

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

50036384 001

for

MFP (Multi Function Printer)

TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci,
TASKalfa 3252ci, TASKalfa 2552ci, TASKalfa 6002i,
TASKalfa 5002i, TASKalfa 4002i

KYOCERA Document Solutions Inc.



This documentation consists of **257** pages (excluding this cover page).



Test Report issued under the responsibility of:

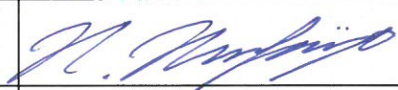
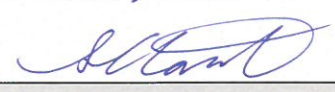


<p style="text-align: center;">TEST REPORT IEC 60950-1 Information technology equipment - Safety - Part 1: General requirements</p>
<p>Report Number. : 50036384 001 Date of issue : 2016-02-22 Total number of pages..... : 257</p>
<p>Applicant's name..... : KYOCERA Document Solutions Inc. Address : 1-2-28, 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</p> <p>Copyright © 2014 IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE System). All rights reserved.</p> <p><small>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.</small></p> <p><small>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.</small></p> <p>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>
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Test item description :	MFP (Multi Function Printer)
Trade Mark..... :	KYOCERA (on the products)
Manufacturer :	(Same as Applicant)
Model/Type reference :	TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci, TASKalfa 3252ci, TASKalfa 2552ci, TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i
Ratings :	AC 220-240V, 50/60Hz, 7.2A

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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)		S. Hamamoto 
<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).....		

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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:

- TASKalfa 6052ci: Z2D5Y00015
- TASKalfa 3252ci: Z2S5Y00006
- TASKalfa 6002i : Z315Y00015

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

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	
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	

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Testing		Applicable (Yes/No)	Comments
Clause	Test description		
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	No	
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	Yes	
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	

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

Summary of compliance with National Differences**List of countries addressed:**EU Group Differences, EU Special National Conditions, EU A-Deviations
AT, DK, IT, SE, GB

AT=Austria, DK=Denmark, IT=Italy, SE=Sweden, GB=United Kingdom.

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).

























See attached in this test report.

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Main unit

<p>TASKalfa 6052ci</p> <p>MFP 220-240 V~ 50/60 Hz 7.2 A</p>    <p>Apparatet må tilkoples jordat stikkontakt. Apparaten skall anslutas till jordat uttag. Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan. Apparätets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.</p> <p>CLASS 1 LASER PRODUCT KLASSE 1 LASER PRODUKT</p> <p>KYOCERA Document Solutions Inc. 2-28, 1-Chome, Tamatsukuri, Chuo-ku, Osaka, Japan distributed by KYOCERA Document Solutions Europe B.V. Bloemlaan 4, 2132 NP, Hooftdorp The Netherlands Designed in Japan / Assembled in China >ABS<</p>	<p>TASKalfa 5052ci</p> <p>MFP 220-240 V~ 50/60 Hz 7.2 A</p>    <p>Apparatet må tilkoples jordat stikkontakt. Apparaten skall anslutas till jordat uttag. Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan. Apparätets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.</p> <p>CLASS 1 LASER PRODUCT KLASSE 1 LASER PRODUKT</p> <p>KYOCERA Document Solutions Inc. 2-28, 1-Chome, Tamatsukuri, Chuo-ku, Osaka, Japan distributed by KYOCERA Document Solutions Europe B.V. Bloemlaan 4, 2132 NP, Hooftdorp The Netherlands Designed in Japan / Assembled in China >ABS<</p>	<p>TASKalfa 4052ci</p> <p>MFP 220-240 V~ 50/60 Hz 7.2 A</p>    <p>Apparatet må tilkoples jordat stikkontakt. Apparaten skall anslutas till jordat uttag. Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan. Apparätets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.</p> <p>CLASS 1 LASER PRODUCT KLASSE 1 LASER PRODUKT</p> <p>KYOCERA Document Solutions Inc. 2-28, 1-Chome, Tamatsukuri, Chuo-ku, Osaka, Japan distributed by KYOCERA Document Solutions Europe B.V. Bloemlaan 4, 2132 NP, Hooftdorp The Netherlands Designed in Japan / Assembled in China >ABS<</p>	<p>TASKalfa 3252ci</p> <p>MFP 220-240 V~ 50/60 Hz 7.2 A</p>    <p>Apparatet må tilkoples jordat stikkontakt. Apparaten skall anslutas till jordat uttag. Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan. Apparätets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.</p> <p>CLASS 1 LASER PRODUCT KLASSE 1 LASER PRODUKT</p> <p>KYOCERA Document Solutions Inc. 2-28, 1-Chome, Tamatsukuri, Chuo-ku, Osaka, Japan distributed by KYOCERA Document Solutions Europe B.V. Bloemlaan 4, 2132 NP, Hooftdorp The Netherlands Designed in Japan / Assembled in China >ABS<</p>
<p>TASKalfa 2552ci</p> <p>MFP 220-240 V~ 50/60 Hz 7.2 A</p>    <p>Apparatet må tilkoples jordat stikkontakt. Apparaten skall anslutas till jordat uttag. Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan. Apparätets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.</p> <p>CLASS 1 LASER PRODUCT KLASSE 1 LASER PRODUKT</p> <p>KYOCERA Document Solutions Inc. 2-28, 1-Chome, Tamatsukuri, Chuo-ku, Osaka, Japan distributed by KYOCERA Document Solutions Europe B.V. Bloemlaan 4, 2132 NP, Hooftdorp The Netherlands Designed in Japan / Assembled in China >ABS<</p>	<p>TASKalfa 6002i</p> <p>MFP 220-240 V~ 50/60 Hz 7.2 A</p>    <p>Apparatet må tilkoples jordat stikkontakt. Apparaten skall anslutas till jordat uttag. Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan. Apparätets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.</p> <p>CLASS 1 LASER PRODUCT KLASSE 1 LASER PRODUKT</p> <p>KYOCERA Document Solutions Inc. 2-28, 1-Chome, Tamatsukuri, Chuo-ku, Osaka, Japan distributed by KYOCERA Document Solutions Europe B.V. Bloemlaan 4, 2132 NP, Hooftdorp The Netherlands Designed in Japan / Assembled in China >ABS<</p>	<p>TASKalfa 5002i</p> <p>MFP 220-240 V~ 50/60 Hz 7.2 A</p>    <p>Apparatet må tilkoples jordat stikkontakt. Apparaten skall anslutas till jordat uttag. Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan. Apparätets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.</p> <p>CLASS 1 LASER PRODUCT KLASSE 1 LASER PRODUKT</p> <p>KYOCERA Document Solutions Inc. 2-28, 1-Chome, Tamatsukuri, Chuo-ku, Osaka, Japan distributed by KYOCERA Document Solutions Europe B.V. Bloemlaan 4, 2132 NP, Hooftdorp The Netherlands Designed in Japan / Assembled in China >ABS<</p>	<p>TASKalfa 4002i</p> <p>MFP 220-240 V~ 50/60 Hz 7.2 A</p>    <p>Apparatet må tilkoples jordat stikkontakt. Apparaten skall anslutas till jordat uttag. Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan. Apparätets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.</p> <p>CLASS 1 LASER PRODUCT KLASSE 1 LASER PRODUKT</p> <p>KYOCERA Document Solutions Inc. 2-28, 1-Chome, Tamatsukuri, Chuo-ku, Osaka, Japan distributed by KYOCERA Document Solutions Europe B.V. Bloemlaan 4, 2132 NP, Hooftdorp The Netherlands Designed in Japan / Assembled in China >ABS<</p>

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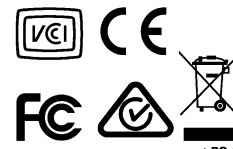
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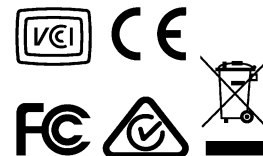
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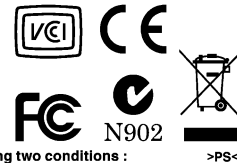
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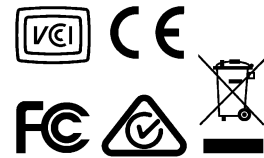
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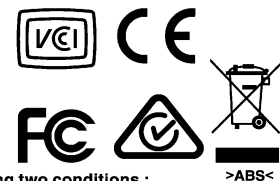
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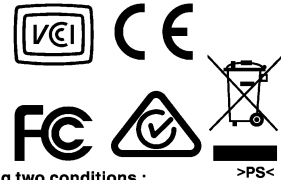
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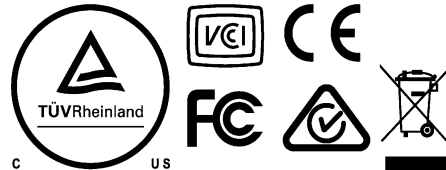
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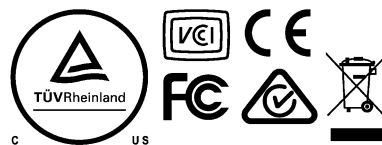
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BF-730 BOOKLET FOLDER

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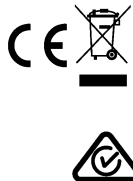
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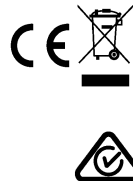
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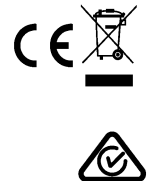
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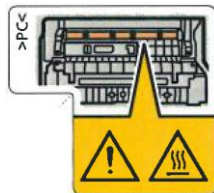
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Caution Labels:

Fuser Unit

	注意 更換此單元前， 請務必等待 50 分鐘後再將 其拆下。	CAUTION When replacing this unit, be sure to wait for 50 minutes before removing it.	VORSICHT Wenn Sie diese Einheit ersetzen, warten Sie sicherheitsshalber 50 Minuten, bevor Sie sie herausnehmen.	ATTENTION Lorsque cette unité doit être remplacée, attendre 50 minutes avant de la retirer.	CAUTELA Quando si deve sostituire il gruppo fusore, attendere 50 minuti prima di rimuoverlo.	PRECAUCION Al sustituir esta unidad, asegúrese de esperar 50 minutos antes de quitarla.	ВНИМАНИЕ При замене данного блока обязательно подождите 50 минут, прежде чем его извлекать.	VOORZICHTIG Let er bij het vervangen van deze eenheid op dat u 50 minuten wacht voor u het verwijderd.	CAUTION Ao substituir esta unidade, certifique-se de esperar por 50 minutos antes de removê-la.	注意 更換此單元前， 請務必等待 50 分鐘後再將 其拆下。	주의 유니트를 교환할 때 50분을 기다린 후 제거하십시오.	注意 ユニットを 交換する際は、 50分待ってから 外してください。
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Exit Unit



Optional Cassette Heater for Main Units



Optional Cassette Heater for Paper Feeders

	注意 表面高温。 請勿觸碰。	CAUTION EXTREMELY HOT SURFACE Avoid contact.	VORSICHT SEHR HEISSE OBERFLÄCHE Nicht berühren.	ATTENTION SURFACE TRÈS CHAUDE Eviter le contact.	CAUTELA SUPERFICIE ESTREMAMENTE CALDA Evitare il contatto.	PRECAUCION SUPERFICIE EXTREMADAMENTE CALIENTE No tocar.	VOORZICHT EXTREM HEET OPPERVLAKTE Niet aanraken.	ВНИМАНИЕ ПОВЕРХНОСТЬ ОЧЕНЬ ГОРЯЧАЯ Не Трогать.	CAUTION SUPERFICIE EM ALTA TEMPERATURA Evite contato.	注意 表面高温。 請勿觸碰。	주의 표면이 뜨겁습니다. 만지지 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。
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Laser Label

	警告 CAUTION WARNING AVERTISSEMENT AVVERTIMENTO ADVERTENCIA WAARSCHUWING	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。 CLASS 3B LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM. LASERSTRAHLUNG KLASSE 3B. WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN. CLASSE 3B RAYONNEMENT LASER EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU. CLASSE 3B LASER RADIAZIONE IN CAS DI APERTURA. EVITARE L'ESPOSIZIONE AL FASCIO. CLASSE 3B RADIACIONE LASER CUANDO SE ABRE. EVITAR EXPONERSE AL RAYO. KLASSE 3B LASERSTRAALING WANNEER OPENT. VERMID DIRECTE BLOOTSTELLING AAN DE LASERSTRAAL.	ПРЕДУПРЕЖДЕНИЕ ЛАЗЕРНОЕ ИЗЛУЧЕНИЕ КЛАССА 3Б ПРИ ОТКРЫТОЙ КРЫШКЕ. ИЗБЕГАЙТЕ ПРЯМОГО ПОПАДАНИЯ ЛУЧА. RADIAÇÃO DE LASER CLASSE 3B QUANDO ABERTO EVITAR EXPOSIÇÃO DIRETA NO FEIXE. 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。 CLASS 3B 가시 레이저광선을 직접 보지 마십시오. ここを開くとクラス3Bのレーザー放射が出る。ビームの被ばくを避けること。	АВІС 警告 경고 警告
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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
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 <input type="checkbox"/> non-detachable power supply cord <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
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 3500m
Altitude of test laboratory (m)	< 1000
Mass of equipment (kg)	1) TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci Approx. 95kg without optional accessories 2) TASKalfa 3252ci, TASKalfa 2552ci Approx. 90kg without optional accessories 3) TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i Approx. 83kg without 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	2015-12-03 - 2016-01-29

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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 6.2.5 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) Panasonic System Networks Co., Ltd.
 1471 Murata-machi, Tosu-shi, Saga, 841-8501 Japan
- 3) YiHe PLASTIC & ELECTRONIC PRODUCTS (SHENZHEN) CO., LTD.
 EVA Industrial Garden, number 11 GuoTai Road,
 TangTou Community, ShiYan Town, BaoAn District,
 Shenzhen, P.R. China
- 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
- 6) Tenma Precision (ShenZhen) Co., Ltd.
 No. 1301-19 Guangguang Road, Dabuxiang Community,
 Guanlan Sub-district, Bao' an District, Shenzhen,
 Guangdong Province 518110 P.R. China

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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 cord set

Laser classification..... : Class 1

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

There are optional Cassette Heaters (primary) in the main unit, the optional Paper Feeders, model PF-7100, PF-7110, PF-7120.

3.3V output for Operation Panel, 5V output for USB connectors (Card Reader, Key Board and Right Side USB) and Operation Panel, 24V output for Paper Feeder, Model PF-7100, PF-7110 and PF-7120 were tested and complied with Limited Power Sources.

2) Differences between the models:

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

Model Item	TASKalfa 6052ci	TASKalfa 5052ci	TASKalfa 4052ci	TASKalfa 3252ci	TASKalfa 2552ci	TASKalfa 6002i	TASKalfa 5002i	TASKalfa 4002i
Colour/Mono	Colour / Mono					Mono		
Speed (sheet/min.) cpm	55/60	50/50	40/40	32/32	25/25	60	60	40
Switching Power Supply Unit	MPW9216X			MPW9214X		MPW9216X		
High Voltage Unit, Main	EUK9MQC70HX			EUK9MQC68HX		EUK9MQC72HX		
Scanner LED	A0926XLE+GH			A0978XLE+GH		A0926XLE+GH		
Laser Diode	HL67130MC01, 4provided			HL67150GN, 4provided		HL67130MC01		
Document Processor, DP-7120 (Option)	Not provided			Provided		Not provided		

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

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3) Options:

The following optional accessories were considered during relevant tests.

Document Processor, Model DP-7100, supplied by SELV
 Document Processor, Model DP-7110, supplied by SELV
 Document Processor, Model DP-7120, supplied by SELV
 Attachment Kit, Model AK-7100 for DF-7110 and DF-7120, supplied by SELV
 Finisher, Model DF-7100, supplied by SELV
 Finisher, Model DF-7110, supplied by SELV
 Finisher, Model DF-7120, supplied by SELV
 Punch Unit, Model PH-7X (X: A, B, C or D) for DF-7110 and DF-7120, supplied by SELV
 Hole Punch Kit, Model PH-7100, PH-7110, PH-7120 and PH-7130 for DF-7100, supplied by SELV
 Multi Tray Unit, Model MT-730 for Finisher Model DF-7110, supplied by SELV
 Booklet Folder, Model BF-730 for Finisher Model DF-7110, supplied by SELV
 Paper Feeder, Model PF-7100, supplied by AC220-240V, 50/60Hz and SELV
 Paper Feeder, Model PF-7110, supplied by AC220-240V, 50/60Hz and SELV
 Paper Feeder, Model PF-7120, supplied by AC220-240V, 50/60Hz and SELV
 Fax Kit, Model Fax System 12, supplied by SELV; TNV circuits

Differences between DP-7100, DP-7120 and DP-7110 are shown in the following table.

For components used in them see appended table 1.5.1 for details.

Model	DP-7100	DP-7120	DP-7110
Item			
Speed	Low	High	High
Feeding to read both side of paper	Two action		One action

Differences between PF-7100, PF-7110, PF-7120 are shown in the following table.

For components used in them see appended table 1.5.1 for details.

Model	PF-7100	PF-7110	PF-7120
Item			
Paper capacity	500 sheets/shelf x 2	1500 sheets/line x 2	3000 sheets
Installation	Under the main unit		Right side of the main unit

Differences between DF-7100, DF-7110, DF-7120 are shown in the following table.

For components used in them see appended table 1.5.1 for details.

Model	DF-7100	DF-7110	DF-7120
Item			
Paper capacity	500	4000	1000
Installation	Inner of the main unit	Left 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

With pri - parts only: IH Coil Unit

HV-unit(s): High Voltage Units (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))

Optional dehumidifying heaters (Cassette Heater) in the main unit and PF-7100, PF-7110, PF-7120.
The heaters have reinforced insulation themselves and covered by aluminium fixed to chassis.

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 unit	(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		

Indicate used abbreviations (if any)

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

1	GENERAL		P
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1.5	Components		P
1.5.1	General		P
	Comply with IEC 60950-1 or relevant component standard	Components, which are certified for IEC and/or national standards, are used correctly within their ratings. Fuses outside the IEC 60127 scope were tested according to this standard (3 times tested)	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	Interconnection cable connected to PF-7120, connecting main unit 220-240V ac is approved one. The other Interconnecting cables affixed to PF-7120, connecting the unit are 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	Fuses (F1 in SWPS Unit, YF1 in IH PWB) are 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) :	AC220-240V	P
	Symbol for nature of supply, for d.c. only :	AC supply.	N/A
	Rated frequency or rated frequency range (Hz) ... :	50/60Hz	P
	Rated current (mA or A) :	7.2A	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 :	TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci, TASKalfa 3252ci, TASKalfa 2552ci, TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i	P
	Symbol for Class II equipment only :	Class I equipment	N/A
	Other markings and symbols :	(see copy of marking plate)	P
1.7.1.3	Use of graphical symbols	Symbols placed on the equipment shall be explained in the user manual.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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."</p> <p>Dangerous levels of <u>ozone</u> not generated. Instruction for installation in a well-ventilated room is given.</p> <p><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.</p> <p><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, but marked anyway.	P

IEC 60950-1			
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 MPW9216X: F1: T10AH 250V F2: 20A 250V F3: T12AH 250V F391: T4A 250V F701: T3.15A 250V</p> <p>SWPS MPW9214X: F1: T12AH 250V F2: 20A 250V F391: T4A 250V F701: T3.15A 250V</p> <p>IH PWB 2ND0125: YF1: 125/250V 20A YF2: 125/250/300V T1AL</p> <p>“CAUTION FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATINGS OF FUSE.”</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. Warning statement provided in service instructions.	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.	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. (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: 24V output for Paper Feeder(PF-7100, PF-7110, PF-7120), 5V output for KEY Board, Card Reader and Right Side USB Connector and Operation Panel, 3.3V output for Operation Panel.</i>		P
	a) Inherently limited output		N/A
	b) Impedance limited output		N/A
	c) Regulating network or IC current limiter, limits output under normal operating and single fault condition		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) :	Fuse F391 on SWPS Unit MPW9216 and MPW9214: rated 4A. Fuses YF1, YF2 on Main PWB: rated 4A. Fuse YF5 on Main PWB: rated 0.5A. The fuses have the characteristics required in 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 7.2A, 1.0mm ²	—
2.6.3.3	Size of protective bonding conductors	Table 3B for PB wires connected to Inlets and Outlet in main unit, PF-7100, PF-7110 and PF-7120. Tested per cl. 2.6.3.4 anyway.	P
	Rated current (A), cross-sectional area (mm ²), AWG	Rated 7.2A, 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 7.2A, M4 screw used for PB terminals.	—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	Appliance inlet 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	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. No hazards expected on operator removable Fixing Unit.	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 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, F2 in SWPS Unit MPW9216; F1, F2 in SWPS Unit MPW9214; YF1 in IH PWB. 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 Interlock Switch located in secondary when Right Cover or Front Cover opened. Main High Voltage Unit, Transfer High Voltage Unit, Fuser High Voltage Unit, Colour DLP Motor, Black DLP/ Transfer Belt Motor, Fuser Motor, Feed Motor</p> <p><u>Accessories:</u> Document Processor, Model DP-7100: Power (DC 24V) to the following parts is cut by Interlock Switch located in secondary when PF Cover opened. All motors. Document Processor, Model DP-7110: Power (DC 24V) to the following parts is cut by Interlock Switch located in secondary when PF Cover opened. All motors. Document Processor, Model DP-7120: Power (DC 24V) to the following parts is cut by Interlock Switch located in secondary when PF Cover opened. All motors. Finisher, Model DF-7100: Power (DC 24V) to the following parts is cut by Interlock Switch located in secondary when slide unit opened. All motors and Solenoid. Finisher, Model DF-7120: Power (DC 24V) to the following parts is cut by or Front Cover Interlock Switch or Upper Interlock Switch located in secondary when the Top Cover opened. All motors and Solenoid. 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-7X: Power (DC 24V) to the following parts is cut by one of the interlock switches of DF-7110 and DF-7120. All motors and Solenoid.</p>		—

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Clause	Requirement + Test	Result - Remark	Verdict
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 nonhazardous 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 cannot 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
2.8.5	Moving parts	Relevant doors are provided with levers, directly activating the approved interlock switches. No intermediate mechanism involved.	P
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 :	Max. 104.6kHz.	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/.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 unit.	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 2.10.3.3/4, Annex G not 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.	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 I and IIIb are 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.	P
2.10.5.5.	Cemented joints		N/A
2.10.5.6	Thin sheet material - General	<p>Provided for reinforced insulation within Transformers T501 used in SWPS Unit MPW9216 and T301, T501 used in SWPS Unit MPW9214.</p> <p>Only for as functional or basic insulation within Transformer T301 used in SWPS Unit MPW9216.</p>	P
2.10.5.7	Separable thin sheet material		P
	Number of layers (pcs) :	<p>2 layers for the reinforced insulation within Transformers T501 used in SWPS Unit MPW9216 and T301, T501 used in SWPS Unit MPW9214.</p> <p>1 or 2 layers for as the functional or basic insulation within Transformer T301 used in SWPS Unit MPW9216.</p>	—

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Clause	Requirement + Test	Result - Remark	Verdict
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		—
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
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

