

CB TEST REPORT

12311166 002

for

Laser Printer

FS series, ECOSYS FS series

KYOCERA Document Solutions Inc.



This documentation consists of **36** pages (excluding this cover page).



Test Report issued under the responsibility of:



TEST REPORT IEC 60950-1 Information technology equipment – Safety – Part 1: General requirements	
Report Number	12311166 002
Date of issue	2013-06-11
Total number of pages	36
CB Testing Laboratory	TÜV Rheinland Japan Ltd. Osaka Laboratory
Address	Wakasugi Center Bldg., Honkan 16F, 2-9-1 Higashi Tenma, Kita-ku, 530-0044 Osaka, JAPAN
Applicant's name	KYOCERA Document Solutions Inc.
Address	1-2-28, Tamatsukuri, Chuo-ku, Osaka-shi, Osaka, 540-8585 Japan
Manufacturer's name	(same as Applicant)
Address	(same as Applicant)
Test specification:	
Standard	IEC 60950-1:2005 (Second Edition) + Am 1:2009
Test procedure	CB Scheme
Non-standard test method	N/A
Test Report Form No	IEC60950_1C
Test Report Form(s) Originator	SGS Fimko Ltd
Master TRF	Dated 2012-08
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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.	

IEC 60950-1

Test item description : Laser Printer



Trade Mark : KYOCERA (on the products)

Manufacturer..... : (Same as Applicant)

Model/Type reference..... : 1) FS-2100D, FS-2100DN,
ECOSYS FS-2100D, ECOSYS FS-2100DN
2) FS-4100DN, FS-4200DN, FS-4300DN
ECOSYS FS-4100DN, ECOSYS FS-4200DN,
ECOSYS FS-4300DN

Ratings..... : 1) 220-240V~, 50/60Hz, 4.4A
120V~, 60Hz, 8.3A
110V~, 60Hz, 9.1A
2) 220-240V~, 50/60Hz, 5.2A
120V~, 60Hz, 9.7A
110V~, 60Hz, 10.6A

IEC 60950-1

Testing procedure and testing location:		
<input type="checkbox"/>	CB Testing Laboratory:	
Testing location/ address.....:		
<input type="checkbox"/>	Associated CB Laboratory:	
Testing location/ address.....:		
Tested by (name + signature).....:		
Approved by (name + signature).....:		
<input checked="" type="checkbox"/>	Testing procedure: TMP	
Testing location/ address.....:		KYOCERA Document Solutions Inc. 1-2-28, Tamatsukuri, Chuo-ku, Osaka-shi, Osaka, 540-8585 Japan
Tested by (name + signature).....:		S. Hamamoto 
Approved by (name + signature).....:		N. Mukaijo 
<input type="checkbox"/>	Testing procedure: WMT	
Testing location/ address.....:		
Tested by (name + signature).....:		
Approved by (name + signature).....:		
<input type="checkbox"/>	Testing procedure: SMT	
Testing location/ address.....:		
Tested by (name + signature).....:		
Approved by (name + signature).....:		
<input type="checkbox"/>	Testing procedure: RMT	
Testing location/ address.....:		
Tested by (name + signature).....:		
Approved by (name + signature).....:		

IEC 60950-1**Summary of testing:**

See General product information

Additionally evaluated Test specifications (see original test report).

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

IEC 60825-1:2007

EN 60825-1:2007

Summary of compliance with National Differences

EU Group Differences, EU Special National Conditions, EU A-Deviations,
CA, DK, FI, DE, KR, SI, SE, GB, US.

Explanation of used codes: CA=Canada, DK=Denmark, FI=Finland, DE=Germany, IL= Israel,
KR=Republic of Korea, SI=Slovenia, SE=Sweden, GB=United Kingdom, US=United States of America.

For National Differences see original test report.

Copy of marking plate:

(not changed)

IEC 60950-1

Test item particulars	
Equipment mobility	<input checked="" type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input 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 (for Europe) and 20A (for Canada and USA)
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
IP protection class	Not rated, indoor use only
Altitude during operation (m)	Up to 3500
Altitude of test laboratory (m)	< 1000
Mass of equipment (kg)	Approx. 14.5kg for FS-2100D, FS-2100DN 15.5kg for FS-4100DN, FS-4200DN, FS-4300DN
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	2013-06-01 to 2013-06-06

IEC 60950-1

General remarks:

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

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

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

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

Throughout this report a ☐ 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. YiHe PLASTIC & ELECTRONIC PRODUCTS (SHENZHEN) CO., LTD.
 EVA Industrial Garden, Tang Xing Road, Shi Yan Town, Bao An District, Shenzhen, 518108 P.R. China
 3. Kyocera Document Solutions Inc. Tamaki Plant
 704-19 Nojino, Tamaki-Cho, Watarai-Gun, Mie 519-0497, Japan
 4. Kyocera Document Solutions Inc. Hirakata Plant
 1-38-12 Tsuda-Kita-machi, Hirakata-shi, Osaka 573-0121, Japan
 5. KYOCERA Document Technology Vietnam Co., Ltd.
 No. 56A, 56B and 56C, VSIP Haiphong Township, Industrial and Service Park, Thuy Nguyen District, Dinh Vu-Cat Hai Economic Zone, Haiphong Vietnam

IEC 60950-1**Remark:****Change of Manufacturer:**

(not changed)

Change of Factory(ies):

Addition of factory, detail for Description of change(s):

History of amendments and modifications:

Ref. No. 12311166 001, dated 2012-09-19 (original test report)

