



Ref. Certif. No.

JPTUV-061304-M1

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

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

CB TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product
Produit

Projector

Name and address of the applicant
Nom et adresse du demandeur

NEC Display Solutions, Ltd.
686-1 Nishioi, Oi-machi
Ashigarakami-gun, Kanagawa, 258-8533 JAPAN

Name and address of the manufacturer
Nom et adresse du fabricant

NEC Display Solutions, Ltd.
686-1 Nishioi, Oi-machi
Ashigarakami-gun, Kanagawa, 258-8533 JAPAN

Name and address of the factory
Nom et adresse de l'usine

See additional page(s)

Ratings and principal characteristics
Valeurs nominales et caractéristiques principales

Input: refer to the test report

Trademark (if any)
Marque de fabrique (si elle existe)

NEC

Type of Manufacturer's Testing Laboratories used
Type de programme du laboratoire d'essais constructeur

N/A

Model / Type Ref.
Ref. de type

Refer to the test report.

Additional information (if necessary may also be
reported on page 2)
Les informations complémentaires (si nécessaire,
peuvent être indiqués sur la 2^{ème} page)

For model differences, refer to the test report.
Re-issue of JPTUV-061304 dated 09.02.2015,
due to first modification.

A sample of the product was tested and found
to be in conformity with
Un échantillon de ce produit a été essayé et a été
considéré conforme à la

IEC 50950-1:2005 + A1
National differences see test report

As shown in the Test Report Ref. No. which forms part
of this Certificate
Comme indiqué dans le Rapport d'essais numéro de
référence qui constitue partie de ce Certificat

17044270 002

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



TÜVRheinland®

TÜV Rheinland Japan Ltd.
Global Technology Assessment Center
4-25-2 Kita-Yamata, Tsuzuki-ku
Yokohama 224-0021 Japan
Phone + 81 45 914-3888
Fax + 81 45 914-3354
Mail: info@jpn.tuv.com
Web: www.tuv.com

Tristan Deng

Date: 15.05.2015

Signature:

1. SUZHOU SHIN-EL SANGYO CO., LTD.
No. 158-106, 108,
Huashan Road, New District Suzhou,
Jiangsu, China 215011
P.R. China
2. NEC Platforms Thai Co., Ltd.
60/81 Moo 19 Nava Nakorn Industrial
Zone, Paholyothin Road, Tambol Klong
Nueng, Amphur Klong Luang,
Pathumthani Province 12120, Thailand

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

Report Ref. No.: 17044270 002

Date: 15.05.2015

Signature:



Tristan Deng



Test Report issued under the responsibility of:



TEST REPORT IEC 60950-1 Information technology equipment – Safety – Part 1: General requirements	
Report Number	17044270 002
Date of issue	May 13, 2015
Total number of pages	30
CB Testing Laboratory	TÜV Rheinland (Shenzhen) Co., Ltd.
Address	3 & 4 F, Cybio Technology Building No. 1, Langshan No. 2 Road South, 5th Industrial Area, High-Tech Industry Park North, Nanshan District, 518057, Shenzhen, P.R. China
Applicant's name	NEC Display Solutions Ltd.
Address	686-1 Nishioi, Oi-machi Ashigarakami-gun, Kanagawa, 258-8533 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
Copyright © 2012 Worldwide System for Conformity Testing and Certification of Electrotechnical Equipment and Components (IECEE), Geneva, Switzerland. All rights reserved.	
This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.	
If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.	
This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.	
Test item description	Projector
Trade Mark	NEC
Manufacturer	Same as applicant
Model/Type reference	Refer to pages 9-11
Ratings	Refer to pages 9-11

Testing procedure and testing location:		
☒	CB Testing Laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.
Testing location/ address		3 & 4 F, Cybio Technology Building No. 1, Langshan No. 2 Road South, 5th Industrial Area, High-Tech Industry Park North, Nanshan District, 518057, Shenzhen, P.R. China
☐	Associated CB Laboratory:	
Testing location/ address		
Tested by (name + signature).....		Terry Shi
Approved by (name + signature)		Sammy Chen
☐	Testing procedure: TMP	
Testing location/ address		
Tested by (name + signature).....		
Approved by (name + signature)		
☐	Testing procedure: WMT	
Testing location/ address		
Tested by (name + signature).....		
Witnessed by (name + signature).....		
Approved by (name + signature)		
☐	Testing procedure: SMT	
Testing location/ address		
Tested by (name + signature).....		
Approved by (name + signature)		
Supervised by (name + signature).....		
☐	Testing procedure: RMT	
Testing location/ address		
Tested by (name + signature).....		
Approved by (name + signature)		
Supervised by (name + signature).....		

List of Attachments (including a total number of pages in each attachment):

- Photo documentation (4 pages)

Summary of testing:
Tests performed (name of test and test clause):

All applicable tests as described in Test Case and Measurement Sections were performed.

The load conditions used during testing as below:

- video signal provided
- full raster
- maximum brightness and contrast
- continuous operation
- maximum volume for speaker
- Each USB 2.0 port with 2.5 W dummy load.

Name of test	Clause
Input Current Test	1.6.2
Maximum Temperature Test	4.5.2
Electric Strength Test	5.2
Fault Condition Test (block opening test)	5.3

Note:

Unless special specified, all tests were performed on model **NP-M403H** to represent other similar models.

Testing location:

All tests as described in Test Case and Measurement Sections were performed at the laboratory described on page 2.

Summary of compliance with National Differences

See original report 17044270 001.

Copy of marking plate

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

(Additional requirements for markings. See 1.7 NOTE)

T4301941 G

NEC MODEL No.NP-M403H 100-240V~ 50/60Hz 3.9-1.6A



Beurteilt geprüft
Sicherheit
Regelmäßige
Produktions-
überwachung
www.tuv.com
ID: 2000000000



MSR-REM-MDS-NP-M403H

제품명:
Projector
모델명:
NP-M403H
제조/국가:
NEC Platforms Thai Co.,Ltd.
/THAILAND
입력전력:
AC100-240V~, 50/60Hz, 3.9-1.6A

생산일:
일련번호에 표기
인증 서비스 센터 전화 번호:
080-022-1155(효성ITX주식회사)
* 본 라벨과 전화번호는 국내 규정
내에서 적절한 목적으로만
사용되어야 합니다.



Tegangan dan Frekuensi:100-240V ~ 50/60Hz
Produksi Thailand

T4301861 G

NEC MODEL No.NP-M353WS 100-240V~ 50/60Hz 3.9-1.6A



Beurteilt geprüft
Sicherheit
Regelmäßige
Produktions-
überwachung
www.tuv.com
ID: 2000000000



MSR-REM-MDS-NP-M353WS

제품명:
Projector
모델명:
NP-M353WS
제조/국가:
NEC Platforms Thai Co.,Ltd.
/THAILAND
입력전력:
AC100-240V~, 50/60Hz, 3.9-1.6A

생산일:
일련번호에 표기
인증 서비스 센터 전화 번호:
080-022-1155(효성ITX주식회사)
* 본 라벨과 전화번호는 국내 규정
내에서 적절한 목적으로만
사용되어야 합니다.