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Clause	Requirement + Test	Result - Remark	Verdict
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 Switching Power Supply Unit was tested.</p> <p>Photo Coupler (PC701) on Switching Power Supply Unit was certified.</p> <p>Photo Coupler (NC1, NC2, NC3 and NC4) on IH PWB was tested.</p> <p>Optical Isolator (PC10) on Fax Kit, Cosmo Electronics Corporation, Type K3010 was certified.</p> <p>Optical Isolator (PC10), Alternate on Fax Kit, Toshiba Corp., Semiconductor Co. Discrete Semiconductor Div., Type TLP620, TLP627, TLP621, TLP320, TLP629 were certified.</p> <p>Optical Isolator (PC11) on Fax Kit, Toshiba Corp., Semiconductor Co. Discrete Semiconductor Div., Type TLP620, TLP627, TLP621 were certified.</p> <p>Optical Isolator (PC11), Alternate on Fax Kit, Toshiba Corp., Semiconductor Co. Discrete Semiconductor Div., Type TLP320, TLP629 were certified.</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 Switching Power Supply Unit was tested.</p> <p>Photo Coupler (PC701) on Switching Power Supply Unit was certified.</p> <p>Photo Coupler (NC1, NC2, NC3 and NC4) on IH PWB was tested.</p> <p>Optical Isolator (PC10) on Fax Kit, Cosmo Electronics Corporation, Type K3010 was certified.</p> <p>Optical Isolator (PC10), Alternate on Fax Kit, Toshiba Corp., Semiconductor Co. Discrete Semiconductor Div., Type TLP620, TLP627, TLP621, TLP320, TLP629 were certified.</p> <p>Optical Isolator (PC11) on Fax Kit, Toshiba Corp., Semiconductor Co. Discrete Semiconductor Div., Type TLP620, TLP627, TLP621 were certified.</p> <p>Optical Isolator (PC11), Alternate on Fax Kit, Toshiba Corp., Semiconductor Co. Discrete Semiconductor Div., Type TLP320, TLP629 were certified.</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	No used.	N/A
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	Appliance inlet.	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	Two supply connections for rating AC220-240V, not accessible such parts.	P
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	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 7.2A, 1.0mm ²	—
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	Appliance inlet used.	N/A
	Mass of equipment (kg), pull (N) :	--	—
	Longitudinal displacement (mm) :	--	—
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	Appliance inlet used.	N/A

3.3	Wiring terminals for connection of external conductors <i>No terminals, appliance inlet and detachable power supply cord.</i>		N/A
3.3.1	Wiring terminals		N/A
3.3.2	Connection of non-detachable power supply cords		N/A
3.3.3	Screw terminals		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	Single supply connection.	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 enclosures.	P
4.2.4	Steady force test, 250 N	250N applied to outer enclosure. Test points: see appended table 4.2	P

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Clause	Requirement + Test	Result - Remark	Verdict
4.2.5	Impact test		P
	Fall test	Test points: see appended table 4.2	P
	Swing test	Test points: 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 79°C for enclosures, at 103°C for Fuser Cover, at 126°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.	P
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 conditions. Heating parts protected by certified Thermal Cutoff anyway. (see cl. 5.3.8 and appended table 5.3)	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

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.9	Oil and grease	Insulation not in contact with oil or grease.	N/A
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

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Clause	Requirement + Test	Result - Remark	Verdict
4.4.5	Protection against moving fan blades	No user accessible fan blade. Service accessible fan blade: see cl. 4.4.5.3.	P
4.4.5.1	General	1), Fuser Side Cooling Fan, Toner Sucking Fan Type: D06F-24SH 12B (EX) m = 0.055kg r = 22mm N = 4500rpm K = 323.43 a): 0.43 2), Exit/ IH Coil Fan1, Exit/ IH Coil Fan2, Exit/ IH Coil Fan3 Type: 06025SS-24N-AL-D3 m = 0.050g r = 28mm N = 4700rpm K = 519.56 a): 0.53 3), Container/Hopper Fan Type: 2410RL-05W-S60-C01 m = 0.06kg r = 30mm N = 4900rpm K = 777.92 a): 0.65 4), Exit Fan Type: 06015SS-24N-AL-08 m = 0.058kg r = 28mm N = 4200rpm K = 481.3 a): 0.48 5), IH PWB Fan Type: D07F-24SS1 15B (EX) m = 0.1kg r = 29mm N = 3400rpm K = 583.32 a): 0.47 6), LVU Fan Type: 08025SS-24Q-AL-D4 m = 0.068kg r = 39mm N = 4100rpm K = 1043.17 a): 0.71 7), LVU Fan, Alternate Type: D08K-24TU 62B (AX) m = 0.065kg r = 40mm N = 3400rpm K = 721.34 a): 0.53	P

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Clause	Requirement + Test	Result - Remark	Verdict
		Cont.: 8), Controller Fan Type: D06R-05TM 12H1 (EX) m = 0.04kg r = 30mm N = 4200rpm K = 381.02 a):0.44 9), Colour Drum/DLP Fan, DLP Fan, Black Drum/DLP Fan Type: D05F-24PH 17 (EX) m = 0.028kg r = 14mm N = 5700rpm K = 106.98 a): 0.42 10), DP-7110 Driving Fan Type: D04R-24TM 19 (EX) m = 0.027kg r = 20mm N = 6000rpm K = 233.28 a): 0.50 11), DP-7110 CIS Fan Type: D04X-24TH 52(V) m=0.026kg r=20mm N=7000rpm K=729.12 a):0.563 12), DF-7110 Paper Cooing Fan Type: BFB0524HHA-BN20 m = 0.025kg r = 25mm N = 5900rpm K = 326.34 a): 0.53	
	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. Accessories except for PF-7100, PF-7110, PF-7120: No hazardous voltages, SELV only.	P
	Dimensions (mm) :	(see appended table 4.6.1)	—
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 located outside a fire enclosure: Cables and connectors in sec circuits supplied with LPS, power supply cord sets.	P

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Clause	Requirement + Test	Result - Remark	Verdict
4.7.3	Materials		P
4.7.3.1	General	Materials with the required flammability classes are used. For overheating of VDRs (Z1) by fault conditions, the VDRs were mounted on PCBs with min. V-1 and other components / materials (SWPS Unit MPW9216: C1, F1, YC2, YC3, TH1; SWPS Unit MPW9214: C1, F1; IH PWB: YC1, C6, C7, YB3) within 13 mm from VDRs were min. V-1 Class Material or approved components.	P
4.7.3.2	Materials for fire enclosures	Metal enclosure. 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 or HB40.	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, 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 (pr. bobbin, anode cap.) Potting resin: V-0.	P

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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 Annex C)	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. Stepping motors driver short or one winding 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 and IH Coil Unit 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

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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 Varistor: 0mA	—
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

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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

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Clause	Requirement + Test	Result - Remark	Verdict

A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		P
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) :	--	—

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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)		P
A.2.1	Samples, material..... :	Three samples of the complete parts. Technical information of IH Coil Holder: Material of plastic: See appended table 1.5.1. Materials of adhesive: Type KE3412, min 0.2mm, Shin-Etsu Chemical Co., Ltd.	—
	Wall thickness (mm)	(see appended table 1.5.1)	—
A.2.2	Conditioning of samples; temperature (°C)	180°C for IH Coil Holder (requested by the manufacturer)	P
A.2.3	Mounting of samples	Actual uses considered.	P
A.2.4	Test flame (see IEC 60695-11-4)		P
	Flame A, B or C	A	—
A.2.5	Test procedure	Tested accordingly.	P
A.2.6	Compliance criteria	Not continued to burn, not consumed completely.	P
	Sample 1 burning time (s)	IH Coil Holder: 0.0	—
	Sample 2 burning time (s)	IH Coil Holder: 0.0	—
	Sample 3 burning time (s)	IH Coil Holder: 0.0	—
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

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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		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)	--	—

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Clause	Requirement + Test	Result - Remark	Verdict
C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		P
	Position	Pri - sec transformers: T301, T501	—
	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
F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G) <i>Measured accordingly.</i>		P

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Clause	Requirement + Test	Result - Remark	Verdict
G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
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)	TNV-3 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	1500V	P
G.4.3	Combination of transients		P
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

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Clause	Requirement + Test	Result - Remark	Verdict
H	ANNEX H, IONIZING RADIATION (see 4.3.13) <i>No ionizing radiation source.</i>		N/A
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		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	300V	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>Not applied.</i>		N/A
W.1	Touch current from electronic circuits		N/A
W.1.1	Floating circuits		N/A
W.1.2	Earthed circuits		N/A
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

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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	
Power Supply Cord (Optional)	Harvest Electric Wire And Products Mfg. Co., Ltd.	Plug: HE-104 Cord: H05VV-F Connector: HP-3	250V, 16A 1.0 mm ² x 3 250V, 10A	DIN VDE 0620-2-1 IEC/EN50525-2-11 IEC/EN60320-1	VDE	
Power Supply Cord (Optional), Alternate	Changzhou Hongchang Electronics Co., Ltd.	Plug: DTIII-2P-05 Cord: H05VV-F Connector: DTII- 3P-04 or DTII-3P- 04L	250V, 16A 1.0 mm ² x 3 250V, 10A	VDE 0620-2-1 IEC/EN 50525-2- 11 IEC/EN 60320-1	VDE	
Power Supply Cord (Optional), Alternate	ASAP Technology (Jiangxi) Co., Ltd.	Plug: A12-0009- AC2 Cord: H05VV-F Connector: A12- 0012-AC2	250V, 16A 1.0 mm ² x 3 250V, 10A	VDE 0620-1 IEC/EN 50525-2- 11 IEC/EN 60320-1	VDE	
Power Supply Cord (Optional), Alternate	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	--	
Appliance Inlet	Rong Feng Industrial Co., Ltd.	SS-120 Series	250Vac, 10A 250Vac, 15A (UL)	EN60320-1 IEC60320-1	VDE	
Appliance Inlet, Alternate	Echo Electric Co., Ltd.	AC-P20	250Vac, 10A 250Vac, 15A (UL)	EN60320-1 IEC60320-1	SEMKO	
Switch						
Main Switch	Otax Co., Ltd.	LLN55C	20A, 125/250Vac, 6,000 Cycles	EN61058-1 IEC61058-1	TUV	
Main Switch, Alternate	Panasonic Corp.	AJ8R Series	10A(4), 250Vac, 10,000 Cycles	EN61058-1 IEC61058-1	VDE	
Interlock Switch (Front/Right Side)	Omron Corp.	D3V-16506-3C25 (10E)	250Vac/16(3)A, 50,000 Cycles	IEC/EN61058-1	VDE	

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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
Fuser Unit					
Thermal Cutoff (SEC)	The Hosho Corp. or Portage Electric Products Inc.	H4-230D018 (H4 series)	3.3Vdc, 0.2A max., 230°C 50Vdc, 0.5A max.	IEC/EN60730-2-9	TUV
Right Fuser Cover, Bottom Fuser Cover, Fuser F Cover, Fuser R Cover, Press F Duct, Press R Duct	Kaneka Corp.	3401NX	V-0, Min. 1.5mm thick	UL94	UL(E48854)
Right Fuser Exit Guide, Left Fuser Exit Guide	Asahi Kasei Chemicals Corp., Xyron Polymer	DG141	V-1, Min. 1.5mm thick	UL94	UL(E82268)
Claw Cover	Toray Industries Inc.	A390M65	V-0, Min. 0.72mm thick	UL94	UL(E41797)
IH Coil Unit					
IH Coil Wire	Totoku Electric Co., Ltd.	1-AILOCKBT	Litz Wire 5/ 17/ 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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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	
Switching Power Supply Unit for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci, TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i						
Switching Power Supply Unit	Murata Mfg. Co., Ltd.	MPW9216X (X may be blank or any number from 0 to 9 or alphabetical number.)	Input: AC 220 - 240 V Output: 24V/14.6A, 5V/10.8A	--	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	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	EN/IEC60384-14	ENEC(SEMKO)	
X - Capacitor (C1, C2), Alternate	Panasonic Electronic Devices Japan Co., Ltd. or Panasonic	ECQUL	275V, 1.0uF X2	EN/IEC60384-14	VDE	
X - Capacitor (C1, C2), Alternate	Pilkor Electronics Co., Ltd.	PCX2 337	275V/305V, 1.0uF X2	EN/IEC60384-14	ENEC(SEMKO)	
X - Capacitor (C1, C2), Alternate	Zhuhai Sung Ho Electronics Co., Ltd.	CMPP	275V, 1.0uF X2	EN/IEC60384-14	VDE	
Y -Capacitors (C5, C6)	Murata Mfg. Co., Ltd.	KX	300V/250V, 2200pF Y1	EN/IEC60384-14	SEMKO	
Y -Capacitors (C5, C6), Alternate	TDK-EPC Corp.	CS	250V, 2200pF Y2	EN/IEC60384-14	SEMKO	
Y -Capacitors (C5, C6), Alternate	TDK-EPC Corp.	CD	250V, 2200pF Y1	EN/IEC60384-14	SEMKO	
Y -Capacitors (C5, C6), Alternate	Murata Mfg. Co., Ltd.	KH	300V/250V, 2200pF Y2	EN/IEC60384-14	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	
Y -Capacitor (C400)	Murata Mfg. Co., Ltd.	KX	300V/250V, 470pF Y1	EN/IEC60384-14	SEMKO	
Y -Capacitor (C400), Alternate	TDK-EPC Corp.	CS	250V, 470pF Y2	EN/IEC60384-14	SEMKO	
Y -Capacitor (C400), Alternate	TDK-EPC Corp.	CD	250V, 470pF Y1	EN/IEC60384-14	SEMKO	
Y -Capacitor (C400), Alternate	Murata Mfg. Co., Ltd.	KH	300V/250V, 470pF Y2	EN/IEC60384-14	SEMKO	
Y -Capacitors (C300, C500)	Murata Mfg. Co., Ltd.	KX	300V/250V, 1000pF Y1	EN/IEC60384-14	SEMKO	
Y -Capacitors (C300, C500), Alternate	TDK-EPC Corp.	CD	250V, 1000pF Y1	EN/IEC60384-14	SEMKO	
Electrolytic Capacitor (C401)	Interchangeable	Interchangeable	450V, 330uF	--	Evaluated together with unit	
Inductor (L1)	Tokyo Parts Industrial Co., Ltd.	TLF-28A (Marking: 2R7A502A)	5mH (2.7A) Class A	--	Evaluated together with unit	
Inductor (L2)	Tokyo Parts Industrial Co., Ltd.	TLF-24A (Marking: 2R7A182A)	1.8mH (2.7A) Class A	--	Evaluated together with unit	
Inductor (L401)	Murata Mfg. Co., Ltd.	1P019	194uH Class B UL System Designation: CM	UL1446	Evaluated together with unit UL(E247878)	
Bridge Rectifier (D1)	Interchangeable	Interchangeable	Min. 600V, Min. 15A	--	Evaluated together with unit	
FET (Q301, Q320)	Interchangeable	Interchangeable	Min. 500V, Min. 12A	--	Evaluated together with unit	
FET (Q401)	Interchangeable	Interchangeable	Min. 600V, Min. 16A	--	Evaluated together with unit	
FET (Q501)	Interchangeable	Interchangeable	Min. 900V, Min. 5A	--	Evaluated together with unit	
Triac (TRA701)	Interchangeable	Interchangeable	Min. 800V, Min. 8A	--	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	
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,	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)	Class B UL System Designation: ZFS- B1	UL1446	Evaluated together with unit UL(E57091)	
Transformer (T501)	Murata Mfg. Co., Ltd.	2Q154	Class B UL System Designation: CM	UL1446	Evaluated together with unit UL(E247878)	
Fuse (F1, F3)	Cooper Bussmann Inc.	S505 (-R series)	250V, T5AH	EN60127-2 IEC60127-2	SEMKO	
Fuse (F1, F3), Alternate	SkyGate Co., Ltd.	SG5063	250V, T5AH	EN60127-2 IEC60127-2	SEMKO	
Fuse (F1, F3), Alternate	Littelfuse Inc. or Suzhou Littelfuse OVS Ltd.	215 series	250V, T5AH	EN60127-2 IEC60127-2	SEMKO	
Fuse (F2)	Littelfuse Inc. or Suzhou Littelfuse OVS Ltd.	215 series	250V, T12AH (Marking: 250VP)	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	250 V, 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 Corp. (Raychem)	RUEF300 (Marking: U300)	30Vdc, 3.0A	IEC/EN60730	TUV	

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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	
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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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	
Switching Power Supply Unit for Model TASKalfa 3252ci, TASKalfa 2552ci Alternate Switching Power Supply Unit for Model TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i						
Switching Power Supply Unit	Murata Mfg. Co., Ltd.	MPW9214X (X may be blank or any number from 0 to 9 or alphabetical number.)	Input: AC 220 - 240 V Output: 24V/9.5A, 5V/9.2A	--	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	300 Vac	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	EN/IEC60384-14	ENEC(SEMKO)	
X - Capacitor (C1), Alternate	Panasonic Electronic Devices Japan Co., Ltd. or Panasonic	ECQUL	275V, 0.47uF X2	EN/IEC60384-14	VDE	
X - Capacitor (C1), Alternate	Pilkor Electronics Co., Ltd.	PCX2 337	275V/305V, 0.47uF X2	EN/IEC60384-14	ENEC(SEMKO)	
X - Capacitor (C1), Alternate	Zhuhai Sung Ho Electronics Co., Ltd.	CMPP	275V, 0.47uF X2	EN/IEC60384-14	VDE	
X - Capacitor (C2)	Okaya Electric Industries Co., Ltd.	LE series	310V, 0.22uF X2	EN/IEC60384-14	ENEC(SEMKO)	
X - Capacitor (C2), Alternate	Panasonic Electronic Devices Japan Co., Ltd. or Panasonic	ECQUL	275V, 0.22uF X2	EN/IEC60384-14	VDE	
X - Capacitor (C2), Alternate	Pilkor Electronics Co., Ltd.	PCX2 337	275V/305V, 0.22uF X2	EN/IEC60384-14	ENEC(SEMKO)	
X - Capacitor (C2), Alternate	Zhuhai Sung Ho Electronics Co., Ltd.	CMPP	275V, 0.22uF X2	EN/IEC60384-14	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	
Y -Capacitors (C5, C6)	Murata Mfg. Co., Ltd.	KX	300V/250V, 470pF Y1	EN/IEC60384-14	SEMKO	
Y -Capacitors (C5, C6), Alternate	TDK-EPC Corp.	CS	250V, 470pF Y2	EN/IEC60384-14	SEMKO	
Y -Capacitors (C5, C6), Alternate	TDK-EPC Corp.	CD	250V, 470pF Y1	EN/IEC60384-14	SEMKO	
Y -Capacitors (C5, C6), Alternate	Murata Mfg. Co., Ltd.	KH	300V/250V, 470pF Y2	EN/IEC60384-14	SEMKO	
Y -Capacitors (C300, C500)	Murata Mfg. Co., Ltd.	KX	300V/250V, 2200pF Y1	EN/IEC60384-14	SEMKO	
Y -Capacitors (C300, C500), Alternate	TDK-EPC Corp.	CD	250V, 2200pF Y1	EN/IEC60384-14	SEMKO	
Electrolytic Capacitor (C10)	Interchangeable	Interchangeable	450V, 330uF	--	Evaluated together with unit	
Inductor (L1)	Tokyo Parts Industrial Co., Ltd.	DRB25 (DRB25- 06A103NP)	10mH (6A) Class A	--	Evaluated together with unit	
Inductor (L2)	Tokyo Parts Industrial Co., Ltd.	TLF-24A (Marking: 2R7A182A)	1.8mH (2.7A) Class A	--	Evaluated together with unit	
Inductor (L3)	Tabuchi Electric Co., Ltd.	EMD15163B	7.5mH (2.0A) Class A	--	Evaluated together with unit	
Bridge Rectifier (D1)	Interchangeable	Interchangeable	Min. 600V, Min. 15A	--	Evaluated together with unit	
FET (Q301, Q302, Q501)	Interchangeable	Interchangeable	Min. 900V, Min. 5A	--	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	
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,	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	Class B UL System Designation: CM	UL1446	Evaluated together with unit UL(E247878)	
Transformer (T501)	Murata Mfg. Co., Ltd.	2Q154	Class B UL System Designation: CM	UL1446	Evaluated together with unit UL(E247878)	
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 (F2)	Littelfuse Inc.	215 series	250V, T12AH (Marking: 250VP)	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	

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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	
Posistor (TH391)	Tyco Electronics Raychem	RUEF300 (Marking: U300)	30Vdc, 3.0A	IEC/EN60370	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 (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	

