. of T501: 126 °C ^{*2)} Ambient temp.: 25 °C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.	

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests						P
	Ambient temperature (°C):				23 (see Observation)		—
	Power source for EUT: Manufacturer, model/type, output rating:				--		—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation	
Main SWPS Unit, Model MPW9216 T301	24V output overload without Fan	264V, 50Hz	6.0h	F1 ^{*1)} F2 ^{*1)} F3 ^{*1)} F1 ^{*3)}	0.16 0.001 0.18 0.18	24V Output of Main SWPS Unit shut down Maximum temp. of T301: 127 °C ^{*2)} Ambient temp.: 25 °C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.	
Main SWPS Unit, Model MPW9216 T501	5V output overload without Fan	264V, 50Hz	5.5 h	F1 ^{*1)} F2 ^{*1)} F3 ^{*1)} F1 ^{*3)}	0.05 0.001 0.18 0.18	5V Output of Main SWPS Unit shut down Maximum temp. of T501: 156 °C ^{*2)} Ambient temp.: 25 °C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.	
Main SWPS Unit, Model MPW9215 Z1	Short	132V, 60Hz	10min	F1 ^{*1)} F2 ^{*1)} F3 ^{*1)} F1 ^{*3)}	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.	

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				23 (see Observation)	—
	Power source for EUT: Manufacturer, model/type, output rating				--	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9215 D1 pin1 - pin2	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 Q401 D-S	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 C401	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9215 PC301 A-K	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 PC301 C-E	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.35 0.001 0.42 0.42	24V Output of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 PC301 A	Open	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 PC301 K	Open	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9215 Q301 D-S	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.35 0.001 0.42 0.42	24V Output of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 Q320 D-S	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.35 0.001 0.42 0.42	24V Output of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 IC301 Pin2(Delay)-Pin3(CF)	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 R341	Open	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9215 VR345	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 D351	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.35 0.001 0.42 0.42	24V Output of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 D381	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 IC351 A-K	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.35 0.001 0.42 0.42	24V Output of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9215 PC501 A-K	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 PC501 C-E	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 PC501 A	Open	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 PC501 K	Open	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9215 Q501 S-D	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. D517 on Main SWPS Unit was shorted. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 IC501 Pin4(GND)-Pin3(CS)	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. Q501 and D517 on Main SWPS Unit were shorted. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 IC501 Pin2(FB)-Pin3(CS)	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9215 C516	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. Q501 and D517 on Main SWPS Unit were shorted. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 C504	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 D503	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 D503	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.35 0.001 0.42 0.42	24V Output of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9215 IC551 A-K	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 R556	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9215 PC601 A-K	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Sub SWPS Unit, Model MPW9213 PC301	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.4 0.3 0.12 0.12	24V Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 PC501	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 Q301 D-S	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. Q301 and D306 on Sub SWPS Unit were broken. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 D510	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. D306, IC301, Q301, Q302 and Q501 on Sub SWPS Unit were broken. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				23 (see Observation)	—
	Power source for EUT: Manufacturer, model/type, output rating				--	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Sub SWPS Unit, Model MPW9213 Z1	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 D1 pin1-pin2	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 D1 pin2-pin3	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 D1 pin3-pin4	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Sub SWPS Unit, Model MPW9213 C10	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPSUnit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 Q301 S-D	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPSUnit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 D306	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 IC301 pin3(CS)-pin4(GND)	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPSUnit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				23 (see Observation)	—
	Power source for EUT: Manufacturer, model/type, output rating				--	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Sub SWPS Unit, Model MPW9213 IC301 pin3(CS)-pin2(FB)	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 R314	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPSUnit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 PC301 C-E	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 PC301 A-K	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				23 (see Observation)	—
	Power source for EUT: Manufacturer, model/type, output rating				--	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Sub SWPS Unit, Model MPW9213 IC351 A-K	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 Q501 D-S	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPSUnit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 D517	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPSUnit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 IC501 pin5(out)-pin6(vcc)	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPSUnit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Sub SWPS Unit, Model MPW9213 IC501 pin3(CS)-pin2(FB)	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 PC501 C-E	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 C504	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 D503	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Sub SWPS Unit, Model MPW9213 PC501 A-K	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 IC551 A-K	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 PC601 A-K	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Sub SWPS Unit, Model MPW9213 D583	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.4 0.3 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9216 Z1	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Outputs of Main SWPS Unit shut down immediately. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 D1 pin1 - pin2	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 Q401 D-S	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				23 (see Observation)	—
	Power source for EUT: Manufacturer, model/type, output rating				--	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9216 C401	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 PC301 A-K	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 PC301 C-E	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.16 0.001 0.18 0.18	24V Output of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 PC301 A	Open	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9216 PC301 K	Open	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 Q301 D-S	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.16 0.001 0.18 0.18	24V Output of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 Q320 D-S	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.16 0.001 0.18 0.18	24V Output of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 IC301 Pin2(Delay)-Pin3(CF)	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9216 R341	Open	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 VR345	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 D351	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.16 0.001 0.18 0.18	24V Output of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 D381	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9216 IC351 A-K	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.16 0.001 0.18 0.18	24V Output of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 PC501 A-K	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 PC501 C-E	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 PC501 A	Open	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				23 (see Observation)	—
	Power source for EUT: Manufacturer, model/type, output rating				--	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9216 PC501 K	Open	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 Q501 S-D	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. D517 on Main SWPS Unit was shorted. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 IC501 Pin4(GND)-Pin3(CS)	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Output shut down immediately. Q501 and D517 on Main SWPS Unit were shorted. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 IC501 Pin2(FB)-Pin3(CS)	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				23 (see Observation)	—
	Power source for EUT: Manufacturer, model/type, output rating				--	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9216 C516	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Output shut down immediately. Q501 and D517 on Main SWPS Unit were shorted. F1 on Main SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 C504	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 D503	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 D503	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.16 0.001 0.18 0.18	24V Output of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Main SWPS Unit, Model MPW9216 IC551 A-K	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 R556	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Main SWPS Unit, Model MPW9216 PC601 A-K	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.18 0.18	All Outputs of Main SWPS Unit shut down immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Switching Power Supply Unit, Model MPW9214 PC301	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 PC501	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 Q301 D-S	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. Q301 and D306 on Sub SWPS Unit were broken. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)		23 (see Observation)		—	
	Power source for EUT: Manufacturer, model/type, output rating		--		—	
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Switching Power Supply Unit, Model MPW9214 D510	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. D306, IC301, Q301, Q302 and Q501 on Sub SWPS Unit were broken. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 Z1	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 D1 pin1-pin2	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Switching Power Supply Unit, Model MPW9214 D1 pin2-pin3	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 D1 pin3-pin4	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 C10	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Switching Power Supply Unit, Model MPW9214 Q301 S-D	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 D306	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 IC301 pin3(CS)-pin4(GND)	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 IC301 pin3(CS)-pin2(FB)	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				23 (see Observation)	—
	Power source for EUT: Manufacturer, model/type, output rating				--	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Switching Power Supply Unit, Model MPW9214 R314	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 PC301 C-E	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 PC301 A-K	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 IC351 A-K	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				23 (see Observation)	—
	Power source for EUT: Manufacturer, model/type, output rating				--	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Switching Power Supply Unit, Model MPW9214 Q501 D-S	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 D517	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 IC501 pin5(out)-pin6(vcc)	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. F1 on Sub SWPS Unit was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 IC501 pin3(CS)-pin2(FB)	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests						P
	Ambient temperature (°C)				23 (see Observation)		—
	Power source for EUT: Manufacturer, model/type, output rating				--		—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation	
Switching Power Supply Unit, Model MPW9214 PC501 C-E	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.	
Switching Power Supply Unit, Model MPW9214 C504	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.	
Switching Power Supply Unit, Model MPW9214 D503	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.	
Switching Power Supply Unit, Model MPW9214 PC501 A-K	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.	

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Switching Power Supply Unit, Model MPW9214 IC551 A-K	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 PC601 A-K	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 D583	Short	264V, 50Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.3 0.2 0.001 0.001	Output of Sub SWPS Unit shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
IH PWB Q2 E-C	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.001 0.001 0.001 0.001	All Output shut down immediately. Q2 and D1 on IH PWB were broken. Circuit breaker of the building installation was tripped. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
IH PWB D1 pin1 - pin2	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.001 0.001 0.001 0.001	All Output shut down immediately. D1 on IH PWB was broken. Circuit breaker of the building installation was tripped. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
IH PWB R9	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	3.2 9.5 1.4 1.4	Operated normally. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
IH PWB U6 pin5 - pin6	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.001 0.001 0.001 0.001	All Output shut down immediately. Q1 and Q2 on IH PWB were broken. Circuit breaker of the building installation was tripped. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
IH PWB N1	Short	132V, 60Hz	10min	F1 * ¹⁾ F2 * ¹⁾ F3 * ¹⁾ F1 * ³⁾	0.001 0.001 0.42 0.42	All Output shut down immediately. YF1 on IH PWB opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
IH PWB N2	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Output shut down immediately. YF1 on IH PWB opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
IH PWB N4	Short	132V, 60Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.42 0.42	All Output shut down immediately. YF1 on IH PWB opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
IH PWB Q2 E-C	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.001 0.001 0.001 0.001	All Output shut down immediately. Q2 and D1 on IH PWB were broken. Circuit breaker of the building installation was tripped. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
IH PWB D1 pin1 - pin2	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.3 0.001 0.18 0.18	Output of IH PWB shut down immediately. D1 on IH PWB was broken. YF1 on IH PWB opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
IH PWB R9	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	1.32 4.5 0.7 0.7	Operated normally. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
IH PWB U6 pin5 - pin6	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.3 0.001 0.18 0.18	Output of IH PWB shut down immediately. Q1 and Q2 on IH PWB were broken. YF1 on IH PWB was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
IH PWB N1	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.3 0.001 0.18 0.18	YF1 on IH PWB was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
IH PWB N2	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.3 0.001 0.18 0.18	YF1 on IH PWB was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				23 (see Observation)	—
	Power source for EUT: Manufacturer, model/type, output rating				--	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
IH PWB N4	Short	264V, 50Hz	10min	F1 * ⁽¹⁾ F2 * ⁽¹⁾ F3 * ⁽¹⁾ F1 * ⁽³⁾	0.3 0.001 0.18 0.18	YF1 on IH PWB was opened. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
MPF Fed Clutch, 1bin Feed Clutch, 2bin Feed Clutch, 3bin Feed Clutch, 4bin Feed Clutch, Deck Clutch1, Deck Clutch 2, Deck Clutch 3, Eject Clutch (DF-7110), Feed Clutch (PF-7120), Feed Clutch (PF-730), Conveying Clutch (PF-730), Feed Clutch (PF-740), Conveying Clutch (PF-740), Upper Conveying Clutch (PF-740), Feed Clutch (PF-7130), Conveying Clutch 1 (PF-7130), Conveying Clutch 2 (PF-7130) Model: MCA-50T	CE	132V, 60Hz	7h	--	--	Temperature was stabilized. Ambient temp.: 23°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				23 (see Observation)	—
	Power source for EUT: Manufacturer, model/type, output rating				--	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
JS Solenoid, Junction Guide Solenoid, Deck Solenoid (Optional), Sub Tray Junction Solenoid (DF-7110), Drum Junction Solenoid (DF-7110), BF Junction Solenoid (DF-7110), Junction Solenoid (BF-730), Feed Solenoid (PF-7120), Primary Feed Solenoid (PF-730), Primary Feed Solenoid (PF-740), Junction Solenoid (PF-7130) Model: TDS-08A	Plunger locked and CE	132V, 60Hz	5 min	--	--	Thermal Fuse opened in 3min after locking and CE. Tested three times. Ambient temp.: 23°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Job Separator Solenoid, Model: TDS-07A	Plunger locked and CE	132V, 60Hz	3 h	--	--	Temperature was stabilized. Ambient temp.: 23°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Cleaning Solenoid Model: TDS-08G	Plunger locked and CE	132V, 60Hz	5 min	--	--	Thermal Fuse opened in 2 min after locking and CE. Tested three times. Ambient temp.: 23°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests						P
	Ambient temperature (°C)				23 (see Observation)		—
	Power source for EUT: Manufacturer, model/type, output rating				--		—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation	
Punch Solenoid Model: TDS-KN12SB	Plunger locked and CE	132V, 60Hz	5 min	--	--	Thermal Fuse opened in 2 min after locking and CE. Ambient temp.: 23°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.	
Container Lock Solenoid(BK), Container Lock Solenoid(M), Container Lock Solenoid(C), Container Lock Solenoid(Y) Model: TDS-05C	Plunger locked and CE	132V, 60Hz	1h	--	--	Maximum temp. : 127.5°C ^2) Temperature was stabilized. Ambient temp.: 26°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.	
Colour Release Check Solenoid Model: TDS-K07A	Plunger locked and CE	132V, 60Hz	15min	--	--	Temperature was stabilized. Ambient temp.: 27°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.	
Model 8052ci IH Heater thermal control	Disable	132V, 60Hz	10 min	--	--	Thermal cutoff opened in 2min after disabling. Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.	

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5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Model TASKalfa 8052ci IH Heater thermal control	Disable	264V, 50Hz	10 min	--	--	Thermal cutoff opened in 2min after disabling. Ambient temp.: 23°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model 8052ci Press Heater thermal control	Disable	132V, 60Hz	10 min	--	--	Thermal cutoff opened in 10 min. after disabling Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model TASKalfa 8052ci Press Heater thermal control	Disable	264V, 50Hz	10 min	--	--	Thermal cutoff opened in 10 min. after disabling Ambient temp.: 23°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model 8052ci All Fans	Stalled Fan	132V, 60Hz	10 min	--	--	Machine was shut down immediately. Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Model 8052ci LVU Fan 1	Stalled Fan	132V, 60Hz	10 min	--	--	Machine was shut down immediately. Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model 8052ci LVU Fan 2	Stalled Fan	132V, 60Hz	10 min	--	--	Machine was shut down immediately. Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model 8052ci Front Fan on Fuser Unit	Stalled Fan	132V, 60Hz	30 min	--	--	Operated normally. Ambient temp.: 25°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model 8052ci Rear Fan on Fuser Unit	Stalled Fan	132V, 60Hz	30 min	--	--	Operated normally. Ambient temp.: 25°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Model 8052ci Front Fan and Rear Fan on Fuser Unit	Stalled Fan	132V, 60Hz	30 min	--	--	Operated normally. Ambient temp.: 25°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model 8052ci Fans, except for LVU Fan 1 and LVU Fan 2	Stalled Fan	132V, 60Hz	30 min	--	--	Operated normally. Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model TASKalfa 8052ci All Fans	Stalled Fan	264V, 50Hz	10 min	--	--	Machine was shut down immediately. Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model TASKalfa 8052ci LVU Fan 1	Stalled Fan	264V, 50Hz	10 min	--	--	Machine was shut down immediately. Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)					23 (see Observation)
	Power source for EUT: Manufacturer, model/type, output rating					--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Model TASKalfa 8052ci LVU Fan 2	Stalled Fan	264V, 50Hz	10 min	--	--	Machine was shut down immediately. Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model TASKalfa 8052ci Front Fan on Fuser Unit	Stalled Fan	264V, 50Hz	30 min	--	--	Operated normally. Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model TASKalfa 8052ci Rear Fan on Fuser Unit	Stalled Fan	264V, 50Hz	30 min	--	--	Operated normally. Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model TASKalfa 8052ci Front Fan and Rear Fan on Fuser Unit	Stalled Fan	264V, 50Hz	30 min	--	--	Operated normally. Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests						P
	Ambient temperature (°C)				23 (see Observation)		—
	Power source for EUT: Manufacturer, model/type, output rating				--		—
Component No.		Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Model 8052ci Ventilation openings closed		--	132V, 60Hz	1.5h	--	--	Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model TASKalfa 8052ci Ventilation openings closed		--	264V, 50Hz	0.5h	--	--	Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model TASKalfa 8052ci Fans, except for LVU Fan 1 and LVU Fan 2		Stalled Fan	132V, 60Hz	30 min	--	--	Operated normally. Ambient temp.: 24°C During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Supplementary information:							
CE = Continuously Energized.							
*1) On Main SWPS Unit							
*2) Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of 32.5°C(Tma).							
*3) On Sub SWPS Unit							

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

B	TABLE: MOTOR TEST UNDER ABNORMAL CONDITION		P
B.7	Locked-rotor overload test for DC motor in secondary circuits		—
B.7.3	test time(h):	7h	—
Motor type / No.		Max. Temp. (°C)	Comments
LVU Fan 1 Type: D08K-24TU 62B (AX)		51	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
LVU Fan 2 Type: 06025SS-24N-AL-D3		42	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
Exhaust Fan, Drum DLP Fan 1 Type: D07F-24SS1 09 (EX)		72	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
IH Coil Fan, Rear Fuser Fan Type: D07F-24SS1 15B (EX)		78	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
Drum DLP Fan 2, Drum DLP Fan(BK), Drum DLP Fan(M), Drum DLP Fan(C), Drum DLP Fan(Y), Exit Fan, IH PWB Fan Type: D06F-24SH 03 (EX)		68	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
Rear Eject Fan Type: 2410RL-05W-S60-C01		61	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
Dust Box Fan 1, Dust Box Fan 2 Type: D06F-24SH 12B (EX)		66	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
Exit Cooling Fan 1, Exit Cooling Fan 2 Model D06R-24TH 04 (AX)		58	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
Belt Fan 1, Belt Fan 2, Bridge Fan Type: D08K-24TU 49 (AX)		48	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
Controller Fan Type: D06R-05TM 12H1 (EX)		53	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
Fuser Side Fan 1, Fuser Side Fan 2 Type: AUB0524HB-AR56		72	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.