Tegangan dan Frekuensi:100-240V ~ 50/60Hz
Produksi Thailand

Note: The model name as above representative label can be NP-M403H and NP-M353WS with input rating 100-240 Vac, 50/60 Hz, 3.9-1.6A.

Test item particulars:	
Equipment mobility.....:	☒ movable ☐ hand-held ☐ transportable ☒ stationary ☐ for building-in ☐ direct plug-in
Connection to the mains	☒ pluggable equipment ☒ type A ☐ type B ☐ permanent connection ☒ detachable power supply cord ☐ non-detachable power supply cord ☐ not directly connected to the mains
Operating condition	☒ continuous ☐ rated operating / resting time:
Access location	☒ operator accessible ☐ restricted access location
Over voltage category (OVC)	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other:
Mains supply tolerance (%) or absolute mains supply values	+10 and -10
Tested for IT power systems	☒ Yes ☐ No
IT testing, phase-phase voltage (V)	230 V
Class of equipment	☒ Class I ☐ Class II ☐ Class III ☐ Not classified
Considered current rating of protective device as part of the building installation (A)	20
Pollution degree (PD)	☐ PD 1 ☒ PD 2 ☐ PD 3
IP protection class	IPX0
Altitude during operation (m)	Up to 5000
Altitude of test laboratory (m)	Less than 2000
Mass of equipment (kg)	Approx. 3.69
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	April. 17, 2015
Date(s) of performance of tests	April. 17, 2015 to April. 24, 2015
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 IEC60950-1:

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. SUZHOU SHIN-EI SANGYO CO., LTD.
No.158-106,108,Huashan Road, New District
Suzhou, Jiangsu, China 215011, P.R. China

2. NEC Platforms Thai Co., Ltd.
60/81 Moo 19 Nava Nakorn Industrial Zone,
Paholyothin Road, Tambol Klong Nueng, Amphur
Klong Luang, Pathumthani Province 12120,
Thailand.

General product information:

Description of change(s):

1. Add new alternative model names as below: NP-M403H, NP-M403H+, NP-M323H, NP-M323H+, NP-M403X, NP-M403X+, NP-M363X, NP-M363X+, NP-M323X, NP-M323X+, NP-M283X, NP-M283X+, NP-M403W, NP-M403W+, NP-M363W, NP-M363W+, NP-M323W, NP-M323W+, NP-M353WS, NP-M353WS+, NP-M333XS, NP-M333XS+, NP-M303WS and NP-M303WS+
2. Delete DC Fan (ENGINE) near lens for these new model names.
3. Correct the input rating listed in table A for model NP-M353HS+ from "100-240Vac, 50/60Hz, 3.9A-1.6A" to "200-240Vac, 50/60Hz, 1.9A".
4. Correct the input rating listed in table A for model NP-M323HS+ and NP-M303HS+ from "100-240Vac, 50/60Hz, 3.9A-1.6A" to "200-240Vac, 50/60Hz, 1.8A".
5. Correct the model name listed in table 1.5.1 Object/part No. Ballast Power Supply from "NP-323HS+" to "NP-M323HS+".
6. Correct the model name listed in table 1.5.1 Object/part No. Lamp Assembly from "NP-323HS+" to "NP-M323HS+".
7. Correct the model name listed in table 1.5.1 Object/part No. DC Fan (LAMP(H)) from "NP-323HS+" to "NP-M323HS+".
8. Correct the technical data for ballast power supply model EUC 200g S/V27 from "I/P: 280-400Vdc, 1200mA max., 16Vdc, 200mA max., O/P: 200 Vac max., 270W max." to "I/P: 260-395 Vdc; O/P: 140Vac max., 210W max.".
9. Correct the technical data for ballast power supply model EUC 225g S/V27 from "I/P: 280-400Vdc, 1200mA max., 16Vdc, 200mA max., O/P: 200 Vac max., 270W max." to "I/P: 260-395 Vdc; O/P: 140Vac max., 236W max.".
10. Correct the technical data for ballast power supply model EUC 250g S/V27 from "I/P: 280-400Vdc, 1200mA max., 16Vdc, 200mA max., O/P: 200 Vac max., 270W max." to "I/P: 260-395 Vdc; O/P: 140Vac max., 263W max.".
11. Correct the technical data for ballast power supply model EUC 270g P/A27 from "I/P: 280-400 Vdc, 1500Ma max., 16Vdc, 200mA max., O/P: 200 Vac max., 330 W max." to "I/P: 260-395 Vdc; O/P: 150Vac max., 284W max.".
12. Correct the technical data for lamp model UHP 200-160W 0.8 E20.9i from "Typ. 200W, max. 212W" to "Typ. 200W, max. 214W".
13. Correct the technical data for lamp cable from "3 KV min., 20 AWG min., 200 °C min., Rated FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1" to "20KV min., 20 AWG min., 200 °C min., Rated FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1".
14. Correct the technical data for lamp model UHP 250-190W 0.8 E20.9i from "Typ. 200W, max. 212W" to "Typ. 250W, max. 267W".
15. Correct the technical data for lamp model UHP 270-220W 0.8 E20.9i from "Typ. 270W, max. 282W" to "Typ. 270W, max. 288W".
16. Correct the main board model name which was used for performing test from "PWC-4791" to "PWC-4803" in appended table 2.5 in original report.
17. Correct the main board model name which was used for performing test from "PWC-4791" to "PWC-4803" in appended table 5.3 in original report.
18. Correct the technical data for temperature sensing for model UP62G from "125/250 Vac, 0.5 A or 1.6 A or 2.5 A, max. temp. is 140 °C" to "AC125/1A, AC 250V/0.5A, max. temp. is 140 °C".

For the above described change(s) the following was considered to be necessary:

Change	Testing	Comments
1.	No test required	N/A
2.	- Input Test - Heating Test - Electric Strength Test - Abnormal Test	Details see appended tables 1.6.2, 4.5, 5.2 and 5.3. Model NP-M403H is chosen for test to represents other models. The new models are similar to previously model NP-M402H except for model designation and others details see comparison list.
3.	No test required	Type error, no test required.
4.	No test required	Type error, no test required.
5.	No test required	Type error, no test required.
6.	No test required	Type error, no test required.
7.	No test required	Type error, no test required.
8.	No test required	Type error, no test required.
9.	No test required	Type error, no test required.
10.	No test required	Type error, no test required.
11.	No test required	Type error, no test required.
12.	No test required	Type error, no test required.
13.	No test required	Type error, no test required.
14.	No test required	Type error, no test required.
15.	No test required	Type error, no test required.
16.	No test required	Type error, no test required.
17.	No test required	Type error, no test required.
18.	No test required	Type error, no test required.

