



Test Report issued under
the responsibility of:

UL Japan, Inc.



**Underwriters
Laboratories**

TEST REPORT
IEC 60950-1
Information technology equipment - Safety -
Part 1: General requirements

Report Reference No : E209547-A96-CB-1

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CB Testing Laboratory : UL Japan, Inc.

Address : 4383-326 Asama-cho, Ise-shi, Mie, 516-0021, Japan

Applicant's name : NEC DISPLAY SOLUTIONS LTD

686-1 NISHI-OI

Address : OI-MACHI

ASHIGARAKAMI-GUN

KANAGAWA 258-8533 JAPAN

Test specification:

Standard : IEC 60950-1:2005 (Second Edition)

Test procedure : CB Scheme

Non-standard test method : N/A

Test Report Form No. : IEC60950_1A

Test Report Form originator : SGS Fimko Ltd

Master TRF : 2009-09

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Test item description	LCD Projector
Trade Mark	NEC
Manufacturer	NEC DISPLAY SOLUTIONS LTD 686-1 NISHI-OI OI-MACHI ASHIGARAKAMI-GUN KANAGAWA 258-8533 JAPAN
Model/Type reference	NP-M260WS, NP-M260XS, NP-M300WS, NP-M300XS, NP-M350XS, NP-M420X, NP-M420XV, NP-P350W, NP-P350X, NP-P420X (may be followed by + or C. Models with suffix are shipped to China)
Rating	100-240V~, 50/60Hz, 2.8-1.2A (for model NP-M260XS) 100-240V~, 50/60Hz, 3.4-1.5A (for models NP-M260WS, NP-M300XS) 100-240V~, 50/60Hz, 3.5-1.5A (for model NP-P350X) 100-240V~, 50/60Hz, 3.9-1.7A (for models NP-M300WS, NP-M350XS, NP-M420X, NP-M420XV, NP-P350W, NP-P420X) Models for China 200-240V~, 50/60Hz, 1.4A (for model NP-M260XS with suffix + or C) 200-240V~, 50/60Hz, 1.7A (for models NP-M260WS, NP-M300XS, NP-P350X with suffix + or C) 200-240V~, 50/60Hz, 1.9A (for models NP-M300WS, NP-M350XS, NP-M420X, NP-M420XV, NP-P350W, NP-P420X with suffix + or C)

Testing procedure and testing location:	
☒ CB Testing Laboratory	Testing location / address..... : UL Japan, Inc. 4383-326 Asama-cho, Ise-shi, Mie, 516-0021, Japan
☐ Associated CB Test Laboratory	Testing location / address..... :
	Tested by (name + signature) : Tsutomu Takahashi 
	Approved by (+ signature) : Naoyuki Ito 
☐ Testing Procedure: TMP	Tested by (name + signature) : _____
	Approved by (+ signature) : _____
	Testing location / address..... : _____
☐ Testing Procedure: WMT	Tested by (name + signature) : _____
	Witnessed by (+ signature)..... : _____
	Approved by (+ signature) : _____
	Testing location / address..... : _____
☐ Testing Procedure: SMT	Tested by (name + signature) : _____
	Approved by (+ signature) : _____
	Supervised by (+ signature) : _____
	Testing location / address..... : _____
☐ Testing Procedure: RMT	Tested by (name + signature) : _____
	Approved by (+ signature) : _____
	Supervised by (+ signature) : _____
	Testing location / address..... : _____

Summary Of Testing

Unless otherwise indicated, all tests were conducted at UL Japan, Inc. 4383-326 Asama-cho, Ise-shi, Mie, 516-0021, Japan.

Tests performed (name of test and test clause)	Testing location / Comments
Maximum Output Voltage, Current, and Volt-Ampere Measurement (1.2.2.1)	
Input: Single-Phase (1.6.2)	
Durability of Marking (1.7.11)	
Capacitance Discharge (2.1.1.7)	

SELV Reliability (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)
Limited Current Circuit Measurement (2.4.1, 2.4.2)
Limited Power Source Measurements (2.5)
Protective Bonding II (2.6.3.4, 2.6.1)
Humidity (2.9.1, 2.9.2, 5.2.2)
Determination of Working Voltage; Working Voltage Measurement (2.10.2)
Determination of Working Voltage; Hazardous Voltage (Circuit) Measurement (2.10.2, Part 22 6.1)
Electric Strength for Circuits with Starting Pulses (2.10.3.5)
Transformer and Wire /Insulation Electric Strength (2.10.5.13)
Steady Force (4.2.1 - 4.2.4)
Impact (4.2.5, 4.2.1, Part 22 10.2)
Stress Relief (4.2.7, 4.2.1)
Heating (4.5.1, 1.4.12, 1.4.13)
Ball Pressure (4.5.5, 4.5)
Touch Current (Single-Phase; TN/TT System) (5.1, Annex D)
Electric Strength (5.2.2)
Component Failure (5.3.1, 5.3.4, 5.3.7)
Abnormal Operation (5.3.1 - 5.3.9)
Abnormal Operation - Lamp Rupture (5.3.1, 5.3.9)
Transformer Abnormal Operation (5.3.3, 5.3.7b, Annex C.1)
Power Supply Output Short-Circuit/Overload (5.3.7)
Locked-Rotor Overload for DC Motors in Secondary Circuits (Annex B.7)

Summary of Compliance with National Differences:

CN, DE, EU, JP, KR, SG

Copy of Marking Plate - Refer to Enclosure titled Marking Plate for copy.

Test item particulars :

Equipment mobility	movable (tabletop) or fixed (ceiling mount)
Connection to the mains	pluggable A
Operating condition	continuous
Access location	operator accessible
Over voltage category (OVC)	OVC II
Mains supply tolerance (%) or absolute mains supply values	+10%, -10%
Tested for IT power systems	No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	Class I (earthed)
Considered current rating (A)	20
Pollution degree (PD)	PD 2
IP protection class	IP X0
Altitude of operation (m)	Up to 2000
Altitude of test laboratory (m)	Approx. 10 to 20
Mass of equipment (kg)	Maximum 4.0 (excluding Ceiling Mount Kit)

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(s) of receipt of test item	2010-09-28, 2010-10-04, 2010-10-08
Date(s) of Performance of tests	2010-10-19 to 2010-11-12

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

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

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

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

GENERAL PRODUCT INFORMATION:**Report Summary**

All applicable tests according to the referenced standard(s) have been carried out.

Product Description

The equipment is LCD Projector for general office use.

This equipment is considered to be used under movable (table-top), and also considered to be used under ceiling mount position (upside down holding) with the optional Ceiling Mount Unit. The unit is secured to ceiling by a service personnel only.

Lamp, lamp cover and front lens are intended to be opened by operator for lamp replacement.

Accessories:

- Ceiling Mount Unit
- Computer cable (VGA)
- Remote controller

Model Differences

Model NP-P350W is the basic model in this Test Report.

The other models are same as Model NP-P350W, except for model designation, electrical rating and the following specification.

Also, all models may have suffix (+ or C). Models with the suffix are shipped to China. Difference between models without suffix and models with suffix is only electric ratings.

Model	Resolution	Brightness	Lamp wattage	Cabinet
NP-M420X	XGA 1024x768	4200lm	260W	Normal Lens
NP-M420XV(*1)	XGA 1024x768	4200lm	260W	Normal Lens
NP-P350W	WXGA 1280x800	3500lm	260W	Lens Shift
NP-P420X	XGA 1024x768	4200lm	260W	Lens Shift
NP-P350X	XGA 1024x768	3500lm	230W	Lens Shift
NP-M350XS	XGA 1024x768	3500lm	260W	Short Focus
NP-M300WS	WXGA 1280x800	3000lm	260W	Short Focus
NP-M300XS	XGA 1024x768	3000lm	230W	Short Focus
NP-M260WS	WXGA 1280x800	2600lm	230W	Short Focus
NP-M260XS	XGA 1024x768	2600lm	180W	Short Focus

(*1) Deletion of audio function from model NP-M420X

Combination of Power Supply, Ballast Power Supply, Lamp

	Power Supply	Ballast Power Supply	Lamp
260W model:	3N10157	PHG261A3HD	NSHA260NE
230W model:	3N10150	PHG231A8GD	NSHA210NEB
180W model:	3N10149	PHG231A8FD	NSHA180NEH

Type Differences between the power supplies are as follows;

3N10150 is identical to 3N10149, except for rating of Fuse (F101), Primary Inductors (L101, L102, T101), FET (Q101), addition of FET (Q102) and replacement of Capacitor (C112, C113) by Capacitor (C136).