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

B	TABLE: MOTOR TEST UNDER ABNORMAL CONDITION		P
B.7	Locked-rotor overload test for DC motor in secondary circuits		—
B.7.3	test time(h):	7h	—
Motor type / No.		Max. Temp. (°C)	Comments
Driving Fan Type: D04R-24TM 19 (EX)		56	Temperature saturated. Ambient Temp. at 25°C. No ignition of the wrapping tissue or cheesecloth.
CIS Fan Type: D04X-24TH 52 (V)		45	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
LSU Fan Eject Fan (DF-7110) Type: BFB0524HHA-BN20		65	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
Polygon Motor(BK), Polygon Motor(M), Polygon Motor(C), Polygon Motor(Y) Type: PT22ERG-KDB200-445-SD		--	Sensing circuits provided with motor disconnected power to the motor in 1.0 sec. after starting the locked rotor. No ignition of the wrapping tissue or cheesecloth.
Middle Hopper Motor (Y), Middle Hopper Motor (C), Middle Hopper Motor (M), Middle Hopper Motor (BK), Toner Supply Motor (Y), Toner Supply Motor (C), Toner Supply Motor (M), Transfer Roller Press Release Motor, Belt Tension Motor Type: RK-370CA-11670		148	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
Waste Toner Conveying Motor, Waste Toner Recover Motor Type: 13H069H030		--	Sensing circuits provided with motor disconnected power to the motor in 0.92 sec. after starting the locked rotor. No ignition of the wrapping tissue or cheesecloth.
LSU Cleaning Motor, Toner Supply Motor (BK) Type: RS-360SH-12420		--	Sensing circuits provided with motor disconnected power to the motor in 1.0 sec. after starting the locked rotor. No ignition of the wrapping tissue or cheesecloth.
Vibration Motor (BK), Vibration Motor (Y), Vibration Motor (C), Vibration Motor (M), Dust Box Vibration Motor Type: LA4-467BC2		66	Temperature saturated. Ambient Temp. at 25°C. No ignition of the wrapping tissue or cheesecloth.
Resist Motor, Feed Motor, Vertical Feed Motor, Middle Feed Motor Inner BL Motor (PF-7130) Type: ID-519XW-3567		--	Sensing circuits provided with motor disconnected power to the motor in 0.8 sec. after starting the locked rotor. No ignition of the wrapping tissue or cheesecloth.

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

B	TABLE: MOTOR TEST UNDER ABNORMAL CONDITION		P
B.7	Locked-rotor overload test for DC motor in secondary circuits		—
B.7.3	test time(h):	7h	—
Motor type / No.		Max. Temp. (°C)	Comments
Middle Transfer Motor, Drum Motor (C), Drum Motor (Y), Drum Motor (M), Drum Motor (BK) Type: 48M069F201		--	Sensing circuits provided with motor disconnected power to the motor in 0.17 sec. after starting the locked rotor. No ignition of the wrapping tissue or cheesecloth.
Middle Transfer ICL Motor Type: 48M069F261		--	Sensing circuits provided with motor disconnected power to the motor in 0.60 sec. after starting the locked rotor. No ignition of the wrapping tissue or cheesecloth.
DLP Motor (Y), DLP Motor (C), DLP Motor (M), DLP Motor (BK) Type: 48M069F231		--	Sensing circuits provided with motor disconnected power to the motor in 0.92 sec. after starting the locked rotor. No ignition of the wrapping tissue or cheesecloth.
1 Bin Lift Motor, 2 Bin Lift Motor MPF Lift Motor, Meandering Correction Motor Type: RK-370CA-081050		120	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
Deck Lift Motor 1, Deck Lift Motor 2 Lift Motor (PF-740) Type: 303NF4401		--	Sensing circuits provided with motor disconnected power to the motor in 0.24 sec. after starting the locked rotor. No ignition of the wrapping tissue or cheesecloth.
Press Release Motor Type: RS-385PH-16140		--	Sensing circuits provided with motor disconnected power to the motor in 5.0 sec. after starting the locked rotor. No ignition of the wrapping tissue or cheesecloth.
Staple Motor (DF-7110), Staple Motor (BF-730) Type: FM-116K-7PA CF		32	Temperature saturated. Ambient Temp. at 25°C. No ignition of the wrapping tissue or cheesecloth.
Staple Motor Alternate (DF-7110), Staple Motor Alternate (BF-730) Type: DME35BF-001		--	Motor winding was opened after 7min 30sec. Ambient Temp. at 25°C No ignition of the wrapping tissue or cheesecloth.
Tray Motor (DF-7110), Blade Motor (BF-730) Type: 48M069G010		--	Sensing circuits provided with motor disconnected power to the motor in 1.0 sec. after starting the locked rotor. No ignition of the wrapping tissue or cheesecloth.
Fold Motor (BF-730) Type: 48M069F052		--	Sensing circuits provided with motor disconnected power to the motor in 1.07 sec. after starting the locked rotor. No ignition of the wrapping tissue or cheesecloth.

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

B	TABLE: MOTOR TEST UNDER ABNORMAL CONDITION		P
B.7	Locked-rotor overload test for DC motor in secondary circuits		—
B.7.3	test time(h):	7h	—
Motor type / No.		Max. Temp. (°C)	Comments
Punch Motor(PH-7X) Type: WRS-555PH-3049		--	Sensing circuits provided with motor disconnected power to the motor in 0.6 sec. after starting the locked rotor. No hazard
Fuser Motor, Deck Motor, Main Motor (PF-730), Main Motor (PF-740), Main Motor (PF-7130) Type: 48M069F271		--	Sensing circuits provided with motor disconnected power to the motor in 0.81 sec. after starting the locked rotor. No ignition of the wrapping tissue or cheesecloth.
Conveying Motor (PF-7120) DIA42B20W22A		--	Sensing circuits provided with motor disconnected power to the motor in 0.60 sec. after starting the locked rotor. No ignition of the wrapping tissue or cheesecloth.
Lift Motor (PF-7120) Type: NA4056A11C		--	Sensing circuits provided with motor disconnected power to the motor in 0.25 sec. after starting the locked rotor. No hazard.
Lift Motor (PF-730), Deck Lift Motor (PF-7130) Type: 302K34403		95	Temperature saturated. Ambient Temp. at 24°C. No ignition of the wrapping tissue or cheesecloth.
Supplementary information:			
--			

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

C.2	TABLE: transformers						P
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)
--	--	--	--	--	--	--	--
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measure d distance thr. insul. / mm; number of layers
--	--			--	--	--	--
supplementary information:							
Refer to the table 2.10.3 and 2.10.4							

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

C.2

TABLE: transformers

P

1) Type 2614QS002

Construction:

The diagram illustrates the construction of transformer Type 2614QS002 through four views:

- Front View:** Shows the transformer's profile with a height of 48 Typ. and a base width of 40 Typ.
- Top View:** Shows the top surface with a width of 35 Typ. and a height of 24.5 Typ. A label area is marked with "LOT NO. ZFS-B1.V.ZEBRA".
- Bottom View:** Labeled "Bottom View", it shows the internal winding layout with sections L11, L21, and L22.
- Cross-sectional View:** Labeled "(PRI SIDE)" and "(SEC SIDE)", it shows the core and winding layers. Key points are labeled A, B, C, D, and E. A dimension of 2.5 MIN is indicated between points C and B.

CORE SIZE TYP. 35 × 42 × 11.3
(UNIT : mm)

UNIT: mm

WINDING AND RATING

PRIMARY WINDING

WINDING NAME	PIN NO. (INSULATION TUBE)		WINDING TYP.	WIRE TYPE	INSULATION TAPE (BETWEEN LAYERS)	
	START	END			TYPE	LAYERS
L 11 (PRI)	3 (NONE)	1 (NONE)	35 T	$\phi 0.12 \times 30 \times 1$	B	2 MIN

SECONDARY WINDING

WINDING NAME	PIN NO. (INSULATION TUBE)		WINDING TYP.	WIRE TYPE	INSULATION TAPE (BETWEEN LAYERS)	
	START	END			TYPE	LAYERS
L 21 (SEC)	12,13 (NONE)	8,9 (NONE)	4 T	$\phi 0.12 \times 50 \times 2$	B	2 MIN
L 22 (SEC)	10,11 (NONE)	6,7 (NONE)	4 T	$\phi 0.12 \times 50 \times 2$	B	1 MIN

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

C.2		TABLE: transformers					P
Material list:							
	PARTS	MATERIAL AND TYPE	MANUFACTURE	UL No.	Grade		CTI
					Temp	Flame	
A	BOBBIN	PHENOLE					
		PM-8820	SUMITOMO BAKELITE CO LTD	E41429	150°C	94V-0	175≤CTI<250
		or CP-J-8800	HITACHI CHEMICAL CO LTD	E42956	150°C	94V-0	175≤CTI<250
		or CP-J-8600	HITACHI CHEMICAL CO LTD	E42956	150°C	94V-0	175≤CTI<250
B	INSULATION TAPE ※THICKNESS :25um MIN	POLYESTER FILM TAPE					
		631S #25	TERAOKA SEISAKUSYO CO LTD	E56086	130°C	-	CTI≥600
		or CT(YELLOW)	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	E165111	130°C	510FR	CTI≥600
C	INSULATION TAPE	POLYESTER FILM COMPOSITE TAPE					
		673F 0.27	TERAOKA SEISAKUSYO CO LTD	E56086	130°C	510FR	CTI≥600
		or 673F 0.5	TERAOKA SEISAKUSYO CO LTD	E56086	130°C	510FR	CTI≥600
		or WF	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	E165111	130°C	510FR	CTI≥600
		or 44T-A	3M COMPANY	E17385	130°C	-	CTI≥600
D	WIRE	POLYURETHAN ENAMELED COPPER WIRE					
		1UEW	various	-	130°C	-	-
E	CORE CASE	GLASS-REINFORCED, FLAME-RETARDANT THERMOPLASTIC POLYESTER PETP RESIN					
		RYNITE FR530	E.I DU PONT DE NEMOURS AND CO.,INC	E41938	140°C	94V-0	250≤CTI<400

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

C.2

TABLE: transformers

P

2) Type 2Q154

Construction:

Technical drawing of transformer Type 2Q154 showing core dimensions, winding layout, and cross-section.

Core dimensions (Typ):

- Core width: 40 Typ
- Core height: 44 Typ
- Core depth: 29 Typ

Core size: TYP. 35X41.4X113 (UNIT - mm)

Bobbin thickness: 0.8mm Min

Winding layout (Bottom View):

- Winding layers: L12, L11, L19, L21, L22, L23
- Dimensions: 6.4MIN

Winding layout (Cross-section):

- Winding layers: L23, L22, L11, L21, L12, L19
- Dimensions: 6.4MIN

UNIT: mm

WINDING AND RATING

WINDING NAME	PIN NO. (INSULATION TUBE)		WINDING TYP.	WIRE TYPE	INSULATION TAPE (BETWEEN LAYERS)	
	START	END			TYPE	LAYERS
L 23 (SEC)	15 (NONE)	10 (NONE)	7 T	$\phi 0.12/20 \times 2$	B	3 MIN
L 22 (SEC)	14 (NONE)	11 (NONE)	7 T	$\phi 0.12/20 \times 2$	B	1 MIN
L 11 (PRI)	3 (NONE)	4 (NONE)	50 T	$\phi 0.45 \times 1$	B	3 MIN
L 21 (SEC)	13 (NONE)	12 (NONE)	7 T	$\phi 0.12/20 \times 2$	B	3 MIN
L 12 (PRI)	5 (NONE)	6 (NONE)	50 T	$\phi 0.45 \times 1$	B	3 MIN
L 19 (PRI)	1 (NONE)	2 (NONE)	25 T	$\phi 0.45 \times 1$	B	1 MIN
					B	1 MIN

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

C.2

TABLE: transformers

P

Material list:

	PARTS	MATERIAL AND TYPE	MANUFACTURE	UL No.	Grade		CTI
					Temp.	Flame	
A	BOBBIN	PHENOLE PM-9820 or PM-9750 or PM-9630	SUMITOMO BAKELITE CO LTD SUMITOMO BAKELITE CO LTD SUMITOMO BAKELITE CO LTD	E41429 E41429 E41429	150°C 150°C 150°C	94V-0 94V-0 94V-0	175≤CTI <250 175≤CTI <250 175≤CTI <250
B	INSULATION TAPE ※THICKNESS :25um MIN	POLYESTER FILM TAPE CT(YELLOW) or 631S #25 or 630F #25	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD TERAOKA SEISAKUSYO CO LTD TERAOKA SEISAKUSYO CO LTD	E165111 E56086 E56086	130°C 130°C 130°C	510FR - 510FR	CTI≥600 CTI≥600 CTI≥600
C	INSULATION TAPE	POLYESTER FILM COMPOSITE TAPE WF or 673F 0.27 or 673F 0.5 or 44T-A or 35661	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD TERAOKA SEISAKUSYO CO LTD TERAOKA SEISAKUSYO CO LTD 3M COMPANY ELECTRICAL MARKETS DIV (EMD) SYMBIO INC	E165111 E56086 E56086 E17385 E50292	130°C 130°C 130°C 130°C 130°C	510FR 510FR 510FR - -	CTI≥600 CTI≥600 CTI≥600 CTI≥600 CTI≥600
D	WIRE	POLYURETHAN ENAMELED COPPER WIRE 1UEW	various	-	130°C	-	-

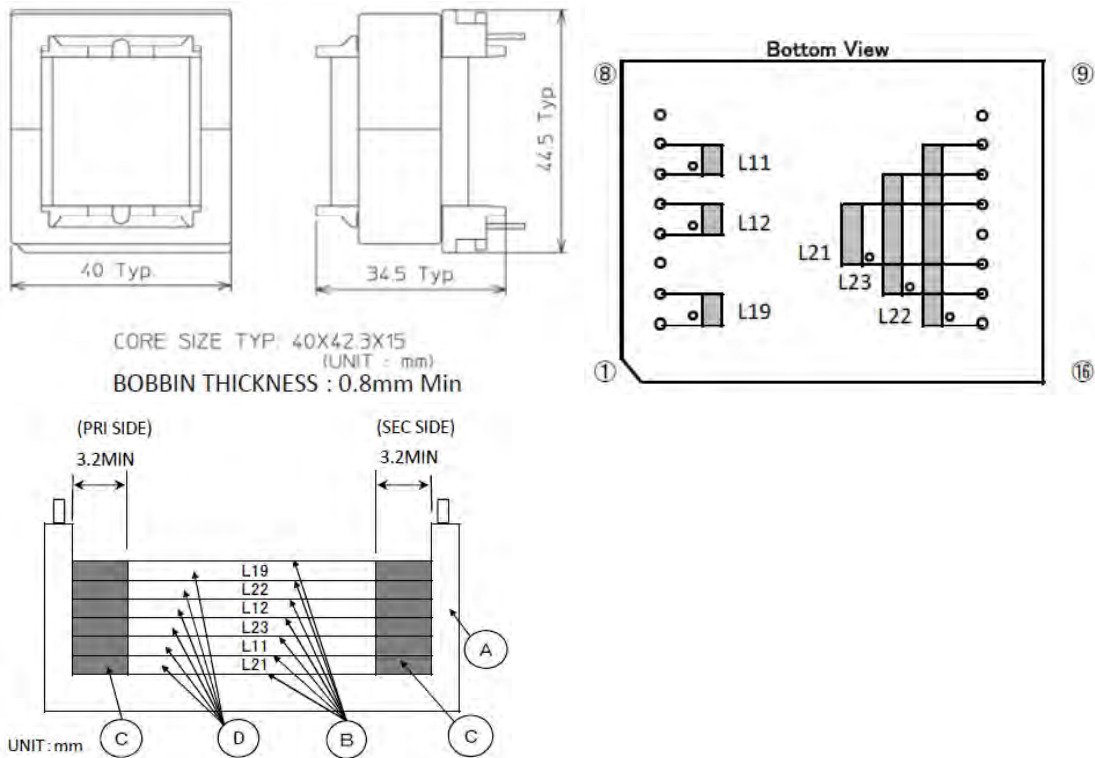
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Clause	Requirement + Test	Result - Remark	Verdict
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C.2 TABLE: transformers**P**

3) Type 2V120

Construction:

**WINDING AND RATING**

WINDING NAME	PIN NO. (INSULATION TUBE)		WINDING TYP.	WIRE TYPE	INSULATION TAPE (BETWEEN LAYERS)	
	START	END			TYPE	LAYERS
L 19 (PRI)	1 (NONE)	2 (NONE)	6 T	$\phi 0.4 \times 2$	B	3 MIN
L 22 (SEC)	16 (NONE)	10 (NONE)	8 T	$\phi 0.45 \times 5$	B	3 MIN
L 12 (PRI)	4 (NONE)	5 (NONE)	11 T	$\phi 0.4 \times 4$	B	3 MIN
L 23 (SEC)	15 (NONE)	11 (NONE)	8 T	$\phi 0.45 \times 5$	B	3 MIN
L 11 (PRI)	6 (NONE)	7 (NONE)	11 T	$\phi 0.4 \times 4$	B	3 MIN
L 21 (PRI)	14 (NONE)	12 (NONE)	8 T	$\phi 0.45 \times 5$	B	3 MIN
					B	1 MIN

