

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

50029843 002

for

MFP (Multi Function Printer)

TASKalfa 306ci, TASKalfa 356ci, TASKalfa 406ci
306ci, 356ci, 406ci

KYOCERA Document Solutions Inc.



This documentation consists of **46** 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. : 50029843 002

Date of issue : 2015-08-11

Total number of pages : 46

Applicant's name : KYOCERA Document Solutions Inc.

Address : 1-2-28, Tamatsukuri, Chuo-ku, Osaka-shi, Osaka, 540-8585 Japan

Test specification:

Standard : IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013

Test procedure : CB Scheme

Non-standard test method : N/A

Test Report Form No. : IEC60950_1F

Test Report Form(s) Originator : SGS Fimko Ltd

Master TRF : Dated 2014-02

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General disclaimer:

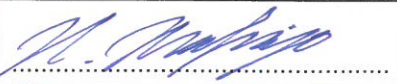
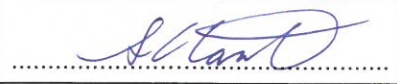

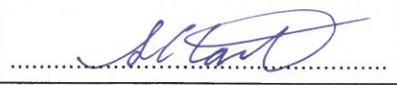
The test results presented in this report relate only to the object tested.

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Test item description :	MFP (Multi Function Printer)
Trade Mark..... :	KYOCERA (on the products)
Manufacturer :	(Same as Applicant)
Model/Type reference :	1) TASKalfa 306ci 2) TASKalfa 356ci, TASKalfa 406ci 3) 306ci 4) 356ci, 406ci
Ratings :	1) 220-240V~, 50/60Hz, 5.0A 2) 220-240V~, 50/60Hz, 5.9A 3) 120V~, 60Hz, 9.5A 4) 120V~, 60Hz, 10.8A

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Testing procedure and testing location:		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	TÜV Rheinland Japan Ltd., Osaka Laboratory
Testing location/ address		Kansai Technology Assessment Center 1-3-14 Fukae Minami, Higashinari-ku, Osaka 537-0002, Japan
<input type="checkbox"/>	Associated CB Testing Laboratory:	
Testing location/ address		
Tested by (name + signature).....		N. Mukaijo 
Approved by (name + signature)		S. Hamamoto 
<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:

None

Summary of testing:**Test sample(s): Serial No.:** Production sample with serial number:

- 406ci: Z785300012

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:

Tests were conducted on CTF Stage 1 location.
(see "testing procedure and testing location" on the previous page)

Testing		Applicable (Yes/No)	Comments
Clause	Test description		
4.5.2	Maximum Temperatures	Yes	
5.3	Abnormal operating and fault conditions	Yes	

Additionally evaluated Test specifications (see original test report):

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

UL 60950-1:2007 R10.14

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

IEC 60825-1:2007 / EN 60825-1:2007

IEC 62471:2006 / EN 62471:2008

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

EU Group Differences, EU Special National Conditions, EU A-Deviations
AT, CA, DK, IT, SE, GB, US

Explanation of used codes:

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

For National Differences see original test report.

Copy of marking plate:

(not changed)

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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)	230 V
Class of equipment	<input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Not classified
Considered current rating of protective device as part of the building installation (A)	16A (for Europe), 20A (for Canada 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)	≤ 3500 m
Altitude of test laboratory (m)	< 1000 m
Mass of equipment (kg)	TASKalfa 306ci: Approx. 48.5 kg TASKalfa 356ci, TASKalfa 406ci: Approx. 48.3 kg 306ci: Approx. 48.5 kg 356ci, 406ci: Approx. 48.3 kg
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	N/A for TMP
Date(s) of performance of tests	2015-07-30 – 2015-07-31

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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) KYOCERA Document Solutions Inc. Hirakata Plant
 1-38-12 Tsuda-Kita-machi, Hirakata-shi, Osaka 573-0121
 Japan

Remark:**Change of Manufacturer:**

(not changed)

Change of Factory(ies):

(not changed)

History of amendments and modifications:

Ref. No. 50029843 001, 2015-07-17 (original test report)

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

1. Correction of the technical data of Transformer (T1) and Transformer (T201) on the each Switching Power Supply Unit, type ADP-385AN AA and type ADP-385BN AA as follows:
To **Class B**, from Class A
For details see "TABLE: List of critical components" in this test report, written in **bold**.
2. Addition of the alternate Carry Motor, type: KV4239-T3B007 manufactured by Nidec Servo Corp. on the each optional Finisher, model DF-5110 and DF-5120.
For details see "TABLE: List of critical components" in this test report, written in **bold**.
3. Addition of SWPS T1 coil, temperature data in 4.5 Table:
Temperature rise measurements of condition T and U due to type error correction.
For details see "TABLE: Temperature rise measurements" in this test report, written in **bold**.

For the above described changes the following was considered to be necessary:

Change	Testing		Comments
	Clause	Test description	
2	4.5.2	Maximum Temperatures	
	5.3	Abnormal operating and fault conditions	
1, 3	--	--	No additional test is necessary.

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Clause	Requirement + Test	Result - Remark	Verdict

4	PHYSICAL REQUIREMENTS		P
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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.5	—
4.5.3	Temperature limits for materials	(see appended table 4.5)	P

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		P
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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.	P

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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 (Edition / year)	Mark(s) of conformity	
Power Supply Cord for 220 - 240V (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 0620-1 DIN VDE 0281-5 HD21.5 S3 IEC/EN60320-1 VDE 0625-1	VDE	
Power Supply Cord for 120V (Optional)	Volex	Plug: PS204X (X may be any alphabetical number or blank) Cord: SJT Connector: V1625	125V, 13A or 15A 16 AWG x 3 125V, 13A Max. 4.5m long, min. 1.5m long	UL817 UL62	UL(E62405) UL(E159216) UL(E156136)	
Appliance Inlet	Rong Feng Industrial Co., Ltd.	SS-120 Series	250Vac, 10A (VDE) 250Vac, 15A (UL)	EN60320-1 IEC60320-1 UL498	VDE UL(E102641)	
Switch						
Main Switch (Optional)	Shinmei Electric Co., Ltd.	SLS-11-800-1BB	16A, 250Vac	IEC/EN61058-1 UL61058-1/1054	TUV UL(E90211)	
Front Cover Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles (VDE) 100,000 Cycles (UL)	EN/IEC61058-1 UL1054	ENEC/VDE UL(E41515)	
Right Cover Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles (VDE) 100,000 Cycles (UL)	EN/IEC61058-1 UL1054	ENEC/VDE UL(E41515)	