Model name	Input Rating	Resolutions	Brightness	Lamp Wattage	Ballast	PSU	Main board	DC Fan (ENGINE) (near lens)
NP-M282X	100-240 Vac, 50/60 Hz, 3.0-1.2 A	XGA 1024 x 768	2800lm	200 W (UHP 200-160W 0.8 E20.9i)	EUC 200g S/V27	ZSNE B34I	PWC-4803	Yes
NP-M283X								No
NP-M282X+	200-240 Vac, 50/60 Hz, 1.5 A							Yes
NP-M283X+								No
NP-M322X	100-240 Vac, 50/60 Hz, 3.3-1.4 A	XGA 1024 x 768	3200lm	225 W (UHP 225-170W 0.8 E20.9i)	EUC 225g S/V27	ZSNE B34I	PWC-4803	Yes
NP-M323X								No
NP-M322X+	200-240 Vac, 50/60 Hz, 1.6 A							Yes
NP-M323X+								No
NP-M362X	100-240 Vac, 50/60 Hz, 3.6-1.5 A		3600lm	250 W (UHP 250-190W 0.8 E20.9i)	EUC 250g S/V27			Yes
NP-M363X								No
NP-M362X+	200-240 Vac, 50/60 Hz, 1.8 A							Yes
NP-M363X+								No
NP-M402X	100-240 Vac, 50/60 Hz, 3.9-1.6 A		4000lm	270 W (UHP 270-220W 0.8 E20.9i)	EUC 270g P/A27			Yes
NP-M403X								No
NP-M402X+, NP-M402X-CC	200-240 Vac, 50/60 Hz, 1.9 A							Yes
NP-M403X+								No
NP-M332XS	100-240 Vac, 50/60 Hz, 3.9-1.6 A		3300lm					Yes
NP-M333XS								No
NP-M332XS+	200-240 Vac, 50/60 Hz, 1.9 A							Yes
NP-M333XS+								No

NP-M322W	100-240 Vac, 50/60 Hz, 1.4-3.3 A	WXGA 1280 x 800	3200lm	225 W (UHP 225-170W 0.8 E20.9i)	EUC 225g S/V27			Yes			
NP-M323W								No			
NP-M322W+	200-240 Vac, 50/60 Hz, 1.6 A							Yes			
NP-M323W+								No			
NP-M302WS	100-240 Vac, 50/60 Hz, 3.3-1.4 A		3000lm					Yes			
NP-M303WS								No			
NP-M302WS+	200-240 Vac, 50/60 Hz, 1.6 A							Yes			
NP-M303WS+								No			
NP-M362W	100-240 Vac, 50/60 Hz, 3.6-1.5 A	WXGA 1280 x 800	3600lm	250 W (UHP 250-190W 0.8 E20.9i)	EUC 250g S/V27	ZSNE B34I	PWC-4803	Yes			
NP-M363W								No			
NP-M362W+ NP-M362W-CC	200-240 Vac, 50/60 Hz, 1.8 A							Yes			
NP-M363W+								No			
NP-M402W	100-240 Vac, 50/60 Hz, 3.9-1.6 A		4000lm	270 W (UHP 270-220W 0.8 E20.9i)	EUC 270g P/A27			Yes			
NP-M403W								No			
NP-M402W+	200-240 Vac, 50/60 Hz, 1.9 A							Yes			
NP-M403W+								No			
NP-M352WS	100-240 Vac, 50/60 Hz, 3.9-1.6 A		3500lm					Yes			
NP-M353WS								No			
NP-M352WS+	200-240 Vac, 50/60 Hz, 1.9 A							Yes			
NP-M353WS+								No			
NP-M402H	100-240 Vac, 50/60 Hz, 3.9-1.6 A		1080p 1920 x 1080	4000lm	270 W (UHP 270-220W 0.8 E20.9i)			EUC 270g P/A27	ZSNE B34I	PWC-4806	Yes
NP-M403H											No

NP-M402H+	200-240 Vac, 50/60 Hz, 1.9 A	1080p 1920 x 1080	4000lm			ZSNE B34I	PWC- 4806	Yes	
NP-M403H+								No	
NP-M353HS+	200-240 Vac, 50/60 Hz, 1.9 A		3500lm					No	
NP-M323HS+	200-240 Vac, 50/60 Hz, 1.8 A		3200lm	250 W (UHP 250- 190W 0.8 E20.9i)	EUC 250g S/V27			No	
NP-M322H	100-240 Vac, 50/60 Hz, 3.9-1.6 A			270 W (UHP 270- 220W 0.8 E20.9i)	EUC 270g P/A27			Yes	
NP-M323H								No	
NP-M322H+	200-240 Vac, 50/60 Hz, 1.9 A								Yes
NP-M323H+									No
NP-M303HS+	200-240 Vac, 50/60 Hz, 1.8 A		3000lm	250 W (UHP 250- 190W 0.8 E20.9i)	EUC 250g S/V27	ZSNE B34I	PWC- 4806	No	

Supplementary information:

(Each model may be followed by suffix +; Models with suffix and NP-M402X-CC, NP-M362W-CC is shipped to China)

History of amendments and modifications:

Ref. No. 17044270 001, dated 30 Jan., 2015 (original test report)

Ref. No. 17044270 002, dated 13 May, 2015 (1st modification)

Abbreviations used in the report:

- normal conditions	N.C.	- single fault conditions	S.F.C
- functional insulation	OP	- basic insulation	BI
- double insulation	DI	- supplementary insulation	SI
- between parts of opposite polarity	BOP	- reinforced insulation	RI

Indicate used abbreviations (if any)

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 ¹⁾	
Plastic Enclosure (Top and Bottom Cover)	Teijin Limited Resin And Plastic	MN-3606B(#)	5VB, 1.8 mm thickness min., 95°C min.	UL 94, UL 746C	UL (E98529)	
Plastic Enclosure (Lens Cover, WLAN USB Cover, I/O Panel and Lamp Cover)	Teijin Limited Resin And Plastic	MN-3606B(#)	5VB, 1.8 mm thickness min., 95°C min.	UL 94, UL 746C	UL (E98529)	
Plastic Case (For Power and Ballast Board)	Sabic Innovative Plastics Japan LLC	CX7720	V-0 min., 1.2 mm thickness min.	UL 94, UL 746C	UL (E207780)	
(Alternative)	TEIJIN LIMITED RESIN AND PLASTIC	LN-2520(##) (##)- May be suffixed with one or two letters except for a single letter U, V or Z or the letters U, V or Z followed by another letter.	V-0 min., 1.0 mm thickness min.	UL 94, UL 746C	UL (E50075)	
Plastic Cover (For Ballast Board)	Sabic Innovative Plastics Japan LLC	CX7720	V-0 min., 1.2 mm thickness min.	UL 94, UL 746C	UL (E207780)	
(Alternative)	TEIJIN LIMITED RESIN AND PLASTIC	LN-2520(##) (##)- May be suffixed with one or two letters except for a single letter U, V or Z or the letters U, V or Z followed by another letter.	V-0 min., 1.0 mm thickness min.	UL 94, UL 746C	UL (E50075)	
Insulation Sheet (Under Power Board)	Sun Delta Corp	VS(f)	V-0 min., 0.5 mm thickness min.	UL 94, UL 746C	UL (E301813)	
Ceiling Mount Kit	--	--	Steel	--	--	