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

C.2		TABLE: transformers					P
Material list:							
	PARTS	MATERIAL AND TYPE	MANUFACTURE	UL No.	Grade		CTI
					Temp	Flame	
A	BOBBIN	PHENOLE					
		PM-9820	SUMITOMO BAKELITE CO LTD	E41429	150°C	94V-0	175≤CTI <250
		or PM-9750	SUMITOMO BAKELITE CO LTD	E41429	150°C	94V-0	175≤CTI <250
		or PM-9630	SUMITOMO BAKELITE CO LTD	E41429	150°C	94V-0	175≤CTI <250
B	INSULATION TAPE ※THICKNESS :25um MIN	POLYESTER FILM TAPE					
		CT(YELLOW)	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	E165111	130°C	510FR	CTI≥600
		or 631S #25	TERAOKA SEISAKUSHO CO LTD	E56086	130°C	-	CTI≥600
		or 630F #25	TERAOKA SEISAKUSHO CO LTD	E56086	130°C	510FR	CTI≥600
C	INSULATION TAPE	POLYESTER FILM COMPOSITE TAPE					
		WF	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	E165111	130°C	510FR	CTI≥600
		or 673F 0.27	TERAOKA SEISAKUSHO CO LTD	E56086	130°C	510FR	CTI≥600
		or 673F 0.5	TERAOKA SEISAKUSHO CO LTD	E56086	130°C	510FR	CTI≥600
		or 44T-A	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	E17385	130°C	-	CTI≥600
		or 35661	SYMBIO INC	E50292	130°C	-	CTI≥600
D	WIRE	POLYURETHAN ENAMELED COPPER WIRE					
		1UEW	various	-	130°C	-	-

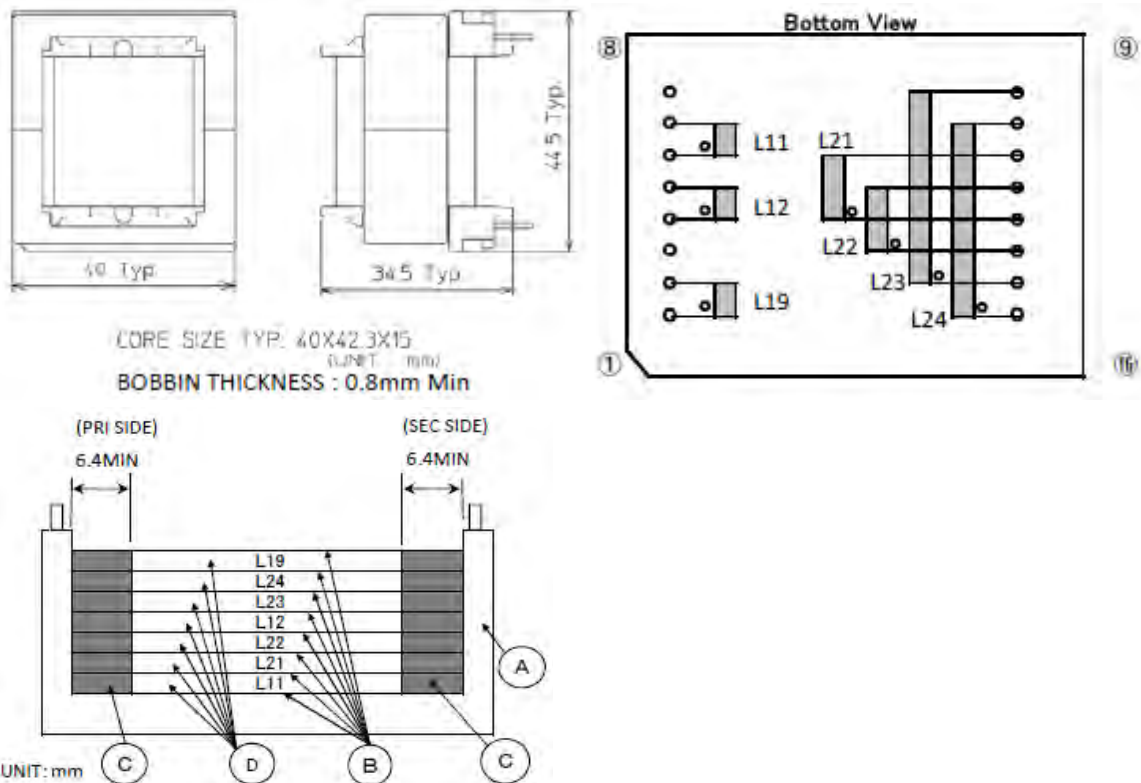
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Clause	Requirement + Test	Result - Remark	Verdict
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C.2 **TABLE: transformers****P**

4) Type 2V121

Construction:

**WINDING AND RATING**

WINDING NAME	PIN NO. (INSULATION TUBE)		WINDING TYP.	WIRE TYPE	INSULATION TAPE (BETWEEN LAYERS)	
	START	END			TYPE	LAYERS
L 19 (PRI)	1 (NONE)	2 (NONE)	6 T	$\phi 0.4 \times 2$	B	3 MIN
L 24 (SEC)	16 (NONE)	10 (NONE)	8 T	$\phi 0.5 \times 3$	B	3 MIN
L 23 (PRI)	15 (NONE)	9 (NONE)	8 T	$\phi 0.5 \times 3$	B	1 MIN
L 12 (SEC)	4 (NONE)	5 (NONE)	26 T	$\phi 0.45 \times 2$	B	3 MIN
L 22 (PRI)	14 (NONE)	12 (NONE)	8 T	$\phi 0.5 \times 3$	B	3 MIN
L 21 (PRI)	13 (NONE)	11 (NONE)	8 T	$\phi 0.5 \times 3$	B	1 MIN
L 11 (PRI)	6 (NONE)	7 (NONE)	26 T	$\phi 0.45 \times 2$	B	3 MIN
					B	1 MIN

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

C.2		TABLE: transformers					P
Material list:							
	PARTS	MATERIAL AND TYPE	MANUFACTURE	UL No.	Grade		CTI
					Temp	Flame	
A	BOBBIN	PHENOLE PM-9820 or PM-9750 or PM-9630	SUMITOMO BAKELITE CO LTD SUMITOMO BAKELITE CO LTD SUMITOMO BAKELITE CO LTD	E41429 E41429 E41429	150°C 150°C 150°C	94V-0 94V-0 94V-0	175≤CTI<250 175≤CTI<250 175≤CTI<250
B	INSULATION TAPE ※THICKNESS : 25um MIN	POLYESTER FILM TAPE CT(YELLOW) or 631S #25 or 630F #25	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD TERAOKA SEISAKUSHO CO LTD TERAOKA SEISAKUSHO CO LTD	E165111 E56086 E56086	130°C 130°C 130°C	510FR - 510FR	CTI≥600 CTI≥600 CTI≥600
C	INSULATION TAPE	POLYESTER FILM COMPOSITE TAPE WF or 673F 0.27 or 673F 0.5 or 44T-A or 35661	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD TERAOKA SEISAKUSHO CO LTD TERAOKA SEISAKUSHO CO LTD 3M COMPANY ELECTRICAL MARKETS DIV (EMD) SYMBIO INC	E165111 E56086 E56086 E17385 E50292	130°C 130°C 130°C 130°C 130°C	510FR 510FR 510FR - -	CTI≥600 CTI≥600 CTI≥600 CTI≥600 CTI≥600
D	WIRE	POLYURETHAN ENAMELED COPPER WIRE 1UEW	various	-	130°C	-	-

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

C.2

TABLE: transformers

P

5) Type 2Q152

Construction:

The diagram illustrates the construction of transformer Type 2Q152. It includes three main views: a top view, a side view, and a bottom view, along with a detailed cross-section of the winding.

- Top View:** Shows the core dimensions: 40 Typ (width) and 29 Typ (depth). The core size is specified as 35X41X113 (UNIT: mm).
- Side View:** Shows the bobbin thickness as 0.8mm Min. The core height is 44 Typ. The winding is labeled (ZBR 45 Typ.).
- Bottom View:** Shows the winding layout with labels L11, L12, L19, L21, and L22. The winding is labeled (ZBR 45 Typ.).
- Winding Cross-Section:** A detailed view of the winding layers, showing the arrangement of L22, L12, L21, L11, and L19. The layers are labeled (C), (D), (B), and (C) from left to right. The distance between the outer layers is 3.2MIN.

UNIT: mm

WINDING AND RATING

WINDING NAME	PIN NO. (INSULATION TUBE)		WINDING TYP.	WIRE TYPE	INSULATION TAPE (BETWEEN LAYERS)	
	START	END			TYPE	LAYERS
L 22 (SEC)	15 (NONE)	10 (NONE)	7 T	$\phi 0.12/40 \times 2$	B	3 MIN
L 12 (PRI)	3 (NONE)	4 (NONE)	30 T	$\phi 0.55 \times 1$	B	3 MIN
L 21 (SEC)	14,13 (NONE)	12,11 (NONE)	7 T	$\phi 0.12/40 \times 2$	B	3 MIN
L 11 (PRI)	5 (NONE)	6 (NONE)	30 T	$\phi 0.55 \times 1$	B	3 MIN
L 19 (PRI)	1 (NONE)	2 (NONE)	24 T	$\phi 0.35 \times 2$	B	1 MIN
					B	1 MIN

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

C.2		TABLE: transformers					P
Material list:							
	PARTS	MATERIAL AND TYPE	MANUFACTURE	UL No.	Grade		CTI
					Temp	Flame	
A	BOBBIN	PHENOLE					
		PM-9820	SUMITOMO BAKELITE CO LTD	E41429	150°C	94V-0	175≤CTI<250
		or PM-9750	SUMITOMO BAKELITE CO LTD	E41429	150°C	94V-0	175≤CTI<250
		or PM-9630	SUMITOMO BAKELITE CO LTD	E41429	150°C	94V-0	175≤CTI<250
B	INSULATION TAPE ※THICKNESS :25um MIN	POLYESTER FILM TAPE					
		CT(YELLOW)	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	E165111	130°C	510FR	CTI≥600
		or 631S #25	TERAOKA SEISAKUSYO CO LTD	E56086	130°C	—	CTI≥600
		or 630F #25	TERAOKA SEISAKUSYO CO LTD	E56086	130°C	510FR	CTI≥600
C	INSULATION TAPE	POLYESTER FILM COMPOSITE TAPE					
		WF	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	E165111	130°C	510FR	CTI≥600
		or 673F 0.27	TERAOKA SEISAKUSYO CO LTD	E56086	130°C	510FR	CTI≥600
		or 673F 0.5	TERAOKA SEISAKUSYO CO LTD	E56086	130°C	510FR	CTI≥600
		or 44T-A	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	E17385	130°C	—	CTI≥600
		or 35661	SYMBIO INC	E50292	130°C	—	CTI≥600
D	WIRE	POLYURETHAN ENAMELED COPPER WIRE					
		1UEW	various	—	130°C	—	—
supplementary information:							
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

List of test equipment used: at CTF Stage 1

Management No.	Test Instrument Name	Type	Mechanical No.	Manufacturing	Calibration Date - Last	Calibration Date - Due
G14-C089	AC Current Meter	2052-02	71BC00246	Yokogawa	2015-10-20	2016-10-19
G14-C094	Lekage current tester	228	348	Simpson	2016-06-23	2017-06-22
G14-C095	Ball Pressure tester	T-10.02	BP-001	EXCEL	2016-07-26	2017-07-25
G14-C096	High Voltage probe	P6015A	B051259	Tektronix	2016-01-14	2017-01-13
G14-C097	Portable DC Ammeters & Voltmeters	201200	85AA1194	Yokogawa	2016-06-23	2017-06-22
G14-C101	Temperature Recorder	437124	S5F703898	Yokogawa	2016-07-27	2017-07-26
G14-C102	Temperature Recorder	437124	S5F703899	Yokogawa	2016-07-27	2017-07-26
G14-C103	Steel Ball	TB-500	G14-C103	EXCEL	2015-10-07	2016-10-06
G14-C112	Scale Lupe	Scale Lupe 10x	G14-C112	PEAK	2016-05-17	2017-05-16
G14-C113	Steel Ruler 2m	No. 102H04J	G14-C113	Shinwa	2016-05-17	2017-05-16
G14-C114	Temp. and Humidity Meter	NT3-D	50173024	Rotronic	2016-03-11	2017-03-10
G14-C117	Digital Force Gauge	Z2-500N	202869	IMADA	2015-10-07	2016-10-06
G14-C118	Stop Watch	SVAE101	756428	SEIKO S-YARD	2015-10-08	2016-10-07
G14-C122	Power Meter	253401	2534FA042	Yokogawa	2016-03-14	2017-03-13
G14-C125	Dielectric Tester	TOS5051	BA002985	Kikusui	2016-08-01	2017-07-31
G14-C126	Clamp ON Power HI TESTER	3286-20	070616420	HIOKI	2016-07-29	2017-07-28
G14-C128	Earth Continuity Tester	TOS6210	MB005213	Kikusui	2016-01-14	2017-01-13
G14-C131	Vernier Caliper	CD-20B	10369	Mitsutoyo	2016-07-27	2017-07-26
G14-C132	Laser Power Meter	PD300-UV/VEGA	65574/651539	OPHIR	2015-10-15	2016-10-14
G14-C133	Digital Oscilloscope	TDS3054B	B033788	Tektronix	2016-06-01	2017-05-31
G14-C134	Wireless Logging Station	LR8410	160328626	HIOKI	2016-06-23	2017-06-22
TS-48	Compressor	TMC-5-120	D-670	Japan T.M.C	2015-11-24	2017-11-23
TS-50	Humidity Chamber	PR-3ST	--	TABAI	2015-11-30	2016-11-29

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

2.1.1.7	TABLE: Discharge test			P
Condition	τ calculated (s)	τ measured (s)	t u→ 0V (s)	Comments
Supply Voltage : 132V, 60Hz				
Model 8052ci				
Plug in off mode	--	0.139	0.349	Initial Voltage (peak) V_0 : 183V After 1sec (0.0) V
Supply Voltage : 264V, 50Hz				
Model TASKalfa 8052ci				
Plug in off mode	--	0.203	0.362	Initial Voltage (peak) V_0 : 373V After 1sec (0.0) V
Supplementary information:				
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

4.2	Table: Mechanical strength	P
4.2.4 Steady force test, 250N ± 10N		
Test locations:		
Main unit for Model 8052ci, 7052ci, TASKalfa 8052ci, TASKalfa 7052ci		
Right Middle R Cover, Left Upper Cover, Left Lower Cover, Deck Rear Cover, Right Upper Cover, Right Cover, Interface Cover, Rear Upper A Cover, Rear Upper B Cover, Rear Lower M Cover, Lid Option, Lid Vender, ISU Rear Cover		
Document Processor (Standard)		
Front Top Cover, Front Bottom Cover, Rear Right Cover, Rear Left Cover, PF Cover, Eject Tray, Interface Wire Cover A, Interface Wire Cover B, Low Conveying Guide		
Finisher, Model DF-7110 (Option)		
Top Cover, Eject Tray B Cover, Top Front Lid, Top Rear Lid, Front Upper Cover, Handle Cover, Front Middle Cover, Inner Upper Cover, Inner Lower Cover, Front Left Upper Cover, Front Lower Cover, Main Exit Cover, Turn Guide, Retaining Guide, Finisher Partition, Left Lower Cover, Rear Upper Cover, Rear Lower Cover, Rear Cover Lid, Rear Cover S Lid (Optional)		
Booklet Folder, Model BF-730 (Option)		
Eject Tray Base, Exit Open Cover, Left Cover, Front Saddle Cover, Rear Saddle Cover, Stock Tray, Eject Arm Holder, Eject Holder Cover, Exit Cover Lid		
Multi Tray Unit, Model MT-730 (Option)		
Side Covers (Front and Rear), Top Cover, Vertical Cover, Rear Cover Lid, Front Cover Lid, Eject Bins, Vertical Cover Lever		
Paper Feeder, Model PF-7120 (Option)		
Top Cover, Front Cover, Front Low Cover, Right Cover, Right Low Cover, Rear Cover, Rear Low Cover		
Cassette Feeding Unit, Model PF-730 (Option)		
Rear Cover, Left Cover, Right Cover, Feed Low Cover, Interface Cover, Connector Cover		
Cassette Feeding Unit, Model PF-740 (Option)		
Rear Cover, Left Cover, Right Cover, Feed Low Cover, Interface Cover, Connector Cover		
Cassette Feeding Unit, Model PF-7130 (Option)		
Top F Cover, Right R Cover, Front Up Cover, Rear Cover		

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

4.2.5 Impact test, Fall test

Test locations:

Main unit for Model 8052ci, 7052ci, TASKalfa 8052ci, TASKalfa 7052ci

Right Upper Cover, ISU Rear Cover

Document Processor (Standard)

Rear Right Cover, Rear Left Cover, PF Cover, Eject Tray, Interface Wire Cover B

Finisher, Model DF-7110 (Option)

Top Cover, Eject Tray B Cover, Top Front Lid, Top Rear Lid, Turn Guide, Retaining Guide

Booklet Folder, Model BF-730 (Option)

Eject Tray Base, Exit Open Cover, Left Cover, Front Saddle Cover, Rear Saddle Cover

Multi Tray Unit, Model MT-730 (Option)

Top Cover

Paper Feeder, Model PF-7120 (Option)

Top Cover

Cassette Feeding Unit, Model PF-7130 (Option)

Top F Cover, Right R Cover, Front Up Cover

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

4.2.5 Impact test, Swing test

Test locations:

Main unit for Model 8052ci, 7052ci, TASKalfa 8052ci, TASKalfa 7052ci

Right Middle R Cover, Left Upper Cover, Left Lower Cover, Deck Rear Cover, Right Upper Cover, Right Cover, Interface Cover, Rear Upper A Cover, Rear Upper B Cover, Rear Lower M Cover, Lid Option, Lid Vender, ISU Rear Cover