3N10157 is identical to 3N10150 except for Capacitor (C101, C104).

Additional Information

The manufacturer submitted representative production samples of NP-P350W, NP-M300XS and NP-M260XS. Unless stated otherwise, all tests were conducted on models NP-P350W. Models NP-P350W, NP-M300XS or NP-M260XS were used for test purposes and is considered representative of the entire series.

Maximum Normal Load Condition

- Continuous projection of Color Bar
- Following input signal was used

RGB Input Signal: Resolution 1280 x 800(WXGA) Vertical Frequency 60 Hz for model NP-P350W

RGB Input Signal: Resolution 1024 x 768(XGA) Vertical Frequency 60 Hz for Model NP-M300XS and NP-M260XS

(Input Signal does not influence power consumption.)

Fan speed is changeable. Refer to enclosure id 7-01.

According to applicant's request, all tests were conducted under mains supply tolerance -10 % and +10 %. According to the manufacturer illustrations and documents, the Lamp used in the LCD Projector only has a relatively small percentage of UV radiation compared to the entire spectrum of radiation emitted by the Lamp. Also, due to both design of Lamp and assembly in LCD Projector including use of Air Filter (checked construction and manufacturer's documents), the levels of UV radiation (exposed to the person near the LCD Projector) are considered to be relatively low. And during the servicing, the service personnel should not operate the LCD Projector without covers. Therefore, this LCD Projector is not considered to be equipped with Lamp, which produces significant UV radiation according to sub-clauses 4.3.13.3 and 4.3.13.4.

This unit was additionally investigated to the Japanese Standard J60950(H19) and J3000(H21). Refer to Enclosures - Miscellaneous Ids: 7-03 and 7-04.

Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40°C
- The means of connection to the mains supply is: Pluggable A, Detachable power cord
- The product is intended for use on the following power systems: TN
- The equipment disconnect device is considered to be: Appliance inlet for tabletop usage or Plug for, ceiling mount.
- The product was investigated to the following additional standards: EN 60950-1:2006+ A11:2009 (except for models shipped to China).
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): 17.5V output (after ICP201) of Power Supply. VCCS+4.2V, VCCS+4.2V_RB, VCCS+6.2V lines after fuses F1001, F1002, F1003 respectively. USB (PC).
- The following secondary external connectors are signal port only: USB Type-B, LAN, Computer IN 1, Computer IN 2, HDMI, Computer Out, S-VIDEO, VIDEO Audio IN, Com.1 Audio IN, Com.2 Audio IN, Audio OUT, PC Control --

Factory Location(s):

TOSHIN TECHNOLOGY (SHENZHEN) CO LTD.
BLOCK 6, TOWNFULL INDUSTRIAL PARK, DALANG STREET, BAOAN DISTRICT, SHENZHEN P.R. OF CHINA

Attachments to Test Report

National Differences (5 pages)

Enclosures (112 pages)

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	GENERAL		Pass
1.5	Components		Pass
1.5.1	General		Pass
	Comply with IEC 60950-1 or relevant component standard	(see appended table 1.5.1)	Pass
1.5.2	Evaluation and testing of components		Pass
1.5.3	Thermal controls	See Annex K.	Pass
1.5.4	Transformers	See Annex C.	Pass
1.5.5	Interconnecting cables	Interconnection cables for signal circuits, only.	Pass
1.5.6	Capacitors bridging insulation	Primary-to-Secondary Capacitor (C132) is approved as Y1 type under IEC60384-14 2nd. Edition and were conducted the Damp Heat, Steady State Test 21 days. See clause 2.4. Primary (Line)-to-Primary (Neutral) Capacitor (C101, C104) is approved as X2 type under IEC60384-14 2nd. Edition and were conducted the Damp Heat, Steady State Test 21 days. Primary-to-Earth Capacitor (C102, C103) is approved as Y1 type under IEC60384-14 2nd. Edition and were conducted the Damp Heat, Steady State Test 21 days.	Pass
1.5.7	Resistors bridging insulation		Pass
1.5.7.1	Resistors bridging functional, basic or supplementary insulation		Pass
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable		N/A
1.5.8	Components in equipment for IT power systems		N/A
1.5.9	Surge suppressors		Pass
1.5.9.1	General	Varistor located on Power	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		Supply.	
1.5.9.2	Protection of VDRs	Fuse (F101) is in series with Varistor (Z101). Fire enclosures and mechanical enclosures were provided against burning and bursting of the VDR.	Pass
1.5.9.3	Bridging of functional insulation by a VDR		Pass
1.5.9.4	Bridging of basic insulation by a VDR		N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N/A
1.6	Power interface		Pass
1.6.1	AC power distribution systems	TN power system.	Pass
1.6.2	Input current	(see appended table 1.6.2)	Pass
1.6.3	Voltage limit of hand-held equipment	The unit is not a hand-held equipment.	N/A
1.6.4	Neutral conductor	Neutral is insulated from earth with basic insulation.	Pass
1.7	Marking and instructions		Pass
1.7.1	Power rating		Pass
	Rated voltage(s) or voltage range(s) (V)	100-240V or 200-240 (models with suffix)	Pass
	Symbol for nature of supply, for d.c. only		N/A
	Rated frequency or rated frequency range (Hz)....	50/60Hz	Pass
	Rated current (mA or A)	2.8-1.2A (for model NP-M260XS) 3.4-1.5A (for models NP-M260WS, NP-M300XS) 3.5-1.5A (for model NP-P350X) 3.9-1.7A (for models NP-M300WS, NP-M350XS, NP-M420X, NP-M420XV, NP-P350W, NP-P420X) 1.4A (for model NP-M260XS with suffix) 1.7A (for models NP-M260WS, NP-M300XS, NP-P350X with suffix) 1.9A (for models NP-M300WS, NP-M350XS, NP-M420X, NP-	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		M420XV, NP-P350W, NP-P420X with suffix)	
	Manufacturer's name or trademark or identification mark..... :	NEC or NEC Display Solutions Ltd.	Pass
	Model identification or type reference :	NP-M260WS, NP-M260XS, NP-M300WS, NP-M300XS, NP-M350XS, NP-M420X, NP-M420XV, NP-P350W, NP-P350X, NP-P420X (may be followed by + or C)	Pass
	Symbol for Class II equipment only..... :	Class I equipment.	N/A
	Other markings and symbols..... :		N/A
1.7.2	Safety instructions and marking		Pass
1.7.2.1	General		Pass
1.7.2.2	Disconnect devices	Ceiling mount position, plug of power cord evaluated as disconnect device. The following was described in User Manual. "The power outlet socket should be installed as near to the equipment as possible, and should be easily accessible."	Pass
1.7.2.3	Overcurrent protective device		N/A
1.7.2.4	IT Power distribution systems		N/A
1.7.2.5	Operator access with a tool	Lamp and lamp cover are operator replaceable parts. Lamp and Lamp Cover secured by "+" type screws. Caution Marking (ISO 3864, No. 5036) located near enclosure fixing screw to prevent operator from removing other screws. And the following's caution description is described on the rating label. "CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT OPEN TOP COVER. NO USER-SERVICEABLE PARTS INSIDE. CAUTION: SEE INSTRUCTION MANUAL FOR LAMP REPLACEMENT."	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		Also, caution marking is located near lamp cover. The method of lamp replacement is described in the instruction manual. (see Enclosure #6-01)	
1.7.2.6	Ozone		N/A
1.7.3	Short duty cycles	Continuous operation.	N/A
1.7.4	Supply voltage adjustment	Equipment is auto-ranging.	N/A
	Method and means of adjustment; reference to installation instructions		N/A
1.7.5	Power outlets on the equipment.....	No standard power outlets are provided.	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	Primary Fuse (F101): Fuses in Power Supply Model 3N10149: F101: 250V, T8.0AH F102: 250V, T2.0AH ICP201: Fuse provided with an unambiguous cross-reference to service documentation. Fuses in Power Supply Model 3N10150, 3N10157: F101: 250V, T10AH F102: 250V, T2.0AH ICP201: Fuse provided with an unambiguous cross-reference to service documentation. Secondary Fuses (F1001, F1002, F1003): These fuses are not replaceable.	N/A
1.7.7	Wiring terminals		Pass
1.7.7.1	Protective earthing and bonding terminals.....	Protective earthing terminal is marked with the standard earth symbol (60417-2-IEC-5019) near the terminal. Protective bonding terminal is marked with the standard earth symbol (60417-2-IEC-5017) near the terminal.	Pass
1.7.7.2	Terminals for a.c. mains supply conductors	Appliance inlet used.	N/A
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators		Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.8.1	Identification, location and marking	The function of controls affecting safety is obvious regardless of language.	Pass
1.7.8.2	Colours	Only functional indicators use color.	Pass
1.7.8.3	Symbols according to IEC 60417	The stand-by switch is marked with the correct symbol (60417-1-IEC-5009).	Pass
1.7.8.4	Markings using figures.....		N/A
1.7.9	Isolation of multiple power sources		N/A
1.7.10	Thermostats and other regulating devices		N/A
1.7.11	Durability	Laser marking method engraved markings on enclosure. Also, maybe used with Rating Label instead of laser marking method. The Rating Label withstood required tests.	Pass
1.7.12	Removable parts	Lamp assembly and Lamp Cover intended to be opened by operator. Safety relevant markings are not located on Lamp assembly and Lamp Cover.	Pass
1.7.13	Replaceable batteries.....	Battery provided in Remote Controller. The following wording or equivalent statement provided in User Manual. "Dispose of used batteries according to your local regulations.". See Enclosure Id. 6-02 for details.	Pass
	Language(s)	Only English language reviewed.	-
1.7.14	Equipment for restricted access locations.....		N/A