IEC 60950-1

General product information:**Description of change(s):**

1. Addition of following factory
KYOCERA Document Technology Vietnam Co., Ltd.
No.56A, 56 B and 56 C, VSIP Haiphong Township,
Industrial and Service Park, Thuy Nguyen District, Dinh Vu-Cat Hai Economic Zone, Haiphong, Vietnam
2. Correction of type error for Lithium Battery
3. Addition of alternate Photo Coupler (PC1, PC3, PC5) for Switching Power Supply Unit for Low Model
4. Correction of alternate Relay (RL1) for Switching Power Supply Unit for Low Model
5. Addition of alternate Photo Coupler (PC1, PC3, PC4, PC5) for Switching Power Supply Unit for High Model
6. Correction of alternate Relay (RL1) for Switching Power Supply Unit for High Model
7. Correction of type error for Reg Clutch
8. Addition of alternate manufacture regarding to Laser Diode for Laser Scanner Unit
9. Addition of alternate Cover Top, Cover Left, Cover Rear
10. Addition of alternate Cover Right
11. Correction of Frame Right, Frame Left
12. Addition of Feed Clutch, Trans Clutch for Paper Feeding Unit, Model PF-320 (Option)
For details, refer to the **bold letters** in appended table 1.5.1.

Change	Testing (Please use test data sheet)		Comments
	Clause	Test description	
1 to 8, 11,12	-	-	No additional test is necessary
9, 10	2.9.2	Humidity conditioning	
	4.2	Mechanical strength	
	5.2	Electric strength	

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

2	PROTECTION FROM HAZARDS		P
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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	—

2.10	Clearances, creepage distances and distances through insulation		P
2.10.9	Thermal cycling	Alternate Photo Coupler (Toshiba Corporation, TLP363JF) were certified.	P
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N/A
2.10.11	Tests for semiconductor devices and cemented joints.	Alternate Photo Coupler (Toshiba Corporation, TLP363JF) were certified.	P

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

4	PHYSICAL REQUIREMENTS	P
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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	30 N applied to internal enclosures.	P
4.2.4	Steady force test, 250 N	250N applied to outer enclosure. Test points: Cover Top, Cover Top-Alternate, Cover Rear, Cover Rear-Alternate, Right Cover, Right Cover-Alternate, Left Cover, Left Cover-Alternate	P
4.2.5	Impact test	See below:	P
	Fall test	Test points: Cover Top, Cover Top-Alternate, Cover Rear, Cover Rear-Alternate, Right Cover, Right Cover-Alternate, Left Cover, Left Cover-Alternate	P
	Swing test		N/A
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 75°C for enclosures, at 135°C for Frame Fuser and cooling down to room temperature, no shrinkage, distortion or loosening of enclosure parts was noticeable on the unit.	P

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

1.5.1	TABLE: List of critical components					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Power Supply Cord Set (for 220-240V)	Volex	Cord H05VV-F 3 X 0.75mm ²	0.75 mm ²	DIN VDE 0281-5	VDE	
		Plug M2511X (X may be any number from 0 to 9 or alphabetical number or blank)	250V ac, 16A	DIN VDE 0620-1	VDE	
		Connector V1625	250V ac, 10A	IEC/EN 60320-1	VDE	
Power Supply Cord Set (for 120V)	Volex	Cord 3 X 16AWG UL SJT	16AWG, 2500mm (+100mm, - 50mm)	UL62	UL(E159216 or E156136)	
		Plug PS204	125V ac, 15A			
		Connector V1625	125V ac, 13A			
Power Supply Cord Set (for 110V)	Volex (Asia) Pte Ltd.	Cord VCTF 3 X 2.00 mm ²	2.00 mm ²	CNS3199	BSMI	
		Plug TW15CS3	125V, 15A	CNS10917-2		
		Connector V1625	125V, 15A			
Appliance Inlet	Rong Feng Industrial Co., Ltd.	SS-120	250V ac, 10A (for 220-240V, 110V) 250V ac, 15A (for 120V)	IEC / EN60320- 1 UL498	VDE UL(E102641)	
Lithium Battery	Various	CR2032	3V, 220mAh	UL1642	UL	

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

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹ .	
Switch						
Main Switch - Optional	Alps Electric Co., Ltd.	SDDJE	250V, 10(6)A	IEC / EN61058- 1 UL1054	VDE UL(E38433)	
Interlock Switch	Omron	D3V-16506- 3C25 (10E)	250V ac/16(3)A, 50,000 Cycles (for 220-240V, 110V) 250V ac/11A, 100,000 Cycles (120V)	IEC/EN61058-1 UL1054	VDE UL(E41515)	
Fuser Unit						
Thermal Cutoff (PRI)	Wako Electronics Co., Ltd.	CS-7TA-35	250V ac, 202°C	IEC 60730 UL873	TUV UL(E50367)	
Frame Fuser	Kaneka Corp.	3401NX or 3401NH	Min. V-1	UL94	UL(E48854)	
Alternate Frame Fuser	E I Dupont De Nemours & Co., Inc.	RE19041 or RE19041A	Min. V-1	UL94	UL(E41938)	
Heater Lamp for 220-240V ac, Low Model	Ushio Inc.	QIRF 240-854 XXXX (X may be any number from 0 to 9 or alphabetical number or blank)	240V, 854W	-	Evaluated together with unit	
Heater Lamp for 220-240V ac, High Model	Ushio Inc.	QIRF 240- 641/427 XXXX (X may be any number from 0 to 9 or alphabetical number or blank)	240V, 641W/427W	-	Evaluated together with unit	