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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 (Edition / year)	Mark(s) of conformity	
Fixing Unit						
Thermal Cutoff for Model TASKalfa 306ci, 306ci	Wako Electronics Co., Ltd.	B-2	125Vac/25A, 250Vac/15A, 180°C	EN/IEC60730 UL873	VDE UL(E50367)	
Heater Lamp for 220 - 240V for Model TASKalfa 306ci	Ushio Inc.	QIRF 240-926 MKQW	240Vac , 926W	-	Evaluated together with unit	
Heater Lamp for 120V for Model 306ci	Ushio Inc.	QIRF 120-867 MKQW	120Vac , 867W	-	Evaluated together with unit	
Thermal Cutoff for Model TASKalfa 356ci, TASKalfa 406ci, 356ci, 406ci	Wako Electronics Co., Ltd.	B-2	Two provided. 125Vac/25A, 250Vac/15A, 180°C	EN/IEC60730 UL873	VDE UL(E50367)	
Heater Lamp for 220 - 240V for Model TASKalfa 356ci, TASKalfa 406ci	Ushio Inc.	QIRF 240-641/427 MKQW	240Vac , Main: 641W, Sub: 427W	-	Evaluated together with unit	
Heater Lamp for 120V for Model 356ci, 406ci	Ushio Inc.	QIRF 120-600/400 MKQW	120Vac , Main: 600W, Sub: 400W	-	Evaluated together with unit	
Fuser Right Cover, Exit Guide, Side F Cover, Side R Cover, Paper Fuser Guide, Drive Press Cover, Fuser Left Frame	Kaneka Corp.	3401NX	V-0, Min. 1.5mm thick	UL94	UL(E48854)	
Fuser Unit – Heater Connector	Japan Solderless Terminal Mfg. Co., Ltd.	Type L, series EL	300V max., 10A max.	IEC/EN61984 UL1977	TUV UL(E60389)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
Switching Power Supply for Model TASKalfa 306ci and 306ci						
Switching Power Supply Unit for 220 - 240V	Murata Mfg. Co., Ltd.	MPW3162MX (X may be blank or any number from 0 to 9 or alphabetical number.)	Input: AC 220 - 240 V Output: 24V/7.0A	-	Evaluated together with unit	
Switching Power Supply Unit for 120V	Murata Mfg. Co., Ltd.	MPW3161MX (X may be blank or any number from 0 to 9 or alphabetical number.)	Input: AC 100 - 120V Output: 24V/7.0A	-	Evaluated together with unit	
Bleeding Resistors (R4, R5)	Interchangeable	Interchangeable	2.7 kohm, 1/4 W	-	Evaluated together with unit	
Bleeding Resistors (R6, R7)	Interchangeable	Interchangeable	5.6 kohm, 1/4 W	-	Evaluated together with unit	
PWM Control IC (IC1)	Fuji Electric Co., Ltd.	FA8A71N (8A71)	VH pin: 500V/10mA VCC pin: 28V/20mA	IEC/EN60950-1	NEMKO CB (NO81148)	
Surge Suppressor (Z1)	Nippon Chemi-Con Corp.	TNR14SE471K or TND14SE471K (Marking: 14SE471)	300 Vac	IEC/EN61051 IEC/EN60950-1 Annex Q UL1449	VDE UL(E323623)	
X - Capacitor (C1) for 220 - 240V	Okaya Electric Industries Co., Ltd.	LE-MX (Marking: LE224)	310V, 0.22uF X2	EN/IEC60384-14 UL60384-14	ENEC(SEMKO)) UL(E47474)	
X - Capacitor (C6) for 220 - 240V	Okaya Electric Industries Co., Ltd.	LE-MX (Marking: LE104)	310V, 0.1uF X2	EN/IEC60384-14 UL60384-14	ENEC(SEMKO)) UL(E47474)	
X - Capacitor (C1, C6) for 120V	Okaya Electric Industries Co., Ltd.	LE-MX (Marking: LE334)	310V, 0.33uF X2	EN/IEC60384-14 UL60384-14	ENEC(SEMKO)) UL(E47474)	
Y -Capacitors (C4, C5) for 220 - 240V	Murata Mfg. Co., Ltd.	KH	300V/250V, 470pF Y2	EN/IEC60384-14 UL1414/ UL60384-14	SEMKO UL(E37921)	
Y -Capacitors (C4, C5) for 120V	Murata Mfg. Co., Ltd.	KH	300V/250V, 2200pF Y2	EN/IEC60384-14 UL1414/ UL60384-14	SEMKO UL(E37921)	
Bridge Capacitor (C50)	Murata Mfg. Co., Ltd.	KX	300V/250V, 4700pF Y1	EN/IEC60384-14 UL1414/ UL60384-14	SEMKO UL(E37921)	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
Electrolytic Capacitor (C7) for 220 - 240V	Interchangeable	Interchangeable	400V or 450V, 270uF	-	Evaluated together with unit	
Electrolytic Capacitor (C7) for 120V	Interchangeable	Interchangeable	200V, 1200uF	-	Evaluated together with unit	
Inductor (L1, L2) for 220 - 240V	Tokyo Parts Industrial Co., Ltd.	TLV-20 (1R5A402V20A) (Marking: 402A)	4.0mH Class E	-	Evaluated together with unit	
Inductor (L1, L2) for 120V	Tokyo Parts Industrial Co., Ltd.	TLF-28YA (4R0A262F28YA) (Marking: 4R0A262A)	2.6mH Class A	-	Evaluated together with unit	
Inductor (L3) for 220 - 240V	Tabuchi Electric Co., Ltd.	E2815C0785A-S (Marking: E2815C0785A)	4.0mH Class A	-	Evaluated together with unit	
Inductor (L51) for 220 - 240V	Tamura Corp.	SKP-T16274	40uH Class A	-	Evaluated together with unit	
Inductor (L51) for 120V	Tamura Corp.	SKP-T16413	35uH Class A	-	Evaluated together with unit	
Bridge Rectifier (D1) for 220 - 240V	Interchangeable	Interchangeable	Min. 600V, Min. 4A	UL1557	UL	
Bridge Rectifier (D1) for 120V	Interchangeable	Interchangeable	Min. 600V, Min. 15A	UL1557	UL	
FET (Q1, Q2) for 220 - 240V	Interchangeable	Interchangeable	Min. 900V, Min. 5A	-	Evaluated together with unit	
FET (Q1, Q2) for 120V	Interchangeable	Interchangeable	Min. 500V, Min. 12A	-	Evaluated together with unit	
Triac (TRA31) for 220 - 240V	Interchangeable	Interchangeable	Min. 800V, Min. 12A	-	Evaluated together with unit	
Triac (TRA31) for 120V	Interchangeable	Interchangeable	Min. 600V, Min. 16A	-	Evaluated together with unit	
Photo Coupler (PC1, PC5)	Everlight Electronics Co., Ltd.	EL816M2 (Marking: EL816)	Isolation thickness: ≥ 0.5 mm, Ext. cr.: ≥7.7 mm, Int. cr. : ≥6 mm,	IEC/EN60950-1 IEC/EN60065 UL1577	SEMKO UL(E214129)	