Document Processor (Standard)

Rear Right Cover, Rear Left Cover, Front Top Cover, Front Bottom Cover, Interface Wire Cover A

Finisher, Model DF-7110 (Option)

Front Cover, Front Right Cover, Rear Cover, Finisher Partition A, Finisher Partition B, Finisher Partition C, Upper Cover, Upper Cover B, Front Rail Cover, Rear Rail Cover

Multi Tray Unit, Model MT-730 (Option)

Side Covers (Front and Rear), Top Cover, Vertical Cover, Rear Cover Lid, Front Cover Lid, Eject Bins, Vertical Cover Lever

Paper Feeder, Model PF-7120 (Option)

Front Cover, Front Low Cover, Right Cover, Right Low Cover, Rear Cover, Rear Low Cover

Cassette Feeding Unit, Model PF-730 (Option)

Rear Cover, Left Cover, Right Cover, Feed Low Cover, Interface Cover, Connector Cover

Cassette Feeding Unit, Model PF-740 (Option)

Rear Cover, Left Cover, Right Cover, Feed Low Cover, Interface Cover, Connector Cover


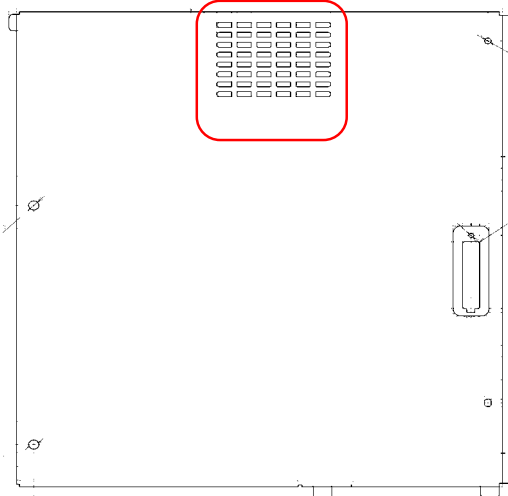
Cassette Feeding Unit, Model PF-7130 (Option)

Right R Cover, Rear Cover

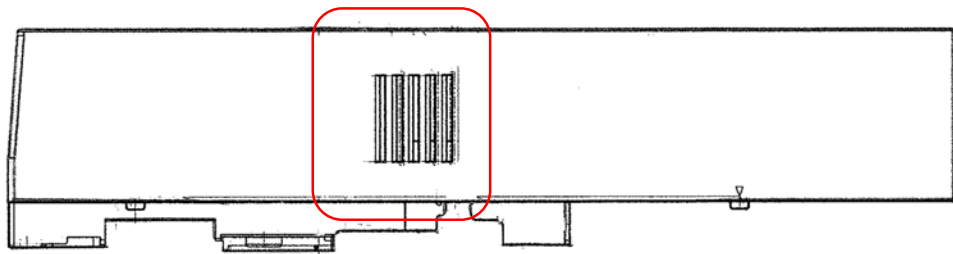
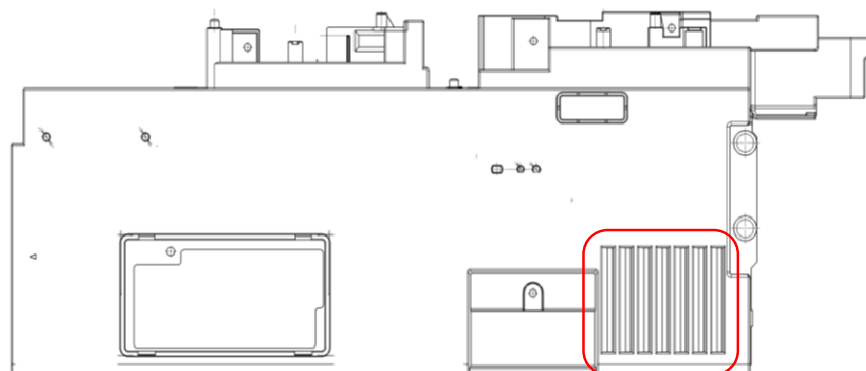
Supplementary information:

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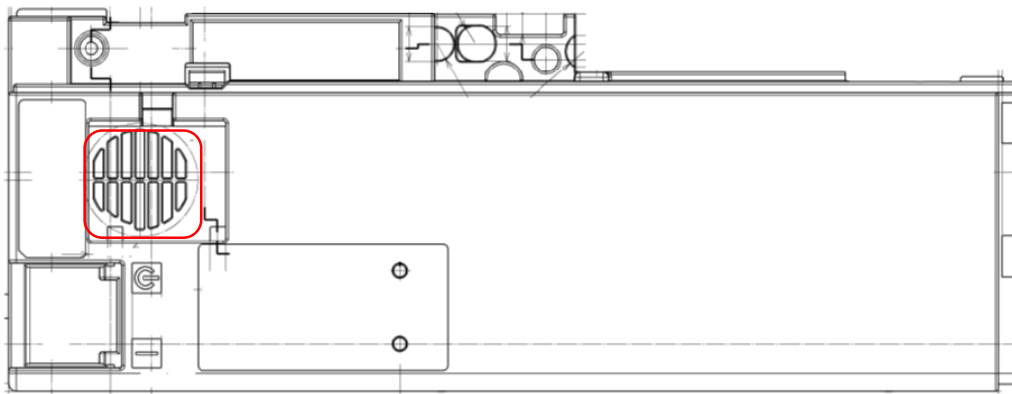
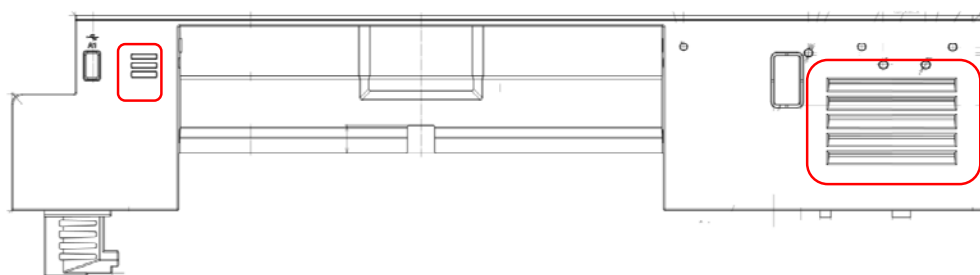
IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

4.6.1/.2	Table: Enclosure opening measurements	P
Rear Upper A Cover (for all models)		
		
<p>max 7.5mm x max 3mm slot covering an area of max 50mm W x max 58mm H</p>		
Rear Upper B Cover (for all models)		
		
<p>max 8mm x max 3mm slot covering an area of max 62mm W x max 46mm H</p>		

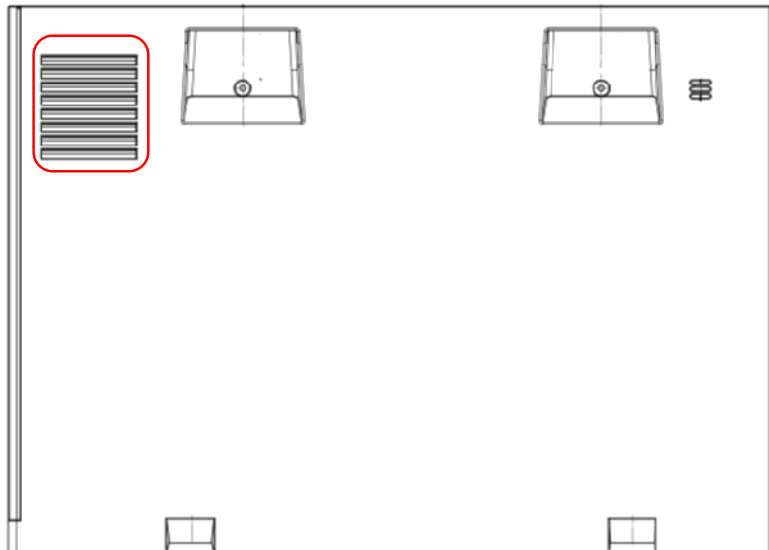
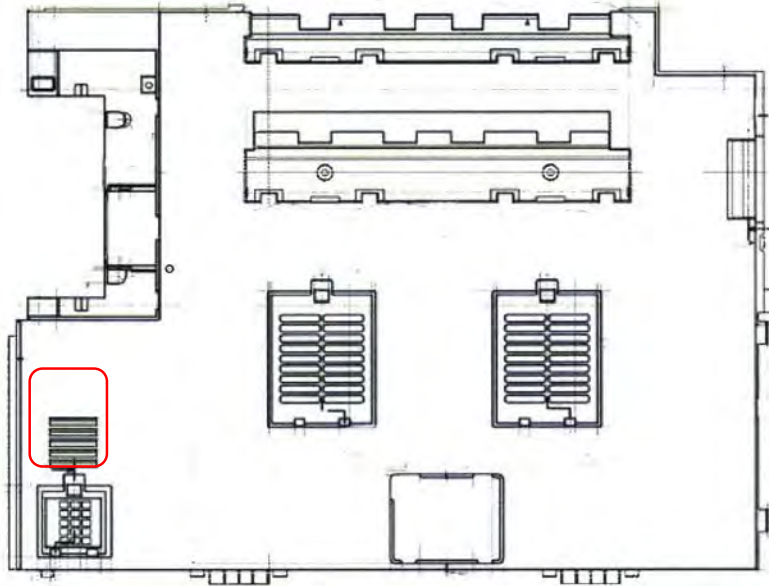
IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

4.6.1/.2	Table: Enclosure opening measurements	P
Right Front Cover (for all models)		
		
<p>max 36.5mm x max 5mm louver covering an area of max 32mm W x max 37mm H</p>		
Right Lower R Cover (for all models)		
		
<p>max 9mm x max 62.5mm louver covering an area of max 78mm W x max 62mm H</p>		

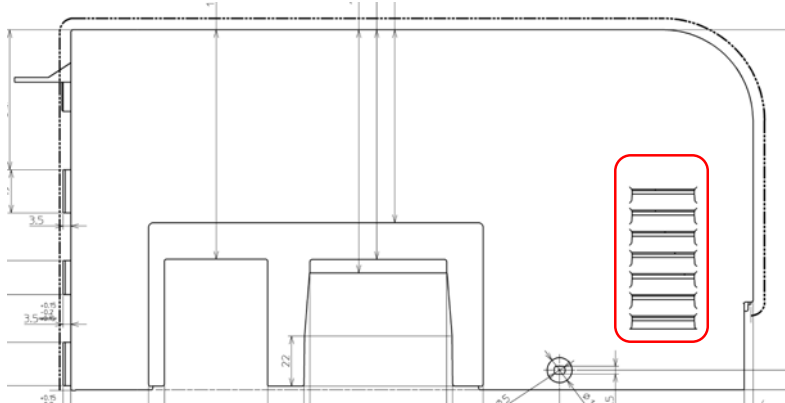
IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

4.6.1/2	Table: Enclosure opening measurements	P
Right Middle R Cover (for all models)		
		
<p>max 19mm x max 4mm slot covering an area of max 37mm W x max 40mm H</p>		
Right Upper Cover (for all models)		
		
<p>max 17mm x max 3mm slot covering an area of max 17mm W x max 15.5mm H</p> <p>max 85.5mm x max 8.5mm louver covering an area of max 85.5mm W x max 57mm H</p>		

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

4.6.1/.2	Table: Enclosure opening measurements	P
Left Lower Cover (for all models)		
		
max 82.5mm x max 8mm louver covering an area of max 82.5mm W x max 90mm H		
Left Upper Cover (for all models)		
		
max 42mm x max 6.5mm louver covering an area of max 42mm W x max 43mm H		

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

4.6.1/2	Table: Enclosure opening measurements	P
Rear A Cover of Document Processor (for all models)		
		
max. 28mm x 5.5mm louver Covering an area of 29.0mm W x 64.0mm H		
Supplementary information:		
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

B	TABLE: MOTOR TESTS UNDER ABNORMAL CONDITIONS		P
B.6	Running overload test for d.c. motors in secondary circuit		--
B.6.3	Test time (h):	--	--
Motor type / No.		Max. Temp. (°C)	Comments
Resist Motor, Feed Motor, Vertical Feed Motor, Middle Feed Motor Inner BL Motor (PF-7130) Type: ID-519XW-3567		--	No ignition of the wrapping tissue or cheesecloth.
Conveying Motor (PF-7120) DIA42B20W22A		--	No ignition of the wrapping tissue or cheesecloth.
Supplementary information			
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IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Information technology equipment - Safety - Part 1: General requirements	
Differences according to	EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013
Attachment Form No.	EU_GD_IEC60950_1F
Attachment Originator	SGS Fimko Ltd
Master Attachment	Date 2014-02
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EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013 - CENELEC COMMON MODIFICATIONS
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IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	Clauses, subclauses, notes, tables and figures which are additional to those in IEC60950-1 and it's amendmets are prefixed "Z"		P
Contents (A2:2013)	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZD (informative) IEC and CENELEC code designations for flexible cords		P
General	Delete all the "country" notes in the reference document (IEC 60950-1:2005) according to the following list: 1.4.8 Note 2 1.5.1 Note 2 & 3 1.5.7.1 Note 1.5.8 Note 2 1.5.9.4 Note 1.7.2.1 Note 4, 5 & 6 2.2.3 Note 2.2.4 Note 2.3.2 Note 2.3.2.1 Note 2 2.3.4 Note 2 2.6.3.3 Note 2 & 3 2.7.1 Note 2.10.3.2 Note 2 2.10.5.13 Note 3 3.2.1.1 Note 3.2.4 Note 3 2.5.1 Note 2 4.3.6 Note 1 & 2 4.7 Note 4 4.7.2.2 Note 4.7.3.1 Note 2 5.1.7.1 Note 3 & 4 5.3.7 Note 1 6 Note 2 & 5 6.1.2.1 Note 2 6.1.2.2 Note 6.2.2 Note 6.2.2.1 Note 2 6.2.2.2 Note 7.1 Note 3 7.2 Note 7.3 Note 1 & 2 G.2.1 Note 2 Annex H Note 2		P

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
General (A1:2010)	Delete all the "country" notes in the reference document (IEC 60950-1:2005/A1:2010) according to the following list: 1.5.7.1 Note 6.1.2.1 Note 2 6.2.2.1 Note 2 EE.3 Note		P
General (A2:2013)	Delete all the "country" notes in the reference document (IEC 60950-1:2005/A2:2013) according to the following list: 2.7.1 Note * 2.10.3.1 Note 2 6.2.2. Note * Note of secretary: Text of Common Modification remains unchanged.		P
1.1.1 (A1:2010)	Replace the text of NOTE 3 by the following. NOTE 3 The requirements of EN 60065 may also be used to meet safety requirements for multimedia equipment. See IEC Guide 112, Guide on the safety of multimedia equipment. For television sets EN 60065 applies.		N/A
1.3.Z1	Add the following subclause: 1.3.Z1 Exposure to excessive sound pressure The apparatus shall be so designed and constructed as to present no danger when used for its intended purpose, either in normal operating conditions or under fault conditions, particularly providing protection against exposure to excessive sound pressures from headphones or earphones. NOTE Z1 A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 1: General method for "one package equipment", and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 2: Guidelines to associate sets with headphones coming from different manufacturers.	No such equipment.	N/A
(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 (Added info*)	Add the following NOTE: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC. New Directive 2011/65/11 *		P
1.7.2.1 (A1:2010)	In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a warning that excessive sound pressure from earphones and headphones can cause hearing loss.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.1 (A12.2011)	<p>In EN 60950-1:2006/A12:2011</p> <p>Delete NOTE Z1 and the addition for Portable Sound System.</p> <p>Add the following clause and annex to the existing standard and amendments.</p>	Deleted.	N/A
	<p>Zx Protection against excessive sound pressure from personal music players</p> <p>Zx.1 General</p> <p>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.</p> <p>A personal music player is a portable equipment for personal use, that:</p> <ul style="list-style-type: none"> - 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. <p>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.</p> <p>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.</p> <p>The requirements in this sub-clause are valid for music or video mode only.</p> <p>The requirements do not apply:</p> <ul style="list-style-type: none"> - while the personal music player is connected to an external amplifier; or - while the headphones or earphones are not used. <p>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.</p> <p>The requirements do not apply to:</p> <ul style="list-style-type: none"> - hearing aid equipment and professional equipment; <p>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.</p>	No such equipment.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>- analogue personal music players (personal music players without any kind of digital processing of the sound signal) that are brought to the market before the end of 2015.</p> <p>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.</p> <p>For equipment which is clearly designed or intended for use by young children, the limits of EN 71-1 apply.</p>		
	<p>Zx.2 Equipment requirements</p> <p>No safety provision is required for equipment that complies with the following:</p> <p>- equipment provided as a package (personal music player with its listening device), where the acoustic output $L_{Aeq,T}$ is ≤ 85 dBA measured while playing the fixed "programme simulation noise" as described in EN 50332-1; and</p> <p>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.</p> <p>NOTE 1 Wherever the term acoustic output is used in this clause, the 30 s A-weighted equivalent sound pressure level $L_{Aeq,T}$ is meant. See also Zx.5 and Annex Zx.</p> <p>All other equipment shall:</p> <p>a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and</p> <p>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</p>		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>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</p> <p>NOTE 2 Examples of means include visual or audible signals. Action from the user is always required.</p> <p>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.</p> <p>d) have a warning as specified in Zx.3; and</p> <p>e) not exceed the following:</p> <ol style="list-style-type: none"> 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. <p>For music where the average sound pressure (long term $L_{Aeq,T}$) 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.</p> <p>NOTE 4 Classical music typically has an average sound pressure (long term $L_{Aeq,T}$) 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.</p> <p>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.</p>		