2	PROTECTION FROM HAZARDS		Pass
2.1	Protection from electric shock and energy hazards		Pass
2.1.1	Protection in operator access areas		Pass
2.1.1.1	Access to energized parts		Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Test by inspection..... :	There is no opening, holes invaded by Test Finger/Test Pin near hazardous voltage parts.	Pass
	Test with test finger (Figure 2A) :	Checked by inspection only.	N/A
	Test with test pin (Figure 2B) :	Checked by inspection only.	N/A
	Test with test probe (Figure 2C)..... :	No TNV.	N/A
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring	No ELV wiring provided.	N/A
	Working voltage (V _{peak} or V _{rms}); minimum distance through insulation (mm) :		-
2.1.1.4	Access to hazardous voltage circuit wiring	No internal wiring accessible to the user.	N/A
2.1.1.5	Energy hazards :	No energy hazardous parts in operator access area. Maximum V, A, VA measurement was conducted to the following secondary outputs of Power Supply. 4.2V output: 4.30V, 9.8A, 33.6VA 6.2V output: 9.36V, 10.01A, 53.4VA 15.0V output: 31.07V, 6.81A, 61.9VA 17.5V output was evaluated as LPS. (see sub-clause 2.5)	Pass
2.1.1.6	Manual controls		N/A
2.1.1.7	Discharge of capacitors in equipment	The voltage at the external point of disconnection did decay to less than 37 percent of its original value in 1.0 second.	Pass
	Measured voltage (V); time-constant (s) :	Measured 56 V. Limited: 138 V (37% of original value 372 Vpk.)	-
2.1.1.8	Energy hazards - d.c. mains supply		N/A
	a) Capacitor connected to the d.c. mains supply .. :		N/A
	b) Internal battery connected to the mains supply :		N/A
2.1.1.9	Audio amplifiers :		N/A
2.1.2	Protection in service access areas	No unintentional contact to hazardous voltage bare parts	N/A

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

		while servicing.	
2.1.3	Protection in restricted access locations		N/A
2.2	SELV circuits		Pass
2.2.1	General requirements		Pass
2.2.2	Voltages under normal conditions (V) :	Voltages of secondary output circuits of Power Supply are less than 42.4 Vpk or 60 Vdc. There was no hazardous voltage at input line of Motor of Iris Unit. (stepper). (Maximum voltage 5.84 Vpeak.)	Pass
2.2.3	Voltages under fault conditions (V) :	Voltages of secondary outputs circuit of Power Supply were tested. Under fault conditions, voltages never exceeded 71 Vpeak and 120 Vdc and did not exceed 42.4 Vpeak or 60 Vdc for more than 0.2 sec. (see appended table 5.3)	Pass
2.2.4	Connection of SELV circuits to other circuits :	SELV circuits were not exceeded SELV limits under normal condition and fault condition. (see sub-clause 2.2.3) <Hazardous voltage measurement test> Power Supply, Model 3N10157 T102 pin 8 - GND: 96.0Vpeak, 33.8Vrms D201(K) - GND: 22.0Vpeak, 17.3Vrms Limiting component: D201 T102 pin 9 - GND: 88.8Vpeak, 33.3Vrms D202 (K) - GND: 21.6Vpeak, 16.9Vrms Limiting component: D202 T102 pin 13 - GND: 67.2Vpeak, 13.8Vrms D203 (K) - GND: 11.0Vpeak, 6.70Vrms Limiting component: D203	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		T102 pin 14 - GND: 60.0Vpeak, 9.33Vrms D204 (K) - GND: 15.4Vpeak, 4.34Vrms Limiting component: D204 Power Supply model 3N10147 T102 pin 8 - GND: 118Vpeak, 33.6Vrms D201(K) - GND: 18.0Vpeak, 16.7Vrms Limiting component: D201 T102 pin 9 - GND: 108Vpeak, 33.0Vrms D202 (K) - GND: 17.8Vpeak, 16.2Vrms Limiting component: D202 T102 pin 13 - GND: 44.8Vpeak, 13.9Vrms D203 (K) - GND: 7.68Vpeak, 6.80Vrms Limiting component: D203 T102 pin 14 - GND: 28.0Vpeak, 9.29Vrms Limiting component: T102	
2.3	TNV circuits		N/A
2.3.1	Limits	No TNV.	N/A
	Type of TNV circuits		-
2.3.2	Separation from other circuits and from accessible parts		N/A
2.3.2.1	General requirements		N/A
2.3.2.2	Protection by basic insulation		N/A
2.3.2.3	Protection by earthing		N/A
2.3.2.4	Protection by other constructions		N/A
2.3.3	Separation from hazardous voltages		N/A
	Insulation employed.....		-
2.3.4	Connection of TNV circuits to other circuits		N/A
	Insulation employed.....		-
2.3.5	Test for operating voltages generated externally		N/A
2.4	Limited current circuits		Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.4.1	General requirements	Tested to Primary-to-Secondary Capacitor (C132). (evaluated as Y1 according to IEC60384-14.)	Pass
2.4.2	Limit values	0.7 mA peak(Annex D, figure D1 used)	Pass
	Frequency (Hz)..... :	--	-
	Measured current (mA)..... :	C132 normal condition: 0.592 mA peak	-
	Measured voltage (V) :	C132 normal condition: 368 V peak	-
	Measured circuit capacitance (nF or uF)..... :	Bridging Capacitor (C132): 3300 pF	-
2.4.3	Connection of limited current circuits to other circuits		N/A
2.5	Limited power sources		Pass
	a) Inherently limited output		Pass
	b) Impedance limited output		N/A
	c) Regulating network limited output under normal operating and single fault condition		N/A
	d) Overcurrent protective device limited output	17.5V output of Power Supply was tested. Circuit after Fuses (ICP201) was complied with Table 2C. VCCS+17.5V circuit is connected to 17.5 Vdc output of Power Supply. VCCS+4.2V and VCCS+4.2V_RB circuits are connected to 4.2 V output of power supply. VCCS+4.2V circuit is protected by F1001. And VCCS+4.2V_RB circuit is protected by F1002. VCCS+6.2V circuit is connected to 6.2 V output of power supply. VCCS+6.2V circuit is protected by F1003. Also, USB (PC) is derived from 6.2 V dc line.	Pass
	Max. output voltage (V), max. output current (A), max. apparent power (VA)..... :	17.5V output of Power Supply, normal condition (ICP201)	-