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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 (Edition / year)	Mark(s) of conformity	
Photo Coupler (PC3)	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 UL1577	SEMKO UL(E67349)	
Transformer (T1) for 220 - 240V	Murata Mfg. Co., Ltd.	2V121	Class B UL System Designation: CM	UL1446	Evaluated together with unit UL(E247878)	
Transformer (T1) for 120V	Murata Mfg. Co., Ltd.	2V120	Class B UL System Designation: CM	UL1446	Evaluated together with unit UL(E247878)	
Fuse (F1) for 220 - 240V	Cooper Bussmann Inc.	S505 (-R series)	250V, T5AH	EN60127-2 IEC60127-2 UL248-1/ UL248- 14	SEMKO UL(E19180)	
Fuse (F1) for 220 - 240V, Alternate	SkyGate Co., Ltd.	SG5063	250V, T5AH	EN60127-2 IEC60127-2 UL248-1/ UL248- 14	SEMKO UL(E195833)	
Fuse (F1) for 120V	Cooper Bussmann Inc.	S505 (-R series)	250V, T6.3AH	EN60127-2 IEC60127-2 UL248-1/ UL248- 14	SEMKO UL(E19180)	
Fuse (F1) for 120V, Alternate	SkyGate Co., Ltd.	SG5063	250V, T6.3AH	EN60127-2 IEC60127-2 UL248-1/ UL248- 14	SEMKO UL(E195833)	
Fuse (F3)	SkyGate Co., Ltd.	SCT	250V, T2.5AL	EN60127-3 IEC60127-3 UL248-1/ UL248- 14	SEMKO UL(E195833)	
Fuse (F3), Alternate	Hollyland Company Ltd.	5ET	250V, T2.5AL	EN60127-3 IEC60127-3 UL248-1/ UL248- 14	SEMKO UL(E156471)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
Fuse (F51) for 220 - 240V	Cooper Bussmann Inc.	S505 (-R series)	250V, T10AH	EN60127-2 IEC60127-2 UL248-1/ UL248- 14	SEMKO UL(E19180)	
Fuse (F51) for 220 - 240V, Alternate	SkyGate Co., Ltd.	SG5063	250V, T10AH	EN60127-2 IEC60127-2 UL248-1/ UL248- 14	SEMKO UL(E195833)	
Fuse (F51) for 120V	Hollyland Co., Ltd.	50CT(P) series	250V, T12.5AH	EN60127-2 IEC60127-2 UL248-1/ UL248- 14	SEMKO UL(E156471)	
Relay (RL1) for 220 - 240V	Daiichi Electric Co., Ltd.	DG1U series	Contact: 250V, 10A Coil: 24 Vdc	EN/IEC61810-1 (TUV) EN/IEC61058-1 (SEMKO) UL508 UL60947	TUV SEMKO UL(E98688)	
Relay (RL1) for 220 - 240V, Alternate	Panasonic Electric Works Co., Ltd. or Panasonic	LK series (LKP1aF-24V or ALKP322)	Contact: 250/277V, 10A Coil: 24 Vdc	EN/IEC61810-1 UL508 UL60947	TUV UL(E43149)	
Relay (RL1) for 120V	Panasonic Electric Works Co., Ltd. or Panasonic	ALE series (ALE1PB24)	Contact: 250/277V, 16A Coil: 24 Vdc	EN/IEC61810-1 UL508 UL60947	VDE UL(E43149)	
Relay (RL1) for 120V, Alternate	Daiichi Electric Co., Ltd.	DH1U series	Contact: 250V, 16A Coil: 24 Vdc	EN/IEC61810-1 UL508	VDE UL(E98688)	
Connector (CN3)	Japan Solderless Terminal Mfg Co., Ltd.	Type H, series XH	250V, 3A (AWG 22)	IEC/EN61984 UL1977	TUV UL(E60389)	
Connector (YC101)	Japan Solderless Terminal Mfg Co., Ltd.	Type H, series VT	250V, 12A (AWG 16)	IEC/EN61984 UL1977	TUV UL(E60389)	
Connector (YC102)	Japan Solderless Terminal Mfg Co., Ltd.	Type H, series VH	250V, 10A (AWG 16)	IEC/EN61984 UL1977	TUV UL(E60389)	
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 (Edition / year)	Mark(s) of conformity	
Switching Power Supply for Model TASKalfa 356ci, TASKalfa 406ci, 356ci and 406ci						
Switching Power Supply Unit for 220 - 240V	Delta Electronics, Inc.	ADP-385BN AA	Input: AC 220 - 240 V Output: 5V0/max. 9.2A, 24V2/max. 10.154A, 24V2PF/max. 1A, 24V2DF/max. 3A	-	Evaluated together with unit	
Switching Power Supply Unit for 120V	Delta Electronics, Inc.	ADP-385AN AA	Input: AC 100 - 127 V Output: 5V0/max. 9.2A, 24V2/max. 10.154A, 24V2PF/max. 1A, 24V2DF/max. 3A	-	Evaluated together with unit	
Bleeding Resistor (R202)	Interchangeable	Interchangeable	15 kohm, 1/4 W	-	Evaluated together with unit	
PWM Control IC (IC202)	Fuji Electric Co., Ltd.	FA8A41N (8A41)	VH pin: 500V/10mA VCC pin: 28V/20mA	IEC/EN60950-1	NEMKO CB (NO81148)	
Varistor (Z1)	Joyin Co., Ltd.	JVH14S471K or 14S471K	300 Vac	IEC/EN61051 IEC/EN60950-1 Annex Q UL1449	VDE UL(E325508)	
Varistor (Z1), Alternate	Thinking Electronic Industrial Co., Ltd.	TVR14471-D or TVR14471	300 Vac	IEC/EN61051 IEC/EN60950-1 Annex Q UL1449	VDE UL(E314979)	
Varistor (Z1), Alternate	Epcos OHG or Epcos (Zhuhai FTZ) Co., Ltd.	S14K300E2K1 (S14KV471))	300 Vac	EN/IEC61051 IEC/EN60950-1 Annex Q UL1449	VDE UL(E321126)	
X - Capacitors (CX1, CX2)	EUROPTRONIC (TAIWAN) INDUSTRIAL CORP	MPX2	250/275/305V, 0.47uF X2	EN/IEC60384-14 UL60384-14	ENEC(VDE) UL(E211347)	
X - Capacitors (CX1, CX2), Alternate	Hua Jung Components Co., Ltd.	MKP	250/275/305/310V, 0.47uF X2	EN/IEC60384-14 UL60384-14	ENEC(SEMKO) UL(E149075)	
X - Capacitors (CX1, CX2), Alternate	Kemet Electronics Corp.	R.46 series	275/300/310V, 0.47uF X2	EN/IEC60384-14 UL60384-14	ENEC(IMQ) UL(E97797)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
X - Capacitors (CX1, CX2), Alternate	Zhuhai Sung Ho Electronics Co., Ltd.	CMPP	275/310V, 0.47uF X2	EN/IEC60384-14 UL60384-14	ENEC(VDE) UL(E327138)	
X - Capacitors (CX1, CX2), Alternate	Okaya Electric Industries Co., Ltd.	LE series (Marking: LE474)	250 - 310V, 0.47uF X2	EN/IEC60384-14 UL60384-14	ENEC(SEMKO) UL(E47474)	
X - Capacitors (CX1, CX2), Alternate	Panasonic	ECQUL	275V, 0.47uF X2	EN/IEC60384-14 UL60384-14	VDE UL(E62674)	
X - Capacitors (CX1, CX2), Alternate	Epcos Electronic Components SA	B3292 series	275/305V, 0.47uF X2	EN/IEC60384-14 UL60384-14	ENEC(UL) UL(E97863)	
X - Capacitors (CX1, CX2), Alternate	Pilkor or Cowell Fashion Co., Ltd. Pilkor Electronics	PCX2 339 or 339	275/305V, 0.47uF X2	EN/IEC60384-14 UL60384-14	ENEC(SEMKO) UL(E165646)	
X - Capacitors (CX1, CX2), Alternate	Xiamen Faratronic Co., Ltd.	MKP62 or C42	275/305/310V, 0.47uF X2	EN/IEC60384-14 UL60384-14	ENEC(VDE) UL(E186600)	
Y -Capacitors (CY3, CY4)	Murata Mfg. Co., Ltd.	KX	300V/250V, 1000pF Y1	EN/IEC60384-14 UL60384-14	SEMKO UL(E37921)	
Y -Capacitors (CY3, CY4), Alternate	TDK-EPC Corp.	CD	250V, 1000pF Y1	EN/IEC60384-14 UL60384-14	SEMKO UL(E37861)	
Y -Capacitors (CY3, CY4), Alternate	Walsin Technology Corp.	AH series	250V, 1000pF Y1	EN/IEC60384-14 UL60384-14	SEMKO UL(E146544)	
Bridge Capacitor (CY1, CY2)	TDK-EPC Corp.	CD	250V, 1500pF Y1	EN/IEC60384-14 UL60384-14	SEMKO UL(E37861)	
Bridge Capacitor (CY1, CY2), Alternate	Murata Mfg. Co., Ltd.	KX	300V/250V, 1500pF Y1	EN/IEC60384-14 UL60384-14	SEMKO UL(E37921)	
Bridge Capacitor (CY1, CY2), Alternate	Walsin Technology Corp.	AH series	250V, 1500pF Y1	EN/IEC60384-14 UL60384-14	SEMKO UL(E146544)	
Bridge Capacitor (CY1, CY2), Alternate	Kunshan Wansheng Electronics Co., Ltd.	CT7	250V, 1500pF Y1	EN/IEC60384-14 UL60384-14	SEMKO UL(E249006)	
Electrolytic Capacitor (C1)	Interchangeable	Interchangeable	450V, 470uF or 560uF	-	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 (Edition / year)	Mark(s) of conformity	
Inductor (FL2, FL3)	Delta Electronics Inc.	HFV-DA10605	Min. 12mH Class A	-	Evaluated together with unit	
Inductor (FL2, FL3), Alternate	Delta Electronics Inc.	HFV-MP14359	Min. 12mH Class A	-	Evaluated together with unit	
Inductor (FL4)	Delta Electronics Inc.	HFV-MP12234	Min. 4.14mH Class A	-	Evaluated together with unit	
Inductor (FL4), Alternate	Delta Electronics Inc.	HFV-MP15052	Min. 4.14mH Class A	-	Evaluated together with unit	
Inductor (L1)	Delta Electronics Inc.	PFCV-MP14023	150uH Class A	-	Evaluated together with unit	
Inductor (L301)	Delta Electronics Inc.	CRV-MP11200	150uH Class A	-	Evaluated together with unit	
Bridge Rectifier (BD1)	Interchangeable	Interchangeable	Min. 600V, Min. 25A	UL1557	UL	
FET (Q1, Q2) for 220 - 240V	Interchangeable	Interchangeable	Min. 600V, Min. 9.7A	-	Evaluated together with unit	
FET (Q1, Q2) for 120V	Interchangeable	Interchangeable	Min. 600V, Min. 15.8A	-	Evaluated together with unit	
FET (Q3, Q4)	Interchangeable	Interchangeable	Min. 600V, Min. 11.5A	-	Evaluated together with unit	
FET (Q201)	Interchangeable	Interchangeable	Min. 800V, Min. 2.0A	-	Evaluated together with unit	
Triac (TR301)	Interchangeable	Interchangeable	Min. 600V, Min. 16A	-	Evaluated together with unit	
Triac (TR302) for 220 - 240V	Interchangeable	Interchangeable	Min. 600V, Min. 16A	-	Evaluated together with unit	
Triac (TR302) for 120V	Interchangeable	Interchangeable	Min. 600V, Min. 25A	-	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 (Edition / year)	Mark(s) of conformity	
Photo Coupler (IC51, IC55, IC302, IC305, IC311)	Sharp Corp.	PC123	Isolation thickness: > 0.4 mm, Ext. cr.: > 8 mm, Int. cr. = thermal cycling tested (2.10.11), Isolation voltage: min. AC 5000V	EN/IEC60950-1 EN/IEC60065 UL1577	SEMKO UL(E64380)	
Photo Coupler (IC51, IC55, IC302, IC305, IC311), Alternate	Everlight Electronics Co., Ltd.	EL816M (Marking: EL816)	Isolation thickness: ≥ 0.5 mm, Ext. cr.: ≥7.7 mm, Int. cr.: ≥6 mm,	IEC/EN60950-1 IEC/EN60065 UL1577	SEMKO UL(E214129)	
Photo Coupler (IC51, IC55, IC302, IC305, IC311), Alternate	Lite-On Technology Corp.	LTV-816 series	Isolation thickness: ≥ 0.6 mm, Ext. cr.: ≥8.0 mm, Int. cr.: ≥5.2mm	IEC/EN60950-1 IEC/EN60065 UL1577	DEMKO UL(E113898)	
Photo Coupler (IC51, IC55, IC302, IC305, IC311), Alternate	Vishay Semiconductor	VO617C	Isolation thickness: ≥ 0.6 mm, Ext. cr.: ≥8.0 mm, Int. cr.: ≥5.2mm	IEC/EN60950-1 IEC/EN60065 UL1577	FIMKO UL(E52744)	
Photo Coupler (IC51, IC55, IC302, IC305, IC311), Alternate	Toshiba Corp.	TLP785F (Marking: P785F)	Isolation thickness: > 0.6 mm, Ext. cr.: > 8.0 mm, Int. cr.: > 5.2 mm,	IEC/EN60950-1 IEC/EN60065 UL1577	SEMKO UL(E67349)	
Photo Coupler (IC301, IC309)	Toshiba Corp.	TLP3063F	Isolation thickness: > 0.5 mm, Ext. cr.: > 8 mm, Int. cr. = thermal cycling tested (2.10.11), Isolation voltage: min. AC 5000V	IEC/EN60950-1 IEC/EN60747-5- 5 UL1577	SEMKO UL(E67349)	
Photo Coupler (IC301, IC309), Alternate	Everlight Electronics Co., Ltd.	EL3063M (Marking: EL3063)	Isolation thickness: ≥ 0.5 mm, Ext. cr.: ≥7.7 mm, Int. cr.: ≥5.5 mm,	IEC/EN60950-1 IEC/EN60065 UL1577	SEMKO UL(E214129)	
Transformer (T1)	Delta Electronics Inc.	MH-MP14254	450uH Class B UL System Designation: MP- 130I	-	Evaluated together with unit	
Transformer (T201)	Delta Electronics Inc.	MH-MP14088	1000uH Class B UL System Designation: MP- 130I	-	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 (Edition / year)	Mark(s) of conformity	
Fuse (F1) for 220 - 240V	Walter Electronic Co., Ltd.	TSC+P	250V, T6.3AH	EN60127-2 IEC60127-2 UL248-1/ UL248-14	VDE UL(E56092)	
Fuse (F1) for 220 - 240V, Alternate	Littelfuse Inc.	215 series	250V, T6.3AH	IEC/EN60127-2 UL248-1/ UL248-14	VDE UL(E10480)	
Fuse (F1) for 220 - 240V, Alternate	Conquer Electronics Co., Ltd.	UDA-P series	250V, T6.3AH	IEC/EN60127-2 UL248-1/ UL248-14	TUV UL(E82636)	
Fuse (F1) for 220 - 240V, Alternate	Hollyland Co., Ltd.	5CT	250V, T6.3AH	IEC/EN60127-2 UL248-1/ UL248-14	VDE UL(E156471)	
Fuse (F1) for 120V	Walter Electronic Co., Ltd.	TSC	250V, T10AH	EN60127-2 IEC60127-2 UL248-1/ UL248-14	VDE UL(E56092)	
Fuse (F1) for 120V, Alternate	Conquer Electronics Co., Ltd.	UDA series or UDA-A series	250V, T10AH	IEC/EN60127-2 UL248-1/ UL248-14	VDE UL(E82636)	
Fuse (F1) for 120V, Alternate	Littelfuse Inc.	215 series	250V, T10AH	IEC/EN60127-2 UL248-1/ UL248-14	VDE UL(E10480)	
Fuse (F3)	Littelfuse Inc.	215 series	250V, T16AH	IEC/EN60127-2 UL248-1/ UL248-14	TUV UL(E10480)	
Fuse (F3), Alternate	Conquer Electronics Co., Ltd.	UDA series or UDA-A series	250V, T16AH	IEC/EN60127-2 UL248-1/ UL248-14	TUV UL(E82636)	