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	
IH PWB						
IH PWB	KYOCERA Document Solutions Inc.	2ND0126	Input: 220 - 240 Vac, 6.14A max. Output: 339V max., 18.0A max.	--	Evaluated together with unit	
Bleeding Resistor (R1, R2)	Interchangeable	Interchangeable	220 kohm, 1/4 W	--	Evaluated together with unit	
Varistor (N1, N4)	Panasonic Corporation	E11471	300 Vac	IEC/EN61051 IEC/EN60950-1 Ed2.2:2013/ Annex Q	VDE	
Varistor (N1, N4), Alternate	Panasonic Corporation	V14471U (ERZV14471U)	300 Vac	IEC/EN 61051 IEC/EN 60950-1 Ed2.2: 2013/ Annex Q	VDE	
Varistor (N1, 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	EN/IEC60384-14	ENEC(SEMKO)	
Y-Capacitor (C5, C6)	Murata Mfg. Co., Ltd.	KX	300V/250V, 4700pF Y1	EN/IEC60384-14	SEMKO	
Capacitor (C2, C12)	Interchangeable	Interchangeable	1250V, 0.23uF	--	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	
Inductor (L1)	TMP Inc.	TN27/15V-06221	492uH Class A	--	Evaluated together with unit	
Inductor (L3)	TMP Inc.	TC25V-39215R	3.9mH Class A	--	Evaluated together with unit	
Inductor (L4)	Panasonic	ELC12D681E (Marking: 681)	680uH Class A	--	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	
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	
Photo Coupler (NC1)	Toshiba	TLP2768 (Marking: P2768)	Isolation thickness: ≥0.4 mm, Ext. cr.: ≥7 mm Isolation voltage: min. AC 5000V	EN/IEC60747-5	VDE	
Photo Coupler (NC2, NC3, NC4)	Toshiba	TLP785 (Marking: P785)	Isolation thickness: > 0.6 mm, Ext. cr.: > 8 mm, Int. cr.: > 5.2 mm	EN/IEC60950-1, EN/IEC60065-1	SEMKO	
Transformer (T1)	Kami Electronics Ind. Co., Ltd.	CT-19G26RF (Marking: CT1901)	Class A	--	Evaluated together with unit	
Relay (RY1)	Panasonic.	LKG1aF-24V-16-1 (ALKG8221)	Contact: 250/125V, 16A Coil: 24 Vdc	EN/IEC61810-1	TUV	
Relay (RY1), Alternate	Panasonic Electric Works Co., Ltd.	ALE1PB24	Contact: 250/277V, 16A Coil: 24 Vdc	EN/IEC61810-1	VDE	
Relay (RY1), Alternate	Fujitsu Component Ltd.	FTR-K1 series	Contact: 250/277V, 16A Coil: 24 Vdc	EN/IEC61810-1	VDE	
Fuse (YF1)	Hollyland Co., Ltd.	65TS(P)	125/250V, 12A	EN/IEC60127-2	TUV	
Fuse (YF2)	Hollyland Co., Ltd.	5ET	125/250/300V, T1AL	EN/IEC60127-3	VDE	
Fuse (YF2), Alternate	SkyGate Co., Ltd.	SCT	250V, T1AL	EN/IEC60127-3	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	UL 94 UL1977	UL(E67646)	
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	
High Voltage Unit, Main for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci						
Main High Voltage Unit	Power Supply Technology Co., Ltd.	EUK9MQC70HX (X may be any alphabetical number or blank)	Inputs: 24Vdc, max. 2.0A 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	
Main High Voltage Unit - Transformer (T009, T010, T011, T012)	Power Supply Technology Co., Ltd.	ETB16GKL19	Class A Bobbin: Min. V-2 DC Output: M ≤4kV	UL94	Evaluated together with unit UL	
Main High Voltage Unit - Transformer (T101, T102, T201, T202)	Power Supply Technology Co., Ltd.	ETB28NK30	Class A Bobbin: Min. V-2 AC Output: M ≤4kV	UL94	Evaluated together with unit UL	
Main High Voltage Unit - Transformer (T301, T401, T501, T601)	Power Supply Technology Co., Ltd.	ETB28RK4	Class A Bobbin: Min. V-2 AC Output: Vslv ≤4kV	UL94	Evaluated together with unit UL	
Main High Voltage Unit - Transformer (T302, T402, T502, T602)	Power Supply Technology Co., Ltd.	ETB28RK5	Class A Bobbin: Min. V-2 AC Output: Vmag ≤4kV	UL94	Evaluated together with unit UL	
Main High Voltage Unit - Transformer (T701)	Power Supply Technology Co., Ltd.	ETB16GKM13Y	Class A Bobbin: Min. V-2 DC Output: Vmag ≤4kV, Vslv ≤4kV	UL94	Evaluated together with unit 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	
High Voltage Unit, Main for Model TASKalfa 3252ci, TASKalfa 2552ci						
Main High Voltage Unit	Power Supply Technology Co., Ltd.	EUK9MQC68HX (X may be any alphabetical number or blank)	Inputs: 24Vdc, max. 0.65A Output: M: DC max. 3000V, Vmag: AC max. 4000V, DC max. 700V	--	Evaluated together with unit	
Main High Voltage Unit - Transformer (T101, T202, T203, T204)	Power Supply Technology Co., Ltd.	ETB20DKB6	Class A Bobbin: Min. V-2 DC Output: M ≤4kV	UL94	Evaluated together with unit UL	
Main High Voltage Unit - Transformer (T301)	Power Supply Technology Co., Ltd.	ETB24CK9	Class A Bobbin: Min. V-2 AC Output: Colour Vmag ≤4kV	UL94	Evaluated together with unit UL	
Main High Voltage Unit - Transformer (T302)	Power Supply Technology Co., Ltd.	ETB24CK2	Class A Bobbin: Min. V-2 AC Output: Black Vmag ≤4kV	UL94	Evaluated together with unit UL	
Main High Voltage Unit - Transformer (T701)	Power Supply Technology Co., Ltd.	ETB16GKM13Y	Class A Bobbin: Min. V-2 DC Output: Vmag ≤4kV	UL94	Evaluated together with unit 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	
High Voltage Unit, Transfer						
Transfer High Voltage Unit	Power Supply Technology Co., Ltd.	EUK9MQC71HX (X may be any alphabetical number or blank)	Inputs: 24Vdc, max. 0.6A Outputs: T1: DC max. -4500V, T2: DC max. 8500V, SP: DC max. 6500V, CL: DC max. -5500V, PB: DC max. 2000V	--	Evaluated together with unit	
Transfer High Voltage Unit - High Voltage Block (T202)	Power Supply Technology Co., Ltd.	MS17CTPW4	Class A Bobbin: Min. V-2 Case: Min. V-2 DC Output: T2: max. 8500V	UL94	Evaluated together with unit UL	
Transfer High Voltage Unit - Transformer (T103)	Power Supply Technology Co., Ltd.	ETB20DKB4A	Class A Bobbin: Min. V-2 DC Output: Black T1: max. -4500V	UL94	Evaluated together with unit UL	
Transfer High Voltage Unit - Transformer (T102) (Optional)	Power Supply Technology Co., Ltd.	ETB20DKB4A	Class A Bobbin: Min. V-2 DC Output: Cyan T1: max. -4500V	UL94	Evaluated together with unit UL	
Transfer High Voltage Unit - Transformer (T101, T104) (Optional)	Power Supply Technology Co., Ltd.	ETB20DKB15A	Class A Bobbin: Min. V-2 DC Output: Yellow/Magenta T1: max. -4500V	UL94	Evaluated together with unit UL	
Transfer High Voltage Unit - Transformer (T201)	Power Supply Technology Co., Ltd.	ETB20DKD9A	Class A Bobbin: Min. V-2 DC Output: PB ≤4kV	UL94	Evaluated together with unit 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	
Transfer High Voltage Unit - Transformer (T203)	Power Supply Technology Co., Ltd.	ETB16GKL23	Class A Bobbin: Min. V-2 DC Output: T2: max. 8500V	UL94	Evaluated together with unit UL	
Transfer High Voltage Unit - Transformer (T301)	Power Supply Technology Co., Ltd.	ETB20DKB14A	Class A Bobbin: Min. V-2 DC Output: SP: max. 6500V	UL94	Evaluated together with unit UL	
Transfer High Voltage Unit - Transformer (T302)	Power Supply Technology Co., Ltd.	ETB20DKB2A	Class A Bobbin: Min. V-2 DC Output: CL: max. -5500V	UL94	Evaluated together with unit 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	
High Voltage Unit, Main for Model TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i						
Main High Voltage Unit	Power Supply Technology Co., Ltd.	EUK9MQC72HX (X may be any alphabetical number or blank)	Inputs: 24Vdc, max. 0.8A Outputs: 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	
Main High Voltage Unit - Transformer (T101, T201)	Power Supply Technology Co., Ltd.	ETB16GKL19	Class A Bobbin: Min. V-2 DC Output ≤4kV	UL94	Evaluated together with unit UL	
Main High Voltage Unit - Transformer (T102)	Power Supply Technology Co., Ltd.	ETB28NK35	Class A Bobbin: Min. V-2 AC Output: M ≤4kV	UL94	Evaluated together with unit UL	
Main High Voltage Unit - Transformer (T302)	Power Supply Technology Co., Ltd.	ETB28RK4	Class A Bobbin: Min. V-2 AC Output: Vslv ≤4kV	UL94	Evaluated together with unit UL	
Main High Voltage Unit - Transformer (T303)	Power Supply Technology Co., Ltd.	ETB28RK5	Class A Bobbin: Min. V-2 AC Output: Vmag ≤4kV	UL94	Evaluated together with unit 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	
High Voltage Unit, Fuser						
Fuser High Voltage Unit	Power Supply Technology Co., Ltd.	EUK9SQD06HX (X may be any alphabetical number or blank)	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 Bobbin: Min. V-2 DC Output: FH: max. 6800V	UL94	Evaluated together with unit UL	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1 , Min. 105°C	UL796	UL	
Fan Motor, Motor, Clutch, Solenoid						
Fuser Side Cooling Fan	Nidec Corp.	D06F-24SH 12B (EX)	24Vdc, 0.198A max.	--	Evaluated together with unit	
Exit/ IH Coil Fan 1	Minebea Co., Ltd.	06025SS-24N-AL-D3	24Vdc, 0.11A max.	--	Evaluated together with unit	
Exit/ IH Coil Fan 2	Minebea Co., Ltd.	06025SS-24N-AL-D3	24Vdc, 0.11A max.	--	Evaluated together with unit	
Exit/ IH Coil Fan 3 for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci	Minebea Co., Ltd.	06025SS-24N-AL-D3	24Vdc, 0.11A max.	--	Evaluated together with unit	
Container/ Hopper Fan for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci, TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i	Minebea Motor Manufacturing Corp. or Minebea Co., Ltd.	2410RL-05W-S60-C01	24Vdc, 0.12A 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	
Exit Fan	Minebea Co., Ltd.	06015SS-24N-AL-08	24Vdc, 0.13A max.	--	Evaluated together with unit	
IH PWB Fan	Nidec Corp.	D07F-24SS1 15B (EX)	24Vdc, 0.20A max.	--	Evaluated together with unit	
LVU Fan	Minebea Co., Ltd.	08025SS-24Q-AL- D4	24Vdc, 0.28A max.	--	Evaluated together with unit	
LVU Fan, Alternate	Nidec Corp.	D08K-24TU 62B (AX)	24Vdc, 0.143A max.	--	Evaluated together with unit	
Controller Fan	Nidec Corp.	D06R-05TM 12H1 (EX)	5Vdc, 0.41A max.	--	Evaluated together with unit	
Black Drum/DLP Fan for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci, TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i	Nidec Corp.	D05F-24PH 17 (EX)	24Vdc, 0.12A max.	--	Evaluated together with unit	
Colour Drum/DLP Fan for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci	Nidec Corp.	D05F-24PH 17 (EX)	Three provided. 24Vdc, 0.12A max.	--	Evaluated together with unit	
Toner Sucking Fan for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci, TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i	Nidec Corp.	D06F-24SH 12B (EX)	24Vdc, 0.198A max.	--	Evaluated together with unit	
Middle Transfer Cleaning Motor	Minebea Co., Ltd.	DIA42B10W21A	24Vdc, 1.0Arms max. Brushless Motor	--	Evaluated together with unit	
Transfer Belt Release Motor	Mabuchi Motor Co., Ltd.	RK-370CA-10800	24Vdc, 65mA 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	
Fuser Motor	Nidec Corp.	48M069F261	24Vdc, 1.6A max. Brushless Motor	--	Evaluated together with unit	
Fuser Motor, Alternate	Nidec Corp.	48M069F271	24Vdc, 2.2A max. Brushless Motor	--	Evaluated together with unit	
Fuser Pressure Control Motor	Mabuchi Motor Co., Ltd.	RK-370CA-11670	24Vdc, 130mA max.	--	Evaluated together with unit	
Feed Motor	Nidec Corp.	48M069F271	24Vdc, 2.2A max. Brushless Motor	--	Evaluated together with unit	
MPF Lift Motor	Mabuchi Motor Co., Ltd.	RK-370CA-081050	24Vdc, 110mA max.	--	Evaluated together with unit	
Black DLP/ Transfer Belt Motor	Nidec Corp.	48M069F201	24Vdc, 2.0A max. Brushless Motor	--	Evaluated together with unit	
Colour (M) DLP Motor for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci	Nidec Corp.	48M069F261	24Vdc, 1.6A max. Brushless Motor	--	Evaluated together with unit	
Colour (C, Y) DLP Motor for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci	Nidec Corp.	48M069F271	24Vdc, 2.2A max. Brushless Motor	--	Evaluated together with unit	
Colour DLP Motor for Model TASKalfa 3252ci, TASKalfa 2552ci	Nidec Corp.	48M069F261	24Vdc, 1.6A max. Brushless Motor	--	Evaluated together with unit	
Container Motor for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci	Nidec Corp.	48M069F261	24Vdc, 1.6A max. Brushless Motor	--	Evaluated together with unit	
Container Motor for Model TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i	Nidec Corp.	42M069F251	24Vdc, 1.1A max. Brushless Motor	--	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	
Black Toner Motor	Standard Motor Co., Ltd.	RC370-KT-081000 (RC370-KT/081000/DV)	24Vdc, 110mA max.	--	Evaluated together with unit	
Colour Toner Motor for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci, TASKalfa 3252ci, TASKalfa 2552ci	Standard Motor Co., Ltd.	RC370-KT-081000 (RC370-KT/081000/DV)	Three provided. 24Vdc, 110mA max.	--	Evaluated together with unit	
Toner Waste Motor	Mabuchi Motor Co., Ltd.	RK-370CA-11670	24Vdc, 130mA max.	--	Evaluated together with unit	
Waste Box Vibration Motor for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci	Nidec Copal Corp.	LA4-467BC2	Four provided. 3.0Vdc, 160mA max.	--	Evaluated together with unit	
Waste Box Vibration Motor for Model TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i	Nidec Copal Corp.	LA4-467BC2	3.0Vdc, 160mA max.	--	Evaluated together with unit	
Black Drum Motor	Nidec Corp.	48M069G020	24Vdc, 1.6A max. Brushless Motor	--	Evaluated together with unit	
Colour Drum Motor for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci	Nidec Corp.	48M069F180	24Vdc, 2.2A max. Brushless Motor	--	Evaluated together with unit	
Colour Drum Motor for Model TASKalfa 3252ci, TASKalfa 2552ci	Nidec Corp.	48M069G020	24Vdc, 1.6A max. Brushless Motor	--	Evaluated together with unit	
Black DLP Vibration Motor for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci, TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i	Nidec Copal Corp.	LA4-467BC2	3.0Vdc, 160mA 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	
Colour DLP Vibration Motor for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci	Nidec Copal Corp.	LA4-467BC2	Three provided. 3.0Vdc, 160mA max.	--	Evaluated together with unit	
Scanner Motor for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci, TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i	Minebea Motor Manufacturing Corp. or Minebea Co., Ltd.	17PM- K246CP01CF	Stepper type 24Vdc, 1.4A	--	Evaluated together with unit	
Scanner Motor for Model TASKalfa 3252ci, TASKalfa 2552ci	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	--	Evaluated together with unit	
Lift Motor	Daiken Co. or Sinfonia Microtec Co., Ltd.	302ND0940 or 302ND09400	Two provided. 24Vdc, 150mA max.	--	Evaluated together with unit	
LSU Glass Cover CL Motor	Mabuchi Motor Co., Ltd.	RK-370CA-11670	24Vdc, 130mA max.	--	Evaluated together with unit	
Polygon Motor for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci, TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i	Nidec Copal Electronics Corp.	PT22ERG- L10B400-475-SD	24Vdc, 1.0A max.	--	Evaluated together with unit	
Polygon Motor for Model TASKalfa 3252ci, TASKalfa 2552ci	Minebea Co., Ltd.	MASQ6NF15RK	24Vdc, 0.6A max.	--	Evaluated together with unit	
Front Exit Motor	Oki Micro Engineering Co., Ltd.	KCL42SCF560A	Stepper type 24Vdc, 700mA	--	Evaluated together with unit	
Rear Exit Motor for Model TASKalfa 3252ci, TASKalfa 2552ci	Oki Micro Engineering Co., Ltd.	KCL42SCF560A	Stepper type 24Vdc, 700mA	--	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	
IH Core Motor for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci, TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i (Optional)	Minebea Co., Ltd.	PM25S-048-MIP2	Stepper type 24Vdc, 400mA (Peak)	--	Evaluated together with unit	
Resist Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.075A	--	Evaluated together with unit	
Middle Feed Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.075A	--	Evaluated together with unit	
Cassette 1 Feed Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.075A	--	Evaluated together with unit	
Cassette 2 Feed Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.075A	--	Evaluated together with unit	
Vertical Feed Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.075A	--	Evaluated together with unit	
MPF Feed Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.075A	--	Evaluated together with unit	
DU Feed Clutch 1	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.075A	--	Evaluated together with unit	
DU Feed Clutch 2	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.075A	--	Evaluated together with unit	
DLP Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.104A	--	Evaluated together with unit	
ID Sensor CL Solenoid	TDS Co., Ltd.	TDS-08G (TDS- 08G-553)	24Vdc, 1.15A	--	Evaluated together with unit	
Main Exit Junction Solenoid	TDS Co., Ltd.	TDS-08A (TDS- 08A-1092)	24Vdc, 1A max.	--	Evaluated together with unit	
Inner Exit Junction Solenoid	TDS Co., Ltd.	TDS-08A (TDS- 08A-1092)	24Vdc, 1A 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	
Black Container Solenoid	TDS Co., Ltd.	TDS-07A (TDS-07A-92)	24Vdc, 204mA max.	--	Evaluated together with unit	
Colour Container Solenoid for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci, TASKalfa 3252ci, TASKalfa 2552ci	TDS Co., Ltd.	TDS-07A (TDS-07A-92)	Three provided. 24Vdc, 204mA max.	--	Evaluated together with unit	
Other components on main unit.						
Laser Diode for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci	Ushio Opto Semiconductors, Inc.	HL67130MC01	Four provided. Class 3B, Wavelength: 670nm, Output Power: 18mW	--	Evaluated together with unit	
Laser Diode for Model TASKalfa 3252ci, TASKalfa 2552ci	Ushio Opto Semiconductors, Inc.	HL67150GN	Four provided. Class 3B, Wavelength: 670nm, Output Power: 32.5mW	--	Evaluated together with unit	
Laser Diode, Alternate for Model TASKalfa 3252ci, TASKalfa 2552ci	Rohm Co., Ltd.	RLD2BPND2-00B	Four provided. Class 3B, Wavelength: 670nm, Output Power: 25mW	--	Evaluated together with unit	
Laser Diode for Model TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i	Ushio Opto Semiconductors, Inc.	HL67130MC01	Class 3B, Wavelength: 670nm, Output Power: 18mW	--	Evaluated together with unit	
Scanner LED for Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci	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	
Scanner LED for Model TASKalfa 3252ci, TASKalfa 2552ci, TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i	KYOCERA Document Solutions Inc.	302RH0108 or A0978XLE+GH (X may be any alphabetical number)	24Vdc max. Classified as Exempt Group	IEC/EN62471	Evaluated together with unit	
Cassette Heater (Optional)	Kurabe Industrial Co., Ltd.	302RH4405	240V, 16W	--	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	
Cassette Heater (Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	G4A50128C	250V, 10A, 128°C	EN/IEC 60691	VDE	
Top Filter	Toyobo Co., Ltd. AC Div.	YPB/EFNA-60NH	V-1/HF-1, Min. 14mm thick	UL 94	UL(E132751)	
Top Filter, Alternate	Toyobo Co., Ltd. AC Div.	DPB/EFNA-60NH	V-1/HF-1, Min. 14mm thick	UL 94	UL(E132751)	
Top Filter Alternate	3M Company 3M Filtration Products	High Air Flow Electrostatic (HAF- E) Filter/ GSB-50	Min. 14mm thick	UL 900	UL(R8935)	
Rear Lower Filter (Optional)	Toyobo Co., Ltd. AC Div.	EFR-65NH	HF-1	UL 94	UL(E132751)	
Lithium Battery (BAT1) on Main PWB	Panasonic Corp.	CR2032	3 V; max. 10mA reverse charging current. Protected by a diode and a 1 kohm resistor.	UL1642	UL(MH12210)	
Lithium Battery (BAT1), Alternate on Main PWB	Interchangeable	CR2032	3 V; max. 10mA reverse charging current. Protected by a diode and a 1 kohm resistor.	UL1642	UL	
Fuse (YF1) on Main PWB for 5V line of Operation Panel	Skygate Co., Ltd.	1206FT	32Vdc, 4A	UL248-1/ UL248- 14	UL(E195833)	
Fuse (YF5) on Main PWB for 3.3V line of Operation Panel	Skygate Co., Ltd.	0603FT series	32Vdc, 0.5A	UL248-1/ UL248- 14	UL(E195833)	
Fuse (YF2) on Main PWB for Key Board & Card Reader & Right Side USB connector	Skygate Co., Ltd.	1206FT	32Vdc, 4A	UL248-1/ UL248- 14	UL(E195833)	
Hard Disk Drive (Optional)	Western Digital Technologies, Inc.	WD3200LUCT- 63RC2Y0	0.55A max.	EN/IEC 60950-1	TUV	
Hard Disk Drive (Optional), Alternate	Interchangeable	Interchangeable	0.55A max.	EN/IEC 60950-1	--	
Option Plate	Interchangeable	Interchangeable	Two provided. Steel, min. 1.0 mm thick.	-	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	
Front Cover, Front Upper Cover, Front Right Cover, Waste Cover, Tray Base Cover, Tray Top Cover, Top Rear Cover, Inner Cover, Right Front Cover, Right Rear Upper Cover, Right Rear Cover, Right Lower Cover, Right Side Cover, Left Cover, Left Lid Cover, Left Rear Cover, Left B Cover, Rear Upper Cover, Rear Lower Cover, Right Cover, Side Deck Cover, Main Exit Cover, Exit Cover, Inner Exit Cover, Front ISU Cover, Front ISU Contact Cover, Right ISU Contact Cover, Left ISU Contact Cover, Left ISU Sub Cover, Rear ISU Contact Cover, Left Indicator, Keyboard Cover, Left Up Cover, ISU Right Cover, ISU Rear Cover, DP Cover, DP Lid, DP B Cover, Operation Cover D	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)	

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	
Right Cover Lever, Card- Reader Right Lid, MPF Cover, MPF Table, MPF Lift Base, MPF F Cursor, MPF R Cursor, MPF Tray A, MPF Tray B, Cassette, Operation Cover A, Operation Cover B, Operation Cover C, Operation A Lid, Operation B Lid, Operation Keys, Paper Outer Stopper, Paper Inner Stopper, Handle Cover, Main Switch Cover, Filter Cover, Rear Lower Filter Cover, SD-Card Lid, Power Key	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	
Job Separator, Model JS-7100 (Option)						
Inner Upper Tray, Actuator Cover	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Outer Paper Stopper, Inner Paper Stopper	Interchangeable	Interchangeable	Min. HB75	UL94	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	
Document Processor, Model DP-7100 (Option)						
Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles	EN/IEC61058-1	ENEC/VDE	
Feed Motor	Nidec Corp.	24H069L020	24Vdc, 1.0A max. Brushless Motor	-	Evaluated together with unit	
Conveying Motor	Nidec Corp.	24H069L020	24Vdc, 1.0A max. Brushless Motor	-	Evaluated together with unit	
Reverse Motor	Nidec Corp.	24H069L020	24Vdc, 1.0A max. Brushless Motor	-	Evaluated together with unit	
Lift Motor	Minebea Co., Ltd.	PM35L-048-MIL4	Stepper type 24Vdc, 700mA (Peak)	-	Evaluated together with unit	
Junction Motor	Minebea Co., Ltd.	PM35L-048-MIL4	Stepper type 24Vdc, 700mA (Peak)	-	Evaluated together with unit	
Front Cover, Rear Right Cover, Rear Left Cover, DP Base, Conveying Housing, Interface Wire Cover A, Interface Wire Cover B	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)	
PF Cover	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Left Cover, Rear Cover Lid, Cursor Cover, Front Cursor, Rear Cursor, Main Table, Table Cover, Size Switch Cover, PF Cover Handle, Slide Tray, Eject Stopper, Left Hinge Cover	Interchangeable	Interchangeable	Min. HB75	UL94	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	
Document Processor, Model DP-7110 (Option)						
Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles	EN/IEC61058-1	ENEC/VDE	
Feed Motor	Nidec Servo Corp.	KV4239-N3B002	Stepper type 24Vdc, 0.95A	-	Evaluated together with unit	
Lift Motor	Minebea Co., Ltd.	PM35L-048-MIL4	Stepper type 24Vdc, 700mA (Peak)	-	Evaluated together with unit	
Conveying Motor	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	
Eject Motor	Shinano Kenshi Co., Ltd.	STP-42H1004	Stepper type 24Vdc, 1.28A	-	Evaluated together with unit	
CIS Fan	Nidec Corp.	D04X-24TH 52 (V)	24Vdc, 0.088A max.	-	Evaluated together with unit	
Driving Fan	Nidec Corp.	D04R-24TM 19 (EX)	24Vdc, 0.08A max.	-	Evaluated together with unit	
CIS	Canon Components Inc.	HT06H-Z01 or 303P24501	3.9Vdc max. Classified as Exempt Group	IEC/EN62471	Evaluated together with unit	
CIS, Alternate	Canon Components Inc.	HT12H-Z01 or 303M44502	3.9Vdc max. Classified as Exempt Group	IEC/EN62471	Evaluated together with unit	
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	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)	