Switching Power Supply	Interchangeable	ZSNEB34I	I/P: 100-240 Vac, 50/60 Hz O/P: DC 6.0 V / 2.18 A (Secondary); DC 15.0 V / 3.11 A (Secondary); 16.0 V / 0.2 A (Primary); 375 V / 298 W (Primary)	--	--
- Appliance Inlet	Solteam Electronics Co., Ltd.	ST71	10 A, 250 V	IEC/EN 60320-1, UL 498	ENEC, FI UL (E200241)
-Lead Wires (Connecting between Appliance Inlet and power board)	LTK Electric Wire (Huizhou) Ltd	UL Style No. 10097	600V, 105°C, VW-1, 18AWG, 0.4 mm thickness min at any point	UL 758	UL (E148000)
- Primary Housing Connector (Connecting to X1 of Ballast Power Supply)	Japan Solderless Terminal Mfg Co., Ltd.	VH Series	7 A max., 250 V, 85 °C	IEC/EN 61984 UL 1977	TÜV, UL (E60389)
- Primary Housing Connector (Connecting to X5 of Ballast Power Supply)	Japan Solderless Terminal Mfg Co., Ltd.	XA Series	1 A max., 250 V, 85 °C	IEC/EN 61984 UL 1977	TÜV, UL (E60389)
- Fuse (F001)	Suzhou Littelfuse OVS Ltd. (UL: LittelfuseInc)	215 series	T8AH, 250 V	IEC/EN 60127-1, IEC/EN 60127-2, UL 248-1, UL 248-14	VDE, Semko, UL (E10480)
- X-Caps. (C001, C004) (Optional)	Okaya Electric Industries Co.,Ltd.	LE(-*)	0.47 µF max., 250 V min., 100 °C min., X1 or X2 Type	IEC/EN 60384- 14:2005 UL 60384-14	ENEC, UL (E47474)
- Bleeders resistor (R001, R002, R003)	Interchangeable	Interchangeable	1/3 W min., 220K ohm max.	--	--
- Varistor (X001) (Optional)	EPCOS OHG	S(NF)14K385E2 K1	385 Vac, 505 Vdc, 40/85/56, 6 kV / 3 kA pulse test passed	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2 UL 1449	VDE, UL(E321126)

- Y-Caps. (C002, C003) (Optional)	Murata Mfg. Co.,Ltd.	KY	3300 pF max., 250 V min., 85 °C min., Y1 or Y2 Type	IEC/EN 60384- 14:2005 UL 60384-14	VDE, UL(E37921)
-Alt.	TDK-EPC Corporation	CS	3300 pF max., 250 V min., 85 °C min., Y1 or Y2 Type	IEC/EN 60384- 14:2005 UL 60384-14	VDE, UL(E37861)
- Line Chokes (L001, L002) (Optional)	Ueno Co.,Ltd.	ADR18SHB- 04032T (with or without suffix)	105 °C min.	--	--
- Line Choke (L003) (Optional)	Ueno Co.,Ltd.	AFP8S-45-070 (with or without suffix)	105 °C min.	--	--
- PFC Choke (L101)	Tokyo Parts Ind. Co., Ltd.	C-L00-456	105 °C min.	--	--
- Thermistor (TH101) (Optional)	--	--	5 ohm at 25 °C	--	--
- Bridge Diode (D001)	--	--	600 V min., 10 A min.	--	--
- Transistors (Q101, Q103)	--	--	500 V min., 13 A min.	--	--
- Transistor (Q105)	--	--	900 V min., 6 A min.	--	--
- Electrolytic Capacitors (C115, C120)	--	--	150 µF, 420 V min., 105 °C min.	--	--
- Optocouplers (PC201, PC202, PC203)	Renesas Electronics Corporation	PS2561D-1	Dti=0.4 mm, Ext. dcr=7.0 mm, Thermal Cycling Test, max temp 110 °C, Isolation 5000V	IEC/EN 60747-5-2 IEC/EN 60950-1 UL 1577	VDE, Semko, UL (E72422)
-Alt.	Lite-on Technology Corporation	LTV816	Dti=0.6 mm, Ext. dcr=7.8 mm, Thermal Cycling Test, max temp 115 °C, Isolation 5000V	IEC/EN 60747-5-2 IEC/EN 60950-1 UL 1577	VDE, Semko, UL (E113898)
-Alt.	Toshiba Corporation	TLP785 (TLP785 Option D4 for VDE)	Dti=0.6 mm, Ext. dcr=7.0 mm, Thermal Cycling Test, max temp 115 °C, Isolation 5000V	IEC/EN 60747-5-2 IEC/EN 60950-1 UL 1577	VDE, Semko, UL (E67349)

- Bridge-Cap. (C128) (Optional)	Murata Mfg. Co.,Ltd.	KX	1000 pF max., 250 V min., 85 °C min.	IEC/EN 60384- 14:2005 UL 60384-14	VDE, UL (E37921)
-Alt.	TDK-EPC Corporation	CD	1000 pF max., 250 V min., 85 °C min.	IEC/EN 60384- 14:2005 UL 60384-14	VDE, UL (E37861)
- Transformer (T201)	Tokyo Parts Ind. Co., Ltd.	N-T01-998	Class 105 material (A) (UL insulation system no.: SBI4.2)	Applicable part according to IEC 60950-1 and IEC 60085	Accepted by TÜV Rheinland
- Thermal Fuse (F101)	Tamura Thermal Device Corporation	N3F	115°C	IEC/EN 60691, UL 60691	VDE, UL (E73591)
- PCB	Interchangeable	Interchangeable	V-1 min., 105 °C min.	UL 796	UL
Ballast Power Supply (For models NP- M282X,NP- M282X+,NP- M283 and NP- M283X+ used)	Philips (China) Investment Co., Ltd.	EUC 200g S/V27	I/P: 260-395 Vdc; O/P: 140Vac max., 210W max.	IEC 60950- 1:2005+A1:2009, EN 60950- 1:2006+A1:2010+ A12:2011 UL 60950-1	CB (issued by Dekra, Dekra, UL (E311901)
Ballast Power Supply (For models NP- M302WS,NP- M302WS+,NP- M322W,NP- M322W+,NP- M322X,NP- M322X+,NP- M303WS,NP- M303WS+,NP- M323W,NP- M323W+,NP- M323X and NP- M323X+ used)	Philips (China) Investment Co., Ltd.	EUC 225g S/V27	I/P: 260-395 Vdc; O/P: 140Vac max., 236W max.	IEC 60950- 1:2005+A1:2009, EN 60950- 1:2006+A1:2010+ A12:2011 UL 60950-1	CB (issued by Dekra, Dekra, UL (E311901)
Ballast Power Supply (For models NP- M303HS+, NP- M362W, NP- M362W+, NP- M362X, NP- M362X+, NP- M363W, NP- M363W+, NP- M363X, NP- M363X+, NP- M323HS+ and NP-M362W-CC used)	Philips (China) Investment Co., Ltd.	EUC 250g S/V27	I/P: 260-395 Vdc; O/P: 140Vac max., 263W max.	IEC 60950- 1:2005+A1:2009, EN 60950- 1:2006+A1:2010+ A12:2011 UL 60950-1	CB (issued by Dekra, Dekra, UL (E311901)