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		bypassed): 20.0Vdc, 7.0A, 64.1VA. Maximum Output Voltage, Current and Volt Ampere Measurement Tests were conducted on Power Supply, Model 3N10148. See 2.1.1.5 for 4.2 V, 6.2 V outputs. About Power Supply, Model 3N10149, 3N10150, the Maximum Output Voltage, Current and Volt Ampere were considered similar to Model 3N10157.	
	Current rating of overcurrent protective device (A) :	Secondary Fuses (ICP201, F1001, F1002, F1003) rated lower than 5 A, and break circuit within 120 seconds with a current equal to 210% of current rating was confirmed. Fuse (ICP201): rated 50Vdc, 2.0A. Opening time of 200% percent of rating was less than 5 sec. Fuses (F1001, F1002, F1003): Rated 32Vdc, 5A.	-
2.6	Provisions for earthing and bonding		Pass
2.6.1	Protective earthing		Pass
2.6.2	Functional earthing		N/A
2.6.3	Protective earthing and protective bonding conductors		Pass
2.6.3.1	General		Pass
2.6.3.2	Size of protective earthing conductors		Pass
	Rated current (A), cross-sectional area (mm ²), AWG	Maximum 3.9 A, 0.75mm ²	-
2.6.3.3	Size of protective bonding conductors		Pass
	Rated current (A), cross-sectional area (mm ²), AWG	Maximum 3.9A, 18AWG.	-
	Protective current rating (A), cross-sectional area (mm ²), AWG	Considered 20 A. (Protective Bonding wire's size	-

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Clause	Requirement + Test	Result - Remark	Verdict
		was considered Table 3B in Cl. 3.2.5.)	
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (ohm), voltage drop (V), test current (A), duration (min)..... :	Resistance between protective earthing terminal and following parts did not exceeded 2.5 V: Chassis: Voltage Drop: 0.64V Test time: 2 minutes Test current: 40 A Metal plates on enclosure of Ballast Power Supply: Voltage Drop: 0.96V Test time: 2 minutes Test current: 20 A (Rating of Fuse (F101) in Power Supply: maximum 10A)	Pass
2.6.3.5	Colour of insulation..... :	The colour combination green-and-yellow was not used other than PROTECTIVE EARTHING CONDUCTORS and PROTECTIVE BONDING CONDUCTORS.	Pass
2.6.4	Terminals		Pass
2.6.4.1	General		Pass
2.6.4.2	Protective earthing and bonding terminals	Appliance Inlet is used.	Pass
	Rated current (A), type, nominal thread diameter (mm) :	Maximum 3.9 A. Tested to sub clause 2.6.3.4.	-
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		Pass
2.6.5	Integrity of protective earthing		Pass
2.6.5.1	Interconnection of equipment		N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No fuse and switch in earthing conductors provided.	Pass
2.6.5.3	Disconnection of protective earth	Protective earthing terminal of Appliance Inlet or Plug of Detachable Power Supply Cord is disconnected after supply mains.	Pass
2.6.5.4	Parts that can be removed by an operator	Appliance Inlet used. Protective earthing terminal of Appliance Inlet is connected before supply mains and	Pass

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Clause	Requirement + Test	Result - Remark	Verdict
		disconnected after supply mains.	
2.6.5.5	Parts removed during servicing	Removing protective earthing connection is not required for servicing, except for disconnection of power supply cord.	Pass
2.6.5.6	Corrosion resistance	Complied with Annex J.	Pass
2.6.5.7	Screws for protective bonding	Thread cutting or space thread screwed connections was not used for protective bonding connections. The thickness of the Chassis at the point where the screw is threaded into it was more than twice the pitch of the screw thread.	Pass
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A
2.7	Overcurrent and earth fault protection in primary circuits		Pass
2.7.1	Basic requirements	Pluggable equipment type A requirement relies on fuse or circuit protector of the building installation for short circuit and earth fault.	Pass
	Instructions when protection relies on building installation		N/A
2.7.2	Faults not covered in 5.3.7		Pass
2.7.3	Short-circuit backup protection	This unit is pluggable equipment type A. The short circuit protection is provided in the building-in installation. Also, Fuse (F101, High Breaking Capacity), which is a part of Power Supply, acts as overcurrent protection device under fault condition.	Pass
2.7.4	Number and location of protective devices	One fuse is provided in live line.	Pass
2.7.5	Protection by several devices		N/A
2.7.6	Warning to service personnel		N/A
2.8	Safety interlocks		N/A
2.8.1	General principles	No safety interlocks provided.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.8.2	Protection requirements		N/A
2.8.3	Inadvertent reactivation		N/A
2.8.4	Fail-safe operation		N/A
2.8.5	Moving parts		N/A
2.8.6	Overriding		N/A
2.8.7	Switches and relays		N/A
2.8.7.1	Contact gaps (mm) :		N/A
2.8.7.2	Overload test		N/A
2.8.7.3	Endurance test		N/A
2.8.7.4	Electric strength test		N/A
2.8.8	Mechanical actuators		N/A
2.9	Electrical insulation		Pass
2.9.1	Properties of insulating materials	Natural rubber, materials containing asbestos and hygroscopic materials are not used as insulation.	Pass
2.9.2	Humidity conditioning		Pass
	Relative humidity (%), temperature (°C)..... :	93%, 25°C	-
2.9.3	Grade of insulation	Primary-ground: Basic insulation Primary-secondary: Double or Reinforced insulation Other: Functional insulation	Pass
2.9.4	Separation from hazardous voltages		Pass
	Method(s) used..... :	Method 1.	-
2.10	Clearances, creepage distances and distances through insulation		Pass
2.10.1	General		Pass
2.10.1.1	Frequency..... :	Considered.	Pass
2.10.1.2	Pollution degrees..... :	Pollution degree 2.	Pass
2.10.1.3	Reduced values for functional insulation		Pass
2.10.1.4	Intervening unconnected conductive parts		Pass
2.10.1.5	Insulation with varying dimensions		N/A
2.10.1.6	Special separation requirements		N/A
2.10.1.7	Insulation in circuits generating starting pulses	See 2.10.3.5	Pass
2.10.2	Determination of working voltage		Pass
2.10.2.1	General	Starting pulse was used to ignite discharge lamp.	Pass