Fuse (F4)	Walter Electronic Co., Ltd.	TSC+P	250V, T2AH	EN60127-2 IEC60127-2 UL248-1/ UL248-14	VDE UL(E56092)	
Fuse (F4), Alternate	Conquer Electronics Co., Ltd.	UDA-P series	250V, T2AH	IEC/EN60127-2 UL248-1/ UL248-14	TUV UL(E82636)	
Fuse (F4), Alternate	Littelfuse Inc.	215 series	250V, T2AH	IEC/EN60127-2 UL248-1/ UL248-14	VDE UL(E10480)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
Relay (RL51)	Xiamen Hongfa Electroacoustic Co., Ltd.	HF115F-I series (HF115F-I/024- 1HS3A)	Contact: 250V, 16A Coil: 24 Vdc	EN/IEC61810-1 UL508 UL60947	VDE UL(E134517)	
Relay (RL51), Alternate	Xiamen Hongfa Electroacoustic Co., Ltd.	HF14FW series (HF14FW/024- HST)	Contact: 250V, 16A Coil: 24 Vdc	EN/IEC61810-1 UL508 UL60947	VDE UL(E134517)	
Relay (RL51), Alternate	Omron Corp.	G5RL-1A-E-LN	Contact: 250V, 16A Coil: 24 Vdc	EN/IEC61810-1 UL508 UL60947	VDE UL(E41643)	
Connector (YC2)	Japan Solderless Terminal Mfg Co., Ltd.	Type H, series VH	250V, 10A (AWG 16)	IEC/EN61984 UL1977	TUV UL(E60389)	
Connector (YC4)	Japan Solderless Terminal Mfg Co., Ltd.	Type H, series XH	250V, 3A (AWG 22)	IEC/EN61984 UL1977	TUV UL(E60389)	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1, Min. 105°C	UL796	UL	
<i>Heater Relay PWB (Option)</i>						
Relay (RY1)	Panasonic Corp.	ALQ105 (ALQ1 series)	Contact: 250V, 10A Coil: 5 Vdc	EN/IEC61810-1 UL508 UL60947	VDE UL(E43028)	
Connector (YC2, YC3)	Japan Solderless Terminal Mfg Co., Ltd.	Type H, series XA	250V, 3A (AWG 20/22)	IEC/EN61984 UL1977	TUV UL(E60389)	
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 (Edition / year)	Mark(s) of conformity	
High Voltage PWB, Main for Model TASKalfa 306ci, TASKalfa 356ci, 306ci and 356ci						
High Voltage Unit	Murata Mfg. Co., Ltd.	MPH7712	Inputs: 24Vdc/ max. 1.0A Outputs: M: max. 3kV, Vslv: 1.5kVp-p, Vmag: 0.8kVp-p, T1: max. -5kV, T2: max. - 7kV, CL: max -3.5kV, PB: max 1300V	-	Evaluated together with unit	
High Voltage Unit - Transformer (B51)	Murata Mfg. Co., Ltd.	NQ035	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B101, B201, B301, B401)	Murata Mfg. Co., Ltd.	QJ001	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B151, B251, B351, B451)	Murata Mfg. Co., Ltd.	QU101	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B501)	Murata Mfg. Co., Ltd.	QU001	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B551)	Murata Mfg. Co., Ltd.	QP537	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B661, B761, B861, B961)	Murata Mfg. Co., Ltd.	QW108	Class A	-	Evaluated together with unit	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1, Min. 105°C	UL796	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
High Voltage PWB, Main for Model TASKalfa 406ci and 406ci						
High Voltage Unit	Murata Mfg. Co., Ltd.	MPH7713	Inputs: 24Vdc/ max. 2.0A Outputs: M: 1.1kVp- p, Vslv: 1.6kVp-p, Vmag: 2.3kVp-p, T2: max. -7kV, CL: max -3.5kV, PB: max 1300V	-	Evaluated together with unit	
High Voltage Unit - Transformer (B51)	Murata Mfg. Co., Ltd.	NQ035	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B101, B201, B301, B401)	Murata Mfg. Co., Ltd.	QW021	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B151, B251, B351, B451)	Murata Mfg. Co., Ltd.	QU101	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B501)	Murata Mfg. Co., Ltd.	QU001	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B551)	Murata Mfg. Co., Ltd.	QP537	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B1001, B1101, B1201, B1301)	Murata Mfg. Co., Ltd.	QM115	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B1051, B1151, B1251, B1351)	Murata Mfg. Co., Ltd.	QW020	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B631, B731)	Murata Mfg. Co., Ltd.	QU111	Class A	-	Evaluated together with unit	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1, Min. 105°C	UL796	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
High Voltage PWB, Transfer for Model TASKalfa 406ci and 406ci						
High Voltage Unit	Murata Mfg. Co., Ltd.	MPH3406	Inputs: 24Vdc/ max. 0.5A Outputs: T1: max. - 5.0kV	-	Evaluated together with unit	
High Voltage Unit - Transformer (B51)	Murata Mfg. Co., Ltd.	QU103	Class A	-	Evaluated together with unit	
High Voltage Unit - Transformer (B101, B201, B301, B401)	Murata Mfg. Co., Ltd.	QJ001	Class A	-	Evaluated together with unit	
Printed Wiring Board	Interchangeable	Interchangeable	Min. V-1, Min. 105°C	UL796	UL	
Fan Motor, Motor, Clutch, Solenoid						
DLP Fan 1	Nidec Corp.	D06F-24SH 03 (EX)	24Vdc, 0.192A max.	-	Evaluated together with unit	
DLP Fan 2	Nidec Corp.	D06F-24SH 03 (EX)	24Vdc, 0.192A max.	-	Evaluated together with unit	
DLP Fan 3	Nidec Corp.	D05F-24PH 17 (EX)	24Vdc, 0.12A max.	-	Evaluated together with unit	
DLP Fan 4	Nidec Corp.	D05F-24PH 17 (EX)	24Vdc, 0.12A max.	-	Evaluated together with unit	
Steam Spread Fan	Nidec Corp.	D04R-24TM 19 (EX)	24Vdc, 0.08A max.	-	Evaluated together with unit	
Exit Fan	Minebea Co., Ltd. or Minebea Motor Manufacturing Corp.	2410RL-05W-S60- C01	24Vdc, 0.12A max.	-	Evaluated together with unit	
Toner Sucking Fan for Model TASKalfa 406ci, 406ci	Nidec Corp.	D05F-24PH 17 (EX)	24Vdc, 0.12A max.	-	Evaluated together with unit	
Belt Fan for Model TASKalfa 406ci, 406ci	Nidec Corp.	D05F-24PH 17 (EX)	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 (Edition / year)	Mark(s) of conformity	
Controller Fan for Model TASKalfa 356ci, TASKalfa 406ci, 356ci, 406ci	Nidec Corp.	D06R-05TM 12H1 (EX)	5Vdc, 0.41A max.	-	Evaluated together with unit	
Controller Fan for Model TASKalfa 306ci, 306ci	Nidec Corp.	D06R-24TH 04 (AX)	24Vdc, 0.11A max.	-	Evaluated together with unit	
LVU Fan	Nidec Corp.	D06F-24SH 03 (EX)	24Vdc, 0.192A max.	-	Evaluated together with unit	
Clutch Fan	Nidec Corp.	D04R-24TM 19 (EX)	24Vdc, 0.08A max.	-	Evaluated together with unit	
Paper Cooling Fan (Optional)	Delta Electronics, Inc.	BFB0524HHA- BN20	Max. two provided. 24Vdc, 0.20A max.	-	Evaluated together with unit	
Polygon Motor	Minebea Co., Ltd.	MASQ8NF12RK	24Vdc, 0.6Arms max. Brushless Motor	-	Evaluated together with unit	
LSU Cleaning Motor	Mabuchi Motor Co., Ltd.	RK-370CA-081050	24Vdc, 110mA max.	-	Evaluated together with unit	
LSU Cleaning Motor, Alternate	Mabuchi Motor Co., Ltd.	RK-370CA-11670	24Vdc, 130mA max.	-	Evaluated together with unit	
Exit Motor	Minebea Co., Ltd.	PM42S-F48-MIN9	Stepper type 24Vdc, 310mA (peak), Class E	--	Evaluated together with unit	
Transfer Belt Release Motor	Mabuchi Motor Co., Ltd.	RK-370CA-081050	24Vdc, 110mA max.	-	Evaluated together with unit	
Lift Motor	Standard Motor Co., Ltd.	RC370-KT-081000 (RC370- KT/081000/DV)	24Vdc, 110mA max.	-	Evaluated together with unit	
Container Motor	Mabuchi Motor Co., Ltd.	RK-370CA-11670	Four provided. 24Vdc, 130mA max.	-	Evaluated together with unit	
Feed/ Black DLP Motor	Nidec Corp.	42M069F251	24Vdc, 1.1A max. Brushless Motor	-	Evaluated together with unit	
Feed/ Black DLP Motor, Alternate	Nidec Corp.	48M069F261	24Vdc, 1.6A 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 (Edition / year)	Mark(s) of conformity	
Image Motor	Nidec Corp.	48M069F261	24Vdc, 1.6A max Brushless Motor	-	Evaluated together with unit	
Fuser Motor	Oki Micro Engineering Co., Ltd.	KFL42LCB661A	Stepper type, 24Vdc, 650mA	-	Evaluated together with unit	
Fuser Motor, Alternate	Nidec Servo Corp.	KV4239-N3B005	Stepper type, 24Vdc, 1.0A	-	Evaluated together with unit	
Colour DLP Motor	Nidec Corp.	48M069F261	24Vdc, 1.6A max Brushless Motor	-	Evaluated together with unit	
Colour DLP Motor, Alternate	Nidec Corp.	48M069F271	24Vdc, 2.2A max Brushless Motor	-	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 306ci, 306ci	Nidec Corp.	48M069G020	24Vdc, 1.6A max Brushless Motor	-	Evaluated together with unit	
Colour Drum Motor for Model TASKalfa 356ci, TASKalfa 406ci, 356ci, 406ci	Nidec Corp.	48M069F180	24Vdc, 2.2A max Brushless Motor	-	Evaluated together with unit	
Scanner Motor	Minebea Co., Ltd.	PM42S-096-MIM6	Stepper type, 24Vdc, 600mA (Peak)	-	Evaluated together with unit	
DLP Vibration Motor (Optional)	Nidec Copal Corp.	LA3R5-475DB2	Four provided. 3.0Vdc, 75mA max.	-	Evaluated together with unit	
Black DLP Clutch	Tenryu Marusawa Co., Ltd.	TMC-3.5L-01	24Vdc, 0.083A	-	Evaluated together with unit	
Resist Clutch	Tenryu Marusawa Co., Ltd.	TMC-3.5L-01	24Vdc, 0.083A	-	Evaluated together with unit	
Feed Clutch	Tenryu Marusawa Co., Ltd.	TMC-3.5L-01	24Vdc, 0.083A	-	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 (Edition / year)	Mark(s) of conformity	
Middle Clutch	Tenryu Marusawa Co., Ltd.	TMC-3.5L-01	24Vdc, 0.083A	-	Evaluated together with unit	
DU Clutch	Tenryu Marusawa Co., Ltd.	TMC-3.5L-01	24Vdc, 0.083A	-	Evaluated together with unit	
MPF Solenoid	TDS Co., Ltd.	TDS-F06A-18	24Vdc, 300mA max.	-	Evaluated together with unit	
Junction Solenoid	TDS Co., Ltd.	TDS-08A	24Vdc, 1.0A max.	-	Evaluated together with unit	
Laser Diode	Rohm Co., Ltd.	RLD65NZN7-10B	Four provided. Class 3B, Wavelength: 670nm, Output Power: 15mW	-	Evaluated together with unit	
Scanner LED	KYOCERA Document Solutions Inc.	3V2R60115 or A0758XLE+XXXX (X may be any alphabetical number or any number 0 to 9)	24Vdc max. Classified as Exempt Group	IEC/EN62471	Evaluated together with unit	
Cassette Heater for 220 - 240V (Optional)	Kurabe Industrial Co., Ltd.	302R44407	240V, 12W	-	Evaluated together with unit	
Cassette Heater for 220 - 240V (Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	E4A50128C or G4A50128C	250V, 10A, 128°C	EN/IEC 60691 UL60691	VDE UL(E40667)	
Cassette Heater for 120V (Optional)	Kurabe Industrial Co., Ltd.	302R44406	120V, 11.5W	-	Evaluated together with unit	
Cassette Heater for 120V (Optional) - Thermal Fuse (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	E4A50128C or G4A50128C	250V, 10A, 128°C	EN/IEC 60691 UL60691	VDE UL(E40667)	
Lithium Battery (BAT1) on Main PWB	Interchangeable	CR2032	3 V; max. 10mA reverse charging current. Protected by a diode and a 1 kohm resistor.	UL1642	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 (Edition / year)	Mark(s) of conformity	
Fuse (YF7) on Engine PWB for standard Document Processor Unit of Model TASKalfa 306ci, 306ci	SkyGate Co., Ltd.	1206FA or 1206FA- T	48Vdc, 4A	UL248-1/ UL248- 14	UL(E195833)	
Fuse (YF8) on Engine PWB for optional Paper Feeder Unit of Model TASKalfa 306ci, 306ci	SkyGate Co., Ltd.	1206FA or 1206FA- T	48Vdc, 4A	UL248-1/ UL248- 14	UL(E195833)	
Fuse (F2000) on Main PWB for optional Card Reader USB Connector, optional Key Board USB Connector and Memory USB Connector of Model TASKalfa 306ci, 306ci	SkyGate Co., Ltd.	1206FT	32Vdc, 4A	UL248-1/ UL248- 14	UL(E195833)	
Fuse (YF2001) on Main PWB for 5V Line Operation Panel of Model TASKalfa 306ci, 306ci	SkyGate Co., Ltd.	SCT	250V, T4A	IEC/EN60127-3 UL248-1/ UL248- 14	SEMKO UL(E195833)	
Fuse (YF2002) on Main PWB for 5V Line Operation Panel of Model TASKalfa 306ci, 306ci	SkyGate Co., Ltd.	1206FT	32Vdc, 2A	UL248-1/ UL248- 14	UL(E195833)	
Fuse (YF6) on Engine PWB for optional Document Processor Unit of Model TASKalfa 356ci, TASKalfa 406ci, 356ci, 406ci	SkyGate Co., Ltd.	1206FA or 1206FA- T	48Vdc, 4A	UL248-1/ UL248- 14	UL(E195833)	