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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	
Hinge Bottom Cover, Lift Table, Lower PF Guide, Upper Guide	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)	
Table Base, Left Cover, Inner Cover, Rear Cover Lid, PF Cover Handle, Front Cursor, Rear Cursor, Slide Tray, Eject Stopper	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Cursor Cover, Table Cover, Bottom Right Cover, Rear Table Cover, Right Hinge Cover, Left Hinge Cover	Interchangeable	Interchangeable	Min. HB75	UL94	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	
Document Processor, Model DP-7120 (Option) for Model TASKalfa 3252Ci, TASKalfa 2552ci						
Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles	EN/IEC61058-1	ENEC/VDE	
Feed Motor	Minebea Co., Ltd.	PM35L-048-MIM2	Stepper type 24Vdc, 700mA (Peak)	--	Evaluated together with unit	
Junction Motor	Nidec Servo Corp.	KV4239-N3B004	Stepper type 24Vdc, 1.1A	--	Evaluated together with unit	
Feed Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.104A	-	Evaluated together with unit	
Resist Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.104A	-	Evaluated together with unit	
Rear A Cover, Rear B Cover, DP Base, Conveying Low Guide, Interface Wire Cover, Interface Wire Sub Cover, Interface Wire Cover B	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)	
Front A Cover, Front B Cover, Front Base Cover, Cover Lid, PF Cover, Left Cover, Main Table, Front Cursor, Rear Cursor	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Eject Stopper, Cursor Cover, Table Cover, Hinge Cover	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Loop Tray	Interchangeable	Interchangeable	Min. HB75	UL94	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	
Finisher, Model DF-7100 (Option)						
Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles	EN/IEC61058-1	ENEC/VDE	
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	
Tray Motor	Mabuchi Motor Co., Ltd.	RK-370CA-11670	24V, 130mA max.	--	Evaluated together with unit	
Width Adjustment Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Two provided. Stepper type 24Vdc, 300mA	-	Evaluated together with unit	
Knock Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK560A	Stepper type 24Vdc, 500mA	-	Evaluated together with unit	
Eject Motor	Oki Micro Engineering Co., Ltd.	KFL42LCB661A	Stepper type 24Vdc, 650mA	--	Evaluated together with unit	
Eject Release Motor	Oki Micro Engineering Co., Ltd.	KFL42LCB661A	Stepper type 24Vdc, 650mA	--	Evaluated together with unit	
Middle Motor	Minebea Motor Manufacturing Corp. or Minebea Co., Ltd.	17PM-J349-G2VS	Stepper type 24Vdc, 1.3A	--	Evaluated together with unit	
Carry Motor	Minebea Motor Manufacturing Corp. or Minebea Co., Ltd.	17PM-J349-G2VS	Stepper type 24Vdc, 1.3A	--	Evaluated together with unit	
Paper Hold Solenoid	TDS Co., Ltd.	TDS-08A (TDS- 08A-1092)	24V dc, 1.0A max.	--	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	
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	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)	
Tray A, Tray B, Tray C	Interchangeable	Interchangeable	Min. HB75	UL94	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	
Finisher, Model DF-7120 (Option)						
Top Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles	EN/IEC61058-1	ENEC/VDE	
Front Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles	EN/IEC61058-1	ENEC/VDE	
Carry Motor	Minebea Motor Manufacturing Corp. or Minebea Co., Ltd.	17PM-J349-G2VS	Stepper type 24Vdc, 1.3A	--	Evaluated together with unit	
Middle 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 Motor	Oki Micro Engineering Co., Ltd.	KFL42LCB661A	Stepper type 24Vdc, 650mA	--	Evaluated together with unit	
Eject Release Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	-	Evaluated together with unit	
Tray Motor	Mabuchi Motor Co., Ltd.	RS-385PH-16140	24V, 420mA max.	--	Evaluated together with unit	
Width Adjustment Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Two provided Stepper type 24Vdc, 300mA	--	Evaluated together with unit	
Knock Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	-	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	
Top Cover, Top Open Cover, Front Cover, Front Open Cover, Handle Cover, Rear Cover, Rear Cover Lid, Left Upper Cover, Finisher Partition, 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)	
Paper Stopper Cover	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Top Right Cover	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Main Tray UP, Main Tray Low, Bottom Cover, Foot Covers, Leg Covers	Interchangeable	Interchangeable	Min. HB75	UL94	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	
Finisher, Model DF-7110 (Option)						
Front Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles	EN/IEC61058-1	ENEC/VDE	
Eject Manual Staple Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles	EN/IEC61058-1	ENEC/VDE	
Eject Fan	Delta Electronics, Inc.	BFB0524HHA-BN20	Three provided. 24Vdc, 0.20A max.	--	Evaluated together with unit	
Carry Motor	Minebea Motor Manufacturing Corp. or Minebea Co., Ltd.	17PM-J349-G2VS	Stepper type 24Vdc, 1.3A	--	Evaluated together with unit	
Middle 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 Motor	Minebea Motor Manufacturing Corp. or Minebea Co., Ltd.	17PM-J349-G2VS	Stepper type 24Vdc, 1.3A	--	Evaluated together with unit	
Eject Release Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	--	Evaluated together with unit	
Shift Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Two provided Stepper type 24Vdc, 300mA	--	Evaluated together with unit	
Shift Release Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	--	Evaluated together with unit	
Shelter Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	--	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	
Tray Motor	Nidec Corp.	48M069G010	24V dc, 2.6A max.	--	Evaluated together with unit	
Width Adjustment Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Two provided Stepper type 24Vdc, 300mA	--	Evaluated together with unit	
Knock Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	--	Evaluated together with unit	
Eject Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.104A	--	Evaluated together with unit	
Sub Tray Junction Solenoid	TDS Co., Ltd.	TDS-08A (TDS- 08A-1091)	24V dc, 400mA max.	--	Evaluated together with unit	
Drum Junction Solenoid	TDS Co., Ltd.	TDS-08A (TDS- 08A-1091)	24V dc, 400mA max.	--	Evaluated together with unit	
BF Junction Solenoid	TDS Co., Ltd.	TDS-08A (TDS- 08A-1091)	24V dc, 400mA max.	--	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	
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)	
Main Exit Cursor	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Operation Cover	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
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	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Select Key	Interchangeable	Interchangeable	Min. HB75	UL94	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	
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	EN/IEC61058-1	ENEC/VDE	
Adjustment Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Two provided Stepper type 24Vdc, 300mA	--	Evaluated together with unit	
Width Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Two provided Stepper type 24Vdc, 300mA	--	Evaluated together with unit	
Carry Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	--	Evaluated together with unit	
Blade Motor	Nidec Corp.	48M069G010	24Vdc, 2.6A max. Brushless Motor	--	Evaluated together with unit	
Fold Motor	Nidec Corp.	48M069F052	24Vdc, 2.6A max. Brushless Motor	--	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 (TDS- 08A-1091)	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	

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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	
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	EN/IEC61058-1	ENEC/VDE	
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	
Punch Unit, Model PH-7X (X: A, B, C or D) (Option) for Finisher Model DF-7110 and DF-7120						
Punch Motor	Nisca Corp.	NA4056O01C	24Vdc, 7.8A max.	--	Evaluated together with unit	
Punch Motor, Alternate	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	
Hole Punch Kit, Model PH-7100, PH-7110, PH-7120 and PH-7130 (Option) for Finisher Model DF-7100						
Punch Motor	Shenzhen Weizhen Motor Co., Ltd.	WRS-545PH-3165	24Vdc, 3.0A max.	--	Evaluated together with unit	
Punch Solenoid	TDS Co., Ltd.	TDS-KN10SL (TDS-KN10SL-31RA)	24Vdc, 1.3A max.	--	Evaluated together with unit	
Waste Tank Solenoid	TDS Co., Ltd.	TDS-08A (TDS-08A-1092)	24Vdc, 1A max.	--	Evaluated together with unit	
Front Cover, Top 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)	
Punch Tank	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Attachment Kit, Model AK-7100 (Option) for Finisher Model DF-7110 and DF-7120						
Bridge Motor	Oki Micro Engineering Co., Ltd.	KCL42SCF560A	Stepper type 24Vdc, 700mA	--	Evaluated together with unit	
Enclosure Upper Tray Cover, Front Lower Cover, Left Side Cover, Left Cover, Right Cover, Rear 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)	

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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	
Paper Feeder, Model PF-7100 (Option)						
Feed Motor	Nidec Corp.	42M069F251	24Vdc, 1.1A max. Brushless Motor	--	Evaluated together with unit	
Lift Motor	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	302ND0940 or 302ND09400	Two provided 24Vdc, 150mA max.	--	Evaluated together with unit	
Feed Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	Two provided 24Vdc, 0.075A	--	Evaluated together with unit	
Conveying Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	Two provided 24Vdc, 0.075A	--	Evaluated together with unit	
Cassette Heater (Optional)	Kurabe Industrial Co., Ltd.	302RH4405	240V, 16W	--	Evaluated together with unit	
Cassette Heater (Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	G4A50128C	250V, 10A, 128°C	EN/IEC 60691	VDE	
Left Cover, Rear Cover, Right Rear Cover, Right Feed Cover, Interface 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)	
Rear Cover Lid	Teijin Limited Resin and Plastic	TN-7500 or TN-7280EF	5VB, Min. 2.0 mm thick	UL94	UL(E98529)	
Upper Front Cover, Lower Front Cover, Front Right Cover, Primary Feed Release Cover, Right Front Cover, Handle Hook Cover, Cassette	Interchangeable	Interchangeable	Min. HB75	UL94	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	
Paper Feeder, Model PF-7110 (Option)						
Feed Motor	Nidec Corp.	42M069F251	24Vdc, 1.1A max. Brushless Motor	--	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, 0.075A	--	Evaluated together with unit	
Conveying Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	Two provided 24Vdc, 0.075A	--	Evaluated together with unit	
Vertical Conveying Clutch	Daiken Co., Ltd. or Sinfonia Microtec Co., Ltd.	MCA-50T	24Vdc, 0.075A	--	Evaluated together with unit	
Cassette Heater (Optional)	Kurabe Industrial Co., Ltd.	302RH4405	240V, 16W	--	Evaluated together with unit	
Cassette Heater (Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	G4A50128C	250V, 10A, 128°C	EN/IEC 60691	VDE	
Left Cover, Rear Cover, Right Rear Cover, Right Feed Cover, Interface 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)	
Rear Cover Lid	Teijin Limited Resin and Plastic	TN-7500 or TN-7280EF	5VB, Min. 2.0 mm thick	UL94	UL(E98529)	
Right Deck Cover, Left Deck Cover, Right Deck Handle Cover, Left Deck Handle Cover, Front Right Cover, Right Front Cover, Handle Hook Cover	Interchangeable	Interchangeable	Min. HB75	UL94	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	
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 (TDS- 08A-1092)	24Vdc, 1A max.	--	Evaluated together with unit	
Appliance Inlet	Rong Feng Industrial Co., Ltd.	SS-120 Series	250Vac, 10A	EN60320-1 IEC60320-1	VDE	
AC Outlet (Optional)	Rong Feng Industrial Co., Ltd.	SS-130 Series	250Vac, 10A	EN60320-1/-2-2 IEC60320-1	TUV	
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	EN/IEC60799 HD21.5 S3 EN/IEC60320-1/-2- 2	SEMKO	
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 or IEC/EN 60884 IEC/EN 60227 IEC/EN 60320	--	
Cassette Heater (Optional)	Kurabe Industrial Co., Ltd.	302RH4405	240V, 16W	-	Evaluated together with unit	
Cassette Heater (Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	G4A50128C	250V, 10A, 128°C	EN/IEC 60691	VDE	
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	

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	
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	

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	
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/EN 60950-1	FIMKO	
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/EN 60950-1	BSI	
Optical Isolator (PC10), Alternate	Toshiba Corp., Semiconductor Co. Discrete Semiconductor Div.	TLP320 or TLP629	Ext. cr.: > 6.4 mm, Int. cr. = thermal cycling tested (2.10.11), Isolation voltage: min. AC 5000V	IEC/EN 60950-1	BSI	
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/EN 60950-1	VDE	

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	
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/EN 60950-1	BSI	
Optical Isolator (PC11), Alternate	Toshiba Corp., Semiconductor Co. Discrete Semiconductor Div.	TLP320 or TLP629	Ext. cr.: > 6.4 mm, Int. cr. = thermal cycling tested (2.10.11), Isolation voltage: min. AC 5000V	IEC/EN 60950-1	BSI	
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/EN 60950-1	VDE	
Capacitors (C12, C13)	Murata Mfg. Co., Ltd.	KY	250V, 220pF- 680pF, Y2 type	IEC/EN60384-14	SEMKO	
Relay (RLY10)	Fujitsu Components	FTR-C2	Contact: 30Vdc, 1.0A Coil: 5Vdc	IEC/EN60950-1	BSI	
Relay (RLY12)	Tyco Electronics	OUAZ	Contact: 24Vdc, 1.0A Coil: 5Vdc	IEC/EN61810-1	TUV	
Relay (RLY12), Alternate	Xiamen Hongfa Electroacoustic Co., Ltd.	HFD41 or HFD41A	Contact: 30Vdc, 1.0A Coil: 5Vdc	UL508	UL(E133481)	

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	
Fuse (F11)	Littelfuse Inc.	461 Series	1.25A, 600V	UL248-1/UL248-14	UL(E10480)	
Fuse (F11), Alternate	Skygate Co., Ltd.	20N	1.25A, 125V	UL248-1/UL248-14	UL(E195833)	
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	
FCB Board	--	--	Comprised of the following components:	--	--	
Capacitors (C206, C207)	Murata Mfg. Co., Ltd.	GF	250V, 33pF, Y2 type	EN/IEC60384-14	SEMKO	
Capacitors (C206, C207), Alternate	Murata Mfg. Co., Ltd.	KY	250V, 33pF, Y2 type	IEC/EN60384-14	SEMKO	
Capacitor (C205) (Optional)	Murata Mfg. Co., Ltd.	GF	250V, 10pF- 220pF, Y2 type	EN/IEC60384-14	SEMKO	
Capacitor (C205) (Optional), Alternate	Murata Mfg. Co., Ltd.	KY	250V, 10pF- 220pF, Y2 type	IEC/EN60384-14	SEMKO	
PWB	Interchangeable	Interchangeable	Min. V-1, Min. 105°C	UL796	UL	
Printer NIC (Option)						
PWB	Interchangeable	Interchangeable	94V-1 or better	UL 94	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
Printing System 15 (Option) for colour MFP Model TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci, TASKalfa 3252ci, TASKalfa 2552ci					
Printer Controller	Electronics for Imaging, Inc.	Fiery E100-01 or Fiery EXXXXXX or Fiery E2XX-XX or Fiery E3XX-XX (X = 0-9, A-Z, "-", blank)	AC 100-240V, 50/60Hz, 3.0A or 3.0-1.3A Class I	EN/IEC60950-1	TUV/CB(US-TUVR-8918) TUV/GS(S 72151120)
Power Supply Cord	Ching Cheng Wire Material Co., Ltd.	Plug: EL-211 Cord: H05VV-F Connector: EL-701 or EL-702	250V, 16A 1.0 mm ² x 3 250V, 10A	DIN VDE 0620-1 DIN VDE 0281-5 HD21.5 S3 EN/IEC60320-1	VDE
Power Supply Cord for 220 - 240V, Alternate	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	--
DVI Cable	Interchangeable	Interchangeable	Style 20276, PVC Jacket, max. 6.10 m long, VW-1	UL758	UL
LAN Cable	Interchangeable	Interchangeable	Style 2835, PVC Jacket, max. 10.3 m long, FT2	UL758	UL
Supplementary information:					
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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 TASKalfa 6052ci with DP-7110, PF-7100, AK-7100, DF-7110, MT-730, PH-7C, BF-730, PF-7120 and FAX System 12							
198V/50Hz	6.9	--	1362	F1/F2	--	Warm up	
220V/50Hz	6.7	7.2	1471	F1/F2	1.1/5.6	Warm up, 93%	
240V/50Hz	6.4	7.2	1532	F1/F2	0.9/5.5	Warm up, 89%	
264V/50Hz	6.0	--	1580	F1/F2	--	Warm up	
198V/60Hz	6.9	--	1370	F1/F2	--	Warm up	
220V/60Hz	6.7	7.2	1471	F1/F2	1.1/5.6	Warm up, 93%	
240V/60Hz	6.4	7.2	1532	F1/F2	0.9/5.5	Warm up, 89%	
264V/60Hz	6.0	--	1580	F1/F2	--	Warm up	
240V/50Hz	4.6	7.2	1102	F1/F2	1.9/2.7	Copying	
Model TASKalfa 3252ci with DP-7110, PF-7100, AK-7100, DF-7110, MT-730, PH-7C, BF-730, PF-7120 and FAX System 12							
198V/50Hz	6.6	--	1303	F1/F2	--	Warm up	
220V/50Hz	6.3	7.2	1383	F1/F2	0.7/5.6	Warm up, 88%	
240V/50Hz	6.0	7.2	1437	F1/F2	0.5/5.5	Warm up, 84%	
264V/50Hz	5.6	--	1475	F1/F2	--	Warm up	
198V/60Hz	6.6	--	1303	F1/F2	--	Warm up	
220V/60Hz	6.3	7.2	1383	F1/F2	0.7/5.6	Warm up, 88%	
240V/60Hz	6.0	7.2	1437	F1/F2	0.5/5.5	Warm up, 84%	
264V/60Hz	5.6	--	1475	F1/F2	--	Warm up	
Model TASKalfa 6002i with DP-7110, PF-7100, AK-7100, DF-7110, MT-730, PH-7C, BF-730, PF-7120 and FAX System 12							
198V/50Hz	6.7	--	1323	F1/F2	--	Warm up	
220V/50Hz	6.4	7.2	1405	F1/F2	0.8/5.6	Warm up, 89%	
240V/50Hz	6.1	7.2	1462	F1/F2	0.6/5.5	Warm up, 85%	
264V/50Hz	5.7	--	1502	F1/F2	--	Warm up	
198V/60Hz	6.6	--	1323	F1/F2	--	Warm up	
220V/60Hz	6.4	7.2	1405	F1/F2	0.8/5.6	Warm up, 89%	
240V/60Hz	6.1	7.2	1462	F1/F2	0.6/5.5	Warm up, 85%	
264V/60Hz	5.7	--	1502	F1/F2	--	Warm up	
supplementary information:							
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IEC 60950-1			
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)	
Switching Power Supply Unit, Model MPW9214					
24V output	--	24.1	21.3	513.3 ¹⁾	
5V output	--	4.73	17.9	84.7 ¹⁾	
Switching Power Supply Unit, Model MPW9216					
24V output	--	23.8	20.2	481.4 ¹⁾	
5V output	--	4.68	20.1	94.1 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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IEC 60950-1			
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.	
Switching Power Supply Unit, Model MPW9216				
Supply Voltage: 264V 50Hz				
T301 pin6 - pin 16 (GND)		-45.2	--	
D351,D352 cathode - T301 pin 16 (GND)		--	26.70	D351,D352
T501 pin 9 - pin 16 (GND)		-33.2	--	T501
Switching Power Supply Unit, Model MPW9214				
Supply Voltage: 264V 50Hz				
T301 pin9 - pin 16 (GND)		-68.1	--	
D351,D352 cathode - T301 pin 16 (GND)		--	25.9	D351,D352
T501 pin 9 - pin 16 (GND)		-28.8	--	T501
supplementary information:				
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IEC 60950-1			
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.)	
Switching Power Supply Unit, Model MPW9216			
264V, 50Hz			
D351, D352 cathode - T301 pin 16 (GND) (PC301 shorted.)		29.7 Vpeak	
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.)		-35.2Vpeak	
Switching Power Supply Unit, Model MPW9214			
264V, 50Hz			
D351, D352 cathode - T301 pin 16 (GND) (PC301 shorted.)		30.7 Vpeak	
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.)		-26.4 Vpeak	
supplementary information:			
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IEC 60950-1			
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.	
High Voltage Unit, EUK9SQD06HA for output FH Supply Voltage: 24Vdc				
T1 Pin 11 - pin 9 (GND)		3.9kV	--	
T101 pin11 to gnd		--	24.8	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
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)		
High Voltage Unit, EUK9SQD06HA for output FH, Supply Voltage: 24Vdc				
T101 pin11 - T101 pin1 short		26.8Vpeak		
T101 pin11 - T101 pin2 short		26.8Vpeak		
T101 pin11 - T101 pin3 short		8.6Vpeak		
T101 pin11 - T101 pin4 short		12.3Vpeak		
T101 pin11 - T101 pin6 short		10.9Vpeak		
supplementary information:				
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IEC 60950-1			
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.	
High Voltage Unit, EUK9MQC71HA for output T2, Supply Voltage: 24Vdc				
T202 for output T2 to gnd		--	8.04k	
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
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)		
High Voltage Unit, EUK9MQC71HA for output T2, Supply Voltage: 24Vdc				
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		
supplementary information:				
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IEC 60950-1			
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.	
High Voltage Unit, EUK9MQC71HA for output T1(K) / T1(M) T1(C) / T1(Y), Supply Voltage: 24Vdc				
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
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)		
High Voltage Unit, EUK9MQC71HA for output T1(K) / T1(M) T1(C) / T1(Y), Supply Voltage: 24Vdc				
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		
supplementary information:				
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IEC 60950-1			
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.	
High Voltage Unit, EUK9MQC71HA for output PB, Supply Voltage: 24Vdc				
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
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)		
High Voltage Unit, EUK9MQC71HA for output PB, Supply Voltage: 24Vdc				
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		
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.	
High Voltage Unit, EUK9MQC71HA for output CL, Supply Voltage: 24Vdc				
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
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)		
High Voltage Unit, EUK9MQC71HA for output CL, Supply Voltage: 24Vdc				
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		
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.	
High Voltage Unit, EUK9MQC71HA for output SP, Supply Voltage: 24Vdc				
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
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)		
High Voltage Unit, EUK9MQC71HA for output SP, Supply Voltage: 24Vdc				
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

2.2	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.	
High Voltage Unit, EUK9MQC68HA for output M(K) / M(M) / M(C) / M(Y), Supply Voltage: 24Vdc				
T101 / T203 / T202 / T204 for output M(K) / M(M) / M(C) / M(Y) pin11 to gnd		--	-2.92kV	
T101 / T203 / T202 / T204 pin1 to gnd		--	24.2	T101 / T203 / T202 / T204
T101 / T203 / T202 / T204 pin2 to gnd		--	24.2	T101 / T203 / T202 / T204
T101 / T203 / T202 / T204 pin3 to gnd		6.35	--	T101 / T203 / T202 / T204
T101 / T203 / T202 / T204 pin6 to gnd		8.30	--	T101 / T203 / T202 / T204
T101 / T203 / T202 / T204 pin7 to gnd		--	2.57	T101 / T203 / T202 / T204
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)		
High Voltage Unit, EUK9MQC68HA for output M(K) / M(M) / M(C) / M(Y), Supply Voltage: 24Vdc				
T101 / T203 / T202 / T204 pin11 - T101 / T203 / T202 / T204 pin1 short		24.8Vpeak		
T101 / T203 / T202 / T204 pin11 - T101 / T203 / T202 / T204 pin2 short		24.8Vpeak		
T101 / T203 / T202 / T204 pin11 - T101 / T203 / T202 / T204 pin3 short		7.56Vpeak		
T101 / T203 / T202 / T204 pin11 - T101 / T203 / T202 / T204 pin6 short		9.32Vpeak		
T101 / T203 / T202 / T204 pin11 - T101 / T203 / T202 / T204 pin7short		3.88Vpeak		
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.	
High Voltage Unit, EUK9MQC68HA for output Vmag(K), Supply Voltage: 24Vdc				
T202 for output Vmag(K) pin7 to gnd		1.09kV	--	
T202 for output Vmag(K) pin6 to gnd		325	--	
T202 for output Vmag(K) pin1 to gnd		10.3	--	T202
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)		
High Voltage Unit, EUK9MQC68HA for output Vmag(K), Supply Voltage: 24Vdc				
T202 pin 7 - T202 pin1 short		10.8Vpeak		
T202 pin 6 - T202 pin1 short		10.8Vpeak		
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.	
High Voltage Unit, EUK9MQC68HA for output Vmag(M) and Vmag(C) and Vmag(Y), Supply Voltage: 24Vdc				
T301 for output Vmag(M) and Vmag(C) and Vmag(Y) pin7 to gnd		1.15kV	--	
T301 for output Vmag(M) and Vmag(C) and Vmag(Y) pin6 to gnd		185V	--	
T301 for output Vmag(M) and Vmag(C) and Vmag(Y) pin2 to gnd		9.8V	--	T301
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)		
High Voltage Unit, EUK9MQC68HA for output Vmag(M) and Vmag(C) and Vmag(Y) , Supply Voltage: 24Vdc				
T301 pin 7 - T202 pin2 short		10.1Vpeak		
T301 pin 6 - T202 pin2 short		10.1Vpeak		
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.	
High Voltage Unit, Main , Model EUK9MQC70HA, Supply Voltage: 24Vdc				
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
Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)	
High Voltage Unit, Main , Model EUK9MQC70HA, Supply Voltage: 24Vdc		
T101 / T102 / T201 / T202 for out put M(K) / M(M) / M(C) / M(Y) pin1 - T101 / T102 / T201 / T202 pin10 short	5.35Vpeak	
T101 / T102 / T201 / T202 for out put M(K) / M(M) / M(C) / M(Y) pin1 - T101 / T102 / T201 / T202 pin9 short	5.35Vpeak	
T101 / T102 / T201 / T202 for out put 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	
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.	
High Voltage Unit, Main , Model EUK9MQC72HA, Supply Voltage: 24Vdc				
T102 for output M pin1 - T101 pin2 (GND)		--	5.25	T102
T102 for output M pin10 - T102 pin2 (GND)		--	920	
T102 for output M pin9 - T102 pin2 (GND)		--	880	
T102 for output M pin7 - T102 pin2 (GND)		--	920	
T303 for output Vmag pin4 - T303 pin1 (GND)		10.8	--	T303
T303 for output Vmag pin6 - T303 pin1 (GND)		1.52kV	--	
T303 for output Vmag pin5 - T303 pin1 (GND)		610	--	
T302 for output Vslv pin4 - T302 pin1 (GND)		10.3	--	T302
T302 for output Vslv pin6 - T302 pin1 (GND)		1.42kV	--	
T302 for output Vslv pin5 - T3012 pin1 (GND)		533	--	
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)		
High Voltage Unit, Main , Model EUK9MQC72HA, Supply Voltage: 24Vdc				
T102 for output M pin1 - T102 pin10 short		5.35Vpeak		
T102 for output M pin1 - pin9 short		5.35Vpeak		
T102 for output M pin1 - T102 pin7 short		5.35Vpeak		
T303 for output Vmag pin4 - T303 pin6		10.6Vpeak		
T303 for output Vmag pin4 - T303 pin5		10.6Vpeak		
T302 for output Vslv pin4 - T302 pin6		10.8Vpeak		
T302 for output Vslv pin4 - T302 pin5		10.8Vpeak		
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	
High Voltage Unit Model: EUK9SQD06HA (Input 24V)						
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.	
High Voltage Unit Model: EUK9MQC71HA (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)	8.04Vdc	0.18	--	0.7	Measured by Annex D	
Output T2(Q208 C-E short)	9.11kVdc	0.34	--	0.7	Measured by Annex D. Capacitance of output was 0.18nF. Limit 45/9.11=4.94nF.	
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: EUK9MQC70HA (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.	
High Voltage Unit Model: EUK9MQC68HA (Input 24V)						
Output M(K) / M(M) / M(C) / M(Y) (No fault)	2.24kVdc	0.26	--	0.7	Measured by Annex D.	
Output M(K) / M(M) / M(C) / M(Y) (R122 / R275 / R280 / R285 open)	4.16kVdc	0.41	--	0.7	Measured by Annex D. Capacitance of Output was 1.98nF. Limit:45/4.16=10.8nF.	
Output Vmag(K) (No fault)	1.07kVmax, - 0.58kVmin ac	0.52	--	0.7	Measured by Annex D.	
Output Vmag(K) (R406 open)	1.18kVmax, - 0.70kVmin ac	0.59	--	0.7	Measured by Annex D. Capacitance of Output was 2.50nF. Limit:45/1.18=38.1nF	
Output Vmag(M) and Vmag(C) and Vmag(Y) (No fault)	1.09kVmax, - 0.66kVmin ac	0.54	--	0.7	Measured by Annex D.	
Output Vmag(M) and Vmag(C) and Vmag(Y) (R316 open)	1.23kVmax, - 0.75kVmin ac	0.62	--	0.7	Measured by Annex D. Capacitance of Output was 2.64nF. Limit:45/1.23=36.6nF	