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

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Heater Lamp for 120V ac, Low Model	Ushio Inc.	QIRF 120-800 XXXX (X may be any number from 0 to 9 or alphabetical number or blank)	120V, 800W	-	Evaluated together with unit	
Heater Lamp for 120V ac, High Model	Ushio Inc.	QIRF 120- 600/400 XXXX (X may be any number from 0 to 9 or alphabetical number or blank)	120V, 600W/400W	-	Evaluated together with unit	
Heater Lamp for 110V ac, Low Model	Ushio Inc.	QIRF 110-800 XXXX (X may be any number from 0 to 9 or alphabetical number or blank)	110V, 800W	-	Evaluated together with unit	
Heater Lamp for 110V ac, High Model	Ushio Inc.	QIRF 110- 600/400 XXXX (X may be any number from 0 to 9 or alphabetical number or blank)	110V, 600W/400W	-	Evaluated together with unit	

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

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
SWPS						
Switching Power Supply Unit for 220-240V ac, Low Model	Murata Mfg. Co., Ltd.	MPW3100L	Input: 220-240V Output: 24V, 4.5A	---	Evaluated together with unit	
Diode (D1)	Shindengen Electric Mfg. Co., Ltd.	D3SBA60	600V, 4A	---	Evaluated together with unit	
X-Capacitor (C1)	Okaya Electric Industries Co., Ltd.	LE	275V or 310V, 250V(UL), 0.22uF X2 type	IEC/EN 60384- 14 UL1414 UL60384-14	SEMKO UL(E47474)	
X-Capacitor (C6)	Okaya Electric Industries Co., Ltd.	LE	275V or 310V, 250V(UL), 0.1uF X2 type	IEC/EN 60384- 14 UL1414 UL60384-14	SEMKO UL(E47474)	
Y-Capacitor (C4, C5)	Murata Mfg. Co., Ltd.	KH	250V, 470pF Y2 type	IEC/EN 60384- 14 UL1414 UL60384-14	VDE UL(E37921)	
Electrolytic Capacitor (C7)	Various	Various	400V, Min.150uF	---	Evaluated together with unit	
Bridging Capacitor (C50)	Murata Mfg. Co., Ltd.	KX	250V, 3300pF Y1 type	IEC/EN 60384- 14 UL1414 UL60384-14	VDE UL(E37921)	
Fuse (F1)	Cooper Bussmann Inc.	S505	250V,T4AH	IEC/EN 60127 UL248-1 UL248-14	VDE UL(E19180)	
Alternate Fuse (F1)	Littelfuse Inc.	215	250V,T4AH	IEC/EN 60127 UL248-1 UL248-14	VDE UL(E10480)	
Fuse (F51)	Cooper Bussmann Inc.	S505	250V, T10AH	IEC/EN 60127 UL248-1 UL248-14	VDE UL(E19180)	
Alternate Fuse (F51)	Littelfuse Inc.	0215	250V, T10AH	IEC/EN 60127 UL248-1 UL248-14	SEMKO UL(E10480)	

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

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Surge Absorber (Z1)	Panasonic Corporation, Panasonic Corporation of North America or Matsushita Electric Ind. Co., Ltd. or Panasonic	V10471U or V14471U	470V or Continuous voltage 300Vrms, pulse current 6000A	IEC 61051-1 IEC 61051-2 IEC 61051-2-2 UL1449	VDE UL(E321499)	
Bleeding Resistor (R25, R26, R27)	Various	Various	1/4W, 470kΩ	---	Evaluated together with unit	
Inductor (L1)	Tokyo Parts Industrial Co., Ltd.	1R3A163F24A	Class E, 16mH	---	Evaluated together with unit	
Inductor (L2)	Tokyo Parts Industrial Co., Ltd.	1R5A402F20A	Class E, 4mH	---	Evaluated together with unit	
Inductor (L51)	Tamura Corporation	SKP-T16274	Class E, 40uH	---	Evaluated together with unit	
Triac (TRA31)	Various	Various	600Vmin, 12Amin	---	Evaluated together with unit	

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

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Photo Coupler (PC1, PC3, PC5)	NEC Corp. or Renesas Electronics Corporation	PS2581AL1	Isolation Thickness: > 0.4 mm, Ext.cr. > 8mm, Int.cr. =thermal cycling tested(2.10.11), Isolation: min. AC 5000V	IEC/EN 60950-1 UL1577	SEMKO UL(E72422)	
Alternate Photo Coupler (PC1, PC3, PC5)	Sharp Corp. Electronic Components Group.	3SH21	Isolation Thickness: > 0.4 mm, Ext.cr. > 8mm, Int.cr. =thermal cycling tested(2.10.11), Isolation: min. AC 5000V	IEC/EN 60950-1 UL1577	SEMKO UL(E64380)	
Alternate Photo Coupler (PC1, PC3, PC5)	Toshiba Corporation Semiconductor Company	TLP363JF	Isolation Thickness: > 0.4 mm, Ext.cr. > 8mm, Int.cr. =thermal cycling tested(2.10.11), Isolation: min. AC 5000V	IEC 60747-5-2 EN 60747-5-2 UL1577	TUV Rheinland UL (E67349)	