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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 (Edition / year)	Mark(s) of conformity	
Fuse (F101) on SWPS for optional Paper Feeder Unit of Model TASKalfa 356ci, TASKalfa 406ci, 356ci, 406ci	Conquer Electronics Co., Ltd.	MST series	250V, T4A	IEC/EN60127-3 UL248-1/ UL248-14	VDE UL(E82636)	
Fuse (F101), Alternate on SWPS for optional Paper Feeder Unit of Model TASKalfa 356ci, TASKalfa 406ci, 356ci, 406ci	Walter Electronic Co., Ltd. or Ever Island Electric Co., Ltd. and Walter Electric	2010 series	250V, T4A	IEC/EN60127-3 UL248-1/ UL248-14	VDE UL(E56092)	
Fuse (F101), Alternate on SWPS for optional Paper Feeder Unit of Model TASKalfa 356ci, TASKalfa 406ci, 356ci, 406ci	Hollyland Company Ltd.	5ET	250V, T4A	IEC/EN60127-3 UL248-1/ UL248-14	SEMKO UL(E156471)	
Fuse (YF13) on Main PWB for optional Card Reader USB Connector, optional Key Board USB Connector and Memory USB Connector of Model TASKalfa 356ci, TASKalfa 406ci, 356ci, 406ci	SkyGate Co., Ltd.	1206FT	32Vdc, 4A	UL248-1/ UL248-14	UL(E195833)	
Fuse (YF10) on Main PWB for 5V Line Operation Panel of Model TASKalfa 356ci, TASKalfa 406ci, 356ci, 406ci	SkyGate Co., Ltd.	1206FT	32Vdc, 4A	UL248-1/ UL248-14	UL(E195833)	
Hard Disk Drive (Optional)	Western Digital Technologies, Inc. or equivalent	WD3200LUCT-63C26Y0 or equivalent	0.55A max.	EN/IEC 60950-1 UL60950-1	TUV UL(E101559)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
Enclosure Option Plate	Interchangeable	Interchangeable	Steel, min. 1.0 mm thick.	-	Evaluated together with unit	
Enclosure Exit Cover, Rear Left Cover, Rear Right Cover, Rear Lower Cover, Right Cover, Right Rear Cover, Right Top Cover, Right Top Lid	Bayer MaterialScience	FR3006 HF	5VB, Min. 1.8mm thick	UL94	UL(E41613)	
Exit Front Cover, Exit Left Cover, Exit Top Cover, Front Cover, Front Upper Cover, Front Right Cover, ISU Rear Cover, Left Controller Cover, Left Lower Cover, Right Lower Cover, Tray Cover, Tray B Cover, Tray Rear Cover, Tray Rear Lid, Paper Stoppers, MPF Front Cursor, MPF Rear Cursor, MPF A Table, MPF B Table, MPF C Table, MPF D Table, ISU Bottom Frame, ISU Top Frame, Cassette, Operation Cover, Operation Rear Cover, Operation Rear Lid, Hinge Lid, Panel Lid, Release Hook Cover	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Panel Cover	Interchangeable	Interchangeable	Min. HB75	UL94	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
Document Processor Unit (Standard) for Model TASKalfa 306ci and 306ci						
Feed Motor	Nidec Servo Corp.	KV4239-T3B006	Two provided. Stepper type, 24Vdc, 0.8A	-	Evaluated together with unit	
Junction Motor	Minebea Co., Ltd.	PM35L-048-MIM2	Stepper type, 24Vdc, 0.7A (peak)	-	Evaluated together with unit	
Front Cover, Front B Cover, Rear A Cover, Rear B Cover, PF Cover, Cursor Cover, Front Cursor, Rear Cursor, Main Table, Lower Guide, Lower Left Guide, Lower Right Guide, DP Base, Base Stopper	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Document Processor, Model DP-5100 (Option) for Model TASKalfa 356ci, TASKalfa 406ci, 356ci and 406ci						
Feed Motor	Nidec Servo Corp.	KV4239-T3B006	Two provided. Stepper type, 24Vdc, 0.8A	-	Evaluated together with unit	
Junction Motor	Minebea Co., Ltd.	PM35L-048-MIM2	Stepper type, 24Vdc, 0.7A (Peak)	-	Evaluated together with unit	
DP Base, Front Cover, Front B Cover, PF Cover, Rear A Cover, Rear B Cover, Size Switch Cover, Table Cover, Front Cursor, Rear Cursor, Cursor Cover, Main Table, Base Stopper, Lower Guide, Lower Left Guide, Lower Right Guide	Interchangeable	Interchangeable	Min. HB75	UL94	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
Document Processor, Model DP-5110 (Option) for Model TASKalfa 356ci, TASKalfa 406ci, 356ci and 406ci						
Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles (VDE) 100,000 Cycles (UL)	EN/IEC61058-1 UL1054	ENEC/VDE UL(E41515)	
Feed Motor	Nidec Servo Corp.	KV4239-T3B007	Two provided. Stepper type, 24Vdc, 0.8A	-	Evaluated together with unit	
Feed Clutch	Tenryu Marusawa Co., Ltd.	TMC-3.5L-01	24Vdc, 0.083A	-	Evaluated together with unit	
CIS	Creative Sensor Inc.	CA-4B4L or CA4B4L	3.6Vdc max. Classified as Exempt Group	IEC/EN62471	Evaluated together with unit	
DP Base	Bayer MaterialScience	FR3006 HF	5VB, Min. 1.8mm thick	UL94	UL(E41613)	
Base Cover, Front Cover, Front B Cover, PF Cover, Rear A Cover, Rear B Cover, Size Switch Cover, Table Cover, Front Cursor, Rear Cursor, Cursor Cover, Main Table, Base Stopper	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Job Separator, Model JS-5100 (Option)						
Eject Tray	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
PI Mount, Tray Eject Cover	Interchangeable	Interchangeable	Min. HB75	UL94	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
Finisher, Model DF-5100 (Option)						
Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles (VDE) 100,000 Cycles (UL)	EN/IEC61058-1 UL1054	ENEC/VDE UL(E41515)	
Eject Motor	Oki Micro Engineering Co., Ltd.	KFL42LCB661A	Stepper type 24Vdc, 650mA	--	Evaluated together with unit	
Stapler Shift 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 Co., Ltd. or Minebea Motor Manufacturing Corp.	17PM-J349-G2VS	Stepper type 24Vdc, 1.3A	-	Evaluated together with unit	
Knock Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK560A	Stepper type 24Vdc, 500mA	-	Evaluated together with unit	
Width Adjustment Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Two provided Stepper type 24Vdc, 300mA	--	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	
Tray Motor	Mabuchi Motor Co., Ltd.	RK-370CA-11670	24V, 130mA max.	--	Evaluated together with unit	
Paper Hold Solenoid	TDS Co., Ltd.	TDS-08A	24V dc, 1A max.	--	Evaluated together with unit	
Rail Stay	Interchangeable	Interchangeable	Steel, min. 1.0 mm thick.	-	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 (Edition / year)	Mark(s) of conformity	
Front L Cover, Front R Cover, Rear L Cover, UP L Cover, UP R Cover, Finisher Partition	Bayer MaterialScience	FR3006 HF	5VB, Min. 1.8mm thick	UL94	UL(E41613)	
Tray A, Tray B, Tray C	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Finisher, Model DF-5110 (Option) for Model TASKalfa 356ci, TASKalfa 406ci, 356ci and 406ci						
Front Cover Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles (VDE) 100,000 Cycles (UL)	EN/IEC61058-1 UL1054	ENEC/VDE UL(E41515)	
Top Cover Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles (VDE) 100,000 Cycles (UL)	EN/IEC61058-1 UL1054	ENEC/VDE UL(E41515)	
Eject Motor	Oki Micro Engineering Co., Ltd.	KFL42LCB661A	Stepper type 24Vdc, 650mA	--	Evaluated together with unit	
Stapler Shift 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	
Carry Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	-	Evaluated together with unit	
Carry Motor, Alternate	Nidec Servo Corp.	KV4239-T3B007	Stepper type 24Vdc, 0.8A	-	Evaluated together with unit	
Middle Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	-	Evaluated together with unit	
Knock Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	-	Evaluated together with unit	
Width Adjustment Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Two provided Stepper type 24Vdc, 300mA	--	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 (Edition / year)	Mark(s) of conformity	
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	
Tray Motor	Mabuchi Motor Co., Ltd.	RS-385PH-16140	24V, 420mA max.	--	Evaluated together with unit	
Feed Solenoid	TDS Co., Ltd.	TDS-08A	24V dc, 400mA max.	--	Evaluated together with unit	
Enclosure Top Cover, Top Open Cover, Front Cover, Front Open Cover, Rear Cover, Left Upper Cover, Finisher Partition	Bayer MaterialScience	FR3006 HF	5VB, Min. 1.8mm thick	UL94	UL(E41613)	
Main Tray, Bottom Cover, Foot Covers, Leg Covers	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
<i>Finisher, Model DF-5120 (Option) for Model TASKalfa 356ci, TASKalfa 406ci, 356ci and 406ci</i>						
Front Cover Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles (VDE) 100,000 Cycles (UL)	EN/IEC61058-1 UL1054	ENEC/VDE UL(E41515)	
Eject Manual Staple Interlock Switch	Omron Corp.	D3V-16506-3C25 (10E)	40Vdc/5A, 30Vdc/10A 50,000 Cycles (VDE) 100,000 Cycles (UL)	EN/IEC61058-1 UL1054	ENEC/VDE UL(E41515)	
Eject Motor	Oki Micro Engineering Co., Ltd.	KFL42LCB661A	Stepper type 24Vdc, 650mA	--	Evaluated together with unit	
Stapler Shift 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	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
Carry Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	-	Evaluated together with unit	
Carry Motor, Alternate	Nidec Servo Corp.	KV4239-T3B007	Stepper type 24Vdc, 0.8A	-	Evaluated together with unit	
Middle Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	-	Evaluated together with unit	
Knock Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Stepper type 24Vdc, 300mA	-	Evaluated together with unit	
Width Adjustment Motor	Oki Micro Engineering Co., Ltd.	KCL42SCK500C	Two provided Stepper type 24Vdc, 300mA	--	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	
Tray Motor	Nidec Corp.	48M069G010	24V dc, 2.6A max.	--	Evaluated together with unit	
Punch Motor	Shenzhen Weizhen Motor Co., Ltd.	WRS-555PH-3049	24Vdc, 5.5A max.	-	Evaluated together with unit	
Punch Shift Motor	Oki Micro Engineering Co., Ltd.	KFL42LCB661A	Stepper type 24Vdc, 650mA	--	Evaluated together with unit	
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	24V dc, 400mA max.	--	Evaluated together with unit	
Feed Solenoid	TDS Co., Ltd.	TDS-08A	24V dc, 400mA max.	--	Evaluated together with unit	
Hole Change Solenoid	TDS Co., Ltd.	TDS-KN10SL	24Vdc, 1.3A 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 (Edition / year)	Mark(s) of conformity	
Enclosure Top Cover, Top B Cover, Front Cover, Front Lower Cover, Front Open Cover, Rear Cover, Left Lower Cover, Main Exit Cover, Turn Guide, Finisher Partition	Bayer MaterialScience	FR3006 HF	5VB, Min. 1.8mm thick	UL94	UL(E41613)	
Main Tray, Eject Tray	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Operation Cover	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Mailbox, Model MT-5100 (Option)						
Drive Motor	Mitsumi Electric Co., Ltd.	M49SP-2K	Stepper type 24Vdc, 0.8A (Peak)	-	Evaluated together with unit	
Side L Covers, Side R Covers, Vertical Cover, Top Cover, Bottom Cover, Feed In Upper Guide, Feed In Lower Guide	Bayer MaterialScience	FR3006 HF	5VB, Min. 1.8mm thick	UL94	UL(E41613)	
Foot Covers, Eject Trays	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Hole Punch Kit, Model PH-5100 and PH-5110 (Option) for Finisher Model DF-5110						
Punch Motor	Shenzhen Weizhen Motor Co., Ltd.	WRS-555PH-3049	24Vdc, 5.5A max.	-	Evaluated together with unit	
Shift Motor	Oki Micro Engineering Co., Ltd.	KFL42LCB661A	Stepper type 24Vdc, 650mA	--	Evaluated together with unit	
PH Solenoid	TDS Co., Ltd.	TDS-KN10SL	24Vdc, 1.3A 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 (Edition / year)	Mark(s) of conformity	
Attachment Kit, Model AK-5100 (Option) for Finisher Model DF-5110, DF-5120 and Mailbox Model MT-5100						
Conveying Motor	Minebea Co., Ltd.	PM42S-F48-MIN9	Stepper type 24Vdc, 310mA (peak)	--	Evaluated together with unit	
Cooling Fan	Nidec Corp.	D05F-24PH 17 (EX)	24Vdc, 0.12A max.	--	Evaluated together with unit	
Lower Guide Cover, Joint Cover	Bayer MaterialScience	FR3006 HF	5VB, Min. 1.8mm thick	UL94	UL(E41613)	
Guide Upper Cover, Upper Right Guide, Lower Guide	Teijin Limited Resin and Plastic	MN-3600H	5VB, Min. 2.0mm thick	UL94	UL(E98529)	
Paper Feeder, Model PF-5120 (Option)						
Feed Motor	Nidec Corp.	42M069F251	24Vdc, 1.1A max. Brushless Motor	-	Evaluated together with unit	
Lift Motor	Standard Motor Co., Ltd.	RC370-KT-081000	24Vdc, 110mA max.	-	Evaluated together with unit	
Feed Clutch	Tenryu Marusawa Co., Ltd.	TMC-3.5L-01	24Vdc, 0.083A	-	Evaluated together with unit	
Vertical Conveying Clutch	Tenryu Marusawa Co., Ltd.	TMC-3.5L-01	24Vdc, 0.083A	-	Evaluated together with unit	
Cassette Heater for 220 - 240V (Optional)	Kurabe Industrial Co., Ltd.	302R44407	240V, 12W	-	Evaluated together with unit	
Cassette Heater for 220 - 240V (Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	E4A50128C or G4A50128C	250V, 10A, 128°C	EN/IEC 60691 UL60691	VDE UL(E40667)	
Cassette Heater for 120V (Optional)	Kurabe Industrial Co., Ltd.	302R44406	120V, 11.5W	-	Evaluated together with unit	
Cassette Heater for 120V (Optional) - Thermal Fuse (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	E4A50128C or G4A50128C	250V, 10A, 128°C	EN/IEC 60691 UL60691	VDE UL(E40667)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
Enclosure Rear Cover	Bayer MaterialScience	FR3006 HF	5VB, Min. 1.8mm thick	UL94	UL(E41613)	
Enclosure Left Cover, Conveying Cover, Right Front Cover, Right Rear Cover, Cassette	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Paper Feeder, Model PF-5130 (Option) (Provided with PF-5120)						
Feed Motor	Nidec Corp.	42M069F251	24Vdc, 1.1A max. Brushless Motor	-	Evaluated together with unit	
Lift Motor	Standard Motor Co., Ltd.	RC370-KT-081000	Two provided. 24Vdc, 110mA max.	-	Evaluated together with unit	
Feed Clutch	Tenryu Marusawa Co., Ltd.	TMC-3.5L-01	Two provided. 24Vdc, 0.083A	-	Evaluated together with unit	
Vertical Conveying Clutch	Tenryu Marusawa Co., Ltd.	TMC-3.5L-01	Two provided. 24Vdc, 0.083A	-	Evaluated together with unit	
Cassette Heater for 220 - 240V (Optional)	Kurabe Industrial Co., Ltd.	302RH4405 or 303PZ4403	240V, 16W	-	Evaluated together with unit	
Cassette Heater for 220 - 240V (Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	E4A50128C or G4A50128C	250V, 10A, 128°C	EN/IEC 60691 UL60691	VDE UL(E40667)	
Cassette Heater for 120V (Optional)	Kurabe Industrial Co., Ltd.	302RH4404 or 303PZ4402	120V, 15W	-	Evaluated together with unit	
Cassette Heater for 120V (Optional) - Thermal Fuse (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	E4A50128C or G4A50128C	250V, 10A, 128°C	EN/IEC 60691 UL60691	VDE UL(E40667)	
Enclosure Rear Cover	Bayer MaterialScience	FR3006 HF	5VB, Min. 1.8mm thick	UL94	UL(E41613)	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
Enclosure Left Cover, Right Cover, Conveying Cover, Front Lower Cover, Cassette	Interchangeable	Interchangeable	Min. HB75	UL94	UL	
Paper Feeder, Model PF-5140 (Option) (Provided with PF-5120)						
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	24Vdc, 550mA max.	-	Evaluated together with unit	
Feed Clutch	Tenryu Marusawa Co., Ltd.	TMC-3.5L-01	24Vdc, 0.083A	-	Evaluated together with unit	
Vertical Conveying Clutch	Tenryu Marusawa Co., Ltd.	TMC-3.5L-01	24Vdc, 0.083A	-	Evaluated together with unit	
Cassette Heater for 220 - 240V (Optional)	Kurabe Industrial Co., Ltd.	302RH4405 or 303PZ4403	240V, 16W	-	Evaluated together with unit	
Cassette Heater for 220 - 240V (Optional) - Thermal Fuses (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	E4A50128C or G4A50128C	250V, 10A, 128°C	EN/IEC 60691 UL60691	VDE UL(E40667)	
Cassette Heater for 120V (Optional)	Kurabe Industrial Co., Ltd.	302RH4404 or 303PZ4402	120V, 15W	-	Evaluated together with unit	
Cassette Heater for 120V (Optional) - Thermal Fuse (Optional)	Therm-O-Disc (Emerson Japan Ltd.)	E4A50128C or G4A50128C	250V, 10A, 128°C	EN/IEC 60691 UL60691	VDE UL(E40667)	
Enclosure Rear Cover	Bayer MaterialScience	FR3006 HF	5VB, Min. 1.8mm thick	UL94	UL(E41613)	
Enclosure Front Deck Cover, Right Cover, Left Cover, Conveying Cover	Interchangeable	Interchangeable	Min. HB75	UL94	UL	