Ballast Power Supply (For models NP-M352WS, NP-M352WS+, NP-M332XS, NP-M332XS+, NP-M402X, NP-M402X+, NP-M402W, NP-M402W+, NP-M353HS+, NP-M323H, NP-M323H+, NP-M403H, NP-M403H+, NP-M333XS, NP-M333XS+, NP-M353WS, NP-M353WS+, NP-M403W, NP-M403W+, NP-M403X, NP-M403X+, NP-M322H, NP-M322H+, NP-M402H/NP-M402H+ and NP-M402X-CC used)	Philips (China) Investment Co., Ltd.	EUC 270g P/A27	I/P: 260-395 Vdc; O/P: 150Vac max., 284W max.	IEC 60950-1:2005+A1:2009, EN 60950-1:2006+A1:2010+A12:2011 UL 60950-1	CB (issued by Dekra, Dekra, UL (E311901)
Lamp Compartment	DIC Corp	FZ-1140-D5	V-0 min., 1.5 mm thickness min., 200 °C min.	UL 94, UL 746C	UL (E53829)
Lamp Assembly (For models NP-M282X, NP-M282X+, NP-M283 and NP-M283X+ used)	--	NP27LP	--	--	--
- Lamp	Philips Electronics Japan Ltd.	UHP 200-160W 0.8 E20.9i	Typ. 200W, max. 214W	--	--
- Lamp Cable	Interchangeable	Interchangeable	20KV min., 20 AWG min., 200 °C min., Rated FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1	UL 758	UL
- Lamp Holder	Polyplastics Co., Ltd.	E130i	V-0 min., 0.75mm thick min., RTI 220 degree C	UL 94, UL 746C	UL (E106764)

- Wafer Connector (Connecting to Housing Connector of Lamp)	Polyplastics Co., Ltd.	E130i	V-0 min., 0.9mm thick min., RTI 220 degree C	UL 94, UL 746C	UL (E106764)
Lamp Assembly (For models NP-M302WS,NP-M302WS+,NP-M322W,NP-M322W+,NP-M322X,NP-M322X+,NP-M303WS,NP-M303WS+,NP-M323W,NP-M323W+,NP-M323X,NP-M323X+ used)	--	NP28LP	--	--	--
- Lamp	Philips Electronics Japan Ltd.	UHP 225-170W 0.8 E20.9i	Typ. 225W, max. 237W	--	--
- Lamp Cable	Interchangeable	Interchangeable	20KV min., 20 AWG min., 200 °C min., Rated FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1	UL 758	UL
- Lamp Holder	Polyplastics Co., Ltd.	E130i	V-0 min., 0.75 mm thick min., RTI 220 degree C	UL 94, UL 746C	UL (E106764)
- Wafer Connector (Connecting to Housing Connector of Lamp)	Polyplastics Co., Ltd.	E130i	V-0 min., 0.9 mm thick min., RTI 220 degree C	UL 94, UL 746C	UL (E106764)

Lamp Assembly (For models NP-M303HS+, NP-M362W, NP-M362W+, NP-M362X, NP-M362X+, NP-M363W, NP-M363W+, NP-M363X, NP-M363X+, NP-M323HS+ and NP-M362W-CC used)	--	NP29LP	--	--	--
- Lamp	Philips Electronics Japan Ltd.	UHP 250-190W 0.8 E20.9i	Typ. 250W, max. 267W	--	--
- Lamp Cable	Interchangeable	Interchangeable	20KV min., 20 AWG min., 200 °C min., Rated FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1	UL 758	UL
- Lamp Holder	Polyplastics Co., Ltd.	E130i	V-0 min., 0.75 mm thick minimum, RTI 220 degree C	UL 94, UL 746C	UL (E106764)
- Wafer Connector (Connecting to Housing Connector of Lamp)	Tosoh Corp Polymers Div	GS-40	V-0 min., 0.75 mm thick minimum, RTI 200 degree C	UL 94, UL 746C	UL (E102861)

Lamp Assembly (For models NP-M352WS, NP-M352WS+, NP-M332XS, NP-M332XS+, NP-M402X, NP-M402X+, NP-M402W, NP-M402W+, NP-M353HS+, NP-M323H, NP-M323H+, NP-M403H, NP-M403H+, NP-M333XS, NP-M333XS+, NP-M353WS, NP-M353WS+, NP-403W, NP-M403W+, NP-M403X, NP-M403X+, NP-M322H, NP-M322H+, NP-M402H, NP-M402H+ and NP-M402X-CC used)	--	NP30LP	--	--	--
- Lamp	Philips Electronics Japan Ltd.	UHP 270-220W 0.8 E20.9i	Typ. 270W, max. 288W	--	--
- Lamp Cable	Interchangeable	Interchangeable	20KV min., 20 AWG min., 200 °C min., Rated FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1	UL 758	UL
- Lamp Holder	Polyplastics Co., Ltd.	E130i	V-0 min., 0.75 mm thick minimum, RTI 220 degree C	UL 94, UL 746C	UL (E106764)
- Wafer Connector (Connecting to Housing Connector of Lamp)	Tosoh Corp Polymers Div	GS-40	V-0 min., 0.75 mm thick minimum, RTI 200 degree C	UL 94, UL 746C	UL (E102861)

Housing Connector (Connecting to Wafer Connector X3 of Ballast)	Japan Solderless Terminal Mfg Co., Ltd.	VH Series	7 A, 250 V, 85 °C	IEC/EN 61984 UL 1977	TÜV, UL
Housing Connector (Connecting to Wafer Connector of Lamp)	Polyplastics Co., Ltd.	E130i	V-0 min., 0.75mm thick minimum, RTI 220 degree C	UL 94, UL 746C	UL (E106764)
	Tosoh Corp Polymers Div	GS-40	V-0 min., 0.75mm thick minimum, RTI 200 degree C	UL 94, UL 746C	UL (E102861)
Temperature Sensing (For Lamp Sensing)	Uchiya	UP62G	AC125/1A, AC 250V/0.5A, max. temp. is 140 °C	IEC/EN 60730-1, IEC/EN 60730-2-9, UL 873	VDE, UL
DC Fan (PS) (near Switching Power Supply)	Delta Electronics Inc.	AUB0612H-CM1C	12 Vdc, 0.36 A, 0.477m ³ /min min.	IEC 60950-1:2005+A1, EN 60950-1:2006+A11+A1+A12 UL 507	TUV/RH, UL (E132003)
DC Fan (ENGINE) (near lens) NP-M352WS, NP-M352WS+, NP-M332XS, NP-M332XS+, NP-M402X, NP-M402X+, NP-M402W, NP-M402W+, NP-M302WS, NP-M302WS+, NP-M282X, NP-M282X+, NP-M322W, NP-M322W+, NP-M322X, NP-M322X+, NP-M362W, NP-M362W+, NP-M362X, NP-M362X+, NP-M322H, NP-M322H+, NP-M402H, NP-M402H+ and NP-M402X-CC	NMB Technologies Corporation	06010KA-12L-AT	12 Vdc, 0.13 A max., 0.30 m ³ /min min..	IEC 60950-1:2005+A1, EN 60950-1:2006+A11+A1+A12 UL 507	VDE, UL (E89936)