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

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Transistor (Q1)	Various	Various	500Vmin, 6Amin	---	Evaluated together with unit	
Connector (YC1)	Japan Solderless Terminal Mfg. Co., Ltd.	VT	AC250V, Max.12A	IEC/EN 61984 UL1977	TUV Rheinland UL(E60389)	
Connector (YC2)	Japan Solderless Terminal Mfg. Co., Ltd.	VH	AC400V, 7A	IEC/EN 61984 UL1977	TUV Rheinland UL(E60389)	
Transformer (T1)	Murata Mfg. Co. Ltd.	68Q1	Class B	---	Evaluated together with unit	
Relay (RL1)	Panasonic Electric Works Co., Ltd. or Matsushita Electric Works Co., Ltd. or Panasonic	LKP1aF-24V	Contact:250/277 V, 10A Coil:24 Vdc	IEC/EN 60255- 23 IEC/EN 61810-1	VDE	
Alternate Relay (RL1)	Daiichi Electric Co., Ltd.	DG1U series	Contact:250V, 10A Coil:24Vdc	IEC/EN 61810-1 IEC/EN 61058-1	TUV SEMKO	
PWB	Various	Various	Flam. Class V-1 or better	UL796	UL	
Switching Power Supply Unit for 220-240V ac, High Models	Murata Mfg. Co., Ltd.	MPW3100	Input: 220-240V Output: 24V, 6.5A	---	Evaluated together with unit	
Diode (D1)	Shindengen Electric Mfg. Co., Ltd.	D3SBA60	600V, 4A	---	Evaluated together with unit	
X-Capacitor (C1)	Okaya Electric Industries Co., Ltd.	LE	275V or 310V, 250V(UL), 0.22uF X2 type	IEC/EN 60384- 14 UL1414 UL60384-14	SEMKO UL(E47474)	
X-Capacitor (C6)	Okaya Electric Industries Co., Ltd.	LE	275V or 310V, 250V(UL), 0.1uF X2 type	IEC/EN 60384- 14 UL1414 UL60384-14	SEMKO UL(E47474)	

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

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Y-Capacitor (C4, C5)	Murata Mfg. Co., Ltd.	KH	250V, 470pF Y2 type	IEC/EN 60384- 14 UL1414 UL60384-14	VDE UL(E37921)	
Electrolytic Capacitor (C7)	Various	Various	400V, Min.180uF	---	Evaluated together with unit	
Bridging Capacitor (C50)	Murata Mfg. Co., Ltd.	KX	250V, 3300pF Y1 type	IEC/EN 60384- 14 UL1414 UL60384-14	VDE UL(E37921)	
Fuse (F1)	Cooper Bussmann Inc.	S505	250V,T4AH	IEC/EN 60127 UL248-1 UL248-14	VDE UL(E19180)	
Alternate Fuse (F1)	Littelfuse Inc.	215	250V,T4AH	IEC/EN 60127 UL248-1 UL248-14	VDE UL(E10480)	
Fuse (F51)	Cooper Bussmann Inc.	S505	250V, T10AH	IEC/EN 60127 UL248-1 UL248-14	VDE UL(E19180)	
Alternate Fuse (F51)	Littelfuse Inc.	0215	250V, T10AH	IEC/EN 60127 UL248-1 UL248-14	SEMKO UL(E10480)	
Surge Absorber (Z1)	Panasonic Corporation, Panasonic Corporation of North America or Matsushita Electric Ind. Co., Ltd. or Panasonic	V10471U or V14471U	470V or Continuous voltage 300Vrms, pulse current 6000A	IEC 61051-1 IEC 61051-2 IEC 61051-2-2 UL1449	VDE UL(E321499)	
Bleeding Resistor (R25, R26, R27)	Various	Various	1/4W, 470kΩ	---	Evaluated together with unit	
Inductor (L1)	Tokyo Parts Industrial Co., Ltd.	2R0A452F24A	Class E, 4.5mH	---	Evaluated together with unit	
Alternate Inductor (L1)	Tokyo Parts Industrial Co., Ltd.	2R0A133F28YA	Class E, 13mH	---	Evaluated together with unit	

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

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Inductor (L2)	Tokyo Parts Industrial Co., Ltd.	1R5A402F20A	Class E, 4mH	---	Evaluated together with unit	
Inductor (L51)	Tamura Corporation	SKP-T16274	Class E, 40uH	---	Evaluated together with unit	
Triac (TRA31,TRA41)	Various	Various	600Vmin, 12Amin	---	Evaluated together with unit	
Photo Coupler (PC1, PC3, PC4, PC5)	NEC Corp. or Renesas Electronics Corporation	PS2581AL1	Isolation Thickness: > 0.4 mm, Ext.cr. > 8mm, Int.cr. =thermal cycling tested(2.10.11), Isolation: min. AC 5000V	IEC/EN 60950-1 UL1577	SEMKO UL(E72422)	
Alternate Photo Coupler (PC1, PC3, PC4, PC5)	Sharp Corp. Electronic Components Group.	3SH21	Isolation Thickness: > 0.4 mm, Ext.cr. > 8mm, Int.cr. =thermal cycling tested(2.10.11), Isolation: min. AC 5000V	IEC/EN 60950-1 UL1577	SEMKO UL(E64380)	
Alternate Photo Coupler (PC1, PC3, PC4, PC5)	Toshiba Corporation Semiconductor Company	TLP363JF	Isolation Thickness: > 0.4 mm, Ext.cr. > 8mm, Int.cr. =thermal cycling tested(2.10.11), Isolation: min. AC 5000V	IEC 60747-5-2 EN 60747-5-2 UL1577	TUV Rheinland UL(E67349)	
Transistor (Q1, Q2)	Various	Various	500Vmin, 6Amin	---	Evaluated together with unit	