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1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity	
Fax Kit, Model FAX System 10 (Option) for Model TASKalfa 356ci, TASKalfa 406ci, 356ci and 406ci, and Model FAX System 11 (Option) for Model TASKalfa 306ci and 306ci						
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 UL 1577	FIMKO UL(E169586)	
Optical Isolator (PC10), Alternate	Toshiba Corp., Semiconductor Co. Discrete Semiconductor Div.	TLP620, TLP627, TLP621	Ext. cr.: > 8 mm, Int. cr. = thermal cycling tested (2.10.11), Isolation voltage: min. AC 5000V	IEC/EN 60950-1 UL 1577	SEMKO UL(E67349) UL(E152349)	
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 UL 1577	BSI UL(E67349) UL(E152349)	
Optical Isolator (PC10), Alternate	Lite-On Technology Corp.	LTV-814H	Ext. cr.: ≥ 7 mm, Int. cr. ≥ 1.5 mm, Isolation voltage: min. AC 5300V	IEC/EN 60950-1 UL 1577	VDE UL(E113898)	
Optical Isolator (PC11) for 120V and 220 – 240V	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 UL 1577	SEMKO UL(E67349) UL(E152349)	
Optical Isolator (PC11) for 120V and 220 – 240V 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 UL 1577	BSI UL(E67349) UL(E152349)	