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx.3 Warning</p> <p>The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following:</p> <ul style="list-style-type: none"> - the symbol of Figure 1 with a minimum height of 5 mm; and - the following wording, or similar: <p>"To prevent possible hearing damage, do not listen at high volume levels for long periods."</p>  <p>Figure 1 - Warning label (IEC 60417-6044)</p> <p>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.</p>		N/A
	Zx.4 Requirements for listening devices (headphones and earphones)		N/A
	<p>Zx.4.1 Wired listening devices with analogue input</p> <p>With 94 dBA sound pressure output $L_{Aeq,T}$, the input voltage of the fixed "programme simulation noise" described in EN 50332-2 shall be ≥ 75 mV.</p> <p>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).</p> <p>NOTE The values of 94 dBA - 75 mV correspond with 85dBA - 27 mV and 100 dBA - 150 mV.</p>		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx.4.2 Wired listening devices with digital input</p> <p>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 $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA.</p> <p>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.).</p> <p>NOTE An example of a wired listening device with digital input is a USB headphone.</p>		N/A
	<p>Zx.4.3 Wireless listening devices</p> <p>In wireless mode:</p> <ul style="list-style-type: none"> - 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 $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. <p>NOTE An example of a wireless listening device is a Bluetooth headphone.</p>		N/A
	<p>Zx.5 Measurement methods</p> <p>Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable. Unless stated otherwise, the time interval T shall be 30 s.</p> <p>NOTE Test method for wireless equipment provided without listening device should be defined.</p>		N/A

IEC60950_1F - ATTACHMENT															
Clause	Requirement + Test	Result - Remark	Verdict												
2.7.1	<p>Replace the subclause as follows:</p> <p>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):</p> <p>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;</p> <p>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;</p> <p>c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.</p> <p>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.</p>		P												
2.7.2	This subclause has been declared 'void'.		P												
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.		N/A												
3.2.5.1	<p>Replace "60245 IEC 53" by "H05 RR-F"; "60227 IEC 52" by "H03 VV-F or H03 VVH2-F"; "60227 IEC 53" by "H05 VV-F or H05 VVH2-F2".</p> <p>In Table 3B, replace the first four lines by the following:</p> <table><tr><td>Up to and including 6</td><td> </td><td>0,75^{a)}</td><td> </td></tr><tr><td>Over 6 up to and including 10</td><td> </td><td>(0,75)^{b)} 1,0</td><td> </td></tr><tr><td>Over 10 up to and including 16</td><td> </td><td>(1,0)^{c)} 1,5</td><td> </td></tr></table> <p>In the conditions applicable to Table 3B delete the words "in some countries" in condition ^{a)}.</p> <p>In NOTE 1, applicable to Table 3B, delete the second sentence.</p>	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			P
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													
3.2.5.1 (A2:2013)	NOTE Z1 The harmonised code designations corresponding to the IEC cord types are given in Annex ZD		P												

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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 4 Delete the fifth line: conductor sizes for 13 to 16 A		N/A
4.3.13.6 (A1:2010)	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).		N/A
	Standards taking into account mentioned Recommendation and Directive which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.		N/A
Annex 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. Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete NOTE 2.		N/A
Bibliography	Additional EN standards.		—

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ZA	NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS		—

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.2.4.1	In Denmark , certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.		N/A
1.2.13.14 (A11:2009)	In Norway and Sweden , for requirements see 1.7.2.1 and 7.3 of this annex.		N/A
1.5.7.1 (A11:2009)	In Finland , Norway and Sweden , 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
1.5.8	In Norway , 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).		P
1.5.9.4	In Finland , Norway and Sweden , 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	In Finland , Norway and Sweden , 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: In Finland : "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In Norway : "Apparatet må tilkoples jordet stikkontakt" In Sweden : "Apparaten skall anslutas till jordat uttag"		P

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.1 (A11:2009)	<p>In Norway and 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.</p> <p>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.</p> <p>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:</p> <p>"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)."</p> <p>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.</p> <p>Translation to Norwegian (the Swedish text will also be accepted in Norway):</p> <p>"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."</p> <p>Translation to Swedish:</p> <p>"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."</p>		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.1 (A2:2013)	In Denmark , 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 Denmark shall be as follows: In Denmark : "Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord."		P
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 (A11:2009)	For CLASS II EQUIPMENT the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.		N/A
1.7.5 (A2:2013)	In Denmark , socket-outlets for providing power to other equipment shall be in accordance with the DS 60884-2-D1:2011. For class I equipment the following Standard Sheets are applicable: DK 1-3a, DK 1-1c, DK 1-1d, DK 1-5a or DK 1-7a, with the exception for STATIONARY EQUIPMENT where the socket-outlets shall be in accordance with Standard Sheet DK 1-1b, DK 1-1c, DK 1-1d or DK 1-5a. Socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance with DS 60884-2-D1 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with by DS 60884-2-D1 Standard Sheet DKA 1-3a or DKA 1-3b. Justification the Heavy Current Regulations, 6c		N/A
2.2.4	In Norway , for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.		P
2.3.2	In Finland, Norway and Sweden there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.		P
2.3.4	In Norway , for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.		P

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.3.3	In the United Kingdom , the current rating of the circuit shall be taken as 13 A, not 16 A.		N/A
2.7.1	In the United Kingdom , 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.	No direct plug-in.	N/A
2.10.5.13	In Finland, Norway and Sweden , there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.		N/A
3.2.1.1	<p>In Switzerland, supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets:</p> <p>SEV 6532-2.1991 Plug Type 15 3P+N+PE 250/400 V, 10 A</p> <p>SEV 6533-2.1991 Plug Type 11 L+N 250 V, 10 A</p> <p>SEV 6534-2.1991 Plug Type 12 L+N+PE 250 V, 10 A</p> <p>In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998:</p> <p>SEV 5932-2.1998: Plug Type 25 3L+N+PE 230/400 V, 16 A</p> <p>SEV 5933-2.1998: Plug Type 21 L+N 250 V, 16A</p> <p>SEV 5934-2.1998: Plug Type 23 L+N+PE 250 V, 16 A</p>		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	<p>In Denmark, supply cords 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.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.</p> <p>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.</p>		N/A
3.2.1.1 (A2:2013)	<p>In Denmark, supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.</p> <p>If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.</p> <p>Justification the Heavy Current Regulations, 6c</p>		N/A
3.2.1.1	<p>In Spain, supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994.</p> <p>Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994.</p> <p>If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.</p>		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	In the United Kingdom , 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 1768:1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations. NOTE 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		N/A
3.2.1.1	In Ireland , 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.		N/A
3.2.4	In Switzerland , for requirements see 3.2.1.1 of this annex.		N/A
3.2.5.1	In the United Kingdom , a power supply cord with conductor of 1,25 mm ² is allowed for equipment with a rated current over 10 A and up to and including 13 A.		N/A
3.3.4	In the United Kingdom , 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 mm ² to 1,5 mm ² nominal cross-sectional area.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.6	In the United Kingdom , the torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1:1997 and Amendment 2:2003 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, 12.13, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		N/A
4.3.6	In Ireland , 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
5.1.7.1	In Finland, Norway and Sweden TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment: <ul style="list-style-type: none"> • STATIONARY PLUGGABLE EQUIPMENT TYPE A that <ul style="list-style-type: none"> - is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and - has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and - 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

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
6.1.2.1 (A1:2010)	<p>In Finland, Norway and Sweden, add the following text between the first and second paragraph of the compliance clause:</p> <p>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> - 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. 		P
	<p>Alternatively for components, there is no distance through insulation requirements 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</p> <ul style="list-style-type: none"> - 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. <p>It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b).</p> <p>It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.</p> <p>A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 60384-14: - the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14. 		P

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
6.1.2.2	In Finland, Norway and Sweden , 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 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	In Finland, Norway and Sweden , for requirements see 6.1.2.1 and 6.1.2.2 of this annex. The term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.		N/A
7.3 (A11:2009)	In Norway and Sweden , for requirements see 1.2.13.14 and 1.7.2.1 of this annex.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

**Annex ZD
(informative)**

IEC and CENELEC code designations for flexible cords

Type of flexible cord	Code designations	
	IEC	CENELEC
PVC insulated cords		
Flat twin tinsel cord	60227 IEC 41	H03VH-Y
Light polyvinyl chloride sheathed flexible cord	60227 IEC 52	H03VV-F H03VVH2-F
Ordinary polyvinyl chloride sheathed flexible cord	60277 IEC 53	H05VV-F H05VVH2-F
Rubber insulated cords		
Braided cord	60245 IEC 51	H03RT-F
Ordinary tough rubber sheathed flexible cord	60245 IEC 53	H05RR-F
Ordinary polychloroprene sheathed flexible cord	60245 IEC 57	H05RN-F
Heavy polychloroprene sheathed flexible cord	60245 IEC 66	H07RN-F
Cords having high flexibility		
Rubber insulated and sheathed cord	60245 IEC 86	H03RR-H
Rubber insulated, crosslinked PVC sheathed cord	60245 IEC 87	H03RV4-H
Crosslinked PVC insulated and sheathed cord	60245 IEC 88	H03V4V4-H

CAN/CSA-C22.2 No. 60950-1-07, Amd 1:2011, Amd 2:2014			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1 with A1:2009 and A2:2013 CANADA NATIONAL DIFFERENCES Information technology equipment - Safety - PART 1: GENERAL REQUIREMENTS			
Differences according to : CAN/CSA-C22.2 No. 60950-1-07, Amd 1:2011, Amd 2:2014			
Attachment Form No. : CA_ND_IEC60950_1F			
Attachment Originator : CSA			
Master Attachment : Date (2015-05)			
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	Special national conditions		
1.1.1	<p>All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2.</p> <p>Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.</p>		P
1.1.2	Baby monitors are required to comply with ASTM F2951, Consumer Safety Specification for Baby Monitors		N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.	Considered.	P
1.5.5	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g. DP, CL2) specified in the CEC/NEC.		N/A
	For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the CEC are required to have special construction features and identification markings.		N/A

CAN/CSA-C22.2 No. 60950-1-07, Amd 1:2011, Amd 2:2014			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.1	<p>Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings.</p> <p>A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN/CSA C22.2 No. 235, and</p> <p>- if it is part of a range that extends into the Table 2 "Normal Operating Conditions."</p> <p>Likewise, a voltage rating shall not be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions."</p>	Single phase conductor.	N/A
1.7.7	<p>Wiring terminals intended to supply Class 2 outputs in accordance with CEC Part 1 or NEC shall be marked with the voltage rating and "Class 2" or equivalent.</p> <p>Marking shall be located adjacent to the terminals and shall be visible during wiring.</p>	No such terminals.	N/A
2.5	Where a fuse is used to provide Class 2, Limited Power Source, or TNV current limiting, it shall not be operator-accessible unless it is not interchangeable.	Not accessible and interchangeable fuses used for LPS.	P
2.6	Equipment with isolated ground (earthing) receptacles is required to comply with NEC 250.146(D) and CEC 10-112 and 10-906(8).	Modified.	P
2.7.1	<p>Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is required for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable.</p> <p>Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require special transformer overcurrent protection.</p>	<p>No standard supply outlets.</p> <p>No such transformers.</p>	N/A

CAN/CSA-C22.2 No. 60950-1-07, Amd 1:2011, Amd 2:2014			
Clause	Requirement + Test	Result - Remark	Verdict
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains shall be in accordance with the NEC/CEC.	Fixed power cord, Strain Relief Bushing.	P
3.2.1	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.	Rated: max. 16A Plug rated 20A.	P
3.2.1.2	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment, is required to comply with special earthing, wiring, marking and installation instruction requirements.	Not connected to DC mains.	N/A
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.	Not permanent connection.	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. Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.	Length of power supply cord: 2.5 m. Type: SJT	P
3.2.9	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.		N/A
3.3	Wiring terminals and associated spacings for field wiring connections shall comply with CSA C22.2 No. 0.		N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm ²).		N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are required to be suitable for Canadian/US wire gauge sizes, rated 125 percent of the equipment rating, and be specially marked when specified (1.7.7).		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."	Revised.	P

CAN/CSA-C22.2 No. 60950-1-07, Amd 1:2011, Amd 2:2014			
Clause	Requirement + Test	Result - Remark	Verdict
3.4.2	Motor control devices are required for cord-connected equipment with a motor if the equipment is rated more than 12 A, or if the motor has a nominal voltage rating greater than 120 V, or is rated more than 1/3 hp (locked rotor current over 43 A).	No such motor.	N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers are required to have the "on" position indicated by the handle in the up position.	No such switches or breakers.	N/A
3.4.11	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes are required to have a battery disconnect means that may be connected to the computer room remote power-off circuit.	No such systems.	N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment is required to comply with NFPA 30.	No flammable liquid.	N/A
4.3.13.5.1	Equipment with lasers is required to meet the Canadian Radiation Emitting Devices Act, REDR C1370 and/or Code of Federal Regulations 21 CFR 1040, as applicable.	Tested for IEC 60825-1. (see IEC 60825-1 test report) FDA applied separately. (Accession No. 0720775-049)	P
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m ³ (27 cu ft) are required to have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.	No such systems.	N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9 m ² (10 sq ft) or a single dimension greater than 1.8 m (6 ft) are required to have a flame spread rating of 50 or less.	No such enclosures.	N/A
	For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less.		N/A
Annex H	Equipment that produces ionizing radiation is required to comply with the Canadian Radiation Emitting Devices Act, REDR C1370 and/or Code of Federal Regulations, 21 CFR 1020, as applicable.	No ionizing radiation source.	N/A

CAN/CSA-C22.2 No. 60950-1-07, Amd 1:2011, Amd 2:2014			
Clause	Requirement + Test	Result - Remark	Verdict
	Other National Differences The following key national differences are based on requirements other than national regulatory requirements.		P
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury are required to have component or material ratings in accordance with the applicable national (Canadian and/or U.S.) component or material standard requirements. These components include: attachment plugs, battery packs (rechargeable type, used with transportable equipment) cathode ray tubes, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), cord sets and power supply cords, direct plug-in equipment, enclosures (outdoor), flexible cords and cables, fuses (branch circuit), fuseholders, ground-fault current interrupters, industrial control equipment, insulating tape, interconnecting cables, lampholders, limit controls, printed wiring, protectors for communications circuits, receptacles, solid state controls, supplementary protectors, switches (including interlock switches), thermal cutoffs, thermostats, (multi-layer) transformer winding wire, transient voltage surge suppressors, tubing, wire connectors, and wire and cables.	(see appended table 1.5.1)	P
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as a SELV Circuit, TNV-2 Circuit or Hazardous Voltage Circuit depending on the maximum operating voltage of the supply. This maximum operating voltage shall include consideration of the battery charging "float voltage" associated with the intended supply system, regardless of the marked power rating of the equipment.	No connection to DC mains.	N/A
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 V _{peak} or 60 V _{d.c.} , the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.		N/A
2.3.2.1	In the event of a single fault between TNV and SELV circuits, the limits of 2.2.3 apply to SELV Circuits and accessible conductive parts.		P
2.6.2	Equipment with functional earthing is required to be marked with the functional earthing symbol (IEC 60471-6092).		N/A

Canadian National differences

CAN/CSA-C22.2 No. 60950-1-07, Amd 1:2011, Amd 2:2014			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.3.4	Protective bonding conductors of non-standard protective bonding constructions (e.g., printed circuit traces) may be subjected to the additional limited short circuit test conditions specified.	No such constructions.	N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more are required to reduce the risk of injury due to the implosion of the CRT.	No CRTs.	N/A
4.3.2	Equipment with handles is required to comply with special loading tests.	Four handles to support the main unit, Tested with 7056N.	P
4.3.8	Battery packs for both portable and stationary applications are required to comply with special component requirements.		N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals is required to comply with a special touch current measurement tests.	Max. touch current: 0.58mA	P
5.3.7	Internal (e.g., card cage) SELV circuit connectors and printed wiring board connectors that are accessible to the operator and that deliver power are overloaded. During abnormal operating testing, if a circuit is interrupted by the opening of a component, the test shall be repeated twice (three tests total) using new components as necessary		P
6.4	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC.	Min. AWG 26 Cord provided. (In Optional Fax Unit)	P
Annex EE	Articulated accessibility probe (Fig EE.3) required for assessing accessibility to document/media shredders instead of the Figure 2A test finger.	Not shredders.	N/A
Annex M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.		N/A
Annex 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

UL 60950-1, Edition 2, Amendment 2 (IEC 60950-1, Ed 2, Am2)			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1 with A1:2009 and A2:2013 U.S.A. NATIONAL DIFFERENCES Information technology equipment - Safety - Part 1: General requirements	
Differences according to	UL 60950-1:2007 R10.14
Attachment Form No.....	US_ND_IEC60950_1F
Attachment Originator	UL
Master Attachment.....	Date 2014-07
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	Special National condition		
1.1.1	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2.		P
	Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.		P
1.1.2	Baby monitors are required to additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.		N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.	Considered.	P
1.5.5	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g. DP, CL2) specified in the NEC.		N/A
	For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the NEC are required to have special construction features and identification markings.		N/A