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

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Connector (YC1)	Japan Solderless Terminal Mfg. Co., Ltd.	VT	AC250V, Max.12A	IEC/EN 61984 UL1977	TUV Rheinland UL(E60389)	
Connector (YC2)	Japan Solderless Terminal Mfg. Co., Ltd.	VH	AC400V, 7A	IEC/EN 61984 UL1977	TUV Rheinland UL(E60389)	
Transformer (T1)	Murata Mfg. Co. Ltd.	2Q106	Class B	---	Evaluated together with unit	
Relay (RL1)	Panasonic Electric Works Co., Ltd. or Matsushita Electric Works Co., Ltd. or Panasonic	LKP1aF-24V	Contact:250/277 V, 10A Coil:24 Vdc	IEC/EN 60255- 23 IEC/EN 61810-1	VDE	
Alternate Relay (RL1)	Daiichi Electric Co., Ltd.	DG1U series	Contact:250V, 10A Coil:24Vdc	IEC/EN 61810-1 IEC/EN 61058-1	TUV SEMKO	
PWB	Various	Various	Flam. Class V-1 or better	UL796	UL	
Switching Power Supply Unit for 110, 120V ac, Low Model	Murata Mfg. Co., Ltd.	MPW3099L	Input: 110,120V Output: 24V, 4.5A	---	Evaluated together with unit	
Diode (D1)	Shindengen Electric Mfg. Co., Ltd.	D3SBA60	600V, 4A	---	Evaluated together with unit	
X-Capacitor (C1,C6)	Okaya Electric Industries Co., Ltd.	LE	275V or 310V, 250V(UL), 0.33uF X2 type	IEC/EN 60384- 14 UL1414 UL60384-14	SEMKO UL(E47474)	
Y-Capacitor (C4, C5)	Murata Mfg. Co., Ltd.	KH	250V, 2200pF Y2 type	IEC/EN 60384- 14 UL1414 UL60384-14	VDE UL(E37921)	

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

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Electrolytic Capacitor (C7)	Various	Various	200V, Min.680uF	---	Evaluated together with unit	
Bridging Capacitor (C50)	Murata Mfg. Co., Ltd.	KX	250V, 3300pF Y1 type	IEC/EN 60384- 14 UL1414 UL60384-14	VDE UL(E37921)	
Fuse (F1)	Cooper Bussmann Inc.	S505	250V,T6.3AH	IEC/EN 60127 UL248-1 UL248-14	VDE UL(E19180)	
Alternate Fuse (F1)	Littelfuse Inc.	215	250V,T6.3AH	IEC/EN 60127 UL248-1 UL248-14	VDE UL(E10480)	
Fuse (F51)	Hollyland Co., Ltd.	65TS	250V, 15A	UL248-1 UL248-14	UL(E156471)	
Surge Absorber (Z1)	Panasonic Corporation, Panasonic Corporation of North America or Matsushita Electric Ind. Co., Ltd. or Panasonic	V10471U or V14471U	470V or Continuous voltage 300Vrms, pulse current 6000A	IEC 61051-1 IEC 61051-2 IEC 61051-2-2 UL1449	VDE UL(E321499)	
Bleeding Resistor (R25, R26, R27)	Various	Various	1/4W, 470kΩ	---	Evaluated together with unit	
Inductor (L1, L2)	Tokyo Parts Industrial Co., Ltd.	2R7A182F24A	Class A, 1.8mH	---	Evaluated together with unit	
Inductor (L51)	Tamura Corp	SKP-T16413	Class A, 35uH	---	Evaluated together with unit	
Triac (TRA31)	Various	Various	600Vmin, 12Amin	---	Evaluated together with unit	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Photo Coupler (PC1, PC3, PC5)	NEC Corp. or Renesas Electronics Corporation	PS2581AL1	5000V, Insulation thickness 0.4mm	IEC/EN 60950-1 UL1577	SEMKO UL(E72422)	
Alternate Photo Coupler (PC1, PC3, PC5)	Sharp Corp. Electronic Components Group.	3SH21	5000V, Insulation thickness 0.4mm	IEC/EN 60950-1 UL1577	SEMKO UL(E64380)	
Alternate Photo Coupler (PC1, PC3, PC5)	Toshiba Corporation Semiconductor Company	TLP363JF	5000V, Insulation thickness 0.4mm	IEC/EN 60950-1 UL1577	TUV Rheinland UL(E67349)	
Transistor (Q1)	Various	Various	500Vmin, 6Amin	---	Evaluated together with unit	
Connector (YC1)	Japan Solderless Terminal Mfg. Co., Ltd.	VT	AC250V, Max.12A	IEC/EN 61984 UL1977	TUV Rheinland UL(E60389)	
Connector (YC2)	Japan Solderless Terminal Mfg. Co., Ltd.	VH	AC400V,7A	IEC/EN 61984 UL1977	TUV Rheinland UL(E60389)	
Transformer (T1)	Murata Mfg. Co. Ltd.	67Q1	Class B UL System Designation CM	---	Evaluated together with unit	
Relay (RL1)	Panasonic Electric Works Co., Ltd. or Matsushita Electric Works Co., Ltd. or Panasonic	ALE1PB24	Contact:250/277 V, 16A Coil:24 Vdc	UL508 UL60497	UL(E43149)	
Alternate Relay (RL1)	Daiichi Electric Co., Ltd.	DH1U series	Contact:250V, 10A Coil:24Vdc	UL508 UL60947	UL(E98688)	
PWB	Various	Various	Flam. Class V-1 or better	UL796	UL	

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

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹ .	
Switching Power Supply Unit for 110,120V ac, High Models	Murata Mfg. Co., Ltd.	MPW3099	Input: 110,120V Output: 24V, 6.5A	---	Evaluated together with unit	
Diode (D1)	Shindengen Electric Mfg. Co., Ltd.	D3SBA60	600V, 4A	---	Evaluated together with unit	
X-Capacitor (C1,C6)	Okaya Electric Industries Co., Ltd.	LE	275V or 310V, 250V(UL), 0.33uF X2 type	IEC/EN 60384- 14 UL1414 UL60384-14	SEMKO UL(E47474)	
Y-Capacitor (C4, C5)	Murata Mfg. Co., Ltd.	KH	250V, 2200pF Y2 type	IEC/EN 60384- 14 UL1414 UL60384-14	VDE UL(E37921)	
Electrolytic Capacitor (C7)	Various	Various	200V, Min.1000uF	---	Evaluated together with unit	
Bridging Capacitor (C50)	Murata Mfg. Co., Ltd.	KX	250V, 3300pF Y1 type	IEC/EN 60384- 14 UL1414 UL60384-14	VDE UL(E37921)	
Fuse (F1)	Cooper Bussmann Inc.	S505	250V,T6.3AH	IEC/EN 60127 UL248-1 UL248-14	VDE UL(E19180)	
Alternate Fuse (F1)	Littelfuse Inc.	215	250V,T6.3AH	IEC/EN 60127 UL248-1 UL248-14	VDE UL(E10480)	
Fuse (F51)	Hollyland Co., Ltd.	65TS	250V, 15A	UL248-1 UL248-14	UL(E156471)	
Surge Absorber (Z1)	Panasonic Corporation, Panasonic Corporation of North America or Matsushita Electric Ind. Co., Ltd. or Panasonic	V10471U or V14471U	470V or Continuous voltage 300Vrms, pulse current 6000A	IEC 61051-1 IEC 61051-2 IEC 61051-2-2 UL1449	VDE UL(E321499)	