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Clause	Requirement + Test	Result - Remark	Verdict
		(see appended table 2.10.3 and 2.10.4)	
2.10.2.2	RMS working voltage	Power Supply Model 3N10157 Transformer (T102): 369Vrms, Lamp socket: 91.3 Vrms (Steady voltage of lamp.) Model 3N10157 represents models 3N10149, 3N10150.	Pass
2.10.2.3	Peak working voltage	Power Supply Model 3N10157 Transformer (T102): 696Vpk, Lamp socket: 940Vpk (Voltage of lamp starting pulse.) Model 3N10157 represents models 3N10149, 3N10150.	Pass
2.10.3	Clearances		Pass
2.10.3.1	General		Pass
2.10.3.2	Mains transient voltages		Pass
	a) AC mains supply	AC mains supply voltage: up to 300 V, Overvoltage category II, Mains transient voltage 2500 Vpeak.	Pass
	b) Earthed d.c. mains supplies		N/A
	c) Unearthed d.c. mains supplies		N/A
	d) Battery operation		N/A
2.10.3.3	Clearances in primary circuits	(see appended table 2.10.3. and 2.10.4)	Pass
2.10.3.4	Clearances in secondary circuits	See 5.3.4.	N/A
2.10.3.5	Clearances in circuits having starting pulses	Method b) was used. (see appended table 5.2) Test was performed on Model NP-P350W (Lamp power is the highest model.) Its test result was considered representative of the entire series.	Pass
2.10.3.6	Transients from a.c. mains supply.....		N/A
2.10.3.7	Transients from d.c. mains supply.....		N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems		N/A
2.10.3.9	Measurement of transient voltage levels		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network		N/A
2.10.4	Creepage distances		Pass
2.10.4.1	General		Pass
2.10.4.2	Material group and comparative tracking index		Pass
	CTI tests	Material group IIIb.	-
2.10.4.3	Minimum creepage distances	(see appended table 2.10.3 and 2.10.4)	Pass
2.10.5	Solid insulation		Pass
2.10.5.1	General		Pass
2.10.5.2	Distances through insulation	(see appended table 2.10.5.)	Pass
2.10.5.3	Insulating compound as solid insulation		N/A
2.10.5.4	Semiconductor devices	Approved Photocouplers used.	Pass
2.10.5.5	Cemented joints		N/A
2.10.5.6	Thin sheet material - General		N/A
2.10.5.7	Separable thin sheet material		N/A
	Number of layers (pcs)		-
2.10.5.8	Non-separable thin sheet material		N/A
2.10.5.9	Thin sheet material - standard test procedure		N/A
	Electric strength test		-
2.10.5.10	Thin sheet material - alternative test procedure		N/A
	Electric strength test		-
2.10.5.11	Insulation in wound components	See sub-clause 2.10.5.12.	Pass
2.10.5.12	Wire in wound components		Pass
	Working voltage	Transformer T102 provided Triple Insulated Winding Wire.	Pass
	a) Basic insulation not under stress		N/A
	b) Basic, supplementary, reinforced insulation.....		N/A
	c) Compliance with Annex U	Complies with Annex U. 3 layers.	Pass
	Two wires in contact inside wound component; angle between 45° and 90°	Physical separation in the form of insulating sheet material to relieve mechanical stress at the crossover point.	Pass

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.13	Wire with solvent-based enamel in wound components		N/A
	Electric strength test..... :		-
	Routine test		N/A
2.10.5.14	Additional insulation in wound components		N/A
	Working voltage..... :		N/A
	- Basic insulation not under stress :		N/A
	- Supplementary, reinforced insulation..... :		N/A
2.10.6	Construction of printed boards		Pass
2.10.6.1	Uncoated printed boards		Pass
2.10.6.2	Coated printed boards		N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		N/A
2.10.6.4	Insulation between conductors on different layers of a printed board		N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs)..... :		N/A
2.10.7	Component external terminations		N/A
2.10.8	Tests on coated printed boards and coated components		N/A
2.10.8.1	Sample preparation and preliminary inspection		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		N/A
2.10.8.4	Abrasion resistance test		N/A
2.10.9	Thermal cycling		N/A
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N/A
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3	WIRING, CONNECTIONS AND SUPPLY		Pass
3.1	General		Pass
3.1.1	Current rating and overcurrent protection		Pass
3.1.2	Protection against mechanical damage	The wires are routed away from sharp edges and parts which could damage insulation.	Pass
3.1.3	Securing of internal wiring	The wires are positioned in such a manner that prevents excessive strain, loosening of terminal connections and damage of conductor insulation.	Pass
3.1.4	Insulation of conductors	(see appended table 2.10.5)	Pass
3.1.5	Beads and ceramic insulators	Beads on Lamp Driver Cable and Primary wires of Power Supply did not influence a hazard and also were secured adequately	Pass
3.1.6	Screws for electrical contact pressure	All electrical screw connections are by metal screw with more than 2 threads into a metal plate.	Pass
3.1.7	Insulating materials in electrical connections	No contact pressure through insulating material.	Pass
3.1.8	Self-tapping and spaced thread screws	Thread-cutting or space thread screws are not used for electrical connections. Machine screws only.	N/A
3.1.9	Termination of conductors		Pass
	10 N pull test	Checked by inspection.	N/A
3.1.10	Sleeving on wiring	Sleeving is not used as supplementary insulation.	N/A
3.2	Connection to mains supply		Pass
3.2.1	Means of connection		Pass
3.2.1.1	Connection to an a.c. mains supply	Appliance inlet used.	Pass
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections		N/A
3.2.3	Permanently connected equipment		N/A
	Number of conductors, diameter of cable and conduits (mm)..... :		-

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Clause	Requirement + Test	Result - Remark	Verdict
3.2.4	Appliance inlets	Recognized appliance inlet used.	Pass
3.2.5	Power supply cords		Pass
3.2.5.1	AC power supply cords		Pass
	Type..... :	(see appended table 1.5.1)	-
	Rated current (A), cross-sectional area (mm ²), AWG :	Maximum 3.9 A, 0.75mm ²	-
3.2.5.2	DC power supply cords		N/A
3.2.6	Cord anchorages and strain relief		N/A
	Mass of equipment (kg), pull (N) :		-
	Longitudinal displacement (mm) :		-
3.2.7	Protection against mechanical damage	Cord not exposed to sharp points or edges.	Pass
3.2.8	Cord guards		N/A
	Diameter of minor dimension D (mm); test mass (g) :		-
	Radius of curvature of cord (mm) :		-
3.2.9	Supply wiring space		N/A
3.3	Wiring terminals for connection of external conductors		N/A
3.3.1	Wiring terminals	Appliance inlet used.	N/A
3.3.2	Connection of non-detachable power supply cords		N/A
3.3.3	Screw terminals		N/A
3.3.4	Conductor sizes to be connected		N/A
	Rated current (A), cord/cable type, cross-sectional area (mm ²) :		-
3.3.5	Wiring terminal sizes		N/A
	Rated current (A), type and nominal thread diameter (mm) :		-
3.3.6	Wiring terminals design		N/A
3.3.7	Grouping of wiring terminals		N/A
3.3.8	Stranded wire		N/A
3.4	Disconnection from the mains supply		Pass
3.4.1	General requirement		Pass
3.4.2	Disconnect devices	Appliance coupler for tabletop usage or Plug for ceiling mount.	Pass
3.4.3	Permanently connected equipment		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.4.4	Parts which remain energized	No parts remain energized after disconnection of disconnect device.	N/A
3.4.5	Switches in flexible cords	No isolating switch in the cord set.	Pass
3.4.6	Number of poles - single-phase and d.c. equipment	Disconnect device disconnects all both poles simultaneously.	Pass
3.4.7	Number of poles - three-phase equipment		N/A
3.4.8	Switches as disconnect devices		N/A
3.4.9	Plugs as disconnect devices	See 1.7.2.2.	Pass
3.4.10	Interconnected equipment	No units interconnected by hazardous voltage/energy.	N/A
3.4.11	Multiple power sources		N/A
3.5	Interconnection of equipment		Pass
3.5.1	General requirements		Pass
3.5.2	Types of interconnection circuits :	Interconnection circuits are SELV CIRCUITS.	Pass
3.5.3	ELV circuits as interconnection circuits		N/A
3.5.4	Data ports for additional equipment	External connectors comply with 2.5 - Limited Power Source or Singal Port only.	Pass

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Clause	Requirement + Test	Result - Remark	Verdict
4	PHYSICAL REQUIREMENTS		Pass
4.1	Stability		N/A
	Angle of 10°	The mass of the unit for tabletop use was less than 7kg.	N/A
	Test force (N)..... :		N/A
4.2	Mechanical strength		Pass
4.2.1	General		Pass
4.2.2	Steady force test, 10 N	Checked by inspection only.	N/A
4.2.3	Steady force test, 30 N	Force applied to Metal Plate in Lamp housing. Result: No damage. No hazard.	Pass
4.2.4	Steady force test, 250 N	Force applied to following parts. Material: Teijin Chemicals Ltd., Research & Development Div., type DN-5807B 1. Bottom Enclosure near Power Supply 2. Top/Bottom Enclosure near Appliance Inlet Material: Teijin Chemicals Ltd., type LN-2520 1. Bottom Enclosure near Power Supply 2. Top/Bottom Enclosure near Appliance Inlet No damage. No Hazard.	Pass
4.2.5	Impact test		Pass
	Fall test	Impact applied to following parts. Material: Teijin Chemicals Ltd., Research & Development Div., type DN-5807B 1. Bottom Enclosure near Power Supply 2. Top/Bottom Enclosure near Appliance Inlet	Pass