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Clause	Requirement + Test	Result - Remark	Verdict

2.4.2	TABLE: Limited current circuit measurement					P
High Voltage Unit Model: EUK9MQC72HA (Input 24V)						
Output M (No fault)	920Vdc	1.3	--	2.0	Measured by 2kΩ resistor	
Output M(R182 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 (No fault)	1.52kVmax, - 0.81kVmin	0.36	--	0.7	Measured by Annex D	
Output Vmag (IC301 pin1-8 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 (No fault)	1.22kVmax, - 0.88kVmin	1.15	--	0.7	Measured by Annex D. Not LCC	
Output Vslv (D310 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
Normal condition						
Table 2C is applied						
24V output for Paper Feeder(PF-7100,PF-7110,PF-7120) protected by Fuse F391 on SWPS Units.		24	4.47	41.67	106.8	250
5V output for Card Reader and KEY Board and Front USB Connector protected by Fuse YF2 on Main PWB,4A		5	5.97	200	28.1	250
5V output for Operation Panel protected by Fuse YF1 on Main PWB, 4A		5	6.00	200	28.2	250
3.3V output for Operation Panel protected by Fuse YF 5 on Main PWB, 4A		3.3	7.02	303.03	22.3	250
supplementary information:						
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2.6.3.4	TABLE: Resistance of earthing measurement		P
Location		Voltage drop (V)	Comments
Inlet earth - Bottom Frame		0.60	Limit: 2.5V
Inlet earth - Right Frame		0.58	Limit: 2.5V
Inlet earth - IH PWB BOX		0.61	Limit: 2.5V
Inlet earth -PF-7110		0.61	Limit: 2.5V
Inlet earth -PF-7120		0.62	Limit: 2.5V
The Pattern for EMS Spacer - FG		0.98	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
Switching Power Supply Unit, Model MPW9216				
Input 240V, 50Hz				
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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2.10.2	Table: working voltage measurement			P
Location		RMS voltage (V)	Peak voltage (V)	Comments
Switching Power Supply Unit, Model MPW9216				
Input 220V, 50Hz				
T301 pin 1 - pin 6	205	426	75.17kHz	
T301 pin 1 - pin 8 (GND)	195	396	73.38kHz	
T301 pin 3 - pin 6	235	466	74.84kHz	
T301 pin 3 - pin 8 (GND)	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 (GND)	153	332	50.11Hz	
T501 pin 2 - pin 13 (GND)	159	432	60.79kHz	
T501 pin 3 - pin 13 (GND)	323	436	49.93Hz	
T501 pin 4 - pin 13 (GND)	336	576	62.5kHz	
T501 pin 6 - pin 13 (GND)	371	700	59.85kHz	

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2.10.2	Table: working voltage measurement			P
Location		RMS voltage (V)	Peak voltage (V)	Comments
Switching Power Supply Unit, Model MPW9214				
Input 240V, 50Hz				
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 (GND)	199	336	50.38Hz	
T301 pin 3 - pin 13 (GND)	195	396	50.36Hz	
T301 pin 5 - pin 13 (GND)	224	522	99.26kHz	
T301 pin 7 - pin 13 (GND)	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 (GND)	203	344	50.25Hz	
T501 pin 2 - pin 15 (GND)	208	422	45.00kHz	
T501 pin 3 - pin 15 (GND)	193	354	50.15Hz	
T501 pin 4 - pin 15 (GND)	210	496	45.5kHz	
T501 pin 6 - pin 15 (GND)	251	602	46.76kHz	

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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
Switching Power Supply Unit, Model MPW9214				
Input 220V, 50Hz				
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 (GND)	183	310	50.02Hz	
T301 pin 3 - pin 13 (GND)	176	356	50.0Hz	
T301 pin 5 - pin 13 (GND)	213	490	104.6kHz	
T301 pin 7 - pin 13 (GND)	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 (GND)	186	314	49.90Hz	
T501 pin 2 - pin 15 (GND)	193	400	48.26kHz	
T501 pin 3 - pin 15 (GND)	177	332	49.86Hz	
T501 pin 4 - pin 15 (GND)	195	468	47.6kHz	
T501 pin 6 - pin 15 (GND)	235	586	47.66kHz	
IH PWB				
Input 240V, 50Hz				
C15(Pri - Frame)	57.6	144	102Hz	
YC3 - GND(Pri - Frame)	233	528	25.72kHz	
IH PWB				
Input 220V, 50Hz				
C15(Pri - Earth)	47.3	99.0	99.51Hz	
YC3 - GND(Pri - Earth)	215	472	25.55kHz	
supplementary information:				
--				

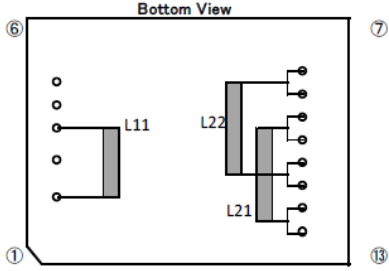
IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

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)	cl (mm)	Required cr (mm)	cr (mm)	
SWPS Unit 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)	450	255	2.8	8.0	3.2	8.0	
Pri - gnd (traces at T501)	700	363	3.0	8.0	3.7	8.0	
Pri - gnd (C401 - chassis)	700	363	3.0	5.5	--	--	
Reinforced:							
Pri - sec (traces at T301)	466	235	5.2	8.0	5.2	8.0	
Pri - sec (traces at T501)	686	363	5.9	7.8	7.3	7.8	
Pri - sec (traces at PC301, PC501, PC502, PC601, PC701)	--	265	--	--	5.9	6.8	
Pri - sec (traces at PC301, PC501, PC502, PC601, PC701)	686	--	5.9	6.8	--	--	

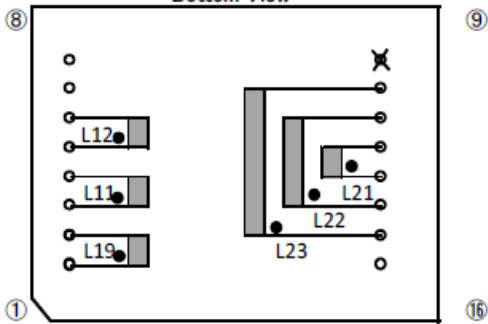
IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

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)	cl (mm)	Required cr (mm)	cr (mm)	
SWPS Unit 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	3.2	4.9	3.2	4.9	
Pri - gnd (traces at T501)	602	251	3.1	4.9	3.2	4.9	
Pri - gnd (C401 - chassis)	714	296	3.2	5.5	--	--	
Pri - EMS spacer	714	296	3.2	5.9	1.6	5.9	
Reinforced:							
Pri - sec (traces at T301)	678	274	5.9	21.2	6.4	21.2	
Pri - sec (traces at T501)	598	244	5.6	7.8	5.6	7.8	
Pri - sec (traces at PC301, PC501, PC502, PC601, PC701)	678	274	5.9	8.0	6.4	8.0	

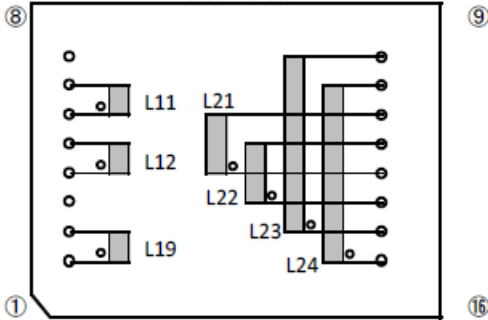
IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

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)	cl (mm)	Required cr (mm)	cr (mm)	
Transformer T301 type 2614QS2							
Basic / supplementary:							
Pri - core ¹⁾	--	--	--	9.3	--	10.7	
Sec - core ¹⁾	--	--	--	9.3	--	10.7	
Reinforced:							
Pri - core - sec	466	235	5.2	18.6	5.2	21.4	
Pri - sec	466	235	5.2	9.7	5.2	9.7	
<p>Construction details of Transformer T301 type 2614QA2:</p> <p>1) core is floating; no electric potential defined.</p> <p>Pri and sec windings are separated by phenolic bobbin and its case; Sec windings are concentrically on a bobbin. Winding ends are internally fixed with tapes, they are soldered on pins outside the transformer.</p> <p>Bobbin: Type PM-9820 ; Sumitomo Bakelite Co., Ltd.; Phenole, V-0 ; min.0.9mm thick</p> <p style="padding-left: 40px;">Type CP-J8800 ; Hitachi Chemical Co., Ltd.; Phenole, V-0 ; min. 0.9mm thick</p> <p style="padding-left: 40px;">Type CP-J8600 ; Hitachi Chemical Co., Ltd.; Phenole, V-0 ; min. 0.9mm thick</p> <p>Case : Type RYNITE FR530 ; E.I.DU PONT DE NEMOURS AND CO.INC ; GLASS-REINFORCED, FAME-RETARDANT THERMOPLASTIC POLYESTER PETP RESIN, V-0.</p> <p>Insulation Tape : Type 631S ; Teraoka Seisakusyo Co., Ltd.; min. 25um thick.</p> <p style="padding-left: 40px;">Type CT ; Jingjiang Yahua Pressure Sensitive Glue Co., Ltd.; min. 25um thick.</p> <div style="text-align: center;">  </div> <p>Distances from core to any pri- component: dcl: min. 4.2mm, dcr: min. 22.1mm</p> <p>Distances from core to any sec- component: dcl: min. 4.1mm, dcr: min. 17.0mm</p>							

IEC 60950-1			
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)	cl (mm)	Required cr (mm)	cr (mm)	
Transformer T501 type 2Q154							
Basic / supplementary:							
Pri - core ¹⁾	--	--	--	4.6	--	4.6	
Sec - core ¹⁾	--	--	--	4.4	--	4.4	
Reinforced:							
Pri - core - sec	686	363	5.9	9.0	7.3	9.0	
Pri - sec	686	363	5.9	6.5	5.9 ²⁾	6.5	
<p>Construction details of Transformer T501, 2Q154:</p> <p>¹⁾ core is floating; no electric potential defined.</p> <p>²⁾ Material Group I used. CTI ≥ 600</p> <p>Concentric pri windings and sec windings on a bobbin.</p> <p>Winding ends are internally fixed with tapes, they are soldered on pins. End tape (3 layers) above outer sec winding.</p> <p>Bobbin: Type PM-9820, PM-9750, or PM-9630; Sumitomo Bakelite Co., Ltd.; Phenole, V-0, min. 0.8mm thick.</p> <p>Insulation Tape : Type 631S ; Teraoka Seisakusyo Co., Ltd.; min. 25um thick.</p> <p style="padding-left: 40px;">Type 630F ; Teraoka Seisakusyo Co., Ltd.; min. 25um thick.</p> <p style="padding-left: 40px;">Type CT ;Jingjiang Yahua Pressure Sensitive Glue Co., Ltd.; min. 25um thick.</p>							
<p style="text-align: center;">Bottom View</p>  <p>Distances from core to any pri- component: dcl: min. 7.2mm, dcr: min. 19.8mm</p> <p>Distances from core to any sec- component: dcl: min. 7.2mm, dcr: min. 18.1mm</p>							

IEC 60950-1			
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)	cl (mm)	Required cr (mm)	cr (mm)	
Transformer T301 type 2V121							
Basic / supplementary:							
Pri - core ¹⁾	--	--	--	4.5	--	4.5	
Sec - core ¹⁾	--	--	--	4.0	--	4.0	
Reinforced:							
Pri - core - sec	678	274	5.9	8.5	5.9	8.5	
Pri - sec	678	274	5.9	6.4	5.9	6.4	
<p>Construction details of Transformer T301 type 2V121: ¹⁾ core is floating; no electric potential defined.</p> <p>Concentric pri windings and sec windings separately on phenolic bobbin. Pri and sec windings are insulated by the bobbin. Winding ends are internally fixed with tapes, they are soldered on pins. End tape (3 layers) each above outer pri and sec windings.</p> <p>Bobbin, Case: Type PM-9820 or PM-9750 or PM-9630; Sumitomo Bakelite Co., Ltd.; Phenole, V-0, min. 0.80mm thick</p> <p>Insulation Tape : Type 631S ; Teraoka Seisakusyo Co., Ltd.; min. 25um thick. Type 630F ; Teraoka Seisakusyo Co., Ltd.; min. 25um thick. Type CT ;Jingjiang Yahua Pressure Sensitive Glue Co., Ltd.; min. 25um thick.</p>							
<p style="text-align: center;">Bottom View</p>  <p>Distances from core to any pri- component: dcl: min. 8.0mm, dcr: min. 20.4mm</p> <p>Distances from core to any sec- component: dcl: min. 8.0mm, dcr: min. 20.2mm</p>							

IEC 60950-1			
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)	cl (mm)	Required cr (mm)	cr (mm)	
Interlock system (PCB traces)							
Basic:							
Before interlock switch - after interlock switch	DC 24	DC 24	1.0 *	1.0 ***	1.0 **	1.0 ***	
	* Annex G used. ** Required creepage was 0.5mm, however, 1.0mm was taken from required clearance. *** Measured three times.						

IEC 60950-1			
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)	cl (mm)	Required cr (mm)	cr (mm)	
IH PWB							
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	4.1	2.5	4.1	
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	2.5	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	
IH Coil Unit							
Functional:							
--	--	--	--	--	--	--	--
Basic / supplementary:							
Pri - gnd (chassis)	528	233	3.5	6.2	2.5	6.2	
Reinforced:							
--	--	--	--	--	--	--	--

IEC 60950-1							
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)	cl (mm)	Required cr (mm)	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 (RLY12 - Chassis)		120	71	1.3	4.0	1.5	4.0
FCB Board							
Basic:							
TNV - Chassis		120	71	1.3	5.0	1.5	5.0
TNV - SELV (traces at CN402 pin 2 - CN403 pin 1)		120	71	1.3	2.7	1.5	2.7
TNV - SELV (traces at C206, C207, C205, C265)		120	71	1.3	2.9	1.5	2.9
Supplementary information:							
- Equipment evaluated less than 3500m above sea level; 1.215 times according to table A2 of IEC 60664-1.							
- If the minimum creepage distance is greater than the applicable minimum clearance, It is permitted to apply that value of minimum clearance as the minimum creepage distance.							

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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)
Insulation Tape between Primary winding to Secondary winding of Transformer T501 for MPW9216, MPW9214 and T301 for MPW9214. Type : CT(YELLOW)		686	363	AC 3000V (2 of 3 layers)	2 layers	3 layers
Insulation Tape between Primary winding to Secondary winding of Transformer T501 for MPW9216, MPW9214 and T301 for MPW9214. Type : 631S #25		686	363	AC 3000V (2 of 3 layers)	2 layers	3 layers
Insulation Tape between Primary winding to Secondary winding of Transformer T501 for MPW9216, MPW9214 and T301 for MPW9214. Type : 630F #25		686	363	AC 3000V (2 of 3 layers)	2 layers	3 layers
Bobbin for 2614QS2		466	236	AC 3000V	0.4	0.9
Core case for 2614QS2		466	236	AC 3000V	0.4	0.5
Bobbin for 2V121		678	274	AC 3000V	0.4	0.8
Bobbin for 2Q154		686	363	AC 3000V	0.4	0.8
Supplementary information:						
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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 A and B at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values.						
<Condition> A: Standby / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, and FAX SYSTEM 12						
B: Standby / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, 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: 198V, 50Hz			B: 242V, 50Hz	
t _{amb1} (°C):		A: -- B: --		t _{amb2} (°C):		A: 26 B: 26
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		A (°C)	B (°C)	A (°C)	B (°C)	
SWPS Unit T301 coil		79	78	88	87	110
SWPS Unit T301 core		81	81	90	90	--
SWPS Unit T501 coil		65	64	74	73	110
SWPS Unit T501 core		65	64	74	73	--
SWPS Unit L1 coil		47	45	56	54	90
SWPS Unit L2 coil		47	46	56	55	90
SWPS Unit D1 body		52	50	61	59	105
SWPS Unit L401 coil		45	44	54	53	90
SWPS Unit TRA701 body		31	31	40	40	105
SWPS Unit HEAT SINK for Q301, Q320, Q501		57	58	66	67	105
SWPS Unit HEAT SINK for Q401, Q402, D403		41	42	50	51	105
SWPS Unit C401 body		37	36	46	45	105
SWPS Unit Z1 body		46	44	55	53	105
SWPS Unit PC301 body		48	48	57	57	100
SWPS Unit PC502 body		49	49	58	58	100
SWPS Unit PC601 body		48	48	57	57	100
SWPS Unit PC701 body		53	52	62	61	100
SWPS Unit TH391 body		60	60	69	69	105
SWPS Unit YC1 body		38	38	47	47	85
SWPS Unit YC2 body		44	43	53	52	85
SWPS Unit YC3 body		44	42	53	51	85
SWPS Unit YC4 body		31	31	40	40	85
SWPS Unit YC8 body		59	58	68	67	85
SWPS Unit YC9 body		51	50	60	59	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 A and B at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> A: Standby / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, and FAX SYSTEM 12 B: Standby / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, and FAX SYSTEM 12 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):		A: 198V, 50Hz		B: 242V, 50Hz		
t _{amb1} (°C):		A: -- B: --		t _{amb2} (°C): A: 26 B: 26		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		A (°C)	B (°C)	A (°C)	B (°C)	
IH PWB T1 coil		39	40	48	49	105
IH PWB D1 body		40	41	49	50	105
IH PWB L1 coil		41	42	50	51	90
IH PWB L3 coil		39	40	48	49	90
IH PWB Q1 body		38	38	47	47	105
IH PWB RY1 body		51	51	60	60	90
IH PWB YC1 body		39	40	48	49	85
IH PWB YC4 body		37	37	46	46	85
IH PWB NC3 body		37	37	46	46	110
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 at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> C: Standby / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, 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: 264V, 60Hz				
t _{amb1} (°C):		C: --		t _{amb2} (°C): C: 26		
Temperature of part/at: (measured with thermocouples)	Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)	
	C (°C)	--	C (°C)	--		
SWPS Unit T301 coil	76	--	85	--	110	
SWPS Unit T301 core	79	--	88	--	--	
SWPS Unit T501 coil	62	--	71	--	110	
SWPS Unit T501 core	62	--	71	--	--	
SWPS Unit L1 coil	43	--	52	--	90	
SWPS Unit L2 coil	43	--	52	--	90	
SWPS Unit D1 body	47	--	56	--	105	
SWPS Unit L401 coil	41	--	50	--	90	
SWPS Unit TRA701 body	30	--	39	--	105	
SWPS Unit HEAT SINK for Q301, Q320, Q501	55	--	64	--	105	
SWPS Unit HEAT SINK for Q401, Q402, D403	40	--	49	--	105	
SWPS Unit C401 body	34	--	43	--	105	
SWPS Unit Z1 body	42	--	51	--	105	
SWPS Unit PC301 body	46	--	55	--	100	
SWPS Unit PC502 body	47	--	56	--	100	
SWPS Unit PC601 body	46	--	55	--	100	
SWPS Unit PC701 body	50	--	59	--	100	
SWPS Unit TH391 body	58	--	67	--	105	
SWPS Unit YC1 body	42	--	51	--	85	
SWPS Unit YC2 body	38	--	47	--	85	
SWPS Unit YC3 body	41	--	50	--	85	
SWPS Unit YC4 body	43	--	52	--	85	
SWPS Unit YC8 body	41	--	50	--	85	
SWPS Unit YC9 body	41	--	50	--	85	
IH PWB T1 coil	55	--	64	--	105	