UL 60950-1, Edition 2, Amendment 2 (IEC 60950-1, Ed 2, Am2)			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.1	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings.	Single phase conductor.	N/A
	A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN3-C235, and		N/A
	- if it is part of a range that extends into the Table 2 "Normal Operating Conditions."		N/A
	Likewise, a voltage rating shall not be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions."		N/A
1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with the NEC or CEC Part 1 or NEC are marked with the voltage rating and "Class 2" or equivalent.	No such terminals.	N/A
	- Marking is located adjacent to the terminals		N/A
	- Marking is visible during wiring.		N/A
2.5	Fuse providing Class 2, Limited Power Source, or TNV current limiting is not operator-accessible unless it is not interchangeable	Not accessible and interchangeable fuses used for LPS.	P
2.6	Equipment with isolated ground (earthing) receptacles is in compliance with NEC 250.146(D) and CEC 10-112 and 10-906(8).	Modified.	P
2.7.1	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is provided for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable.	No standard supply outlets.	N/A
	Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, provided with special transformer overcurrent protection.	No such transformers.	N/A

UL 60950-1, Edition 2, Amendment 2 (IEC 60950-1, Ed 2, Am2)			
Clause	Requirement + Test	Result - Remark	Verdict
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains is in accordance with the NEC/CEC.	Fixed power cord, Strain Relief Bushing.	P
3.2.1	Attachment plug of power supply cords are rated not less than 125 percent of the rated current of the equipment.	Rated: max. 16A Plug rated 20A.	P
3.2.1.2	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment comply with special earthing, wiring, marking and installation instruction requirements.	Not connected to DC mains.	N/A
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.	Not permanent connection.	N/A
3.2.5	Power supply cords are no longer than 4.5 m in length	Length of power supply cord: 2.5 m.	P
	Minimum cord length is 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement.		P
	Flexible power supply cords are compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.	Type: SJT	P
3.2.9	Permanently connected equipment has a suitable wiring compartment and wire bending space.		N/A
3.3	Wiring terminals and associated spacings for field wiring connections comply with CSA C22.2 No. 0.		N/A
3.3.3	Wire binding screws are not attached with conductors larger than 10 AWG (5.3 mm ²).		N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are suitable for Canadian/US wire gauge sizes, are		N/A
	- rated 125 percent of the equipment rating, and		N/A
	- are specially marked when specified (1.7.7).		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."	Revised.	P

UL 60950-1, Edition 2, Amendment 2 (IEC 60950-1, Ed 2, Am2)			
Clause	Requirement + Test	Result - Remark	Verdict
3.4.2	Motor control devices are provided for cord-connected equipment with a motor if the equipment is rated more than 12 A.	No such motor.	N/A
	- or if the motor has a nominal voltage rating greater than 120 V		N/A
	- or is rated more than 1/3 hp (locked rotor current over 43 A)		N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers have the "on" position indicated by the handle in the up position.	No such switches or breakers.	N/A
3.4.11	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes have a battery disconnect means that may be connected to the computer room remote power-off circuit.	No such systems.	N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30.	No flammable liquid.	N/A
4.3.13. 5.1	Equipment with lasers meets the U.S Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	Tested for IEC 60825-1. (see IEC 60825-1 test report) FDA applied separately. (Accession No. 0720775-049)	P
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m ³ (27 cu ft) are required to have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.	No such systems.	N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9 m ² (10 sq ft) or a single dimension greater than 1.8 m (6 ft) have a flame spread rating of 50 or less.	No such enclosures.	N/A
	For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less.		N/A
4.7.3.1	Non-metallic enclosures of equipment for use in space used for environmental air (plenums) are required to comply with UL 2043.	No such enclosures.	N/A
Annex H	Equipment that produces ionizing radiation complies with the U.S. Code of Federal Regulations, 21CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No ionizing radiation source.	N/A

UL 60950-1, Edition 2, Amendment 2 (IEC 60950-1, Ed 2, Am2)			
Clause	Requirement + Test	Result - Remark	Verdict
	Other National Differences		P
1.5.1	<p>Some components and materials associated with the risk of fire, electric shock, or personal injury have component or material ratings in accordance with the applicable national (Canadian and/or US) component or material requirements.</p> <p>These components include: attachment plugs, battery backup systems, battery packs, cathode ray tubes, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), cord sets and power supply cords, direct plug-in equipment, electrochemical capacitor modules (energy storage modules with ultracapacitors), enclosures (outdoor), flexible cords and cables, fuses (branch circuit), fuseholders, ground-fault current interrupters, industrial control equipment, insulating tape, interconnecting cables, lampholders, limit controls, printed wiring, protectors for communications circuits, receptacles, solid state controls, supplementary protectors, switches (including interlock switches), thermal cutoffs, thermostats, (multi-layer) transformer winding wire, surge protective devices, tubing, vehicle battery adapters, wire connectors, and wire and cables.</p>	(see appended table 1.5.1)	P
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as a SELV Circuit, a TNV-2 Circuit or Hazardous Voltage Circuit depending on the maximum operating voltage of the supply.	No connection to DC mains.	N/A
	This maximum operating voltage includes consideration of the battery charging "float voltage" associated with the intended supply system, regardless of the marked power rating of the equipment.		N/A
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 V _{peak} or 60 V _{d.c.} , the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.		N/A
2.3.2.1	In the event of a single fault between TNV and SELV circuits, the limits of 2.2.3 apply to SELV Circuits and accessible conductive parts.		P
2.6.2	Equipment with functional earthing marked with the functional earthing symbol (IEC 60417-6092).		N/A

UL 60950-1, Edition 2, Amendment 2 (IEC 60950-1, Ed 2, Am2)			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.3.4	Protective bonding conductors of non-standard protective bonding constructions (e.g., printed circuit traces) may be subjected to the additional limited short circuit test conditions specified.	No such constructions.	N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more reduce the risk of injury due to the implosion of the CRT.	No CRTs.	N/A
4.3.2	Equipment with handles is required to comply with special loading tests.	Four handles to support the main unit, Tested with 7056N.	P
4.3.8	Battery packs for both portable and stationary applications comply with special component requirements.		N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals comply with a special touch current measurement tests.	Max. touch current: 0.58mA	P
5.3.7	Internal (e.g., card cage) SELV circuit connectors and printed wiring board connectors that are accessible to the operator and that deliver power are overloaded.		P
	During abnormal operating testing, if a circuit is interrupted by the opening of a component, the test is repeated twice (three tests total) using new components as necessary	Considered.	P
6.4	Equipment intended for connection to telecommunication network outside plant cable is protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC.	Min. AWG 26 Cord provided. (In Optional Fax Unit)	P
Annex EE	Articulated accessibility probe (Fig EE.3) is used for assessing accessibility to document/media shredders instead of the Figure 2A test finger.	Not shredders.	N/A
Annex M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.		N/A
Annex 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

AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013)			
Clause	Requirement + Test	Result - Remark	Verdict

Australian and New Zealand National Differences according to AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013)			
EXPLANATION FOR ABBREVIATIONS P=Pass, F=Fail, N=Not applicable. Placed in the column to the right.			
Annex ZZ Variations			
	After definition 'PERSON, SERVICE', <i>insert</i> the following new definition: POTENTIAL IGNITION SOURCE 1.2.12.201	Added.	P
1.2.12.201	After Clause 1.2.12.15, <i>insert</i> the following new clause: 1.2.12.201 POTENTIAL IGNITION SOURCE Possible fault which can start 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 15 VA. Such a faulty contact or interruption in an electrical connection includes those which may occur in CONDUCTIVE PATTERNS on PRINTED BOARDS. NOTE 1 An electronic protection circuit may be used to prevent such a fault from becoming a POTENTIAL IGNITION SOURCE. NOTE 2 This definition is from AS/NZS60065:2012, Clause 2.8.11.	Added.	P
1.5.1	1. First paragraph, <i>insert</i> the following text after the words 'IEC component standard': or the relevant Australian/New Zealand Standard 2. In the Note, <i>insert</i> the following text after the word 'standard': or an Australian/New Zealand Standard 3. Second paragraph, <i>delete</i> the words 'without further evaluation'.	Added.	P
1.5.2	1. First paragraph, <i>insert</i> the following text after the word 'standard': or an Australian/New Zealand Standard 2. First paragraph, second dash item, second line, <i>insert</i> the following text after the word 'standard': or an Australian/New Zealand Standard 3. First paragraph, second dash item, last line, <i>insert</i> the following text after the word 'standard': or an Australian/New Zealand Standard	Added.	P

AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013)																								
Clause	Requirement + Test		Result - Remark	Verdict																				
1. 7.1.3	<i>Delete</i> existing text and <i>replace</i> with the following: Graphical symbols 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 the absence of suitable symbols, the manufacturer may design specific graphical symbols. Symbols as required by this standard placed on the equipment shall be explained in the user manual.		Symbols placed on the equipment are explained in the user manual.	P																				
2.9.2 Table 3B	Second paragraph, <i>delete</i> the word 'designated'. 1. <i>Delete</i> the first four rows and <i>replace</i> with the following: <table><tr><td>Over 0.2</td><td>up to and including 3</td><td>0,5 a</td><td>18</td><td>[0,8]</td></tr><tr><td>Over 3</td><td>up to and including 7,5</td><td>0,75</td><td>16</td><td>[1 ,3]</td></tr><tr><td>Over 7,5</td><td>up to and including 10</td><td>(0,75) b 1,00</td><td>16</td><td>[1 ,3]</td></tr><tr><td>Over 10</td><td>up to and including 16</td><td>(1,0) c 1,5</td><td>14</td><td>[2]</td></tr></table> 2. <i>Delete</i> NOTE 1 and <i>renumber</i> existing NOTE 2 as 'NOTE'. 3. <i>Delete</i> Footnote ^a and <i>replace</i> 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 mm ² three-core supply flexible cords are not permitted; see AS/NZS 3191).			Over 0.2	up to and including 3	0,5 a	18	[0,8]	Over 3	up to and including 7,5	0,75	16	[1 ,3]	Over 7,5	up to and including 10	(0,75) b 1,00	16	[1 ,3]	Over 10	up to and including 16	(1,0) c 1,5	14	[2]	P
Over 0.2	up to and including 3	0,5 a	18	[0,8]																				
Over 3	up to and including 7,5	0,75	16	[1 ,3]																				
Over 7,5	up to and including 10	(0,75) b 1,00	16	[1 ,3]																				
Over 10	up to and including 16	(1,0) c 1,5	14	[2]																				
4.1.201	After Clause 4.1, <i>insert</i> new Clause 4.1.201 as follows: 4.1.201 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 receivers, specified in AS/NZS 60065.		No display device.	N/A																				
4.3.6	<i>Delete</i> the third paragraph and <i>replace</i> with the following: <i>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 ASINZS 3112 for equipment with integral pins for insertion into socket-outlets.</i>		Not a direct-plug-in equipment.	N/A																				

AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013)			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.8	<p>Eighth paragraph, <i>insert</i> the following new note after the first dash item:</p> <p>NOTE 6.201 In cases where the voltage source is provided by power from an unassociated power source, consideration should be given to the effects 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 assessing the charging circuit in the equipment under test.</p>	Lithium battery (CR2032) circuits in Main PWB utilize a diode in series with a 1kΩ resistor.	P
4.3.8.201	<p>After Clause 4.3.8, <i>add</i> the following new clause as follows:</p> <p>4.3.8.201 Products containing coin/button cell batteries and batteries designated R1</p> <p>The requirements of AS/NZS 60065:2012 Amendment 1:2015, Clause 14.10.201 apply for this Clause.</p>	<p>Coin/button cell or R1 batteries used.</p> <p>(see table 'AS/NZS 60065:2012 Amendment 1:2015, Clause 14.10.201')</p>	P
4.3.13.5.1	<p>1. <i>Delete</i> the first paragraph and <i>replace</i> with the following:</p> <p>Except as permitted below, equipment shall be classified and labelled according to IEC 60825-1 or AS/NZS 60825.1, IEC 60825-2 or AS/NZS 60825.2 and IEC 60825-12, as applicable.</p> <p>2. Third paragraph, first sentence, after 'IEC 60825-1 ', <i>insert</i> the following text:</p> <p>or AS/NZS 60825.1</p> <p>3. Fourth paragraph, after 'IEC 60825-1 ', <i>insert</i> the following text:</p> <p>or AS/NZS 60825.1</p>		P

AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013)			
Clause	Requirement + Test	Result - Remark	Verdict
4.7	At the end of Clause 4. 7, <i>insert</i> the following text: For alternate tests refer to Clause 4.7.201.	No alternative tests applied.	N/A
4.7.201	After Clause 4.7.3.6, <i>add</i> new clauses as follows: 4.7.201 Resistance to fire-Alternative tests	Enclosure has relevant flammability class.	N/A
4.7.201.1	<p>General</p> <p>Parts of non-metallic material shall be resistant to ignition and spread of fire.</p> <p>This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames from inside the apparatus, or the following:</p> <p>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.</p> <p>b) The following parts which would contribute negligible fuel to a fire:</p> <ul style="list-style-type: none"> - 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, according to AS/NZS 60695.11.10. <p>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 the fire from one part to another.</p> <p><i>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.</i></p> <p><i>For the base material of printed boards, compliance shall be checked by the test of 4.7.201.5.</i></p> <p>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.</p> <p>These tests are not carried out on internal wiring.</p>		N/A

AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013)			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.201.2	<p>Testing of non-metallic materials</p> <p>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.</p> <p>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.</p>		N/A

AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013)			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.201.3	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 3 mm 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
	Clause of AS/NZS 60695.11.5		
	Change		
	9 Test procedure		
	9.2 Application of needle-flame	<i>Delete</i> the first and second paragraphs and <i>replace</i> with the following: 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 10 mm from a corner. The duration of application of the test flame shall be 30 s ± 1 s.	
	9.3 Number of test specimens	<i>Delete</i> existing text and <i>replace</i> with the following: 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 withstand the test.	
	11 Evaluation of test results	<i>Delete</i> existing text and <i>replace</i> with the following: 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.			

AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013)			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.201.4	<p>Testing in the event of non-extinguishing material</p> <p>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 to be tested.</p> <p>NOTE 1 - If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirement of clause 4.7.201 without the need for consequential testing.</p> <p>NOTE 2 - If other parts do not withstand the glow-wire test due to ignition of the tissue paper and if this indicates that burring or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have failed to meet the requirement of clause 4.7.201 without the need for consequential testing.</p> <p>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.</p>		N/A

AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013)			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.201.5	<p>Testing of printed boards</p> <p>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.</p> <p>The test is not carried out if the:</p> <ul style="list-style-type: none"> - 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. <p><i>Compliance shall be determined using the smallest thickness of the material.</i></p> <p>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 m when the circuit supplied is disconnected.</p>		N/A

AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013)			
Clause	Requirement + Test	Result - Remark	Verdict
6.2.2	For Australia only, <i>delete</i> the first paragraph and Note, and <i>replace</i> with the following: In Australia only, compliance with 6.2.2 shall be checked by the tests of both 6.2.2.1 and 6.2.2.2.		P
6.2.2.1	For Australia only, <i>delete</i> the first paragraph including the Notes, and <i>replace</i> with the following: <i>In Australia only, the electrical separation is subjected to 10 impulses of alternating polarity, using the impulse test generator Reference 1 of Table N. 1.</i> <i>The interval between successive impulses is 60 s and the initial voltage, U_c, is:</i> <i>(i) for 6.2.1 a): 7.0 kV for hand-held telephones and for headsets and 2.5 kV for other equipment; and</i> <i>(ii) for 6.2.1 b) and 6.2.1 c): 1.5 kV.</i> NOTE 201 The 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines. NOTE 202 The value of 2.5 kV for 6.2.1 a) was chosen to ensure the adequacy of the insulation concerned and does not necessarily simulate likely overvoltages.		P
6.2.2.2	For Australia only, <i>delete</i> the second paragraph including the Note, and <i>replace</i> with the following: <i>In Australia only, the a.c. test voltage is:</i> <i>(i) for 6.2.1 a): 3 kV; and</i> <i>(ii) for 6.2.1 b) and 6.2.1 c): 1.5 kV.</i> 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.		P
7.3	<i>Add</i> 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 connection and a PSTN interface, are audio or video ports and analogue or data ports not intended to be used for telecommunications purposes.	No cable distribution system.	N/A
Annex P	<i>Add</i> the following Normative References: AS/NZS 3191, Electric flexible cords AS/NZS 3112, Approval and test specification-Plugs and socket outlets	Power plug and cord not provided.	N/A

AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013)			
Clause	Requirement + Test	Result - Remark	Verdict

TABLE	AS/NZS 60065:2012 Amendment 1:2015, Clause 14.10.201		P
14.10.201	Products containing coin/button cell batteries and batteries designated R1	Coin/button battery used.	P
14.10.201.1	General These requirements apply to equipment, including remote controls, that— - are likely to be accessible to children; and - include coin/button cell batteries with a diameter of 32 mm or less and batteries designated R1. NOTE 1 Coin/button cell batteries are devices that are small, single cell batteries having a diameter greater than their height. NOTE 2 Batteries are specified in IEC 60086-2. These requirements do not apply to— - professional equipment; NOTE 3 Professional equipment is equipment sold through special sales channels. Equipment sold through normal electronics stores is considered not to be professional equipment. - equipment for locations where it is unlikely that children will be present; or - equipment containing batteries that are soldered in place.	Equipment containing coin/button battery that are soldered in place.	N/A
14.10.201.2	Safety warnings Equipment containing one or more coin/button cell/R1 batteries shall have safety warnings in the instructions accompanying the equipment. The safety warnings are not required where these batteries are not intended to be replaced or are only accessible after damaging the equipment. The safety warnings shall be as follows: - CAUTION: Do not ingest battery, Chemical Burn Hazard [or equivalent wording]. - [The remote control supplied with] this product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death. - Keep new and used batteries away from children. - If the battery compartment does not close securely, stop using the product and keep it away from children. - If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.	Battery not replaceable by user.	N/A

AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013)			
Clause	Requirement + Test	Result - Remark	Verdict
14.10.201.3	Construction Equipment containing one or more coin/button cell/R1 batteries and having a battery compartment door/cover shall be designed to reduce the possibility of children removing the battery by one of the following methods: - a tool, such as a screwdriver or coin, required to open the battery compartment; or - the battery compartment door/cover requires the application of a minimum of two independent and simultaneous movements to open by hand.		N/A
14.10.201.4	Tests		N/A
14.10.201.4.1	General Equipment containing one or more coin/button cell/R1 batteries shall be subject to the requirements of 14.10.201.1 to 14.10.201.4 followed by the compliance criteria of 14.10.201.5.		N/A
14.10.201.4.2	Test sequence One sample shall be subjected to the applicable tests of 14.10.201.4.3 to 14.10.201.4.7. If applicable, the test in 14.10.201.4.3 shall be conducted first.		N/A
14.10.201.4.3	Stress relief test If the battery compartment utilizes moulded or formed thermoplastic materials, the sample consisting of the complete equipment, or of the complete enclosure together with any supporting framework, is tested according to the stress relief test of Clause 12.1.5 or the mould stress relief test of IEC 60695-10-3. During the test, the battery may be removed.		N/A
14.10.201.4.4	Battery replacement test For equipment with a battery compartment door/cover, the battery compartment shall be opened and closed and the battery removed and replaced 10 times to simulate normal replacement according to the manufacturer's instructions. If the battery compartment door/cover is secured by one or more screws, the screws are loosened and then tightened applying a continuous linear torque according to Table 20 Column II, using a suitable screwdriver, spanner or key. The screws are to be completely removed and reinserted each time.		N/A

AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013)			
Clause	Requirement + Test	Result - Remark	Verdict
14.10.201.4.5	Drop test Portable equipment having a mass of 7 kg or less shall be subjected to three drops from a height of 1 m onto a horizontal surface in positions likely to produce the maximum force on the battery compartment in accordance with Clause 12.1.4. If the equipment is a remote control, it shall be subjected to 10 drops.		N/A
14.10.201.4.6	Impact test The battery compartment door/cover shall be subjected to three impacts in a direction perpendicular to the battery compartment door/cover according to the 50 mm steel ball impact test method of Clause 12.1.3 and Figure 8 with a force of: - 0.5 J (102 mm \pm 10 mm height) for glasses for watching, for example, 3 dimensional television; or - 2 J (408 mm \pm 10 mm height) for all other doors/covers. Alternatively horizontal impacts may be simulated on vertical or sloping surfaces by mounting the sample at 90° to its normal position and applying the vertical impact test instead of the pendulum test.		N/A
14.10.201.4.7	Crush test Hand-held remote control devices are to be supported by a fixed rigid supporting surface in a position likely to produce the most adverse results as long as the position can be self-supported. A crushing force of 330 N \pm 5 N is applied to the exposed top and back surfaces of remote control devices placed in a stable condition on a flat surface measuring approximately 100 mm by 250 mm for a period of 10 s.		N/A

AS/NZS 60950.1:2015 (IEC Publication 60950-1:2013)			
Clause	Requirement + Test	Result - Remark	Verdict
14.10.201.5	<p>Compliance criteria</p> <p>Compliance is checked by applying a force of 30 N \pm 1 N for 10 s to the battery compartment door/cover by a rigid test finger according to test probe 11 of IEC 61032:1997 at the most unfavourable place and in the most unfavourable direction. The force shall be applied in one direction at a time.</p> <p>The battery compartment door/cover shall remain functional, and—</p> <ul style="list-style-type: none">- the battery shall not become accessible; or- it shall not be possible to remove the battery from the product with the test hook of Figure 4 using a force of approximately 20 N.		N/A

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict

TEST REPORT IEC 60825-1 Safety of laser products - Part 1: Equipment classification and requirements	
Report Number..... : Date of issue..... : Total number of pages..... :	See IEC60950-1 report. See IEC60950-1 report. See IEC60950-1 report.
Name of Testing Laboratory preparing the Report..... :	See IEC60950-1 report.
Applicant's name..... : Address..... :	See IEC60950-1 report. See IEC60950-1 report.
Test specification: Standard..... : IEC 60825-1:2014 (Third Edition) Test procedure..... : CB Scheme Non-standard test method..... : N/A	
Test Report Form No..... : IEC60825_1E Test Report Form(s) Originator.... : ÖVE Master TRF..... : Dated 2014-07	
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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.	

IEC 60825-1:2014															
Clause	Requirement + Test	Result - Remark	Verdict												
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Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):															
<input checked="" type="checkbox"/>	CB Testing Laboratory:	See IEC60950-1 report.													
Testing location/ address		See IEC60950-1 report.													
<input type="checkbox"/>	Associated CB Testing Laboratory:														
Testing location/ address															
Tested by (name, function, signature).....		See IEC60950-1 report.													
Approved by (name, function, signature)....		See IEC60950-1 report.													
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Supervised by (name, function, signature) :															

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict

List of Attachments (including a total number of pages in each attachment): N/A	
Summary of testing: (see General product information)	
Tests performed (name of test and test clause): cl.5, Determination of the accessible emission level and product classification.	Testing location: Tests were conducted on CBTL.
Summary of compliance with National Differences: List of countries addressed EN 60825-1:2014 Additional tests are not necessary.	
Copy of marking plate: See the main IEC60950-1 test report.	

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict

Test item particulars	
Classification of installation and use : (see IEC 60950-1 report) Supply Connection : (see IEC 60950-1 report)	
Possible test case verdicts: - test case does not apply to the test object : N/A - test object does meet the requirement..... : P (Pass) - test object does not meet the requirement : F (Fail)	
Testing	
Date of receipt of test item : (see IEC 60950-1 report) Date (s) of performance of tests : (see IEC 60950-1 report)	
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 <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60950-1:	
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.....:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies) : (see IEC 60950-1 report)	

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict

General product information:

Laser Scanner Unit for model 8052i, 7052ci, TASKalfa 8052i and TASKalfa 7052ci
The Unit has one laser diode, one polygon motor and mirror, one laser aperture.
The length of laser pass between the polygon mirror and the aperture is 251.2mm.
The motor runs on 24V dc and the diode runs on 5V dc.
Number of facets on the mirror: 5
Polygon motor speed: 39685rpm
Laser aperture dimensions: 69.5mm × 6.5mm
Laser scan angles for the aperture:
- Long sides of the aperture: +35.0/-35.0 degrees
- Short sides of the aperture: 0 degrees

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict

4	CLASSIFICATION PRINCIPLES		
4.3	Classification rules		---
4.3 a	Radiation of a single wavelength	Single wavelength.	P
4.3 b	Radiation of multiple wavelengths		N/A
	1) Laser product emits at two or more wavelengths shown as additive in Table 1		N/A
	2) Laser product emits at two or more wavelengths not shown as additive in Table 1		N/A
4.3 c	Radiation from extended sources (see 5.4.3)	Small source.	N/A
4.3 d	Non-uniform, non-circular or multiple apparent source		N/A
4.3 e	Time bases		---
	1) 0,25 s		N/A
	2) 100 s	Applied.	P
	3) 30000 s		N/A
4.3 f	Repetitively pulsed or modulated lasers		N/A
	1) Any single pulse		N/A
	2) Average power for pulse trains		N/A
	3) Pulse duration $t \leq T_i$: Number of pulses N and C_5 :	--	N/A
	3) Pulse duration $t > T_i$: Number of pulses N and C_5 :	--	N/A
4.4	Laser products designed to function as conventional lamps.		N/A
	α measured at 200 mm distance from closest point of human access ($\alpha > 5$ mrad).		N/A
	Un-weighted radiance L measured at 200 mm distance (comparison with $L_T = 1 \text{ MWm}^{-2}\text{sr}^{-1}/\alpha$) under reasonably foreseeable single fault conditions.		N/A
	Evaluation of emission according to IEC 62471 series (optional): Standard applied (IEC 62471 series)..... : Risk Group..... : Labelling..... : Classification of product based on accessible laser radiation (if no laser radiation accessible: Class 1).	--	N/A

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
5	DETERMINATION OF THE ACCESSIBLE EMISSION LEVEL and PRODUCT CLASSIFICATION		
5.1	Tests	See table "Measured accessible laser radiation and comparison with AEL".	---
	Compliance under reasonably foreseeable single fault conditions.		P
5.3	Determination of the class of the laser product ... : For Class 1C: vertical safety standard applied with requirements for Class 1C.	See table "Measured accessible laser radiation and comparison with AEL".	---
5.4	Measurement geometry		---
5.4.1	General		---
5.4.2	Default (simplified) evaluation		P
	Conditions applied	Condition 3	P
	Aperture diameter	7mm	P
	Reference point :	See table "Measured accessible laser radiation and comparison with AEL".	P
	Measurement distance : (for each condition)	See table "Measured accessible laser radiation and comparison with AEL".	P
5.4.3	Evaluation condition for extended sources	No extended sources.	N/A
	Conditions applied	--	N/A
	Most restrictive position : (distance from reference point)	--	N/A
	Angular subtense of the apparent source α and C_6 : (for each condition)	--	N/A
5.4.3 a	Aperture diameters (for each condition)..... :	--	N/A
5.4.3 b	Angle of acceptance (for each condition).....:	--	N/A

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict

Table: Measured accessible laser radiation and comparison with AEL				
Laser Scanner Unit for 8052ci, 7052ci, TASKalfa 8052i and TASKalfa 7052ci: The classification of the built-in type laser unit is determined by radiation from projection aperture of laser unit. Measured laser radiation, calculations and comparison with AEL limits: Time base: t = 100s Size of apparent source: -- (C ₆ =1) Diameter of aperture stop: 7mm Distance of aperture stop to source: r = at outside the equipment (main unit) for leakage.				
Comparison with the AEL depend on the wavelength:				
Classification	Wavelength λ nm	Formula used	Correction factors	Accessible Emission Limit (AEL)
Class 1	670	3.9 x 10 ⁻⁴ [W]	--	0.39mW
Class 3B	670	0.5 [W]	--	500mW
Measured laser radiation results:				
Fault condition: Polygon Motor locked and Laser diode adjusted to maximum power, all covers opened.				1.2nW
Conclusion:				
The radiant power measurements for the product under normal and abnormal conditions were below AEL for the Class 1 per IEC60825-1(Ed.3):2014.				
Supplementary information:				
Tests are conducted by customer prepared unit and jig. Temperature: 24°C, Relative humidity: 53%. The Class 3B Laser radiation fields are completely enclosed by the internal protective housings.				

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict

6	ENGINEERING SPECIFICATIONS		
6.2	Protective housing		---
6.2.1	General		---
	Protective housing prevents access to energy levels in excess of the AEL for Class 1.	See table "Measured accessible laser radiation and comparison with AEL".	P
	Protective housing prevents access to energy levels equivalent to Class 4 and withstands exposures under reasonably foreseeable single fault conditions.		N/A
	Maintenance of Class 1, 1C, 1M, 2, 2M, or 3R (access to emissions of Class 3B or 4 is prevented).	See table "Measured accessible laser radiation and comparison with AEL".	P
	Maintenance of Class 3B product (access to emission of Class 4 is prevented).		N/A
6.2.2	Service	Caution label on the equipment. A tool is required to remove the protective housing.	P
6.2.3	Removable laser system (laser system complies with requirements of Clauses 6 and 7).	Laser cannot be removed and operated without modification.	N/A

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict

6.3	Access panels and safety interlocks		---
6.3.1	Panel is intended to be removed during operation (or maintenance) and would give access to higher energy levels (see Table 13).	See cl. 6.2.2.	N/A
	Accessible emission (after removal of the panel) corresponds to product Class (designated by "X" in Table 13)		N/A
	Emission through the opening if interlocked panel of Class 1, 1C, 1M, 2, or 2M is removed (Emission < AEL of Class 1M or 2M).		N/A
	Emission through the opening if interlocked panel of Class 3R, 3B, or 4 is removed (Emission < AEL of Class 3R).		N/A
	Requirements regarding reasonably foreseeable single fault condition.		N/A
6.3.2	Override mechanism	Not provided.	N/A
	Behaviour of override in operation when the panel is replaced.		N/A
	Visible or audible warning for override mode.		N/A
6.4	Remote interlock connector	No remote interlock connector.	N/A
6.5	Manual reset	No manual reset.	N/A
6.6	Key control	No key control.	N/A

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
6.7	Laser radiation emission warning		---
6.7.1	Laser product is a 3R ($\lambda < 400$ nm; $\lambda > 700$ nm), 1C, 3B or 4 laser systems.	Class 1 laser product.	N/A
6.7.2	Audible or visible warning.		N/A
	Warning is failsafe or redundant.		N/A
	Viewing of the visible warning does not require exposure to emissions > AEL for Class 1M and 2M.		N/A
6.7.3	Operational control and laser aperture are provided with a warning device when they are separated more than 2 m from warning device.		N/A
6.7.4	Visible indication of output aperture if laser emission may be distributed through more than one output.		N/A
6.7.5	Switch for handheld Class 3R device must be depressed for emission (in lieu of emission indicator).		N/A
6.8	Beam stop or attenuator	Class 1 laser product.	N/A
6.9	Controls	Class 1 laser product.	N/A
6.10	Viewing optics	No such equipment.	N/A
	a) Human access to laser radiation in excess of Class 1M prevented when the shutter is opened or attenuation varied.		N/A
	b) Opening of the shutter or variation of the attenuation prevented when exposure to laser radiation in excess of Class 1M is possible.		N/A
6.11	Scanning safeguard	Scanned radiation only within protective housing. No influence to accessible laser radiation.	N/A

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
6.12	Safeguard for Class 1C products	No Class 1C products.	N/A
	a) Human access to laser radiation in excess of AEL for Class 1 measured under Condition 3 is prevented.		N/A
	b) Human access to laser radiation in excess of AEL for Class 3B measured through 3,5 mm aperture at 5 mm distance from applicator is prevented.		N/A
6.13	Walk-in access		N/A
	a) Means provided so that any person inside the housing can prevent activation of Class 3B or 4 laser hazards.	No "walk in" access.	N/A
	b) A warning device provides adequate warning of emission to any person within the housing.		N/A
	c) Where "walk-in" access during operation is intended or reasonably foreseeable, emission of laser radiation that is equivalent to Class 3B or 4 while someone is present inside the enclosure of Class 1, Class 2 or Class 3R product is prevented by engineering means.		N/A
6.14	Environmental conditions		---
	- climatic conditions	Considered.	P
	- vibration and shock	The product is not intended to place in a location of vibration and shock.	N/A
6.15	Protection against other hazards		---
6.15.1	Non-optical hazards (product safety standard)	(see IEC 60950-1 test report)	P
	- electrical hazards;		P
	- excessive temperature;		P
	- spread of fire from the equipment;		P
	- sound and ultrasonics;		N/A
	- harmful substances;		N/A
	- explosion;		N/A
6.15.2	Collateral radiation		P
6.16	Power limiting circuit		P

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
7	LABELLING		
7.1	General		---
	Labels durable, permanently affixed		P
	Labels clearly visible		P
	Reading of labels is possible without exposure to laser radiation in excess of AEL for Class 1.		P
	Colour combination		P
	Labelling impractical due to the size or design of the product.		N/A
	Warning label - Hazard symbol (Figure 3)		P
7.2 - 7.7	Text on explanatory label or pictogram (laser class, warning text)	(see "Copy of marking labels" in IEC 60950-1 test report)	P
7.8	Aperture label	Class 1 laser product.	N/A
7.9	Radiation output and standards information	The information is provided in the user manual.	---
	Max output of laser radiation	Class 1 laser product.	P
	Pulse duration	--	N/A
	Emitted wavelength(s)	--	N/A
	Name and publication date of the standard.....	IEC 60825-1: 2014	P
7.10	Labels for access panels		---
7.10.1 a) - f)	Labels for panels - warning wording used	Class 1 laser product. (see "Copy of marking labels" in IEC 60950-1 test report)	P
7.10.2	Labels for safety interlocked panels - Warning wording used	--	N/A
7.11	Warning for invisible laser radiation	--	N/A
7.12	Warning for visible laser radiation	Visible laser radiation.	P
7.13	Warning for potential hazard to the skin or anterior parts of the eye - warning wording used.....	--	N/A

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
8	OTHER INFORMATIONAL REQUIREMENTS		
8.1	Information for the user		---
	a) adequate instructions for assembly, maintenance and safe use and description of the classification limitations, if appropriate.	The information is provided in the user manual.	P
	b) additional warning for Class 1M and 2M	Class 1 laser product.	N/A
	c) laser beam parameters for radiation above the AEL of Class 1	Class 1 laser product.	---
	• Wavelength	--	N/A
	• Beam divergence	--	N/A
	• Pulse pattern (pulse duration, repetition rate, ...)	--	N/A
	• Maximum power or energy output	--	N/A
	d) safety instruction for embedded laser products and other incorporated laser products.	Specified in instruction.	P
	e) MPE and NOHD for Class 3B and 4 laser products; For collimated beam Class 1M and 2M lasers the extended NOHD (ENOHd).		N/A
	f) information for the selection of eye protection.		N/A
	g) reproduction of all required labels and warnings.	The information is provided in the user manual.	P
	h) location of laser apertures		N/A
	i) list of controls, adjustments of procedures for operation and maintenance - and warning statement.		N/A
	j) information (compatibility requirements) about laser energy source if not incorporated.		N/A
	k) additional warning for Class 1, 1M, 2, 2M, and 3R regarding skin or corneal burns.		N/A
	l) Information for Class 1C products (e.g. warning that repeated application may pose a risk).		N/A