DC Fan (LAMP(H)) (near colour wheel motor) (For models NP-M322H,NP-M322H+,NP-M402H,NP-M402H+,NP-M303HS,NP-M323HS+,NP-M353HS+,NP-M332XS,NP-M332XS+,NP-M352WS,NP-M352WS+,NP-M362W,NP-M362W+,NP-M402W, NP-M402W+,NP-M402X,NP-M402X+,NP-M323H,NP-M323H+,NP-M403H,NP-M403H+,NP-M333XS,NP-M333XS+,NP-M353WS,NP-M353WS+,NP-M363W,NP-M363W+,NP-M363X,NP-M363X+,NP-M403W,NP-M403W+,NP-M403X,NP-M403X+, NP-M362X,NP-M362X+ and NP-M362W-CC used)	Toshiba Home Technology Corporation	C6-6023L-11	12 Vdc, 0.24 A max., 0.21m ³ /min min.	--	--
- Magnet Wire	Interchangeable	Interchangeable	Min. 105 °C	UL 1446	UL
- Enclosure	Interchangeable	Interchangeable	V-2 min.	UL 94, UL 746C	UL
- Fan Blades	Interchangeable	Interchangeable	V-2 min.	UL 94, UL 746C	UL
- Lead Wire	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; min. 30 V, 60 °C min.	UL 758	UL

- PCB	Interchangeable	Interchangeable	V-1 min., 105 °C min.	UL 796	UL
DC Fan (LAMP(L)) (near colour wheel motor) (For models NP- M282X, NP- M282X+, NP- M302WS, NP- M302WS+, NP- M322X, NP- M322X+, NP- M322W ,NP- M322W+,NP- M303WS,NP- M303WS+,NP- M283X,NP- M283X+,NP- M323W,NP- M323W+,NP- M323X andNP- M323X+ used)	Toshiba Home Technology Corporation	C6-6023L-12	12 Vdc, 0.1 A max., 0.15m ³ /min min.	--	--
- Magnet Wire	Interchangeable	Interchangeable	Min. 105 °C	UL 1446	UL
- Enclosure	Interchangeable	Interchangeable	V-2 min.	UL 94, UL 746C	UL
- Fan Blades	Interchangeable	Interchangeable	V-2 min.	UL 94, UL 746C	UL
- Lead Wire	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; min. 30 V, 60 °C min.	UL 758	UL
- PCB	Interchangeable	Interchangeable	V-1 min., 105 °C min.	UL 796	UL
DC Fan (EXHAUST) (near Ballast board)	NMB Technologies Corporation	08025SS-12N- ET-D2	12 Vdc, 0.21 A max., 0.96 m ³ /min.	IEC 60950- 1:2005+A1, EN 60950- 1:2006+A11+A1+ A2 UL 507	VDE, UL (E89936)
ColorWheel Motor	Nidec	VA6 hall sensor motor	12Vdc, min. 105 °C	--	--

USB Protector (IC8208 for USB Port: M8202; IC8207 for USB Port: M8501)	Texas Instruments, Inc.	TPS2553..... (The dots "....." noted in the model number represents any alphanumeric character identifying minor differences in non-safety affecting operation and configuration differences.)	1.5 A, 2.5 to 6.5 Vdc	IEC 60950- 1:2005+A1:2009, UL Subject 2367	CB (issued by Nemko), UL
Speaker (One provided)	--	--	4Ω, 30W max.	--	--
PCB	Interchangeable	Interchangeable	V-1 min., 105 °C min.	UL 796	UL
Battery for remote- controller used (Two provided)(Optio nal)	--	--	AAA type consumer grade, non- rechargeable, carbon-zinc or alkaline batteries	--	--
Secondary Fuses(On main board)(F2401for +6.0 V) (F2402 for +15.0 V)	KAMAYA	FHC32502AD	32 Vdc, 5.0 A	UL 248-1, UL 248-14	UL (E176847)
-Alt.	Skygate Co., Ltd.	1206FT5A	32 Vdc, 5.0 A	UL 248-1, UL 248-14	UL (E195833)
Supplementary information: 1) Provided evidence ensures the agreed level of compliance. See OD-CB2039. 2) In the technical data column of optocoupler, where "Dti." Means distance through insulation, and "Ext. dcr" means external creepage distance.					

1.6.2		TABLE: Electrical data (in normal conditions)					P
U (V/Hz)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status	
For models NP-M403H							
COMPUTER IN with ECO OFF mode							
90/50Hz	3.888	--	352.3	F001	3.888	Maximum normal load.	
90/60Hz	3.887	--	352.6	F001	3.887	Maximum normal load.	
100/50Hz	3.459	3.9	346.9	F001	3.459	Maximum normal load.	
100/60Hz	3.501	3.9	348.9	F001	3.501	Maximum normal load.	
110/50Hz	3.212	--	341.1	F001	3.212	Maximum normal load.	
110/60Hz	3.218	--	342.4	F001	3.218	Maximum normal load.	
180/50Hz	1.876	--	334.2	F001	1.876	Maximum normal load.	
180/60Hz	1.879	--	334.7	F001	1.879	Maximum normal load.	
200/50Hz	1.688	--	332.3	F001	1.688	Maximum normal load.	
200/60Hz	1.691	--	334.1	F001	1.691	Maximum normal load.	
220/50Hz	1.528	--	330.5	F001	1.528	Maximum normal load.	
220/60Hz	1.531	--	331.1	F001	1.531	Maximum normal load.	
240/50Hz	1.408	1.6	327.7	F001	1.408	Maximum normal load.	
240/60Hz	1.407	1.6	329.1	F001	1.407	Maximum normal load.	
264/50Hz	1.282	--	327.3	F001	1.282	Maximum normal load.	
264/60Hz	1.289	--	328.3	F001	1.289	Maximum normal load.	
HDMI 1 IN with ECO OFF mode							
90/50Hz	4.004	--	359.3	F001	4.004	Maximum normal load.	
90/60Hz	3.951	--	357.9	F001	3.951	Maximum normal load.	
100/50Hz	3.519	3.9	353.1	F001	3.519	Maximum normal load.	
100/60Hz	3.536	3.9	353.2	F001	3.536	Maximum normal load.	
110/50Hz	3.235	--	343.2	F001	3.235	Maximum normal load.	
110/60Hz	3.239	--	344.3	F001	3.239	Maximum normal load.	
180/50Hz	1.882	--	335.4	F001	1.882	Maximum normal load.	
180/60Hz	1.886	--	335.8	F001	1.886	Maximum normal load.	
200/50Hz	1.698	--	334.6	F001	1.698	Maximum normal load.	
200/60Hz	1.696	--	334.8	F001	1.696	Maximum normal load.	
220/50Hz	1.534	--	334.1	F001	1.534	Maximum normal load.	
220/60Hz	1.536	--	334.6	F001	1.536	Maximum normal load.	
240/50Hz	1.428	1.6	333.9	F001	1.428	Maximum normal load.	
240/60Hz	1.427	1.6	334.1	F001	1.427	Maximum normal load.	
264/50Hz	1.304	--	332.8	F001	1.304	Maximum normal load.	