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

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Bleeding Resistor (R25, R26, R27)	Various	Various	1/4W, 470kΩ	---	Evaluated together with unit	
Inductor (L1, L2)	Tokyo Parts Industrial Co., Ltd.	3R5A382F28YA	Class A, 3.8mH	---	Evaluated together with unit	
Inductor (L51)	Tamura Corporation	SKP-T16413	Class A, 35uH	---	Evaluated together with unit	
Triac (TRA31,TRA41)	Various	Various	600Vmin, 12Amin	---	Evaluated together with unit	
Photo Coupler (PC1, PC3, PC4, PC5)	NEC Corp. or Renesas Electronics Corporation	PS2581AL1	5000V, Insulation thickness 0.4mm	IEC/EN 60950-1 UL1577	SEMKO UL(E72422)	
Alternate Photo Coupler (PC1, PC3, PC4, PC5)	Sharp Corp. Electronic Components Group.	3SH21	5000V, Insulation thickness 0.4mm	IEC/EN 60950-1 UL1577	SEMKO UL(E64380)	
Alternate Photo Coupler (PC1, PC3, PC4, PC5)	Toshiba Corporation Semiconductor Company	TLP363JF	5000V, Insulation thickness 0.4mm	IEC/EN 60950-1 UL1577	TUV Rheinland UL(E67349)	
Transistor (Q1, Q2)	Various	Various	500Vmin, 6Amin	---	Evaluated together with unit	
Connector (YC1)	Japan Solderless Terminal Mfg. Co., Ltd.	VT	AC250V, Max.12A	IEC/EN 61984 UL1977	TUV Rheinland UL(E60389)	
Connector (YC2)	Japan Solderless Terminal Mfg. Co., Ltd.	VH	AC400V,7A	IEC/EN 61984 UL1977	TUV Rheinland UL(E60389)	
Transformer (T1)	Murata Mfg. Co. Ltd.	2Q107	Class B UL System Designation CM	---	Evaluated together with unit	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Relay (RL1)	Panasonic Electric Works Co., Ltd. or Matsushita Electric Works Co., Ltd. or Panasonic	ALE1PB24	Contact:250/277 V, 16A Coil:24 Vdc	UL508 UL60497	UL(E43149)	
Alternate Relay (RL1)	Daiichi Electric Co., Ltd.	DH1U series	Contact:250V, 10A Coil:24Vdc	UL508 UL60947	UL(E98688)	
PWB	Various	Various	Flam. Class V-1 or better	UL796	UL	