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
8.2	Purchasing and service information		P
	a) safety classification of each laser product stated in all descriptive material (e.g. brochures).		P
	b) adequate instructions for servicing available: <ul style="list-style-type: none">• warnings and precautions regarding exposure of laser emission above Class 1• maintenance schedule• list of controls and procedures that could increase accessible emissions• description of displaceable parts• protective procedures for service personnel• reproduction of labels and hazard warnings		P

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
9	ADDITIONAL REQUIREMENTS FOR SPECIFIC LASER PRODUCTS		
9.1	Applicable other parts of the standard series IEC 60825		---
	IEC 60825-2 (Safety of optical communication systems)		N/A
	IEC 60825-4 (Laser guards)		N/A
	IEC 60825-12 (Safety of free space optical communication systems used for transmission of information)		N/A
9.2	Medical laser products: Class 3B and Class 4 medical laser products comply with IEC 60601-2-22		N/A
9.3	Laser processing machines: Comply with IEC/ISO 11553 series.		N/A
9.4	Electric toys: Comply with IEC 62115		N/A
9.5	Consumer electronic products: Comply with IEC 60950 (IT-equipment) or IEC 60065 (AV equipment)	IEC60950-1 complied.	P

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict

TABLE: Critical components information						---
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾	
--	--	--	--	--	--	
Supplementary information:						
¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039. (see IEC 60950-1 test report)						

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict

List of test equipment used:

Clause	Measurement / testing	Testing / measuring equipment / material used, (Equipment ID)	Range used	Last Calibration date	Calibration due date
--	--	--	--	--	--
Supplementary information:					
(see IEC 60950-1 test report)					

Further remarks:**ANNEX A:** N/A**ANNEX B:** N/A

IEC 60825-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict

Appendix	EU Group Differences (EN 60825-1:2014)	---						
Annex ZA	<p>NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS</p> <p>The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.</p> <p>NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.</p> <p>NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here:</p> <table><tr><td>---</td><td>series</td><td>IEC 60050 series</td></tr><tr><td>EN 62471</td><td></td><td>IEC 62471 (mod)</td></tr></table>	---	series	IEC 60050 series	EN 62471		IEC 62471 (mod)	P
---	series	IEC 60050 series						
EN 62471		IEC 62471 (mod)						

TEST REPORT IEC 60825-1, 2nd Edition Part 1: Equipment classification and requirements	
Report Reference No	(see IEC60950-1 test report)
Date of issue	(see IEC60950-1 test report)
Total number of pages	--
CB Testing Laboratory	(see IEC60950-1 test report)
Address	(see IEC60950-1 test report)
Applicant's name	(see IEC60950-1 test report)
Address	(see IEC60950-1 test report)
Test specification:	
Standard	IEC 60825-1: 2007 (2nd Edition)
Test procedure	CB
Non-standard test method	N/A
Test Report Form No	IEC60825_1D
Test Report Form(s) Originator	Intertek Semko AB
Master TRF	Dated 2007-06
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Test item description	(see IEC60950-1 test report)
Trade Mark	(see IEC60950-1 test report)
Manufacturer	(see IEC60950-1 test report)
Model/Type reference	(see IEC60950-1 test report)
Ratings	(see IEC60950-1 test report)

IEC 60825-1:2007

Copy of marking plate:

See IEC/EN 60950-1 test report.

Summary of testing:

Tested and evaluated in accordance with IEC/EN 60825-1 except for sub clause 4.14.1 Non-optical hazards.

For the sub clause, compliance will be checked in the end equipment.

For measuring laser radiations from Laser Scan Unit, the Unit was controlled a testing jig supplied by the manufacturer.

Tests performed (name of test and test clause):

Clause 9

Measurements of accessible emission level

Testing location:

(see IEC60950-1 test report)

Additionally evaluated Test specifications.

EN 60825-1:2007

(see below)

Summary of compliance with National Differences:

Only Annex ZA of EN 60825-1 exists and was evaluated. No additional requirements.

See Appendix EU Group Differences (EN 60825-1:2007).

Test item particulars:

Classification of installation and use: (see IEC60950-1 test report)

Supply Connection: (see IEC60950-1 test report)

Possible test case verdicts:

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

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

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

Testing.....:

Date of receipt of test item: (see IEC60950-1 test report)

Date (s) of performance of tests.....: (see IEC60950-1 test report)

IEC 60825-1:2007

General remarks:

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 testing laboratory.

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

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

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

General product information:

Laser Scanner Unit for model 8052i, 7052ci, TASKalfa 8052i and TASKalfa 7052ci

The Unit has one laser diode, one polygon motor and mirror, one laser aperture.

The length of laser pass between the polygon mirror and the aperture is 251.2mm.

The motor runs on 24V dc and the diode runs on 5V dc.

Number of facets on the mirror: 5

Polygon motor speed: 39685rpm

Laser aperture dimensions: 69.5mm x 6.5mm

Laser scan angles for the aperture:

- Long sides of the aperture: +35.0/-35.0 degrees

- Short sides of the aperture: 0 degrees

IEC 60825-1:2007			
Clause	Requirement + Test	Result - Remark	Verdict
4	ENGINEERING SPECIFICATIONS		P
4.1	General remarks		P
	Modification	Not modified product.	N/A
4.2	Protective housing		P
4.2.1	General	Protective housing provided to restrict operator access to laser radiation in excess of Class 1.	P
4.2.2	Service	Caution label on the equipment. A tool is required to remove the protective housing.	P
4.2.3	Removable laser system	Not removable.	N/A
4.3	Access panels and safety interlocks		N/A
4.3.1	Access panels of protective housing	No access panels intended.	N/A
	Product Class	Class 1 laser product.	—
	Accessible emission during removal of access panel	--	N/A
	The removal of the panel gives access to laser radiation levels designated by "X" in the table		N/A
	Accessible emissions after removal	--	—
4.3.2	Deliberate override mechanism	No such mechanisms.	N/A
4.4	Remote interlock connector	Class 1 laser product.	N/A
4.5	Manual reset	Class 1 laser product.	N/A
4.6	Key control	Class 1 laser product.	N/A
4.7	Laser radiation emission warning		N/A
4.7.1	Class 3R ($\lambda < 400$ nm; $\lambda > 700$ nm), 3B and 4	Class 1 laser product.	N/A
4.7.2	Audible or visible warning	Class 1 laser product.	N/A
4.7.3	Operational control and laser aperture		N/A
4.7.4	Laser emission distributed through more than one output		N/A
4.8	Beam stop or attenuation	Class 1 laser product.	N/A
4.9	Controls	Class 1 laser product.	N/A

IEC 60825-1:2007			
Clause	Requirement + Test	Result - Remark	Verdict
4.10	Viewing optics	Not provided.	N/A
	a) Human access to laser radiation in excess of Class 1M prevented when the shutter is opened or attenuation varied		N/A
	b) Opening of the shutter or variation of the attenuation prevented when exposure to laser radiation in excess of Class 1M is possible		N/A
4.11	Scanning safeguard	Not considered.	N/A
4.12	Walk-in access		N/A
	a) Means provided so that any person inside the housing can prevent activation of a Class 3B or 4 laser hazard	No Walk-in access provided.	N/A
	b) A warning device provides adequate warning of emission to any person within the housing		N/A
	c) Where "walk-in" access during operation is intended or reasonably foreseeable, emission of laser radiation that is equivalent to Class 3B or Class 4 while someone is present inside the enclosure of Class 1, Class 2 or Class 3R product shall be prevented by engineering means		N/A
4.13	Environmental conditions		P
	- climatic conditions		P
	- vibration and shock		P
4.14	Protection against other hazards		P
4.14.1	Non-optical hazards (product safety standard)	(see IEC60950-1 test report)	P
	- electrical hazards;		P
	- excessive temperature;		P
	- spread of fire from the equipment;		P
	- sound and ultrasonic;		N/A
	- harmful substances;		P
	- explosion;		N/A
4.14.2	Collateral radiation	No such concerns expected.	N/A

IEC 60825-1:2007			
Clause	Requirement + Test	Result - Remark	Verdict
5	LABELLING		P
5.1	General		P
	LASER PRODUCT CLASS	Class 1 laser product.	—
	Labelling location (Product / User instruction / Package)	Class 1 laser label provided in rating label. (see copy of marking plate)	P
	Warning label - Hazard symbol (Figure 1)		P
	Explanatory label (Figure 2)		P
5.2-5.6	Text on explanatory label	CLASS 1 LASER PRODUCT	P
5.7	Aperture label		N/A
5.8	Radiation output and standards information	For Class 1.	P
	Max output of laser radiation	--	—
	Pulse duration	--	—
	Emitted wavelength(s)	--	—
	The name and publication date of the standard ...:	In instructions.	P
5.9	Labels for access panels		P
5.9.1 a) - f)	Warning wording used	Class 1 laser product. (see "Copy of marking labels" in IEC 60950-1 test report)	P
5.9.2	Labels for safety interlocked panels		N/A
	Warning wording used	Class 1 laser product.	N/A
5.10	Warning for invisible laser radiation	--	N/A
5.11	Warning for visible laser radiation	Visible laser radiation.	P

IEC 60825-1:2007			
Clause	Requirement + Test	Result - Remark	Verdict
6	OTHER INFORMATIONAL REQUIREMENTS		P
6.1	Information for the user	Provided in the instructions of this product.	P
	a) adequate instructions for proper assembly, maintenance and safe use and description of the classification limitations, if appropriate	Provided.	P
	b) warning for Class 1M and 2M	Class 1 laser product.	N/A
	c) laser beam parameters for radiation above the AEL of Class 1	Class 1 laser product.	N/A
	• Wavelength	--	N/A
	• Beam divergence	--	N/A
	• Pulse duration	--	N/A
	• Maximum power or energy output	--	N/A
	d) embedded laser products and other incorporated laser products	No exposure to user expected.	N/A
	e) MPE and NOHD for Class 3B and Class 4 laser products For collimated beam Class 1M and 2M lasers the extended NOHD (ENOHD)	Class 1 laser product.	N/A
	f) information for the selection of eye protection		N/A
	g) reproduction of labels	The information is provided in the user manual.	P
	h) location of laser apertures		N/A
	i) listing of controls, adjustment of procedures and warning statement		N/A
	j) information about laser energy source if not incorporated in the manual		N/A
6.2	Purchasing and service information		P
	a) safety classification of each laser product stated in descriptive material	Stated.	P
	b) adequate instructions for servicing available	Provided in service instructions.	P

IEC 60825-1:2007			
Clause	Requirement + Test	Result - Remark	Verdict
7	ADDITIONAL REQUIREMENTS FOR SPECIFIC LASER PRODUCTS		P
7.1	Applicable other parts of the standard series IEC/EN 60825		P
	IEC 60825-2 (Safety of optical communication systems)		N/A
	IEC 60825-4 (Laser guards)		N/A
	IEC 60825-12 (Safety of free space optical communication systems used for transmission of information)		N/A
	Further information may be found in:		P
	IEC/TR 60825-3 (Guidance for laser displays and shows)	Not referred.	—
	IEC/TR 60825-5 (Manufacturer's checklist for IEC 60825-1)	Referred.	—
	IEC/TR 60825-8 (Guidelines for the safe use of laser beams on humans)	Not referred.	—
	IEC/TR 60825-9 (Compilation of maximum permissible exposure to incoherent optical radiation)	Referred.	—
	IEC/TR 60825-10 (Application guidelines and explanatory notes to IEC 60825-1)	Referred.	—
	IEC/TR 60825-13 (Measurements for classification of laser products)	Not referred.	—
	IEC/TR 60825-14 (A user's guide)	Referred.	—
	IEC 62471 (CIE S 009) (Photobiological safety of lamps and lamp system)	Not referred.	—
7.2	Medical laser products	Not such products.	N/A
	Class 3B and Class 4 medical laser products comply with IEC 60601-2-22		N/A
7.3	Laser processing machines	Not such products.	N/A
	Comply with IEC/ISO 11553-1		N/A
7.4	Electric toys	Not such products.	N/A
	Comply with IEC 62115		N/A
7.5	Consumer electronic products	IT equipment.	P
	Complying with IEC 60950 or IEC 60065	(see IEC60950-1 test report)	P

IEC 60825-1:2007			
Clause	Requirement + Test	Result - Remark	Verdict

8	CLASSIFICATION		P
8.2	Classification responsibilities		P
8.3	Classification rules		P
8.3a	Radiation of a single wavelength		P
8.3b	Radiation of multiple wavelengths	No such radiation.	N/A
	1) Laser product emission two or more wavelengths in spectral regions shown as additive in Table 2..... :	--	N/A
	2) Laser product emission two or more wavelengths in spectral regions not shown as additive in Table 2..... :	--	N/A
8.3c	Radiation from extended sources..... :	No such sources radiating from Laser Scanner Unit considered.	N/A
	Value of angular subtense α (mrad) :	--	N/A
8.3d	Non-uniform retinal image radiance profile, non-circular and multiple sources	No such sources considered.	N/A
8.3e	Time basis		P
	1) 0.25s		N/A
	2) 100s		P
	3) 30000s		N/A
8.3f	Repetitively pulsed or modulated lasers	Radiation from Laser Scanner Unit was considered as continuous output (CW) under the system configured.	N/A
	1) Exposure from any single pulse not exceeding the AEL for a single pulse		N/A
	2) Average power for a pulse train		N/A
	3a) Constant pulse energy and pulse duration		N/A
	3b) Varying pulse widths or varying pulse durations		N/A

IEC 60825-1:2007			
Clause	Requirement + Test	Result - Remark	Verdict
9	DETERMINATION OF ACCESSIBLE EMISSION LEVELS		P
9.1	Tests		P
	Single fault eliminated		N/A
	Housing material withstanding degradation		N/A
	Fault detection		N/A
9.2	Measurement conditions	See 9.3.2.	P
	Measured laser radiation	See table "Measured laser radiation, calculations and comparison with AEL limits"	P
9.3	Measurement geometry		P
9.3.1	General, evaluation scheme		—
	a) Simplified (default) method		P
	b) Increased AEL by parameter C ₆		N/A
9.3.2	Default (simplified) evaluation		P
	Condition applied	3	P
	Aperture stop diameter (mm)	7	P
	Measurement distance (mm)	At the closest point on the outside of the aperture of Laser Scanner Unit and main unit.	P
9.3.3	Extended sources	No such sources considered.	N/A
	C ₆	--	N/A
9.3.3a	Aperture diameters		N/A
	Condition applied	--	N/A
	Aperture stop diameter (mm).	--	N/A
	Angular subtense of the apparent source α	--	N/A
9.3.3b	Angle of acceptance		N/A
	Condition applied	--	N/A
	1) Photochemical retinal limits	--	N/A
	Angel of acceptance	--	N/A
	2) All other retinal limits	--	N/A
	Angel of acceptance	--	N/A

IEC 60825-1:2007			
Clause	Requirement + Test	Result - Remark	Verdict

Measured laser radiation, calculations and comparison with AEL limits:

Laser Scanner Unit for 8052ci, 7052ci, TASKalfa 8052ci and TASKalfa 7052ci:

1. Classification, Laser Class:

- 1 for end product
- 3B for laser diode from the specification

2. Calculation of AEL

Time base: $t = 100s$

Size of apparent source: -- ($C_6=1$)

Accessible emission limit (AEL)

- Class 1: 0.39mW
- Class 3B: 0.5W

3. Measurement results of outside the equipment (main unit) for leakage

Fault condition - Polygon Motor locked and Laser diode adjusted to maximum power, all covers opened.

1.2nW

Main unit provided to restrict operator access to laser radiation in excess of Class 1.

IEC 60825-1:2007			
Clause	Requirement + Test	Result - Remark	Verdict

Appendix	EU Group Differences (EN 60825-1:2007)	---
Annex ZA	<p>NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS</p> <p>The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.</p> <p>NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.</p> <p>---</p> <p>EN 60601-2-22: 1996 ²⁾ IEC 60050-845: 1987</p> <p>EN 61010-1: 2001 ³⁾ IEC 60601-2-22 ¹⁾</p> <p>+ corr. June: 2002 IEC 61010-1 ¹⁾</p>	P
	<p>1) Undated reference.</p> <p>2) Valid edition at date of issue. EN 60601-2-22:1996 will be superseded by EN 60601-1-2-22: 200X, which is based on IEC 60601-2-22:2007.</p> <p>3) Valid edition at date of issue.</p>	

IEC 60825-1:2007			
Clause	Requirement + Test	Result - Remark	Verdict

Appended table	EQUIPMENT MANUFACTURE INFORMATION (DATA SHEET) ABOUT THE CONTAINING LASER COMPONENT/S (see IEC 60950-1 test report)		---
	Manufacturer	--	—
	Type designation	--	—
	Structure	--	—
	Wavelength	--	—
	Output power (min. and max.)	--	—
	Radiation is		—
	Continuous	--	—
	Pulsed	--	—
	Pulse time	--	—
	Pulse repetition frequency	--	—
	Others	--	—
	PIC UP UNIT		---
	Manufacturer	--	—
	Type designation	--	—
	Others	--	—
	TRANSMITTER/TRANSCIEVER UNIT		---
	Manufacturer	--	—
	Type designation	--	—
	Others	--	—