264/60Hz	1.307	--	332.9	F001	1.307	Maximum normal load.
HDMI 2 IN with ECO OFF mode						
90/50Hz	4.004	--	359.3	F001	4.004	Maximum normal load.
90/60Hz	3.951	--	357.9	F001	3.951	Maximum normal load.
100/50Hz	3.519	3.9	353.1	F001	3.519	Maximum normal load.
100/60Hz	3.536	3.9	353.2	F001	3.536	Maximum normal load.
110/50Hz	3.235	--	343.2	F001	3.235	Maximum normal load.
110/60Hz	3.239	--	344.3	F001	3.239	Maximum normal load.
180/50Hz	1.882	--	335.4	F001	1.882	Maximum normal load.
180/60Hz	1.886	--	335.8	F001	1.886	Maximum normal load.
200/50Hz	1.698	--	334.2	F001	1.698	Maximum normal load.
200/60Hz	1.696	--	334.8	F001	1.696	Maximum normal load.
220/50Hz	1.534	--	334.1	F001	1.534	Maximum normal load.
220/60Hz	1.536	--	334.6	F001	1.536	Maximum normal load.
240/50Hz	1.428	1.6	333.9	F001	1.428	Maximum normal load.
240/60Hz	1.427	1.6	334.1	F001	1.427	Maximum normal load.
264/50Hz	1.304	--	332.8	F001	1.304	Maximum normal load.
264/60Hz	1.307	--	332.9	F001	1.307	Maximum normal load.
VIDEO IN with ECO OFF mode						
90/50Hz	4.001	--	352.3	F001	4.001	Maximum normal load.
90/60Hz	3.887	--	352.6	F001	3.887	Maximum normal load.
100/50Hz	3.459	3.9	346.9	F001	3.459	Maximum normal load.
100/60Hz	3.501	3.9	348.9	F001	3.501	Maximum normal load.
110/50Hz	3.231	--	342.1	F001	3.231	Maximum normal load.
110/60Hz	3.233	--	342.4	F001	3.233	Maximum normal load.
180/50Hz	1.881	--	334.2	F001	1.881	Maximum normal load.
180/60Hz	1.883	--	334.8	F001	1.883	Maximum normal load.
200/50Hz	1.692	--	333.2	F001	1.692	Maximum normal load.
200/60Hz	1.694	--	333.6	F001	1.694	Maximum normal load.
220/50Hz	1.534	--	331.2	F001	1.534	Maximum normal load.
220/60Hz	1.540	--	332.1	F001	1.540	Maximum normal load.
240/50Hz	1.408	1.6	327.7	F001	1.408	Maximum normal load.
240/60Hz	1.407	1.6	329.1	F001	1.407	Maximum normal load.
264/50Hz	1.282	--	327.3	F001	1.282	Maximum normal load.
264/60Hz	1.289	--	328.3	F001	1.289	Maximum normal load.

Supplementary information:

1. The measured input current at rated voltage shall be ≤ 110 % of rated current.
2. See summary of testing in the test report for the detail max. normal condition.
3. Only record the maximum test results.

4.5	TABLE: Thermal requirements					P
	Supply voltage (V)	90V/60Hz	264V/60Hz	90V/60Hz	--	—
	Ambient T_{min} (°C)	--	--	--	--	—
	Ambient T_{max} (°C)	--	--	--	--	—
Maximum measured temperature T of part/at::		T (°C)				Allowed T_{max} (°C)
Test condition:		V)	W)	X)	--	--
AC inlet near line		51.1	49.8	51.7	--	70
PCB near X001		51.8	49.0	52.3	--	100
C001 body		51.4	49.5	51.7	--	105
L001 coil		62.3	51.8	62.6	--	105
L002 coil		62.1	53.2	62.3	--	105
L003 coil		60.2	53.1	60.7	--	105
C004 body		54.6	53.7	54.9	--	100
C002 and C003 body		54.4	53.2	54.7	--	100
C102 body		57.6	53.7	57.8	--	85
PCB near R111		67.9	57.2	67.5	--	105
PCB near D001		80.5	60.7	79.3	--	105
PCB near Q101 and Q103		88.2	64.7	85.8	--	105
PCB near D105 and Q105		83.5	66.8	81.8	--	105
PCB near TH101		86.8	63.4	86.0	--	105
L101 coil		90.8	59.6	89.5	--	105
C115 and C120 body		65.4	56.9	64.4	--	105
C128 body		74.7	64.4	73.8	--	85
PC201 body		58.4	54.6	58.3	--	100
PC202 body		57.3	53.9	57.2	--	100
PC203 body		56.0	53.3	45.5	--	100
T201 core		77.7	67.5	75.3	--	90
T201 coil		85.2	72.9	83.4	--	90
L202 coil		61.8	57.3	61.6	--	105

Housing connector of power board(conneating to wafet connector X1)	47.5	47.4	48.6	--	85
Housing connector of power board (conneating to wafet connector X5)	44.9	44.8	46.8	--	85
X1 body	49.3	49.3	51.1	--	85
X5 body	45.8	46.1	47.7	--	85
L1 coil	53.4	53.5	54.9	--	90
L20 coil	70.8	72.1	71.0	--	105
L3 coil	72.8	74.6	72.7	--	105
X3 body	79.7	80.5	79.2	--	85
PCB near IC9502	62.3	69.8	64.0	--	85
PCB near IC9501	61.1	61.0	63.2	--	85
PCB near IC1204	60.0	59.8	60.4	--	85
PCB near IC1402	65.9	65.2	65.3	--	85
PCB near IC8001	70.6	68.6	70.0	--	85
PCB near IC1008	60.9	60.4	61.6	--	85
PCB near IC1601	62.3	61.9	61.6	--	85
PCB near IC2204	72.6	63.3	72.1	--	85
Color wheel motor case	58.3	57.2	57.1	--	105
Lamp holder	112.4	110.2	111.9	--	130
Lamp compartment	100.5	95.7	96.9	--	130
Wafer connector of lamp holder	71.5	66.5	71.2	--	130
Housing connector of lamp compartment	69.7	64.3	68.6	--	130
Housing connector of lamp	72.8	91.5	73.0	--	130
Lamp cover inside near lamp	78.3	77.5	77.4	--	--
Lamp cover outside near lamp	56.2	55.5	61.3	--	95
Bootom plastic enclosure inside near label part	57.4	54.2	56.8	--	--
Bootom plastic enclosure outside near label part	56.4	53.7	54.7	--	95
Bootom plastic enclosure inside near lamp	63.7	58.4	61.9	--	--
Bootom plastic enclosure outside near lamp	58.6	54.5	56.0	--	95
Front plastic enclosure inside near Ballast	46.6	53.4	51.1	--	--
Front plastic enclosure outside near Ballast	45.4	45.4	47.7	--	95
Left plastic enclosure inside near lamp	54.8	51.8	54.6	--	--
Left plastic enclosure outside near lamp	52.2	50.1	52.2	--	95
Right plastic enclosure inside near heatsink	46.8	44.1	43.6	--	--
Right plastic enclosure outside near heatsink	46.4	44.3	44.0	--	95
Rear plastic enclosure inside near power board	54.5	52.4	54.7	--	--