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 at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> C: Standby / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, and FAX SYSTEM 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of <u>35°C</u> (T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		C: 264V, 60Hz				
t _{amb1} (°C):		C: --		t _{amb2} (°C): C: 26		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		C (°C)	--	C (°C)	--	
IH PWB D1 body		82	--	91	--	105
IH PWB L1 coil		54	--	63	--	90
IH PWB L3 coil		58	--	67	--	90
IH PWB Q1 body		63	--	72	--	105
IH PWB RY1 body		61	--	70	--	90
IH PWB YC1 body		56	--	65	--	85
IH PWB YC4 body		52	--	61	--	85
IH PWB NC3 body		45	--	54	--	110
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 D and E at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> D: Simplex side copy / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, and FAX SYSTEM 12 E: Simplex side copy / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, 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):		D: 198V, 50Hz		E: 242V, 50Hz,		
t _{amb1} (°C):		D: -- E: --		t _{amb2} (°C): D: 25 E: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		D (°C)	E (°C)	D (°C)	E (°C)	
SWPS Unit T301 coil		82	82	92	92	110
SWPS Unit T301 core		59	58	69	68	--
SWPS Unit T501 coil		50	49	60	59	110
SWPS Unit T501 core		45	45	55	55	--
SWPS Unit L1 coil		48	44	58	54	90
SWPS Unit L2 coil		47	43	57	53	90
SWPS Unit D1 body		76	68	86	78	105
SWPS Unit L401 coil		47	44	57	54	90
SWPS Unit TRA701 body		41	39	51	49	105
SWPS Unit HEAT SINK for Q301, Q320, Q501		38	37	48	47	105
SWPS Unit HEAT SINK for Q401, Q402, D403		43	41	53	51	105
SWPS Unit C401 body		36	35	46	45	105
SWPS Unit Z1 body		41	39	51	49	105
SWPS Unit PC301 body		32	32	42	42	100
SWPS Unit PC502 body		43	42	53	52	100
SWPS Unit PC601 body		42	41	52	51	100
SWPS Unit PC701 body		39	39	49	49	100
SWPS Unit TH391 body		40	40	50	50	105
SWPS Unit YC1 body		44	42	54	52	85
SWPS Unit YC2 body		37	37	47	47	85
SWPS Unit YC3 body		47	44	57	54	85
SWPS Unit YC4 body		39	38	49	48	85
SWPS Unit YC8 body		39	38	49	48	85
SWPS Unit YC9 body		38	37	48	47	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 D and E at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> D: Simplex side copy / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, and FAX SYSTEM 12 E: Simplex side copy / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, and FAX SYSTEM 12 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):		D: 198V, 50Hz		E: 242V, 50Hz,		
t _{amb1} (°C):		D: -- E: --		t _{amb2} (°C): D: 25 E: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		D (°C)	E (°C)	D (°C)	E (°C)	
IH PWB T1 coil		49	49	59	59	105
IH PWB D1 body		64	61	74	71	105
IH PWB L1 coil		51	50	61	60	90
IH PWB L3 coil		50	50	60	60	90
IH PWB Q1 body		53	52	63	62	105
IH PWB RY1 body		55	54	65	64	90
IH PWB YC1 body		50	50	60	60	85
IH PWB YC4 body		51	52	61	62	85
IH PWB NC3 body		45	46	55	56	110
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 F at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> F: Simplex side copy / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, 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):		F: 264V, 60Hz				
t _{amb1} (°C):		F: --		t _{amb2} (°C): F: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		F (°C)	--	F (°C)	--	
SWPS Unit T301 coil		82	--	92	--	110
SWPS Unit T301 core		58	--	68	--	--
SWPS Unit T501 coil		49	--	59	--	110
SWPS Unit T501 core		45	--	55	--	--
SWPS Unit L1 coil		43	--	53	--	90
SWPS Unit L2 coil		42	--	52	--	90
SWPS Unit D1 body		65	--	75	--	105
SWPS Unit L401 coil		43	--	53	--	90
SWPS Unit TRA701 body		39	--	49	--	105
SWPS Unit HEAT SINK for Q301, Q320, Q501		38	--	48	--	105
SWPS Unit HEAT SINK for Q401, Q402, D403		41	--	51	--	105
SWPS Unit C401 body		35	--	45	--	105
SWPS Unit Z1 body		39	--	49	--	105
SWPS Unit PC301 body		32	--	42	--	100
SWPS Unit PC502 body		42	--	52	--	100
SWPS Unit PC601 body		41	--	51	--	100
SWPS Unit PC701 body		39	--	49	--	100
SWPS Unit TH391 body		40	--	50	--	105
SWPS Unit YC1 body		42	--	52	--	85
SWPS Unit YC2 body		37	--	47	--	85
SWPS Unit YC3 body		44	--	54	--	85
SWPS Unit YC4 body		38	--	48	--	85
SWPS Unit YC8 body		38	--	48	--	85
SWPS Unit YC9 body		37	--	47	--	85
IH PWB T1 coil		49	--	59	--	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 F at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> F: Simplex side copy / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, and FAX SYSTEM 12 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):		F: 264V, 60Hz				
t _{amb1} (°C):		F: --		t _{amb2} (°C): F: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		F (°C)	--	F (°C)	--	
IH PWB D1 body		61	--	71	--	105
IH PWB L1 coil		51	--	61	--	90
IH PWB L3 coil		50	--	60	--	90
IH PWB Q1 body		53	--	63	--	105
IH PWB RY1 body		55	--	65	--	90
IH PWB YC1 body		51	--	61	--	85
IH PWB YC4 body		52	--	62	--	85
IH PWB NC3 body		46	--	56	--	110
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 G and H at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values.						
<Condition> G: Simplex side copy / TASKalfa 6052ci and DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, and FAX SYSTEM 12						
H: Simplex side copy / TASKalfa 6052ci and DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, 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: -- H: --		t _{amb2} (°C): G: 24 H: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		G (°C)	H (°C)	G (°C)	H (°C)	
Main Switch		36	37	47	47	80
Appliance Inlet		35	37	46	47	80
Enclosure Plastic, Cover Right		51	51	62	61	85
Left Fuser Exit Guide		77	71	88	81	-- *
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 I at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> I : Simplex side copy / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, and FAX SYSTEM 12 Temperatures are calculated according cl. 1.4.12.3 with regard to the maximum ambient operation temperature of <u>35°C</u> (T _{ma}), as specified by the manufacturer.						
test voltage(s) (V):		I: 264V, 60Hz				
t _{amb1} (°C):		I: --		t _{amb2} (°C): I: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		I (°C)		I (°C)		
Main Switch		36	--	46	--	80
Appliance Inlet		35	--	45	--	80
Enclosure Plastic, Cover Right		51	--	61	--	85
Left Fuser Exit Guide		79	--	89	--	-- *
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 J and K at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values.						
<Condition> J: Duplex side copy / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, and FAX SYSTEM 12						
K: Duplex side copy / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, 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: 24 K: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		J (°C)	K (°C)	J (°C)	K (°C)	
Main Switch		36	36	47	47	80
Appliance Inlet		35	35	46	46	80
Enclosure Plastic, Cover Right		58	57	69	68	85
Left Fuser Exit Guide		82	81	93	92	-- *
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 L at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> L: Duplex side copy / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, 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: 24		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		L (°C)		L (°C)		
Main Switch		35		46		80
Appliance Inlet		35		46		80
Enclosure Plastic, Cover Right		57		68		85
Left Fuser Exit Guide		80		91		-- *
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 M and N at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> M: Standby / TASKalfa 3252ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, and FAX SYSTEM 12 N: Standby / TASKalfa 3252ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, 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: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		M (°C)	N (°C)	M (°C)	N (°C)	
SWPS Unit T301 coil		52	51	63	61	110
SWPS Unit T301 core		52	51	63	61	--
SWPS Unit T501 coil		57	58	68	68	110
SWPS Unit T501 core		57	58	68	68	--
SWPS Unit L1 coil		39	38	50	48	90
SWPS Unit L2 coil		37	36	48	46	90
SWPS Unit D1 body		38	36	49	46	105
SWPS Unit TRA701 body		29	29	40	39	105
SWPS Unit HEAT SINK for Q301, Q320 and Q501		44	44	55	54	105
SWPS Unit C10 body		30	30	41	40	105
SWPS Unit Z1 body		36	36	47	46	105
SWPS Unit PC301 body		35	35	46	45	100
SWPS Unit PC502 body		37	38	48	48	100
SWPS Unit PC701 body		36	40	47	50	100
SWPS Unit YC1 body		31	32	42	42	85
SWPS Unit YC2 body		36	37	47	47	85
SWPS Unit YC4 body		27	27	38	37	85
SWPS Unit YC9 body		42	42	53	52	85
SWPS Unit TH391 body		43	44	54	54	105
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: Standby / TASKalfa 3252ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, 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 (°C)	--	O (°C)	--	
SWPS Unit T301 coil		54	--	65	--	110
SWPS Unit T301 core		53	--	64	--	--
SWPS Unit T501 coil		59	--	70	--	110
SWPS Unit T501 core		59	--	70	--	--
SWPS Unit L1 coil		38	--	49	--	90
SWPS Unit L2 coil		36	--	47	--	90
SWPS Unit D1 body		36	--	47	--	105
SWPS Unit TRA701 body		29	--	40	--	105
SWPS Unit HEAT SINK for Q301, Q320 and Q501		47	--	58	--	105
SWPS Unit C10 body		30	--	41	--	105
SWPS Unit Z1 body		36	--	47	--	105
SWPS Unit PC301 body		36	--	47	--	100
SWPS Unit PC502 body		38	--	49	--	100
SWPS Unit PC701 body		36	--	47	--	100
SWPS Unit YC1 body		31	--	42	--	85
SWPS Unit YC2 body		37	--	48	--	85
SWPS Unit YC4 body		27	--	38	--	85
SWPS Unit YC9 body		42	--	53	--	85
SWPS Unit TH391 body		43	--	54	--	105
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: Simplex side copy / TASKalfa 3252ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, and FAX SYSTEM 12 Q: Simplex side copy / TASKalfa 3252ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, 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):		P: 198V, 50Hz		Q: 242V, 50Hz		
t _{amb1} (°C):		P: -- Q: --		t _{amb2} (°C): P: 25 Q: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		P (°C)	Q (°C)	P (°C)	Q (°C)	
SWPS Unit T301 coil		60	59	70	69	110
SWPS Unit T301 core		49	49	59	59	--
SWPS Unit T501 coil		48	48	58	58	110
SWPS Unit T501 core		49	49	59	59	--
SWPS Unit L1 coil		43	41	53	51	90
SWPS Unit L2 coil		56	48	66	58	90
SWPS Unit D1 body		55	50	65	60	105
SWPS Unit TRA701 body		38	36	48	46	105
SWPS Unit HEAT SINK for Q301, Q320 and Q501		53	54	63	64	105
SWPS Unit C10 body		36	59	46	44	105
SWPS Unit Z1 body		36	35	46	45	105
SWPS Unit PC301 body		34	34	44	44	100
SWPS Unit PC502 body		38	37	48	47	100
SWPS Unit PC701 body		40	39	50	49	100
SWPS Unit YC1 body		36	35	46	45	85
SWPS Unit YC2 body		36	36	46	46	85
SWPS Unit YC4 body		34	33	44	43	85
SWPS Unit YC9 body		37	37	47	47	85
SWPS Unit TH391 body		37	38	47	48	105
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 R at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> R: Simplex side copy / TASKalfa 3252ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C, MT-730, BF-730, 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):		R: 264V, 60Hz				
t _{amb1} (°C):		R: --		t _{amb2} (°C): R: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		R (°C)	--	R (°C)	--	
SWPS Unit T301 coil		60	--	70	--	110
SWPS Unit T301 core		50	--	60	--	--
SWPS Unit T501 coil		49	--	59	--	110
SWPS Unit T501 core		49	--	59	--	--
SWPS Unit L1 coil		40	--	50	--	90
SWPS Unit L2 coil		46	--	56	--	90
SWPS Unit D1 body		48	--	58	--	105
SWPS Unit TRA701 body		36	--	46	--	105
SWPS Unit HEAT SINK for Q301, Q320 and Q501		55	--	65	--	105
SWPS Unit C10 body		34	--	44	--	105
SWPS Unit Z1 body		35	--	45	--	105
SWPS Unit PC301 body		34	--	44	--	100
SWPS Unit PC502 body		37	--	47	--	100
SWPS Unit PC701 body		38	--	48	--	100
SWPS Unit YC1 body		35	--	45	--	85
SWPS Unit YC2 body		36	--	46	--	85
SWPS Unit YC4 body		32	--	42	--	85
SWPS Unit YC9 body		37	--	47	--	85
SWPS Unit TH391 body		38	--	48	--	105
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 S and T at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> S: Sleep / TASKalfa 6052ci with PF-7110 T: Sleep / TASKalfa 6052ci with PF-7110 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):		S: 198V, 50Hz		T: 242V, 50Hz		
t _{amb1} (°C):		S: -- T: --		t _{amb2} (°C): S: 25 T: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		S (°C)	T (°C)	S (°C)	T (°C)	
Metal around Cassette Heater		54	65	64	75	-- *
Cassette Heater metal body, PF-7110		49	60	59	70	-- *
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: Sleep / TASKalfa 6052ci with PF-7110						
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: 264V, 60Hz				
t _{amb1} (°C):		U: --		t _{amb2} (°C): U: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		U (°C)		--	U (°C)	
Metal around Cassette Heater		70	--	80	--	-- *
Cassette Heater metal body, PF-7110		66	--	76	--	-- *
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 V and W at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values.						
<Condition> V: Simplex side copy / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C						
W: Simplex side copy / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120						
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: 240V, 50Hz		W: 240V, 50Hz		
t _{amb1} (°C):		V: -- W: --		t _{amb2} (°C): V: 23 W: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		V (°C)	W (°C)	V (°C)	W (°C)	
Black DLP/ Transfer Belt Motor		56	--	68	--	100
Black Drum Motor		44	--	56	--	100
Colour Drum Motor		54	--	66	--	100
Feed Motor		44	--	56	--	100
Fuser Motor		56	--	68	--	100
Front Exit Motor		65	--	77	--	100
IH Core Motor		66	--	78	--	100
Container Motor		44	--	56	--	100
Conveying Motor, DP-7110		46	--	58	--	100
Feed Motor, DP-7110		60	--	72	--	100
Resist Motor, DP-7110		51	--	63	--	100
Eject Motor, DP-7110		54	--	66	--	100
Carry Motor, DF-7110		73	--	85	--	100
Eject Motor, DF-7110		72	--	84	--	100
Middle Motor, DF-7110		63	--	75	--	100
Bridge Motor, AK-7100		79	--	91	--	100
Feed Motor, PF-7110		42	--	54	--	100
Feed Motor, PF-7120		--	38	--	48	100
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 and Y at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> X: Simplex side copy / TASKalfa 6052ci with DP-7100, PF-7100, AK-7100, DF-7120 Y: Simplex side copy / TASKalfa 3252ci with DP-7120, PF-7110, PF-7120, DF-7100, PH-7120 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: 240V, 50Hz		Y: 240V, 50Hz		
t _{amb1} (°C):		X: -- Y: --		t _{amb2} (°C): X: 23 Y: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		X (°C)	Y (°C)	X (°C)	Y (°C)	
Feed Motor, DP-7100		45	--	57	--	100
Conveying Motor, DP-7100		52	--	64	--	100
Reverse Motor, DP-7100		58	--	70	--	100
Lift Motor, DP-7100		46	--	58	--	100
Feed Motor, PF-7100		40	--	52	--	100
Carry Motor, DF-7120		67	--	79	--	100
Middle Motor, DF-7120		69	--	81	--	100
Colour DLP Motor		--	67	--	77	100
Colour Drum Motor		--	52	--	62	100
Junction Motor, DP-7120		--	44	--	54	100
Feed Motor, DP-7120		--	71	--	81	100
Carry Motor, DF-7100		--	64	--	74	100
Middle Motor, DF-7100		--	66	--	76	100
Eject Motor, DF-7100		--	74	--	84	100
Punch Motor, PH-7120		--	60	--	70	100
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> Z: Simplex side copy / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C AA: Simplex side copy / TASKalfa 6052ci with DP-7110, PF-7110, PF-7120, AK-7100, DF-7110, PH-7C 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):		Z: 198V, 50Hz		AA: 264V, 60Hz		
t _{amb1} (°C):		Z: -- AA: --		t _{amb2} (°C): Z: 25 AA: 26		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		Z (°C)	AA (°C)	Z (°C)	AA (°C)	
IH Coil Wire		86	86	96	95	--
IH Coil Holder		104	107	114	116	--
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)	
SWPS Unit, model MPW9216				
YC1 /Nylon		125	1.5	
YC2 /Nylon		125	1.5	
YC3 /PBT		125	1.4	
YC4 /Nylon		125	1.5	
L1 /PBT		125	1.5	
SWPS Unit, model MPW9214				
YC1 /Nylon		125	1.5	
YC2 /Nylon		125	1.5	
YC4 /Nylon		125	1.4	
L1 case /PBT		125	1.5	
L2 bobbin /PBT		125	1.5	
IH PWB				
YC1 /Nylon		125	1.5	
L3 case /PBT		125	1.4	
IH Coil Unit				
IH Coil Holder / LCP Type E481i, Polyplastics Co., Ltd.		131	0.9	
Supplementary information:				
--				

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		
TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci, TASKalfa 6002i, TASKalfa 5002i , TASKalfa 4002i						
Earth terminal ("e" = open) ³⁾	1.05 ¹⁾	0.028 ¹⁾	1.34 ²⁾	0.027 ¹⁾	3.5	AC 264V, 60Hz
LAN Connector ("e" = close) ³⁾	0.001 ¹⁾	0.001 ¹⁾	0.001 ¹⁾	0.001 ¹⁾	0.25	AC 264V, 60Hz
FAX PWB TNV Connector ("e" = close) ³⁾	0.001 ¹⁾	0.001 ¹⁾	0.001 ¹⁾	0.001 ¹⁾	0.25	AC 264V, 60Hz
TASKalfa 3252ci, TASKalfa 2552ci						
Earth terminal ("e" = open)	0.80 ¹⁾	0.032 ¹⁾	1.275 ²⁾	0.030 ¹⁾	3.5	AC 264V, 60Hz
LAN Connector ("e" = close)	0.001 ¹⁾	0.001 ¹⁾	0.001 ¹⁾	0.001 ¹⁾	0.25	AC 264V, 60Hz
FAX PWB TNV Connector ("e" = close)	0.001 ¹⁾	0.001 ¹⁾	0.001 ¹⁾	0.001 ¹⁾	0.25	AC 264V, 60Hz
Supplementary information:						
¹⁾ Standby mode ²⁾ Sleep mode ³⁾ Tested: TASKalfa 6052ci						

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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				
TASKalfa 6052ci for 220-240V (Primary - Earth)		AC	2034	No
TASKalfa 3252ci for 220-240V (Primary - Earth)		AC	2060	No
TASKalfa 6002i for 220-240V (Primary - Earth)		AC	2034	No
Switching Power Supply Unit: MPW9216, (Primary - Earth)		AC	2034	No
Switching Power Supply Unit: MPW9214, (Primary - Earth)		AC	2060	No
EMS Spacer on MPW9214 - Primary in MPW9214		AC	2060	No
IH PWB, (Primary - Earth)		AC	1803	No
Transformer T301 on MPW9216, (Primary - Core)		AC	1707	No
Transformer T301 on MPW9214, (Primary - Core)		AC	2034	No
Transformer T501 on MPW9216 and MPW9214, (Primary - Core)		AC	2034	No
Optical Isolator (PC10,PC11) on FAX PWB, (TNV - secondary)		AC	1500	No
Supplementary:				
Transformer T301 on MPW9216, (Scondary - Core)		AC	1707	No
Transformer T301 on MPW9214, (Scondary - Core)		AC	2034	No
Transformer T501 on MPW9216 and MPW9214, (Scondary - Core)		AC	2034	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:				
TASKalfa 6052ci for 220-240V (Primary - Secondary)		AC	3000	No
TASKalfa 3252ci for 220-240V (Primary - Secondary)		AC	3000	No
TASKalfa 6002i for 220-240V (Primary - Secondary)		AC	3000	No
Switching Power Supply Unit: MPW9216, (Primary -Secondary)		AC	3000	No
Switching Power Supply Unit: MPW9214, (Primary -Secondary)		AC	3000	No
IH PWB, (Primary -Secondary)		AC	3000	No
Transformer T301 on MPW9216, (Primary - Secondary)		AC	3000	No
Transformer T501 on MPW9216 and MPW9214 (Primary - Secondary)		AC	3000	No
Transformer T301 on SWPS Unit MPW9214, (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
Switching Power Supply Unit, Model MPW9216 T301	24V output overload with Fan	240V, 50Hz	1.5h	F1	5.0	Max temp. of T301: 128°C Ambient temp.: 27°C No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 T501	5V output overload with Fan	240V 50Hz	4.0h	F1	5.0	Max temp. of T501: 116°C Ambient temp.: 25°C No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 T301	24V output overload without Fan	240V, 50Hz	6.0h	F1	5.0	Max temp. of T301: 117°C Ambient temp.:25°C No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 T501	5V output overload without Fan	240V 50Hz	5.5h	F1	5.0	Max temp. of T501: 146°C Ambient temp.: 25°C No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 T301	24V output overload with Fan	240V, 50Hz	7.0h	F1	5.0	Max temp. of T301: 108°C Ambient temp.: 23°C No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 T501	5V output overload with Fan	240V 50Hz	5.0h	F1	5.0	Max temp. of T501: 126°C Ambient temp.: 23°C No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 T301	24V output overload without Fan	240V, 50Hz	3.0h	F1	5.0	Max temp. of T301: 126°C Ambient temp.: 22°C No hazards. 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 T501	5V output overload without Fan	240V 50Hz	5.0h	F1	5.0	Max temp. of T501: 159°C Ambient temp.: 23°C No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 PC301 A-K	Short	240V, 50Hz	10min.	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 PC501 A-K	Short	240V, 50Hz	10min.	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 D351	Short	240V, 50Hz	10min.	--	--	24V Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 C516	Short	240V, 50Hz	10min.	F1	5.0	All Output shutdown immediately. Q501 was broken. D517 was broken. F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 Z1	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 D1 Pin1-Pin2	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 D1 Pin2-Pin3	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. F1 was opened. No hazards. 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 MPW9216 D1 Pin3-Pin4	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 Q401 D-S	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 C401	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 Q320 D-S	Short	240V, 50Hz	10min	--	--	24V Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 D321	Short	240V, 50Hz	10min	--	--	24V Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 Q301 D-S	Short	240V, 50Hz	10min	--	--	24V Output shutdown immediately. Q320 was broken. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 D301	Short	240V, 50Hz	10min	--	--	24V Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 PC301 C-E	Short	240V, 50Hz	10min	--	--	24V Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 VR345	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. 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
Switching Power Supply Unit, Model MPW9216 R341	Open	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 IC301 Pin2(Delay)-Pin3(CF)	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 D381	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 PC301 A-K	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 IC351 A-K	Short	240V, 50Hz	10min	--	--	24V Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 Q501 D-S	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 IC501 Pin4(GND)-Pin3(CS)	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 IC501 Pin2(FB)-Pin3(CS)	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. No hazards. 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
Switching Power Supply Unit, Model MPW9216 C504	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 D503	Open	240V, 50Hz	10min	--	--	24V Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 PC601 C	Open	240V, 50Hz	10min	--	--	24V Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 PC501 A-K	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 IC551 A-K	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 R556	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 PC601 A-K	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9216 L401 pin12 Primary - Earth wall metal adjacent to L401	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 PC301 A-K	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. 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
Switching Power Supply Unit, Model MPW9214 PC501 A-K	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 Q301 D-S	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. Q301 was broken. D306 was broken. F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 D510	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. No hazards D306, IC301, Q301, Q302, Q501 were broken. F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 Z1	Short	240V, 60Hz	10min	F1	5.0	All Output shutdown immediately. No hazards F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 D1 pin1-pin2	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. No hazards F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 D1 pin2-pin3	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. No hazards F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 D1 pin3-pin4	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. No hazards F1 was opened. No hazards. 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
Switching Power Supply Unit, Model MPW9214 C10		Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. No hazards F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 Q301 S-D		Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. No hazards F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 D306		Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. No hazards F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 IC301 pin3(CS)-pin4(GND)		Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. No hazards F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 IC301 pin3(CS)-pin2(FB)		Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 R314		Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. F1 was opened. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 PC301 C-E		Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 PC301 A-K		Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. 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
Switching Power Supply Unit, Model MPW9214 IC351 A-K	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 Q501 D-S	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. F1 was opned No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 D517	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. F1 was opned No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 IC501 pin5(out)-pin6(vcc)	Short	240V, 50Hz	10min	F1	5.0	All Output shutdown immediately. F1 was opned No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 IC501 pin3(CS)-pin2(FB)	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 PC501 C-E	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 C504	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 D503	Open	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 PC501 A	Open	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. 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	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 PC601 A-K	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
Switching Power Supply Unit, Model MPW9214 D583	Short	240V, 50Hz	10min	--	--	All Output shutdown immediately. No hazards. HV test: 3000Vac passed.
IH PWB Q2 E-C	Short	240V, 50Hz	10min	YF1	12	Output shutdown immediately. Q2 and D1 was broken. YF1 was opened. No hazards. HV test: 3000Vac passed.
IH PWB D1 pin1 - pin2	Short	240V, 50Hz	10min	YF1	12	Output shutdown immediately. D1 was broken. YF1 was opened. No hazards. HV test: 3000Vac passed.
IH PWB R9	Short	240V, 50Hz	10min	YF1	12	Operated normally. No hazards. HV test: 3000Vac passed.
IH PWB U6 pin5 - pin6	Short	240V, 50Hz	10min	YF1	12	Output shutdown immediately. Q1, Q2 was broken. YF1 was opened. No hazards. HV test: 3000Vac passed.