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Clause	Requirement + Test	Result - Remark	Verdict
		Material: Teijin Chemicals Ltd., type LN-2520 1. Bottom Enclosure near Power Supply 2. Top/Bottom Enclosure near Appliance Inlet No damage. No Hazard.	
	Swing test		N/A
4.2.6	Drop test; height (mm)..... :		N/A
4.2.7	Stress relief test	Top Cover / Bottom Cover, Teijin Chemicals Ltd., Research & Development Div., type DN-5807B and Teijin Chemicals Ltd., type LN-2520 were tested. No indication of shrinkage or distortion on enclosures due to the stress relief test (84°C/7 h).	Pass
4.2.8	Cathode ray tubes		N/A
	Picture tube separately certified :		N/A
4.2.9	High pressure lamps	Mechanical enclosure of High Pressure Lamp has adequate strength to contain an explosion of Lamp. (see appended table 5.3)	Pass
4.2.10	Wall or ceiling mounted equipment; force (N) :	The following loading test was conducted between equipment and ceiling mount bracket. Top Cover / Bottom Cover, Teijin Chemicals Ltd., Research & Development Div., type DN-5807B and Teijin Chemicals Ltd., type LN-2520 were tested. Weight of the equipment including ceiling mount kit: 5.4kg Force applied: 158.76N (= 16.2 kg x 9.8) Result: The mounting means withstood the force applied	Pass

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Clause	Requirement + Test	Result - Remark	Verdict

		without breaking or damaging the mounting bracket.	
4.3	Design and construction		Pass
4.3.1	Edges and corners	All edges and corners are judged to be sufficiently well rounded so as not to constitute a hazard.	Pass
4.3.2	Handles and manual controls; force (N)..... :		N/A
4.3.3	Adjustable controls		N/A
4.3.4	Securing of parts	All hazardous parts are fixed to retain position in event of termination failure.	Pass
4.3.5	Connection by plugs and sockets	IEC 60083 or IEC 60320 type connectors not used for SELV circuits.	Pass
4.3.6	Direct plug-in equipment	Not direct plug-in equipment.	N/A
	Torque :		N/A
	Compliance with the relevant mains plug standard:		N/A
4.3.7	Heating elements in earthed equipment	No heating elements provided.	N/A
4.3.8	Batteries	Consumer grade non-chargeable batteries are provided in optional Remote Controller. There is no charging situation and also these cells are not considered a hazard in the meaning of the standard.	Pass
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery	See above.	N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
4.3.9	Oil and grease		N/A
4.3.10	Dust, powders, liquids and gases		N/A
4.3.11	Containers for liquids or gases		N/A
4.3.12	Flammable liquids..... :		N/A
	Quantity of liquid (l)..... :		N/A
	Flash point (°C)..... :		N/A
4.3.13	Radiation		Pass

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.13.1	General		Pass
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg)		-
	Measured high-voltage (kV)		-
	Measured focus voltage (kV)		-
	CRT markings		-
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	Radiation emitted by Lamp is not predominantly ultraviolet (UV) radiation.	N/A
	Part, property, retention after test, flammability classification		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation	Radiation emitted by Lamp is not predominantly ultraviolet (UV) radiation.	N/A
4.3.13.5	Laser (including LEDs)		Pass
	Laser class	LED indicators are considered inherently safe under any condition.	-
4.3.13.6	Other types		N/A
4.4	Protection against hazardous moving parts		N/A
4.4.1	General	No hazardous moving parts. (Only low power fan motors used.)	N/A
4.4.2	Protection in operator access areas		N/A
4.4.3	Protection in restricted access locations		N/A
4.4.4	Protection in service access areas		N/A
4.5	Thermal requirements		Pass
4.5.1	General		Pass
4.5.2	Temperature tests	(see appended table 4.5)	Pass
	Normal load condition per Annex L	See Additional Information.	-
4.5.3	Temperature limits for materials		Pass
4.5.4	Touch temperature limits		Pass
4.5.5	Resistance to abnormal heat	(see appended table 4.5.5)	Pass
4.6	Openings in enclosures		Pass
4.6.1	Top and side openings		Pass
	Dimensions (mm)	No hazardous voltage bare parts below 5° angle of the above openings in desk-top	-

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Clause	Requirement + Test	Result - Remark	Verdict
		position and ceiling mount position.	
4.6.2	Bottoms of fire enclosures		Pass
	Construction of the bottom, dimensions (mm)..... :	No hazardous voltage bare parts below 5° angle of the above openings in desk-top position and ceiling mount position.	-
4.6.3	Doors or covers in fire enclosures	Lamp Cover intended to be opened by operator for Lamp replacement. User Manual includes instructions for correct removal and replacement of Lamp Cover. See Enclosure Id. 6-01 for details.	Pass
4.6.4	Openings in transportable equipment		N/A
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm) :		-
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metallized parts		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C), time (weeks) :		-
4.7	Resistance to fire		Pass
4.7.1	Reducing the risk of ignition and spread of flame		Pass
	Method 1, selection and application of components wiring and materials		Pass
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure		Pass
4.7.2.1	Parts requiring a fire enclosure	All electrical components except for sub-clause 4.7.2.2.	Pass
4.7.2.2	Parts not requiring a fire enclosure	Motors, transformers, PVC wires, components supplied from LPS located on PWB minimum V-1.	Pass
4.7.3	Materials		Pass
4.7.3.1	General		Pass
4.7.3.2	Materials for fire enclosures	Top Cover, Bottom Cover, IO Panel and Lamp Cover are 5VB material.	Pass

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Clause	Requirement + Test	Result - Remark	Verdict

		(see appended table 1.5.1)	
4.7.3.3	Materials for components and other parts outside fire enclosures	Decorative parts and parts outside of the fire enclosure are made of minimum HB material.	Pass
4.7.3.4	Materials for components and other parts inside fire enclosures	All internal materials are rated V-2 or better or are mounted on a PWB rated V-1 or better.	Pass
4.7.3.5	Materials for air filter assemblies	Minimum HF-2 or minimum V-2	Pass
4.7.3.6	Materials used in high-voltage components	No parts exceeded 4 kV.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		Pass
5.1	Touch current and protective conductor current		Pass
5.1.1	General		Pass
5.1.2	Configuration of equipment under test (EUT)		Pass
5.1.2.1	Single connection to an a.c. mains supply		Pass
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit	Per Figure 5A.	Pass
5.1.4	Application of measuring instrument	Tested using D.1 measuring instrument.	Pass
5.1.5	Test procedure		Pass
5.1.6	Test measurements		Pass
	Supply voltage (V)	264V, 60Hz	-
	Measured touch current (mA).....	Chassis: 1.024mA _{pk} / 0.374mA _{rms} Top Enclosure: 0.0216mA _{pk} / 0.00444mA _{rms}	-
	Max. allowed touch current (mA).....	Chassis: 3.5 mA _{rms} Top Enclosure 0.25mA	-
	Measured protective conductor current (mA).....		-
	Max. allowed protective conductor current (mA)...		-
5.1.7	Equipment with touch current exceeding 3,5 mA		N/A
5.1.7.1	General		N/A
5.1.7.2	Simultaneous multiple connections to the supply		N/A
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks		N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		N/A
	Supply voltage (V)		-
	Measured touch current (mA).....		-
	Max. allowed touch current (mA).....		-
5.1.8.2	Summation of touch currents from telecommunication networks		N/A
	a) EUT with earthed telecommunication ports		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

	b) EUT whose telecommunication ports have no reference to protective earth		N/A
5.2	Electric strength		Pass
5.2.1	General	(see appended table 5.2)	Pass
5.2.2	Test procedure		Pass
5.3	Abnormal operating and fault conditions		Pass
5.3.1	Protection against overload and abnormal operation		Pass
5.3.2	Motors	See Annex B.	Pass
5.3.3	Transformers	See Annex C.	Pass
5.3.4	Functional insulation..... :	a), c) considered.	Pass
5.3.5	Electromechanical components	Abnormal Operation Test on Motor Iris Unit, Nidec Copal Corporation, type LPF10-085 was tested. (see appended table 5.3)	Pass
5.3.6	Audio amplifiers in ITE..... :		N/A
5.3.7	Simulation of faults	(see appended table 5.3)	Pass
5.3.8	Unattended equipment		N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions		Pass
5.3.9.1	During the tests		Pass
5.3.9.2	After the tests		Pass