Rear plastic enclosure outside near power board	52.4	49.8	50.9	--	95		
Tma (°C):	40.0	40.0	40.0	--	--		
Tamb (°C)	24.5	24.6	25.2	--	--		
Supplementary information:							
1. The temperatures were measured under worst case normal mode defined in 1.2.2.1 and as described in 1.6.2 at voltages as described in above.							
2. Unit specified with maximum of 40 °C ambient temperature and above test data was calculated by original test result of 25 °C ambient temperature.							
Winding components (providing safety isolation):							
- Class 105 material (A) Tmax = 100 °C – 10 °C = 90 °C							
3. Thermocouple method used for measuring the temperatures.							
4. Supply voltage information see below for details							
V). HDMI ECO OFF mode: 90Vac for model NP-M403H with ballast (EUC 270g P/A27) and 270 W (UHP 270-220W 0.8 E20.9i) lamp (Desktop)							
W). HDMI ECO OFF mode: 264Vac for model NP-M403H with ballast (EUC 270g P/A27) and 270 W (UHP 270-220W 0.8 E20.9i) lamp (Desktop)							
X). HDMI ECO OFF mode: 90Vac for model NP-M403H with ballast (EUC 270g P/A27) and 270 W (UHP 270-220W 0.8 E20.9i) lamp (Ceiling mount / 180°)							
Temperature T of winding:	t1 (°C)	R1 (Ω)	t2 (°C)	R2 (Ω)	T (°C)	Allowed Tmax (°C)	Insulation class
Supplementary information:							

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:				
Unit: Primary to earth		DC	2759	No
Reinforced:				
Unit: Primary to secondary		DC	4242	No
Unit: Primary to Plastic enclosure with metal foil		DC	4242	No
Supplementary information:				
1) Electric strength tests were also conducted before and after clause 2.9.2.				

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				25°C, if no else specified	—
	Power source for EUT: Manufacturer, model/type, output rating				See table 1.5.1.	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Test model: NP-M403H						
Ventilation openings	Blocked	240	1hrs0 min	F001	0.103	Unit shut down after at 10 min. Max. temp. of T201 coil = 62.6°C, T201 core = 61.5 °C, Tamb = 25.3°C. No damage, no hazards.
Speaker	SC	240	1hrs37 min	F001	1.404	Normal, Input current decrea 1.404A, Input power decrease 335.2W Max. temp. of T201 coil = 53.1°C, T201 core = 48.6°C, Tamb = 25.4°C. No damage, no hazards
USB output	O-L	240	3hrs42m in	F001	0.12	Unit shut down at 1.5A. Max. temp. Was stable at 1.3A. Max.temp.of T201 coil = 60.2 °C, T201 core = 57.9°C, Tamb = 25.6°C. No damage, no hazards.
DC fan 1 (PS) (near power board)	Stalled	240V	1h12min	F001	0.103	Unit shut down immediately Max. temp. of T201 coil = 43.1°C, T201 core = 42.6°C, Tamb = 24.8 °C. No damage, no hazards.
DC fan 3 (LAMP(H)) (near colour wheel motor)	Stalled	240V	1h41min	F001	0.107	Unit shut down immediately Max. temp. of T201 coil = 43.5°C, T201 core = 40.6°C, Tamb = 25.8 °C. No damage, no hazards.

DC fan 5 (EXHAUST) (near Ballast board)	Stalled	240V	1h3min	F001	0.12	Unit shut down immediately Max. temp. of T201 coil = 43.4 °C, T201 core = 41.3°C, Tamb = 23.9°C. No damage, no hazards.
T201, Pin 7 after D202 to GND	O-L	240V	4hrs58m in	F001	0.16	Unit shut down at 3.3A. Max. temp. Was stable at 2.6A. Max.temp.of T201 coil = 109.4 °C, T201 core = 103.1°C, Tamb = 24.5°C. No damage, no hazards.
T201, Pin 8,9,10 after D201 to GND	O-L	240V	4hrs0mi n	F001	0.14	Unit shut down at 9.2A. Max. temp. Was stable at 8.2A. Max.temp.of T201 coil = 96.1 °C, T201 core = 91.2°C, Tamb = 25.7°C. No damage, no hazards.
Supplementary information: 1). For component damaged without fuse opened condition have been repeat 2 times with same result. 2). Temp. limited of transformer (class 105 material (A)) according to table C.1 is 150 °C -(40 °C -25 °C)=135 °C. 3). Output connectors where no mention in above table, that can't provide output voltage.						

Product: See test report

Type Designation: See test report

For models: NP-M403H, NP-M403H+



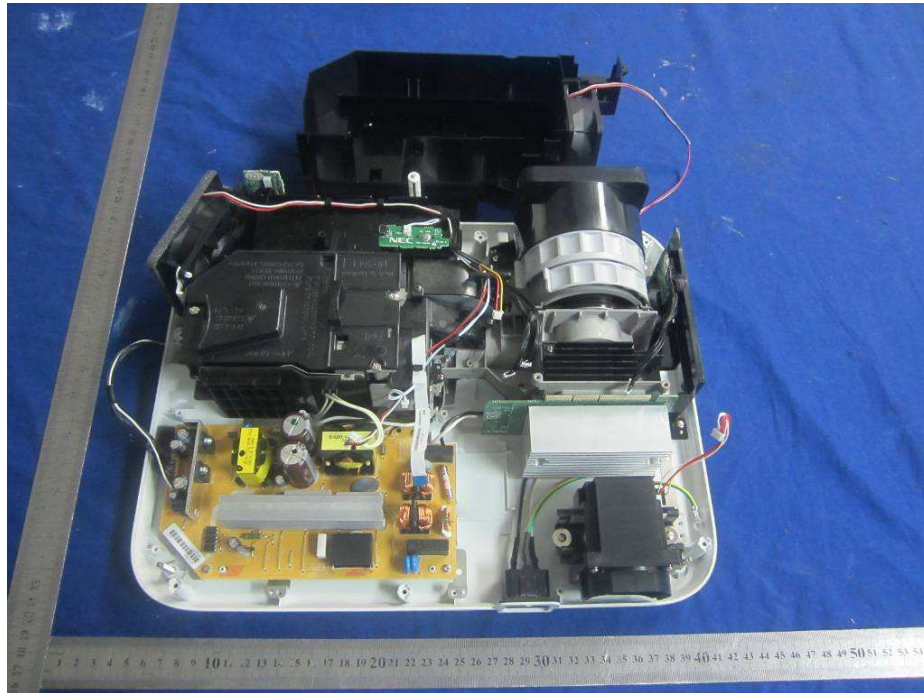
Product: See test report

Type Designation: See test report



Product: See test report

Type Designation: See test report



Product: See test report

Type Designation: [See test report](#)

For models: NP-M353WS, NP-M353WS+