IEC 60950-1			
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
Resist Clutch, Middle Feed Clutch, Cassette 1 Feed Clutch, Cassette 2 Feed Clutch, Vertical Feed Clutch, MPF Feed Clutch, DU Feed Clutch 1, DU Feed Clutch 2, DLP Clutch, Feed Clutch(DP-7120), Resist Clutch(DP-7120), Feed Clutch(PF-7100), Conveying Clutch(PF-7100), Feed Clutch(PF-7110), Conveying Clutch(PF-7110), Vertical Conveying Clutch(PF-7110), Feed Clutch(PF-7120) MCA-50T	CE	24Vdc	2.5 h	--	--	Temp.: 90°C Temperature stabilized. Ambient temp., 23°C No hazard.
ID Sensor CL Solenoid TDS-08G	CE	24Vdc	5 min	--	--	Temp.: 108°C Thermal Fuse opened in 2 min after locking and CE. Tested three times. No hazard.
Main Exit Junction Solenoid, Inner Exit Junction Solenoid, Paper Hold Solenoid(DF-7100), Sub Tray Junction Solenoid(DF-7110), Drum Junction Solenoid(DF-7110), BF Junction Solenoid(DF-7110), Junction Solenoid(BF-730), Eject Junction Solenoid(AK-7100), Feed Solenoid(PF-7120) TDS-08A	CE	24Vdc	5 min	--	--	Temp.: 124°C, Thermal Fuse opened in 3min after locking and CE. Tested three times. No hazard.
Black Container Solenoid, Colour Container Solenoid TDS-07A	CE	24Vdc	3 h	--	--	Temp.: 92°C Temperature was stabilized. No hazard.

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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(PH-7X) TDS-KN12SB	CE	24Vdc	5 min	--	--	Temp.: 103°C Thermal Fuse opened in 2min after locking and CE. Tested three times. No hazard.
Punch Solenoid (PH-7100, PH-7110, PH-7120 and PH-7130) TDS-KN10SL	Plunger locked and CE	24Vdc	1h	--	--	Temp.: 100°C, Temperature was stabilized. Ambient temp.: 24°C No hazard.
Model TASKalfa 6052ci Heater Thermal	Disable	240V 50Hz	--	--	--	Thermal cutoff was opened after 1 min Ambient temp.:23°C No hazards. HV test: 3000Vac passed.
Model TASKalfa 3252ci Heater Thermal	Disable	240V 50Hz	--	--	--	Thermal cutoff was opened after 1 min Ambient temp.:23°C No hazards. HV test: 3000Vac passed.
Model TASKalfa 6002i Heater Thermal	Disable	240V 50Hz	--	--	--	Thermal cutoff was opened after 1 min Ambient temp.:23°C No hazards. HV test: 3000Vac passed.
Model TASKalfa 6052ci	Stalled Fan	240V 50Hz	--	--	--	Machine was 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
Model TASKalfa 3252ci	Stalled Fan	240V 50Hz	--	--	--	Machine was shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model TASKalfa 6002i	Stalled Fan	240V 50Hz	--	--	--	Machine was shutdown immediately. During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model TASKalfa 6052ci Ventilation openings closed	--	240V, 50Hz	4h	--	--	During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model TASKalfa 3252ci Ventilation openings closed(Rear side, Left side, Right side)	--	240V, 50Hz	4h	--	--	During the test Fire: No Emission of molten metal: No Deformation of enclosures: No After the test HV test: 3000Vac passed.
Model TASKalfa 6002i Ventilation openings closed	--	240V, 50Hz	4h	--	--	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.						

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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
Fuser Side Cooling Fan Toner Sucking Fan D06F-24SH 12B (EX)		66	Temperature saturated. Ambient Temp. at 24°C. No hazard.
Exit/ IH Coil Fan 1 Exit/ IH Coil Fan 2 Exit/ IH Coil Fan 3 06025SS-24N-AL-D3		42	Temperature saturated. Ambient Temp. at 24°C. No hazard.
Container/ Hopper Fan 2410RL-05W-S60-C01		61	Temperature saturated. Ambient Temp. at 24°C. No hazard.
Exit Fan 06015SS-24N-AL-08		43	Temperature saturated. Ambient Temp. at 24°C. No hazard.
IH PWB Fan D07F-24SS1 15B (EX)		78	Temperature saturated. Ambient Temp. at 24°C. No hazard.
LVU Fan 08025SS-24Q-AL-D4		43	Temperature saturated. Ambient Temp. at 24°C. No hazard.
LVU Fan, Alternate D08K-24TU 62B (AX)		51	Temperature saturated. Ambient Temp. at 24°C. No hazard.
Controller Fan D06R-05TM 12H1 (EX)		53	Temperature saturated. Ambient Temp. at 25°C. No hazard.
Black Drum/DLP Fan Colour Drum/DLP Fan D05F-24PH 17 (EX)		71	Temperature saturated. Ambient Temp. at 25°C. No hazard.
CIS Fan (DP-7110) D04X-24TH 52 (V)		45	Temperature saturated. Ambient Temp. at 24°C. No hazard.
Driving Fan (DP-7110) D04R-24TM 19 (EX)		56	Temperature saturated. Ambient Temp. at 25°C. No hazard.
Eject Fan (DF-7110) BFB0524HHA-BN20		65	Temperature saturated. Ambient Temp. at 24°C. No hazard.

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
Fuser Pressure Control Motor Toner Waste Motor LSU Glass Cover CL Motor RK-370CA-11670		148	Temperature saturated. Ambient Temp. at 24°C. No hazard.
Black Toner Motor Colour Toner Motor RC370-KT-081000		123	Temperature saturated. Ambient Temp. at 25°C. No hazard.
Transfer Belt Release Motor RK-370CA-10800		105	Temperature saturated. Ambient Temp. at 23°C. No hazard.
Waste Box Vibration Motor Black DLP Vibration Motor Colour DLP Vibration Motor LA4-467BC2		66	Temperature saturated. Ambient Temp. at 25°C. No hazard.
MPF Lift Motor RK-370CA-081050		120	Temperature saturated. Ambient Temp. at 24°C. No hazard.
Lift Motor Lift Motor (PF-7100) 302ND09400		120	Temperature saturated. Ambient Temp. at 24°C. No hazard.
Lift Motor (PF-7110) 303NF44010		95	Temperature saturated. Ambient Temp. at 24°C. No hazard.
Staple Motor (DF-7100) Staple Motor (DF-7110) Staple Motor (DF-7120) Staple Motor (BF-730)		32	Temperature saturated. Ambient Temp. at 25°C. No hazard.
Staple Motor, Alternate (DF-7100) Staple Motor, Alternate (DF-7110) Staple Motor, Alternate (DF-7120) Staple Motor, Alternate (BF-730)		--	Motor winding was opened after 7min 30sec. No ignition of the wrapping tissue and cheesecloth. No hazard.
Black DLP/ Transfer Belt Motor 48M069F201		--	Sensing circuits provided with motor disconnected power to the motor in 0.17 sec. After starting the locked rotor. No hazard.
Fold Motor (BF-730) 48M069F052		--	Sensing circuits provided with motor disconnected power to the motor in 1.07 sec. After starting the locked rotor. No hazard.

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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
Fuser Motor Colour DLP Motor Container Motor 48M069F261		--	Sensing circuits provided with motor disconnected power to the motor in 0.94 sec. After starting the locked rotor. No hazard.
Colour DLP Motor Feed Motor Fuser Motor, Alternate 48M069F271		--	Sensing circuits provided with motor disconnected power to the motor in 0.81 sec. after locking. Test terminated in 10 min. No hazard.
Black Drum Motor Colour Drum Motor 48M069G020		--	Sensing circuits provided with motor disconnected power to the motor in 0.97 sec. After starting the locked rotor. No hazard
Colour Drum Motor 48M069F180		--	Sensing circuits provided with motor disconnected power to the motor in 0.8 sec. After starting the locked rotor. No hazard
Container Motor Feed Motor (PF-7100) Feed Motor (PF-7110) 42M069F251		--	Sensing circuits provided with motor disconnected power to the motor in 0.60 sec. After starting the locked rotor. No hazard.
Middle Transfer Cleaning Motor DIA42B10W21A		--	Sensing circuits provided with motor disconnected power to the motor in 0.70 sec. After starting the locked rotor. No hazard.
Feed Motor (DP-7100) Conveying Motor (DP-7100) Reverse Motor (DP-7100) 24H069L020		--	Sensing circuits provided with motor disconnected power to the motor in 0.80 sec. After starting the locked rotor. No hazard.
Lift Motor (PF-7120) NA4056A11C		--	Sensing circuits provided with motor disconnected power to the motor in 0.25 sec. After starting the locked rotor. No hazard.
Polygon Motor PT22ERG-L10B400-475-SD		--	Sensing circuits provided with motor disconnected power to the motor in 0.60 sec. After starting the locked rotor. No hazard.
Polygon Motor MASQ6NF15RK		--	Sensing circuits provided with motor disconnected power to the motor in 0.50 sec. After starting the locked rotor. No hazard.

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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) NA4056O01C		--	Sensing circuits provided with motor disconnected power to the motor in 0.11 sec. After starting the locked rotor. No hazard.
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 hazard.
Tray Motor (PF-7120) RS-385PH-16140		--	Sensing circuits provided with motor disconnected power to the motor in 5 sec. After starting the locked rotor. No hazard.
Tray Motor (DF-7110) Blade Motor (BF-730) 48M069G010		--	Sensing circuits provided with motor disconnected power to the motor in 1.0 sec. After starting the locked rotor. No hazard
Punch Motor(PH-7100, PH-7110, PH-7120 and PH-7130) WRS-545PH-3165		--	Sensing circuits provided with motor disconnected power to the motor in 0.55 sec. After starting the locked rotor. No hazard.
Punch Motor(PH-7X) WRS-555PH-3049		--	Sensing circuits provided with motor disconnected power to the motor in 0.6 sec. After starting the locked rotor. No hazard
Supplementary information:			
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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 appended table 2.10.3, 2.10.4, 2.10.5 and 5.2							

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Clause	Requirement + Test	Result - Remark	Verdict

List of test equipment used:**Tests are conducted on CTF Stage 1 location**

Management No.	Test Instrument Name	Type	Mechanical No.	Manufacturing	Calibration Date - Last	Calibration Date - Due
G14-C076	Temperature Recorder	4177	41YPO126	Yokogawa	2015-07-29	2016-07-27
G14-C077	Temperature Recorder	4179	4179JA141	Yokogawa	2015-07-29	2016-07-27
G14-C094	Leakage current tester	228	348	Simpson	2015-06-24	2016-06-23
G14-C095	Ball Pressure tester	T-10.02	BP-001	EXCEL	2015-07-23	2016-07-22
G14-C096	High Voltage probe	P6015A	B051259	Tektronix	2015-01-26	2016-01-25
	High Voltage probe	P6015A	B051259	Tektronix	2016-01-14	2017-01-13
G14-C097	Portable DC Ammeters & Voltmeters	201200	85AA1194	Yokogawa	2015-06-23	2016-06-22
G14-C099	Digital Multi Meter	(Fluke) 189	89410662	FLUKE	2015-07-28	2016-07-27
G14-C101	Temperature Recorder	437124	S5F703898	Yokogawa	2015-07-29	2016-07-28
G14-C102	Temperature Recorder	437124	S5F703899	Yokogawa	2015-07-29	2016-07-28
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	2015-05-18	2016-05-17
G14-C113	Steel Ruler 2m	No. 102H04J	G14-C113	Shinwa	2015-05-18	2016-05-17
G14-C114	Temp. and Humidity Meter	NT3-D	50173024	Rotronic	2015-03-13	2016-03-12
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	2015-03-19	2016-03-18
G14-C123	Protractor	DS	---	Niigata Seiki	2015-05-15	2016-05-14
G14-C125	Dielectric Tester	TOS5051	BA002985	Kikusui	2015-07-27	2016-07-26
G14-C126	Clamp ON Power HI TESTER	3286-20	070816420	HIOKI	2015-07-28	2016-07-27
G14-C128	Earth Continuity Tester	TOS6210	MB005213	Kikusui	2015-01-21	2016-01-20
	Earth Continuity Tester	TOS6210	MB005213	Kikusui	2016-01-14	2017-01-13
G14-C131	Vernier Caliper	CD-20B	10369	Mitsutoyo	2015-07-30	2016-07-29
G14-C132	Laser Power Meter	PD300-UV/VEGA	65574/65153	OPHIR	2015-10-15	2016-10-14
G14-D001	Digital Oscilloscope	TDS3054B	B011872	Sony Tektronix	2015-05-19	2016-05-18
TS-46	Chamber	LP-201	1040000403	TABAI ESPEC	2015-11-27	2016-11-26
TS-50	Humidity Chamber	PR-3ST	0	TABAI	2015-11-30	2016-11-29

ATTACHMENT		Measurement Section		
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
Model : MPW9216 (tested for TASKalfa 6052ci)				
Supply Voltage : 264V, 50Hz				
Plug in off mode	--	0.264	0.680	Initial Voltage(peak)V0: 388V
Standby mode	--	0.0192	0.138	Initial Voltage(peak)V0: 380V
Sleep mode	--	0.264	0.664	Initial Voltage(peak)V0: 384V
Model : MPW9214 (tested for TASKalfa 3252ci)				
Supply Voltage : 264V, 50Hz				
Plug in off mode	--	0.119	0.422	Initial Voltage(peak)V0: 388V
Standby mode	--	0.248	0.444	Initial Voltage(peak)V0: 380V
Sleep mode	--	0.118	0.296	Initial Voltage(peak)V0: 382V
Supplementary information:				
none				

ATTACHMENT		Measurement Section	
Clause	Requirement + Test	Result - Remark	Verdict

4.2	Table: Mechanical strength		P
4.2.4 Steady force test, 250N ± 10N			
<p>Test locations:</p> <p>Main Unit</p> <p>Front Cover, Front Upper Cover, Front Right Cover, Waste Cover, Tray Base Cover, Tray Top Cover, Top Rear Cover, Inner Cover, Right Front Cover, Right Rear Upper Cover, Right Rear Cover, Right Lower Cover, Right Side Cover, Left Cover, Left Lid Cover, Left Rear Cover, Left B Cover, Rear Upper Cover, Rear Lower Cover, Right Cover, Main Exit Cover, Exit Cover, Inner Exit Cover, Front ISU Cover, Front ISU Contact Cover, Right ISU Contact Cover, Left ISU Contact Cover, Left ISU Sub Cover, Rear ISU Contact Cover, Left Indicator, Keyboard Cover, Left Up Cover, ISU Right Cover, ISU Rear Cover, DP Cover, DP Lid, DP B Cover.</p> <p>Document Processor, Model DP-7100 (Option)</p> <p>Front Cover, Rear Right Cover, Rear Left Cover, Interface Wire Cover A, Interface Wire Cover B, PF Cover</p> <p>Document Processor, Model DP-7110 (Option)</p> <p>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.</p> <p>Document Processor, Model DP-7120 (Option)</p> <p>Rear A Cover, Rear B Cover, DP Base, Conveying Low Guide, Interface Wire Cover, Interface Wire Sub Cover, Interface Wire Cover B.</p> <p>Finisher, Model DF-7100 (Option)</p> <p>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.</p> <p>Finisher, Model DF-7120 (Option)</p> <p>Top Cover, Top Open Cover, Front Cover, Front Open Cover, Handle Cover, Rear Cover, Rear Cover Lid, Left Upper Cover, Finisher Partition, Rear Cover S Lid (Optional), Paper Stopper Cover, Top Right Cover, Main Tray UP, Main Tray Low, Bottom Cover, Foot Covers, Leg Covers.</p> <p>Finisher, Model DF-7110 (Option)</p> <p>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).</p> <p>Booklet Folder, Model BF-730 (Option)</p> <p>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.</p> <p>Multi Tray Unit, Model MT-730 (Option)</p> <p>Side Covers (Front and Rear), Top Cover, Vertical Cover, Rear Cover Lid, Front Cover Lid, Eject Bins, Vertical Cover Lever.</p> <p>Attachment Kit, Model AK-7100 (Option)</p> <p>Upper Tray Cover, Front Lower Cover, Left Side Cover, Left Cover, Right Cover, Rear Cover</p> <p>Paper Feeder, Model PF-7100 (Option)</p> <p>Left Cover, Rear Cover, Right Rear Cover, Right Feed Cover, Interface Cover, Rear Cover Lid, Upper Front Cover, Lower Front Cover, Front Right Cover, Primary Feed Release Cover, Right Front Cover, Handle Hook Cover, Cassette.</p> <p>Paper Feeder, Model PF-7110 (Option)</p> <p>Left Cover, Rear Cover, Right Rear Cover, Right Feed Cover, Interface Cover, Rear Cover Lid, Right Deck Cover, Left Deck Cover, Right Deck Handle Cover, Left Deck Handle Cover, Front Right Cover, Right Front Cover, Handle Hook Cover.</p> <p>Paper Feeder, Model PF-7120 (Option)</p> <p>Top Cover, Front Cover, Front Low Cover, Right Cover, Right Low Cover, Rear Cover, Rear Low Cover, Wire Cover, Left Cover, Cover Handle, Switch Lever, Switch Guide.</p>			

ATTACHMENT		Measurement Section	
Clause	Requirement + Test	Result - Remark	Verdict
4.2	Table: Mechanical strength		P
4.2.5 Impact test, Fall test			
Test locations: Main Unit Tray Base Cover, Tray Top Cover, Front ISU Cover, Front ISU Contact Cover, Right ISU Contact Cover, Left ISU Contact Cover, Left ISU Sub Cover, Rear ISU Contact Cover, Keyboard Cover, DP Cover, DP Lid, DP B Cover. Document Processor, Model DP-7100 (Option) Rear Right Cover, Rear Left Cover, PF Cover, Interface Wire Cover B. Document Processor, Model DP-7110 (Option) Rear Right Cover, Rear Left Cover, PF Cover, Eject Tray, Interface Wire Cover B. Document Processor, Model DP-7120 (Option) Rear A Cover, Rear B Cover, DP Base, Interface Wire Cover, Interface Wire Sub Cover. Finisher, Model DF-7100 (Option) Front Cover, Rear Cover, Upper Cover, Upper Cover B, Front Rail Cover. Finisher, Model DF-7120 (Option) Top Cover, Top Open Cover. 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.			

ATTACHMENT		Measurement Section	
Clause	Requirement + Test	Result - Remark	Verdict
4.2	Table: Mechanical strength		P
4.2.5 Impact test, Swing test			
Test locations: Main Unit Front Cover, Front Upper Cover, Front Right Cover, Waste Cover, Top Rear Cover, Inner Cover, Right Front Cover, Right Rear Upper Cover, Right Rear Cover, Right Lower Cover, Right Side Cover, Left Cover, Left Lid Cover, Left Rear Cover, Left B Cover, Rear Upper Cover, Rear Lower Cover, Right Cover, Main Exit Cover, Exit Cover, Inner Exit Cover, Left Indicator, Left Up Cover, ISU Right Cover, ISU Rear Cover. Document Processor, Model DP-7100 (Option) Rear Right Cover, Rear Left Cover, Front Cover, Interface Wire Cover A. Document Processor, Model DP-7110 (Option) Rear Right Cover, Rear Left Cover, Front Top Cover, Front Bottom Cover, Interface Wire Cover A. Document Processor, Model DP-7120 (Option) Rear A Cover, Rear B Cover, Interface Wire Cover, Interface Wire Sub Cover,. Finisher, Model DF-7100 (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. Finisher, Model DF-7120 (Option) Top Cover, Top Open Cover, Front Cover, Front Open Cover, Handle Cover, Rear Cover, Rear Cover Lid, Left Upper Cover, Finisher Partition, Rear Cover S Lid (Optional), Paper Stopper Cover, Top Right Cover, Main Tray UP, Main Tray Low, Bottom Cover, Foot Covers, Leg Covers. 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). 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. Attachment Kit, Model AK-7100 (Option) Upper Tray Cover, Front Lower Cover, Left Side Cover, Left Cover, Right Cover, Rear Cover. Paper Feeder, Model PF-7100 (Option) Left Cover, Rear Cover, Right Rear Cover, Right Feed Cover, Interface Cover, Rear Cover Lid, Upper Front Cover, Lower Front Cover, Front Right Cover, Primary Feed Release Cover, Right Front Cover, Handle Hook Cover, Cassette. Paper Feeder, Model PF-7110 (Option) Left Cover, Rear Cover, Right Rear Cover, Right Feed Cover, Interface Cover, Rear Cover Lid, Right Deck Cover, Left Deck Cover, Right Deck Handle Cover, Left Deck Handle Cover, Front Right Cover, Right Front Cover, Handle Hook Cover. Paper Feeder, Model PF-7120 (Option) Front Cover, Front Low Cover, Right Cover, Right Low Cover, Rear Cover, Rear Low Cover, Wire Cover, Left Cover, Cover Handle, Switch Lever, Switch Guide.			
Supplementary information:			
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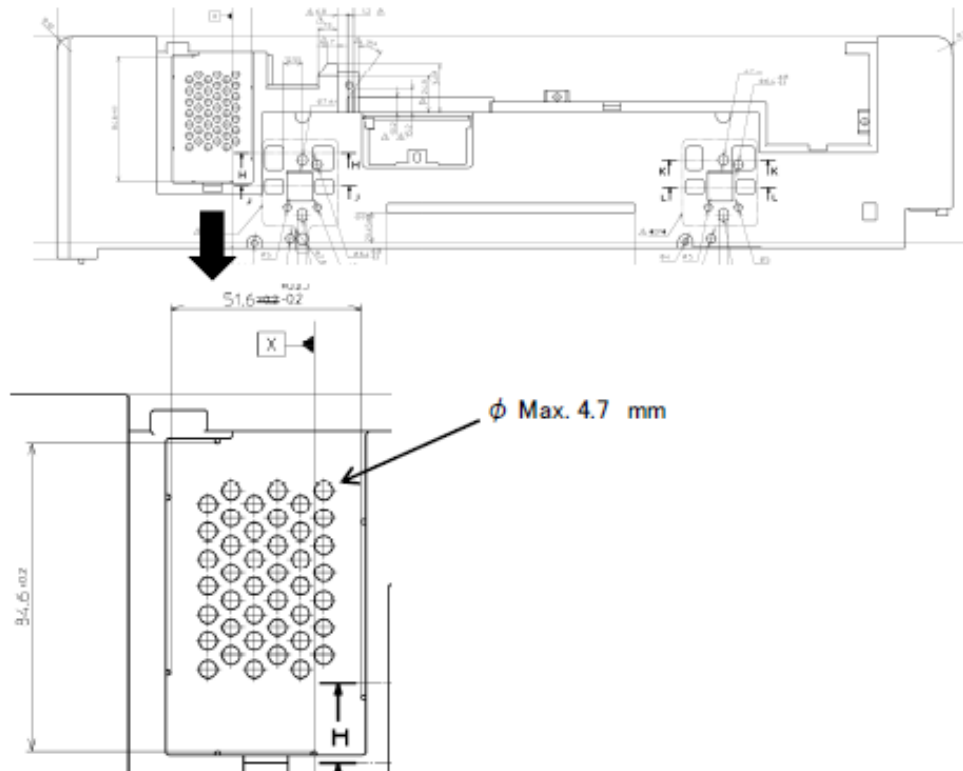
ATTACHMENT Measurement Section

Clause	Requirement + Test	Result - Remark	Verdict
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4.6.1/2 Table: Enclosure opening measurements