6	CONNECTION TO TELECOMMUNICATION NETWORKS	N/A
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7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS	N/A
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Clause	Requirement + Test	Result - Remark	Verdict

A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		Pass
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N/A
A.1.1	Samples		-
	Wall thickness (mm)		-
A.1.2	Conditioning of samples; temperature (°C)		N/A
A.1.3	Mounting of samples		N/A
A.1.4	Test flame (see IEC 60695-11-3)		N/A
	Flame A, B, C or D		N/A
A.1.5	Test procedure		N/A
A.1.6	Compliance criteria		N/A
	Sample 1 burning time (s)		-
	Sample 2 burning time (s)		-
	Sample 3 burning time (s)		-
A.2	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)		N/A
A.2.1	Samples, material		-
	Wall thickness (mm)		-
A.2.2	Conditioning of samples; temperature (°C)		N/A
A.2.3	Mounting of samples		N/A
A.2.4	Test flame (see IEC 60695-11-4)		N/A
	Flame A, B or C		-
A.2.5	Test procedure		N/A
A.2.6	Compliance criteria		N/A
	Sample 1 burning time (s)		-
	Sample 2 burning time (s)		-
	Sample 3 burning time (s)		-
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9		N/A
	Sample 1 burning time (s)		-
	Sample 2 burning time (s)		-
	Sample 3 burning time (s)		-
A.3	Hot flaming oil test (see 4.6.2)		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

A.3.3	Compliance criterion		N/A
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B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		Pass
B.1	General requirements		Pass
	Position	LCD Fan 1 (Front), LCD Fan 2 (Rear), Lamp Fan, Exhaust Fan, Ballast Fan	-
	Manufacturer	(see appended table 1.5.1)	-
	Type	(see appended table 1.5.1)	-
	Rated values	(see appended table 1.5.1)	-
B.2	Test conditions		Pass
B.3	Maximum temperatures		N/A
B.4	Running overload test		N/A
B.5	Locked-rotor overload test		N/A
	Test duration (days)		-
	Electric strength test: test voltage (V)		-
B.6	Running overload test for d.c. motors in secondary circuits		N/A
B.6.1	General		N/A
B.6.2	Test procedure		N/A
B.6.3	Alternative test procedure		N/A
B.6.4	Electric strength test; test voltage (V)		N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		Pass
B.7.1	General		Pass
B.7.2	Test procedure		N/A
B.7.3	Alternative test procedure	(see appended table 5.3)	Pass
B.7.4	Electric strength test; test voltage (V)		N/A
B.8	Test for motors with capacitors		N/A
B.9	Test for three-phase motors		N/A
B.10	Test for series motors		N/A
	Operating voltage (V)		-

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Clause	Requirement + Test	Result - Remark	Verdict

C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		Pass
	Position	Transformer (T102)	-
	Manufacturer	(see appended table 1.5.1)	-
	Type	(see appended table 1.5.1)	-
	Rated values	(see appended table 1.5.1)	-
	Method of protection	Inherent.	-
C.1	Overload test	(see appended table 5.3)	Pass
C.2	Insulation		Pass
	Protection from displacement of windings	Triple insulation wire is provided. Insulation Tape is provided to prevent displacement of the wire.	Pass

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

E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		N/A
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F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		Pass
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G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
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H	ANNEX H, IONIZING RADIATION (see 4.3.13)		N/A
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J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		Pass
	Metal(s) used	Aluminum and Tin.	-

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Clause	Requirement + Test	Result - Remark	Verdict

K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		Pass
K.1	Making and breaking capacity	Thermistor for fan control operating as Temperature limiter was evaluated under Annex K4, K6.	Pass
K.2	Thermostat reliability; operating voltage (V)..... :		N/A
K.3	Thermostat endurance test; operating voltage (V) :		N/A
K.4	Temperature limiter endurance; operating voltage (V) :	Thermistor for fan control: 100,000 cycles test was complied under component recognition.	Pass
K.5	Thermal cut-out reliability	Certified thermal protector was complied with 100,000 cycles under component recognition. (see appended table 1.5.1)	Pass
K.6	Stability of operation	PWB mounting Thermistor for fan control setting and Thermal protector setting were not changed appreciably by heating, vibration, etc., occurring in normal use.	Pass

L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)		Pass
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A
L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A
L.7	Other business equipment	See Additional Information.	Pass

M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N/A
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N	ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)		N/A
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
P	ANNEX P, NORMATIVE REFERENCES		Pass
Q	ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)		N/A
R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N/A
T	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N/A
U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N/A
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		Pass
V.1	Introduction		Pass
V.2	TN power distribution systems		Pass
W	ANNEX W, SUMMATION OF TOUCH CURRENTS		N/A
X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		N/A
Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		N/A
Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)		Pass
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
Power Supply Cord Set (for EU) (optional)	Voilex(Asia) Pte Ltd.	Plug: EU16CS3, Cord: H05VV-F 3x0.75mm2, Connector: V1625	Plug: 250V 16A. Connector: 250V 10ACord: 0.75mm2x3	EN 60799	VDE	
Alternate (optional)	Lintek Everfull Electronic Co., Ltd.	Plug: LP-34, Cord: H05VV-F 3X0.75mm2, Connector: LS- 80	Plug: 250V 16A. Connector: 250V 10ACord: 0.75mm2x3	EN 60799	VDE	
Power Supply Cord Set (for Japan) (optional)	Voilex(Asia) Pte Ltd.	Plug: JS15TS3, Cord: VCTF 3x0.75mm2, Connect: V1625	Plug: 125V 7A, Connector: 125V 7ACord: 0.75mm2x3	Denan	PSE	
Alternate (optional)	Lintek Everfull Electronic Co., Ltd.	Plug: LP-54, Cord: VCTF 3x0.75mm2, Connect: LS-13J	Plug: 125V 7A, Connector: 125V 7ACord: 0.75mm2x3	Denan	PSE	
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Power Supply for models NP- M300WS, NP- M350XS, NP- M420X, NP- M420XV, NP- P350W, NP- P420X	Tabuchi Electric Co., Ltd.	3N10157	(Consists of following main parts)	--	--	
Power Supply for models NP- M260WS, NP- M300XS, NP- P350X	Tabuchi Electric Co., Ltd.	3N10150	(Consists of following main parts)	--	--	
Power Supply for model NP- M260XS	Tabuchi Electric Co., Ltd.	3N10149	(Consists of following main parts)	--	--	
Appliance Inlet (CD101)	Solteam Electronics Co., Ltd.	ST71	250Vac, 15A	IEC60320- 1,GB17465.1- 1998	FIMKO, CCC	
Primary Wire	Various	Style 1015	VW-1, 105°C, 600Vac, 18AWG, Minimum 0.4 mm thickness at any point	UL758	UL	
Bonding wire	Various	Style 1015	VW-1, 105°C,	UL758	UL	