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 (Edition / year)	Mark(s) of conformity	
Optical Isolator (PC11) for 120V and 220 – 240V 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 UL 1577	VDE UL(E113898)	
Capacitors (C12, C13)	Murata Mfg. Co., Ltd.	KY	250V, 220pF-680pF, Y2 type	IEC/EN60384-14 UL1414	SEMKO UL(E37921)	
Relay (RLY10)	Fujitsu Components	FTR-C2	Contact: 30Vdc, 1.0A Coil: 5Vdc	IEC/EN60950-1 UL508	BSI UL(E63615)	
Relay (RLY12) for 220 - 240V	Tyco Electronics	OUAZ	Contact: 24Vdc, 1.0A Coil: 5Vdc	IEC/EN61810-1 UL508	TUV UL(E82292)	
Relay (RLY12) for 220 - 240V, Alternate	Xiamen Hongfa Electroacoustic Co., Ltd.	HFD41 or HFD41A	Contact: 30Vdc, 1.0A Coil: 5Vdc	UL508	UL(E133481)	
Fuse (F11) for 220 - 240V	Littelfuse Inc.	461 Series	1.25A, 600V	UL248-1/UL248- 14	UL(E10480)	
Fuse (F11) for 220 - 240V, Alternate	Skygate Co., Ltd.	20N	1.25A, 125V	UL248-1/UL248- 14	UL(E195833)	
PTC Thermistor (POS10) for 120V	Murata Mfg. Co., Ltd.	PTGL06BB220N*** *** (*: any alphanumeric)	Vmax: 250V, Imax: 0.6A, 22 ohms at 25°C	UL1434	UL(E137188)	
Modular Jacks (JK10, JK11)	JST Mfg. Co., Ltd.	MJ-62J-RD	Type RJ-11	UL1863	UL(E174260)	
Modular Jacks (JK10, JK11), Alternate	Wenzhou Yihua Connector Co., Ltd.	JK002	Type RJ-11	UL1863	UL(E166108)	
Connector (CN10)	Iriso Electronics Co., Ltd	IMSA-9210 Series	250V, 3A	UL1977	UL(E115889)	
PWB	Interchangeable	Interchangeable	Min. V-1, Min. 105°C	UL796	UL	
FCB Board	--	--	Comprised of the following components:	--	--	
Capacitors (C206, C207)	Murata Mfg. Co., Ltd.	GF	250V, 33pF, Y2 type	EN/IEC60384-14 UL60950-1	SEMKO UL(E316111)	
Capacitors (C206, C207), Alternate	Murata Mfg. Co., Ltd.	KY	250V, 33pF, Y2 type	IEC/EN60384-14 UL1414 UL60384-14	SEMKO UL(E37921)	
Capacitor (C205) (Optional)	Murata Mfg. Co., Ltd.	GF	250V, 10pF-220pF, Y2 type	EN/IEC60384-14 UL60950-1	SEMKO UL(E316111)	