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

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
High Voltage Unit						
High Voltage Unit	Murata Mfg. Co., Ltd.	MPH7462X (X may be any number from 0 to 9 or alphabetical number or blank)	Input: 24V dc Outputs: M : 1100V (p-p) B : 1.5kV (p-p) T : -2.4kV S : 2kV	-	Evaluated together with unit	
High Voltage Unit - Transformer (B51)	Murata Mfg. Co., Ltd.	QU004	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B101)	Murata Mfg. Co., Ltd.	QM113	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B200)	Murata Mfg. Co., Ltd.	QU003	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B301)	Murata Mfg. Co., Ltd.	QW014	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B451)	Murata Mfg. Co., Ltd.	QJ002	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B501)	Murata Mfg. Co., Ltd.	QJ003	Class A	-	Evaluated together with unit	
High Voltage Unit – Fuse (F1) for L.P.S	Littelfuse Inc.	491	125V, 1.5A	UL248-1	UL(E10480)	
High Voltage Unit - Alternate Fuse (F1) for L.P.S	Bussmann Div Copper (UK) Ltd. or Cooper Bussmann Inc. or Cooper Bussmann L L C	MCRF	125V, 1.5A	UL248-1	UL(E19180)	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹ .	
Fan Motor, Motor, Clutch, Solenoid						
LVU Fan Motor - Optional	Nidec	D06R-24TH XX (AX) (X may be any number from 0 to 9 or alphabetical number or blank)	24V dc, 0.09A, 0.50m ³ /min., Class E (Class A for UL)	-	Evaluated together with unit	
LSU Fan Motor	Minebea Motor Manufacturing Corporation	2410RL-05W- S60	24V dc, 0.12A, 0.75m ³ /min., Class E (Class A for UL)	-	Evaluated together with unit	
DLP Fan Motor	Nidec	D08K-24TU XX(AX) (X may be any number from 0 to 9 or alphabetical number or blank)	24V dc, 0.13Arms, 1.19m ³ /min., Class E (Class A for UL)	-	Evaluated together with unit	
Center Fan Motor - Optional, Rear Fan Motor - Optional	Nidec	D05F-24PH XX (EX) (X may be any number from 0 to 9 or alphabetical number or blank)	24V dc, 0.10Arms, 0.11m ³ /min., Class F (Class A for UL)	-	Evaluated together with unit	
Alternate Center Fan Motor - Optional, Alternate Rear Fan Motor - Optional	Minebea Motor Manufacturing Corporation	BM5115-05W- B40-XXX (X may be any number from 0 to 9 or alphabetical number or blank)	24V dc, 0.10Arms, 0.08 m ³ / min., Class E (Class A for UL)	-	Evaluated together with unit	
Main Motor, Drum Motor - Optional	Nidec	48M069FXXX (X may be any number from 0 to 9 or alphabetical number or blank)	24V dc, 2.2A, Class A	-	Evaluated together with unit	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Polygon Motor	Minebea Motor Manufacturing Corporation	MASQ6EF3LKX (X may be any number from 0 to 9 or alphabetical number or blank)	24V dc, 0.6Arms, Class E (Class A for UL)	-	Evaluated together with unit	
Alternate Polygon Motor	Minebea Motor Manufacturing Corporation	MASQ6NF10LK X (X may be any number from 0 to 9 or alphabetical number or blank)	24V dc, 0.65Arms, Class E (Class A for UL)	-	Evaluated together with unit	
Alternate Polygon Motor	Minebea Motor Manufacturing Corporation	MASQ6NF8LKX (X may be any number from 0 to 9 or alphabetical number or blank)	24V dc, 0.65Arms, Class E (Class A for UL)	-	Evaluated together with unit	
Toner Motor	Mabuchi Motor Co., Ltd.	RK-370CA- 11670	24V dc, 130mA, Class A	-	Evaluated together with unit	
FD Motor	Minebea Motor Manufacturing Corporation	PM42M-048- XXXX (X may be any number from 0 to 9 or alphabetical number or blank)	Stepper Type, 24V dc, 400mA, Class E (Class A for UL)	-	Evaluated together with unit	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Lift Motor - Optional, Envelop Motor - Optional	Standard Motor Co., Ltd.	RC370-KT- 081000	24V dc, 110mA, Class A	-	Evaluated together with unit	
Alternate Lift Motor - Optional, Envelop Motor – Optional	Mabuchi Motor Co., Ltd.	RK-370CA- 081050	24Vdc, 110mA, CLASS A	-	Evaluated together with unit	
DLP Clutch, Mid Clutch - Optional, Feed Clutch, DU Clutch - Optional	Tenryu Marusawa Co., Ltd.	TMC-2T-XX (X may be any number from 0 to 9 or alphabetical number or blank)	24V dc, 0.083A, Class E (Class A for UL)	-	Evaluated together with unit	
Reg Clutch	Daiken or Sinfonia Microtec Co., Ltd.	MCA-50T	24V dc, 0.104A, Class E (Class A for UL)	-	Evaluated together with unit	
Face U/D Solenoid - Optional	TDS	TDS-KN07A-XX (X may be any number from 0 to 9 or alphabetical number or blank)	24V dc, 1A, Class E (Class A for UL)	-	Evaluated together with unit	
MPF Solenoid	TDS	TDS-F06A-XX (X may be any number from 0 to 9 or alphabetical number or blank)	24V dc, 240mA, Class E (Class A for UL)	-	Evaluated together with unit	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Laser Scanner Unit						
Laser Diode	Opnext Japan, Inc. or Oclaro Japan Inc.	HL67040GNXX X (X may be any number from 0 to 9 or alphabetical number or blank)	Class 3B, Wavelength: 670nm, Output Power: 25mW	-	Evaluated together with unit	
Lid Scanner, Housing Scanner	Various	Various	Min. HB75	UL94	UL	
Fuses						
Fuse (YF7) for L.P.S (on Engine PWB) for 24V of PF-320, PF-315+ Paper Feeder Option Unit	Skygate Co., Ltd.	SCT	250V,T3.15A	IEC/EN 60127 UL248-1 UL248-14	SEMKO UL(E195833)	
Fuse (YF8) for L.P.S (on Engine PWB) for 3.3V of PF- 320,PF-315+ Paper Feeder Option Unit	Skygate Co., Ltd.	0603FT	32V, 2A	UL248-1	UL(E195833)	
Fuse (YF1) for L.P.S (on Engine PWB) for 24V of Polygon Motor and Connect-L PWB	Skygate Co., Ltd.	SCT	250V,T3.15A	IEC/EN 60127 UL248-1 UL248-14	SEMKO UL(E195833)	
Fuse (YF5) for L.P.S (on Engine PWB) for 5V of APC PWB and Panel PWB	Skygate Co., Ltd.	0603FT	32V, 2A	UL248-1	UL(E195833)	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Fuse (YF6) for L.P.S (on Engine PWB) for 3.3V of Connect L PWB, Panel PWB, APC PWB and High Voltage Unit	Skygate Co., Ltd.	0603FT	32V, 2A	UL248-1	UL(E195833)	
Fuse (YF2) for L.P.S (on Engine PWB) for 24V of LSU Fan Motor and TH Connect PWB, Panel PWB	Skygate Co., Ltd.	SCT	250V,T3.15A	IEC/EN 60127 UL248-1 UL248-14	SEMKO UL(E195833)	
Fuse (F1) for L.P.S (on Main PWB) for 5V of USB	Skygate Co., Ltd.	1206FT	32V, 4A	UL248-1	UL(E195833)	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ^{1.}	
Enclosure						
Cover Top, Cover Left, Cover Rear	Ineos ABS (Thailand) Co., Ltd. or Styrolution (Thailand) Co., Ltd. or Elix Polymers SL or Styrolution Koeln GMBH	P2H-AT	Min. HB75	UL94	UL (E256400) or UL(E350602) or UL(E326278)	
Cover Top, Cover Left, Cover Rear - Alternate	Styrolution GMBH	GP-22 or GP-35	Min. HB75	UL94	UL (E108538)	
Cover Top, Cover Left, Cover Rear - Alternate	Bayer Material Science	FR3006 HF	Min.HB	UL94	UL(E41613)	
Cover Top, Cover Left, Cover Rear - Alternate	Teijin Chemicals Ltd. Research & Development Div or Teijin Limited Resin and Plastic or Maveriq Partners Inc. or Teijin Chemicals Plastic Compounds Shanghai Ltd.	TN-7900 or TN-7500 or TX-5700 or TN-9500 or TN-7500ED	Min. HB	UL94	UL(E98529) or UL(E358645) or UL(E244324)	
Cover Top, Cover Left, Cover Rear - Alternate	Techno Polymer Hong Kong Co., Ltd. or Techno Polymer Co., Ltd.	JPH-150A or 330	HB75	UL94	UL(E134768) or (E54297)	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹ .	
Cover Top, Cover Left, Cover Rear - Alternate	Formosa Chemicals & Fibre Corp Plastics Div	AF353	Min.HB	UL94	UL(E162823)	
Cover Top, Cover Left, Cover Rear - Alternate	Sabic Innovative Plastic Japan L L C	C6600	Min.HB	UL94	UL(E45587) or UL(E207780)	
Cover Right	Bayer Material Science AG	FR3006 HF	Min. V-1	UL94	UL(E41613)	
Cover Right - Alternate	Teijin Chemicals Ltd. Research & Development Div or Teijin Limited Resin and Plastic or Maveriq Partners Inc. or Teijin Chemicals Plastic Compounds Shanghai Ltd.	TN-7900 or TN-9500 or TN-7500ED	Min. V-1	UL94	UL(E98529) or UL(E358645) or UL(E244324)	
Cover Right - Alternate	Sabic Innovative Plastic Japan L L C	C6600	Min. V-1	UL94	UL(E45587) or UL(E207780)	
Frame Right, Frame Left	Various	Various	Steel, Min. 0.5mm thick	---	---	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components – continued.					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹ .	
Paper Feeding Unit, Model PF-320 (Option)						
Trans Motor	Nidec Corporation	48M069FXXX (X may be any number from 0 to 9 or alphabetical number or blank)	24V dc, 1.6A, Class A	-	Evaluated together with unit	
Lift Motor	Standard Motor Co., Ltd.	RC370-KT-081000	24V dc, 110mA, Class A	-	Evaluated together with unit	
Lift Motor - Alternate	Mabuchi Motor Co., Ltd.	RK-370CA-081050	24Vdc, 110mA, CLASS A	-	Evaluated together with unit	
Feed Clutch, Trans Clutch	Daiken or Sinfonia Microtec Co., Ltd.	MCA-50T	24V dc, 0.104A, Class E (Class A for UL)	-	Evaluated together with unit	
Frame Right, Frame Left, Frame Top	Various	Various	Min. HB75	UL94	UL	
Paper Feeding Unit, Model PF-315+ (Option)						
Trans Motor	Minebea-Matsushita Motor Corporation	PM55L-048-XXXX (X may be any number from 0 to 9 or alphabetical number or blank)	Stepper Type, 24V dc, 600mA, Class E (Class A for UL)	-	Evaluated together with unit	
Lift Motor	Tsukasa Electric Co., Ltd.	TG-38B-LG-44-A486	24V dc, 270mA, Class A	-	Evaluated together with unit	
Cover Side	Various	Various	Min. HB75	UL94	UL	
Supplementary information:						
¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039.						