P

ISU Rear Cover



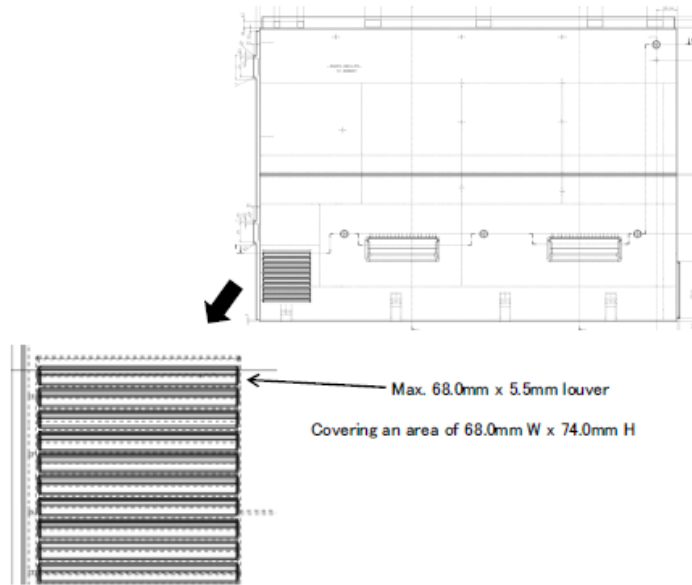
ATTACHMENT**Measurement Section**

Clause	Requirement + Test	Result - Remark	Verdict
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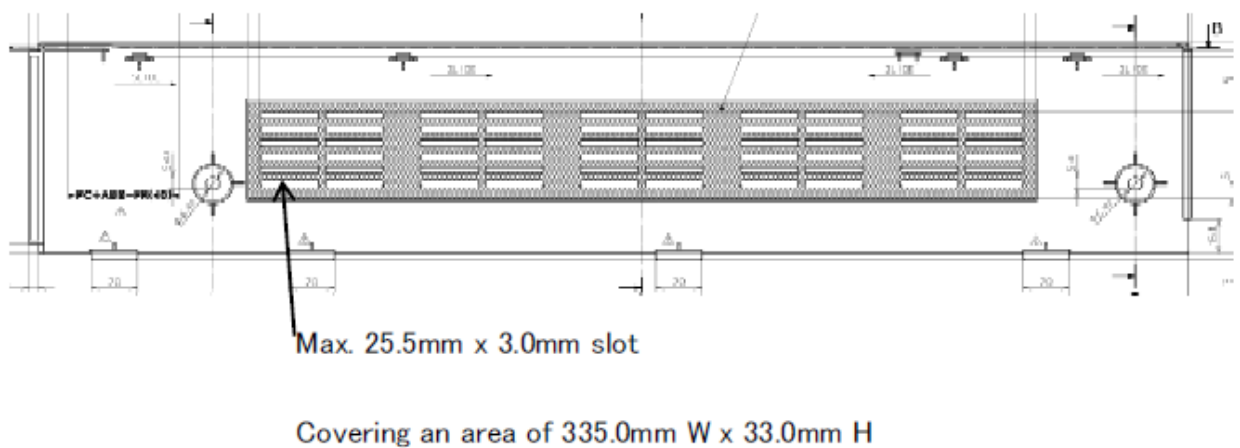
4.6.1/2 Table: Enclosure opening measurements

P

Left Cover



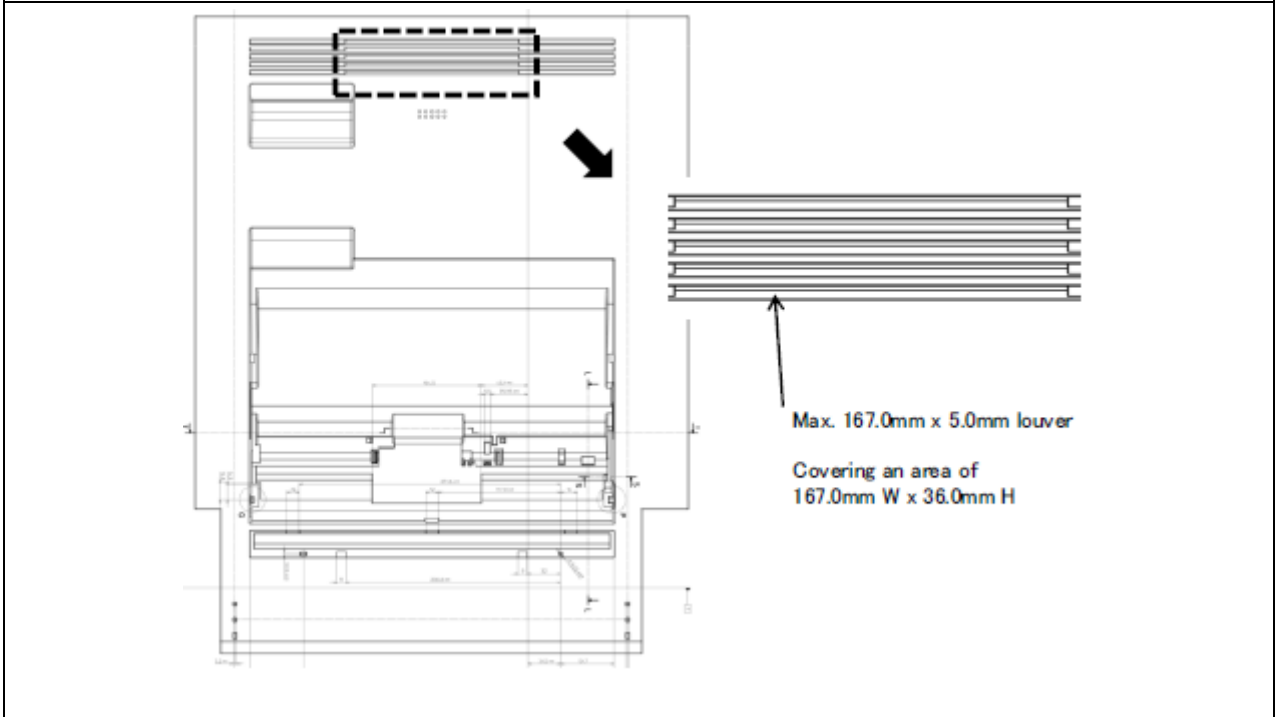
Left Lid Cover



ATTACHMENT		Measurement Section	
Clause	Requirement + Test	Result - Remark	Verdict

4.6.1/2	Table: Enclosure opening measurements		P
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Right Cover



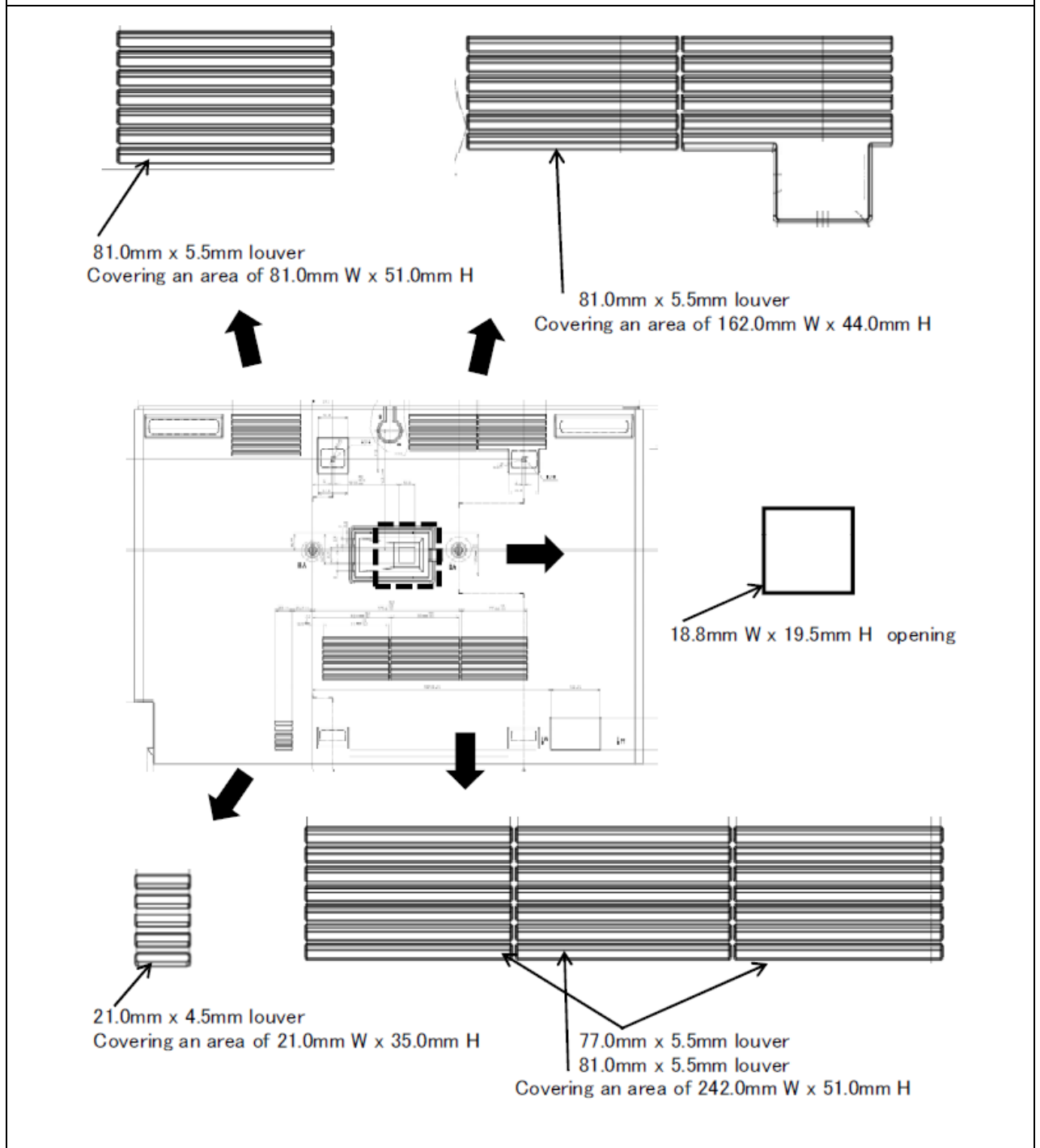
ATTACHMENT**Measurement Section**

Clause	Requirement + Test	Result - Remark	Verdict
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4.6.1/2 Table: Enclosure opening measurements

P

Rear Lower Cover



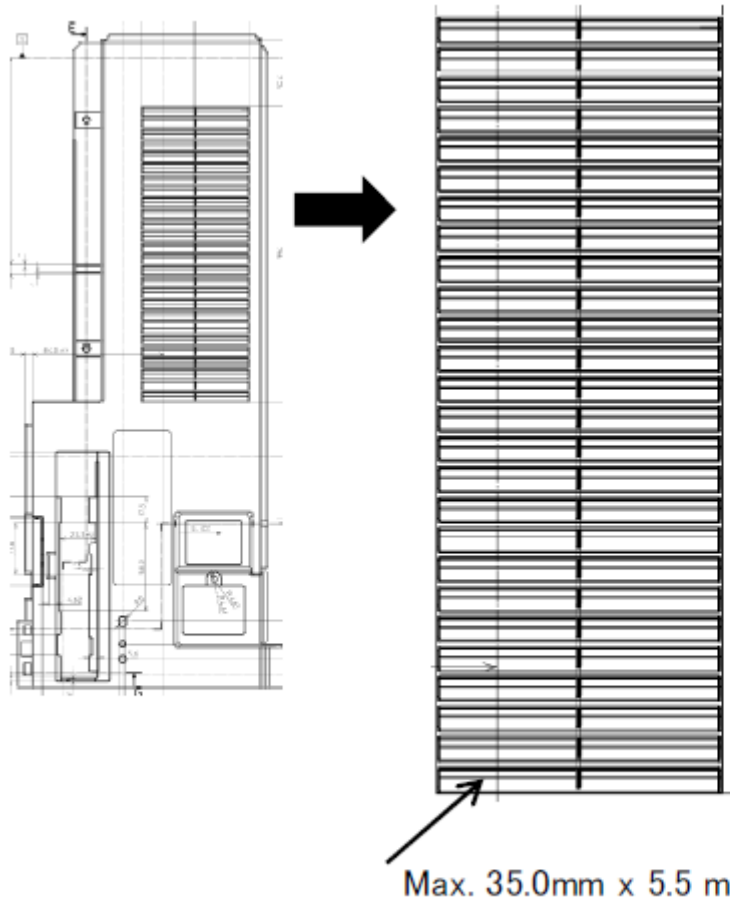
ATTACHMENT**Measurement Section**

Clause	Requirement + Test	Result - Remark	Verdict
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4.6.1/2 Table: Enclosure opening measurements

P

Right Rear Cover



Covering an area of 70.0mm W x 195.0mm H

Supplementary information:

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ATTACHMENT Measurement Section			
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
Middle Transfer Cleaning Motor DIA42B10W21A		--	Ignition of the wrapping tissue: No Ignition of the cheesecloth: No
Feed Motor (DP-7100) Conveying Motor (DP-7100) Reverse Motor (DP-7100) 24H069L020		--	Ignition of the wrapping tissue: No Ignition of the cheesecloth: No
Conveying Motor (PF-7120) DIA42B20W22A		--	Ignition of the wrapping tissue: No Ignition of the cheesecloth: No
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 2013-09			
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EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013 - CENELEC COMMON MODIFICATIONS


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
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

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
General (A2:2013)	<p>Delete all the "country" notes in the reference document (IEC 60950-1:2005/A2:2013) according to the following list:</p> <p>2.7.1 Note * 2.10.3.1 Note 2</p> <p>6.2.2. Note</p> <p>* Note of secretary: Text of Common Modification remains unchanged.</p>		P
1.1.1 (A1:2010)	<p>Replace the text of NOTE 3 by the following.</p> <p>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.</p>		N/A
1.3.Z1	<p>Add the following subclause:</p> <p>1.3.Z1 Exposure to excessive sound pressure</p> <p>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.</p> <p>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.</p>	No such equipment.	N/A
(A12:2011)	<p>In EN 60950-1:2006/A12:2011</p> <p>Delete the addition of 1.3.Z1 / EN 60950-1:2006</p> <p>Delete the definition 1.2.3.Z1 / EN 60950-1:2006 /A1:2010</p>	Deleted.	N/A
1.5.1 (Added info*)	<p>Add the following NOTE:</p> <p>NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC.</p> <p>New Directive 2011/65/11 *</p>		P
1.7.2.1 (A1:2010)	<p>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.</p>		N/A
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

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Zx Protection against excessive sound pressure from personal music players		
	Zx.1 General This sub-clause specifies requirements for protection against excessive sound pressure from personal music players that are closely coupled to the ear. It also specifies requirements for earphones and headphones intended for use with personal music players. A personal music player is a portable equipment□ for personal use, that: <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. NOTE 1 Examples are hand-held or body-worn portable CD players, MP3 audio players, mobile phones with MP3 type features, PDA's or similar equipment. A personal music player and earphones or headphones intended to be used with personal music players shall comply with the requirements of this sub-clause. The requirements in this sub-clause are valid for music or video mode only. The requirements do not apply: <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. NOTE 2 An external amplifier is an amplifier which is not part of the personal music player or the listening device, but which is intended to play the music as a standalone music player. The requirements do not apply to: <ul style="list-style-type: none"> - hearing aid equipment and professional equipment; NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.	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> <ul style="list-style-type: none"> - 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 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>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> <ol style="list-style-type: none"> protect the user from unintentional acoustic outputs exceeding those mentioned above; and 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 		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</p> <p>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";</p> <p>"60227 IEC 52" by "H03 VV-F or H03 VVH2-F";</p> <p>"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 μ Sv/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	<p>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.</p> <p>The marking text in the applicable countries shall be as follows:</p> <p>In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"</p> <p>In Norway: "Apparatet må tilkoples jordet stikkontakt"</p> <p>In Sweden: "Apparaten skall anslutas till jordat uttag"</p>		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)	<p>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.</p> <p>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>		P
1.7.5 1.7.5 (A11:2009)	<p>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.</p> <p>For CLASS II EQUIPMENT the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.</p>		N/A
1.7.5 (A2:2013)	<p>In Denmark, socket-outlets for providing power to other equipment shall be in accordance with the DS 60884-2-D1:2011.</p> <p>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.</p> <p>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.</p> <p>Justification the Heavy Current Regulations, 6c</p>		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

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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	<p>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.</p> <p>NOTE 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p>		N/A
3.2.1.1	<p>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.</p>		N/A
3.2.4	<p>In Switzerland, for requirements see 3.2.1.1 of this annex.</p>		N/A
3.2.5.1	<p>In the United Kingdom, a power supply cord with conductor of 1,25 mm² is allowed for equipment with a rated current over 10 A and up to and including 13 A.</p>		N/A
3.3.4	<p>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:</p> <ul style="list-style-type: none"> • 1,25 mm² to 1,5 mm² 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

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																					
3.2.5 Table 3B	<p>Second paragraph, <i>delete</i> the word 'designated'.</p> <p>1. <i>Delete</i> the first four rows and <i>replace</i> with the following:</p> <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</td><td>1,00</td><td>16 [1 ,3]</td></tr><tr><td>Over 10</td><td>up to and including 16</td><td>(1,0) c</td><td>1,5</td><td>14 [2]</td></tr></table> <p>2. <i>Delete</i> NOTE 1 and <i>renumber</i> existing NOTE 2 as 'NOTE'.</p> <p>3. <i>Delete</i> Footnote ^a and <i>replace</i> with the following:</p> <p>^a This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliance, and the entry to the plug does not exceed 2 m (0,5 mm² three-core supply flexible cords are not permitted; see AS/NZS 3191).</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]	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	<p>After Clause 4.1, <i>insert</i> new Clause 4.1.201 as follows:</p> <p>4.1.201 Display devices used for television purposes</p> <p>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.</p>	No display device.	N/A																					
4.3.6	<p><i>Delete</i> the third paragraph and <i>replace</i> with the following:</p> <p><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></p>	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>	Coin/button cell or R1 batteries used. (see table 'AS/NZS 60065:2012 Amendment 1:2015, Clause 14.10.201')	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	<p>General</p> <p>These requirements apply to equipment, including remote controls, that—</p> <ul style="list-style-type: none"> – 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. <p>NOTE 1 Coin/button cell batteries are devices that are small, single cell batteries having a diameter greater than their height.</p> <p>NOTE 2 Batteries are specified in IEC 60086-2.</p> <p>These requirements do not apply to—</p> <ul style="list-style-type: none"> – professional equipment; <p>NOTE 3 Professional equipment is equipment sold through special sales channels. Equipment sold through normal electronics stores is considered not to be professional equipment.</p> <ul style="list-style-type: none"> – 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	<p>Safety warnings</p> <p>Equipment containing one or more coin/button cell/R1 batteries shall have safety warnings in the instructions accompanying the equipment.</p> <p>The safety warnings are not required where these batteries are not intended to be replaced or are only accessible after damaging the equipment.</p> <p>The safety warnings shall be as follows:</p> <ul style="list-style-type: none"> – 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

TEST REPORT
IEC 60825-1
Safety of laser products -
Part 1: Equipment classification and requirements

Report Number..... : See IEC60950-1 report.
Date of issue..... : See IEC60950-1 report.
Total number of pages : See IEC60950-1 report.

**Name of Testing Laboratory
preparing the Report** : See IEC60950-1 report.

Applicant's name : See IEC60950-1 report.

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

General disclaimer:

The test results presented in this report relate only to the object tested.

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

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Test item description..... :		See IEC60950-1 report.
Trade Mark..... :		See IEC60950-1 report.
Manufacturer		See IEC60950-1 report.
Model/Type reference		See IEC60950-1 report.
Ratings		See IEC60950-1 report.
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.
<input type="checkbox"/>	Testing procedure: TMP/CTF Stage 1:	
Testing location/ address..... :		
Tested by (name, function, signature)..... :		
Approved by (name, function, signature)... :		
<input type="checkbox"/>	Testing procedure: WMT/CTF Stage 2:	
Testing location/ address..... :		
Tested by (name, function, signature)..... :		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature)... :		
<input type="checkbox"/>	Testing procedure: SMT/CTF Stage 3 or 4:	
Testing location/ address..... :		
Tested by (name, function, signature)..... :		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature)... :		
Supervised by (name, function, signature) :		

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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.

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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 type="checkbox"/> Yes <input checked="" 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)	

General product information:

Laser Scanner Unit for TASKalfa 6052ci, TASKalfa 5052ci, TASKalfa 4052ci

4 laser diodes, 1 polygon motor, 8 mirrors, 4 laser apertures

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

Number of facets on the mirror: 6

Polygon motor speed: 35433.13rpm, 32808.45rpm, 30708.71rpm, 29921.31rpm, 23622.09rpm,

Laser aperture dimensions: 274.0mm x 8.9mm

Laser scan angles for the aperture:

- Long sides of the aperture: +22.5 / -22.5 degrees
- Short sides of the aperture: +16 degrees

Laser Scanner Unit for TASKalfa 3252ci, TASKalfa 2552ci

4 laser diodes, 1 polygon motor, 8 mirrors, 4 laser apertures

Number of facets on the mirror: 6

Polygon motor speed: 38057.81rpm, 32808.45rpm, 30708.71rpm, 23622.09rpm,

Laser aperture dimensions: 274.0mm x 8.9mm

Laser scan angles for the aperture:

- Long sides of the aperture: +22.5 / -22.5 degrees
- Short sides of the aperture: +16 degrees

Laser Scanner Unit for TASKalfa 6002i, TASKalfa 5002i, TASKalfa 4002i

1 laser diodes, 1 polygon motor, 1 mirrors, 1 laser apertures

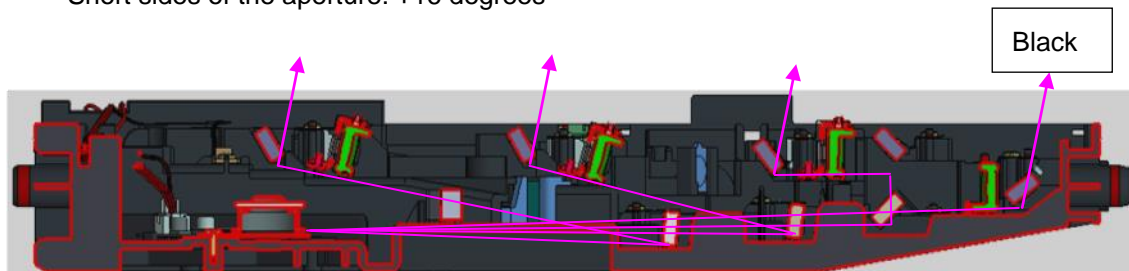
Number of facets on the mirror: 6

Polygon motor speed: 35433.13rpm, 32808.45rpm, 30708.71rpm, 29921.31rpm,

Laser aperture dimensions: 274.0mm x 8.9mm

Laser scan angles for the aperture:

- Long sides of the aperture: +22.5 / -22.5 degrees
- Short sides of the aperture: +16 degrees



IEC 60825-1			
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		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			
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 :.....		P
	Measurement distance		P
	(for each condition)		
5.4.3	Evaluation condition for extended sources	No extended sources.	N/A
	Conditions applied	--	N/A
	Most restrictive position	--	N/A
	(distance from reference point)		
	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			
Clause	Requirement + Test	Result - Remark	Verdict

Table: Measured accessible laser radiation and comparison with AEL
Type: HL67130MC01

Laser unit:

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	$3.9 \times 10^{-4} [W]$	--	0.39mW
Class 3B	670	0.5 [W]	--	500mW

Measured laser radiation results:

Customer prepared adjusted to max power laser unit and Polygon motor locked.

1.0nW

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: 25°C, Relative humidity: 48%.

The Class 3B Laser radiation fields are completely enclosed by the internal protective housings.

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

Table: Measured accessible laser radiation and comparison with AEL
Type: HL67150GN

Laser unit:

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	$3.9 \times 10^{-4} [W]$	--	0.39mW
Class 3B	670	0.5 [W]	--	500mW

Measured laser radiation results:

Customer prepared adjusted to max power laser unit and Polygon motor locked.

1.0nW

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: 25°C, Relative humidity: 48%.

The Class 3B Laser radiation fields are completely enclosed by the internal protective housings.

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

Table: Measured accessible laser radiation and comparison with AEL
Type: RLD2BPND2-00B

Laser unit:

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	$3.9 \times 10^{-4} [W]$	--	0.39mW
Class 3B	670	0.5 [W]	--	500mW

Measured laser radiation results:

Customer prepared adjusted to max power laser unit and
Polygon motor locked.

1.1nW

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: 25°C, Relative humidity: 48%.

The Class 3B Laser radiation fields are completely enclosed by the internal protective housings.

IEC 60825-1			
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			
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			
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			
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			
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. (3B was taking account of the maximum value in the specification of manufacturer and the following label was affixed anyway. CAUTION CLASS 3B LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.)	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	--	N/A
7.13	Warning for potential hazard to the skin or anterior parts of the eye - warning wording used	--	N/A

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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.	Not provided.	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

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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

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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			
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⁾
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Supplementary information:					
¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039. (see IEC 60950-1 test report)					

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

List of test equipment used:

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

Clause	Measurement / testing	Testing / measuring equipment / material used, (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							
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>-- series</td><td>IEC 60050 series</td></tr><tr><td>EN 62471</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)						