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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 (Edition / year)	Mark(s) of conformity	
Capacitor (C205) (Optional), Alternate	Murata Mfg. Co., Ltd.	KY	250V, 10pF-220pF, Y2 type	IEC/EN60384-14 UL1414 UL60384-14	SEMKO UL(E37921)	
PWB	Interchangeable	Interchangeable	Min. V-1, Min. 105°C	UL796	UL	
Supplementary information:						
Mark(s) of conformity: Provided evidence ensures the agreed level of compliance. See OD-CB2039.						

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		

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 T and U at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> T: Standby / TASKalfa 306ci and PF-5120, PF-5130, DF-5100 U: Standby / TASKalfa 306ci and PF-5120, PF-5130, DF-5100 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):		T: 198 V, 50 Hz		U: 242 V 50 Hz		
t _{amb1} (°C):		T: -- U: --		t _{amb2} (°C): T: 23 U: 23		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		T (°C)	U (°C)	T (°C)	U (°C)	
SWPS T1 coil		43	45	55	57	110
SWPS T1 core		40	43	52	55	110
SWPS L1 coil		31	31	43	43	105
SWPS L2 coil		32	33	44	45	105
SWPS L3 coil		30	31	42	43	90
SWPS L51 coil		33	34	45	46	90
SWPS D1 body		37	37	49	49	130
SWPS D101 body		39	40	51	52	130
SWPS D102 body		40	41	52	53	130
SWPS RL		48	49	60	61	130
SWPS Q1 body		39	41	51	53	130
SWPS Q2 body		39	42	51	54	130
SWPS C7 body		32	33	44	45	105
SWPS PC1 body		35	38	47	50	130
SWPS PC3 body		35	37	47	49	130
SWPS Z1 body		27	29	39	41	130
SWPS TRA31 body		37	38	49	50	130
SWPS YC101 body		29	31	41	43	85
SWPS YC102 body		28	30	40	42	85
High Voltage PWB Main B51 coil		26	27	38	39	90
High Voltage PWB Main B401 coil		30	31	42	43	90
High Voltage PWB Main B451 coil		28	29	40	41	90
High Voltage PWB Main B501 coil		27	28	39	40	90
High Voltage PWB Main B551coil		25	26	37	38	90
High Voltage PWB Main B961 coil		28	30	40	42	90
Supplementary information:						
Temperatures measured with winding resistance method: Not used						

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

4.5	TABLE: Temperature rise measurements				P	
Temperatures were measured according cl. 1.4.5. Test in condition AX and AY at continuous normal operation as for power input measurements of table 1.6 resulted in highest temperature values. <Condition> AX: DP Copying :Simplex side copy / 406ci and DP-5110, PF-5120, PF-5140, AK-5100, DF-5120 AY: DP Copying :Simplex side copy / 406ci and DP-5110, PF-5120, PF-5140, AK-5100, DF-5110, PH-5100 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):		AX: 120 V, 60 Hz		AY: 120 V 60 Hz		
t _{amb1} (°C):		AX: -- AY: --		t _{amb2} (°C): AX: 24 AY: 25		
Temperature of part/at: (measured with thermocouples)		Measured temperature at T _{amb}		Calculated temperature at T _{ma}		Allowed T _{max} (°C)
		AX (°C) AY (°C)		AX (°C) AY (°C)		
DF-5120 Carry Motor, Alternate		79 --		90 --		100
DF-5110 Carry Motor, Alternate		-- 77		-- 87		100
Supplementary information:						
Temperatures measured with winding resistance method: Not used						

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)	:	23			—
	Power source for EUT: Manufacturer, model/type, output rating	:	--			—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Carry Motor,Alternate (DF-5120), Carry Motor,Alternate (DF-5110) Model KV4239-T3B007	CE	24Vdc	10min	--	--	Max Temp.: 44°C. Motor winding was opened. No hazards.
Supplementary information:						
CE=Continuously Energized.						

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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-C076	Temperature Recorder	4177	41YPO126	Yokogawa	2014-08-08	2015-08-07
G14-C099	Digital Multi Meter	(Fluke) 189	89410662	FLUKE	2014-08-11	2015-08-10
G14-C101	Temperature Recorder	437124	S5F703898	Yokogawa	2014-08-08	2015-08-07
G14-C118	Stop Watch	SVAE101	756428	SEIKO S-YARD	2014-10-08	2015-10-07