IEC 60950-1			
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
Basic/supplementary:				
Switching Power Supply Unit:MPW3100, (primary - PE)		AC	2100	No
Switching Power Supply Unit:MPW3100L, (primary - PE)		AC	2020	No
Switching Power Supply Unit:MPW3099, (primary - PE)		AC	1500	No
Switching Power Supply Unit:MPW3099L, (primary - PE)		AC	1500	No
Reinforced:				
Switching Power Supply Unit:MPW3100, (primary - secondary)		AC	3000	No
Switching Power Supply Unit:MPW3100L, (primary - secondary)		AC	3000	No
Switching Power Supply Unit:MPW3099, (primary - secondary)		AC	3000	No
Switching Power Supply Unit:MPW3099L, (primary - secondary)		AC	3000	No
Alternate Photo Coupler (PC1, PC3, PC5) for Switching Power Supply Unit, (primary - secondary) TOSHIBA Corp. / TLP363JF		AC	3000	No
Supplementary information: None				

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Clause	Requirement + Test	Result - Remark	Verdict

List of test equipment used:

Management No.	Test Instrument Name	Type	Mechanical No.	Manufacturing	Calibration Date - Last	Calibration Date - Due
G14-C077	Temperature Recorder	4179	4179JA141	Yokogawa	2012-07-20	2013-07-19
G14-C103	Steel Ball	TB-500	G14-C103	EXCEL	2012-09-19	2013-09-18
G14-C113	Steel Ruler 2m	No. 102H04J	G14-C113	Shinwa	2013-05-17	2014-05-16
G14-C114	Temp. and Humidity Meter	NT3-D	50173024	Rotronic	2013-03-14	2014-03-13
G14-C117	Digital Force Gauge	Z2-500N	202869	IMADA	2012-10-22	2013-10-21
G14-C118	Stop Watch	SVAE101	756428	SEIKO S-YARD	2012-10-23	2013-10-22
G14-C125	Dielectric Tester	TOS5051	BA002985	Kikusui	2012-07-18	2013-07-17
TS-50	Humidity Chamber	PLZ 150W	30093413	Kikusui Electronics Corp.	---(*1)	---(*1)

(*1): TS-50 was monitored with Instrument No. G14-C114.

Supplementary information: The equipment was used with TMP