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

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
			600V, 18AWG, green/yellow striped colour insulation. Mechanically secured to earthing tab of AC Inlet by soldering with hot shrinkage tube. Other end terminates in double crimp-on closed-loop connector that is secured on chassis by a screw with lock- washer.			
Connectors of Primary wire connecting AC Inlet	Japan Solderless Terminal Mfg. Co., Ltd.	VH	250V, 7A (85°C)	IEC61984	TUV	
Connectors (CN101, CN102)	Japan Solderless Terminal Mfg. Co., Ltd.	VH	250V, 7A (85°C)	IEC61984	TUV	
Alternate Connector (CN101, CN102)	Jowle Technology Co., Ltd.	A3963WV2 -3P- D	600V, 7A (100°C)	EN61984	TUV	
Primary Wire connecting CN102	Various	Style 1015	Basic Insulation. VW-1, 105°C, 600Vac, 22AWG, Minimum 0.4mm thickness	UL758	UL	
Fuse (F101) for 3N10149	Skygate Co., Ltd.	SG5013P-R	250Vac, T8.0AH	EN60127-1, EN60127-2, DENAN	VDE, PSE	
Alternate Fuse (F101) for 3N10149	Littelfuse Inc.	215	250Vac, T8.0AH	EN60127-1, EN60127-2, IEC60127-2, GB9364.1, DENAN	VDE, CQC, PSE	
Fuse (F101) for 3N10150,	Skygate Co., Ltd.	SG5013P-R	250Vac, T10AH	EN60127-1, EN60127-2,	VDE, PSE	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
3N10157				DENAN		
Alternate Fuse (F101) for 3N10150, 3N10157	Littelfuse Inc.	215	250Vac, T10AH	EN60127-1, EN60127-2, IEC60127-2, GB9364.1, DENAN	VDE, CQC, PSE	
Varistor (VZ101)	EPCOS (Zhuhai Ftz) Co., Ltd.	SNF10 K385 (may be followed by optional suffix) (marking: SNF10K385K1)	Maximum continuous voltage: 385Vac	IEC61051-2-2	OVE	
Alternate Varistor (VZ101)	Nippon Chemi- con Corp.	TND10SE621K	Maximum continuous voltage: 385Vac	IEC61051-2	VDE	
Resistors (R101, R102, R103)	Various	Various	220 Kohm, 0.25 W	--	--	
Capacitor (C101, C104) 3N10149, 3N10150	Okaya Electric Industries Co., Ltd.	LE474	250Vac (Marked 310V~ on component.), 0.47 μ F (Marked with X2. 55/110/56 according to IEC60384-14.)	IEC60384-14	SEMKO	
Capacitor (C101) for 3N10157	Okaya Electric Industries Co., Ltd.	LE474	250Vac (Marked 310V~ on component.), 0.47 μ F (Marked with X2. 55/110/56 according to IEC60384-14.)	IEC60384-14	SEMKO	
Alternate Capacitor (C101) for 3N10157	Okaya Electric Industries Co., Ltd.	LE684	250Vac (Marked 310V~ on component.), 0.68 μ F (Marked with X2. 55/110/56 according to IEC60384-14.)	IEC60384-14	SEMKO	
Capacitor (C104) for 3N10157 (Option, provided only when Capacitance of	Okaya Electric Industries Co., Ltd.	LE224	250Vac (Marked 310V~ on component.), 0.22 μ F (Marked with X2.	IEC60384-14	SEMKO	

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

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
C101 is 0.47μF)			55/110/56 according to IEC60384-14.)			
Inductor (L101, L102) for 3N10149	Ueno Co., Ltd.	ADR16H- 2R3120SD-N	Core: Ferrite, Maximum 16.35mm by 15.65mm, Coil: Wound on Bobbin Case. (Enclosure ID 7- 01 for detail)	--	--	
Core Case for Inductor (L101, L102) for 3N10149	Mitsubishi Engineering- Plastics Corp.	5010N6	V-0, RTI 140°C, Minimum 0.71mm thickness	UL94	UL	
Alternate Core Case for Inductor (L101, L102) for 3N10149	Wintech Polymer Ltd.	2092	V-0, RTI 130°C, Minimum 0.38mm thickness	UL94	UL	
Alternate Core Case for Inductor (L101, L102) for 3N10149	LG Chemical Ltd.	Lupox GP-2306F	V-0, RTI 140°C, Minimum 0.71mm thickness	UL94	UL	
Alternate Core Case for Inductor (L101, L102) for 3N10149	LG Chemical Ltd.	Lupox GP-1006F	V-0, RTI 130°C, Minimum 0.71mm thickness	UL94	UL	
Alternate Core Case for Inductor (L101, L102) for 3N10149	LG Chemical Ltd.	Lupox GP-2156F	V-0, RTI 130°C, Minimum 0.71mm thickness	UL94	UL	
Base for Inductor (L101, L102) for 3N10149	Sumitomo Bakelite Co., Ltd.	PM-9820	Phenolic, V-0, RTI 150°C, Minimum 0.16mm thickness	UL94	UL	
Alternate Base for Inductor (L101, L102) for 3N10149	Hexion Specialty Chemicals GMBH	PF2736	Phenolic, V-0, RTI 150°C, Minimum 0.46mm thickness	UL94	UL	
Inductor (L101, L102) for 3N10150, 3N10157	Ueno Co., Ltd.	ADR20H- 2R5130T	Core: Ferrite, Maximum 20.4mm by 19.6mm, Coil:	--	--	

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

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
			Wound on Bobbin Case. (Enclosure ID 7- 02 for detail)			
Core Case for Inductor (L101, L102) for 3N10150, 3N10157	Mitsubishi Engineering- Plastics Corp.	5010N6	V-0, RTI 140°C, Minimum 0.71mm thickness	UL94	UL	
Alternate Core Case for Inductor (L101, L102) for 3N10150, 3N10157	Wintech Polymer Ltd.	2092	V-0, RTI 130°C, Minimum 0.38mm thickness	UL94	UL	
Alternate Core Case for Inductor (L101, L102) for 3N10150, 3N10157	LG Chemical Ltd.	Lupox GP-2306F	V-0, RTI 140°C, Minimum 0.71mm thickness	UL94	UL	
Alternate Core Case for Inductor (L101, L102) for 3N10150, 3N10157	LG Chemical Ltd.	Lupox GP-1006F	V-0, RTI 130°C, Minimum 0.71mm thickness	UL94	UL	
Alternate Core Case for Inductor (L101, L102) for 3N10150, 3N10157	LG Chemical Ltd.	Lupox GP-2156F	V-0, RTI 130°C, Minimum 0.71mm thickness	UL94	UL	
Capacitor (C102, C103)	Murata Mfg. Co., Ltd.	KX	250Vac, 1000pF (Marked with Y1. 25/125/21 according to IEC60384-14.)	IEC60384-14 ed. 3	VDE	
Alternate Capacitor (C102, C103)	TDK-EPC Corp.	CD	250Vac, 1000pF (Marked with Y1. 25/125/21 according to IEC60384-14.)	IEC60384-14	VDE	
PTC (TH101) for 3N10149	Ishizuka Electronics Corp.	8D2-15	250Vac, 5.0A	UL1434	UL	
PTC (TH101) for 3N10150, 3N10157	Ishizuka Electronics Corp.	8D2-18	250Vac, 6.0A	UL1434	UL	
Diode (D101)	Various	Various	600V, 15A	--	--	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
FET (Q101) for 3N10149	Various	Various	600V, 20A.	--	--	
FET (Q101, Q102) for 3N10150, 3N10157	Various	Various	600V, 15A.	--	--	
Inductor (T101) for 3N10149	Tabuchi Electric Co., Ltd.	CHT169	Core: Ferrite, Maximum 32.0mm by 21.15mm by 22.0mm, Coil: Wound on Bobbin Case. (Enclosure ID 7- 03 for detail)	--	--	
Bobbin of Inductor (T101) for 3N10149	Sumitomo Bakelite Co., Ltd.	PM-9820	Phenolic, V-0, RTI 150°C, Minimum 0.64mm thickness	UL94	UL	
Alternate Bobbin of Inductor (T101) for 3N10149	Hitachi Chemical Co., Ltd.	CP-J-8600, CP- J-8800	Phenolic, V-0, RTI 150°C, Minimum 0.64mm thickness	UL94	UL	
Inductor (T101) for 3N10150, 3N10157	Tabuchi Electric Co., Ltd.	CHT170	Core: Ferrite, Maximum 32.0mm by 26.0mm by 22.0mm, Coil: Wound on Bobbin Case. (Enclosure ID 7- 04 for detail)	--	--	
Bobbin of Inductor (T101) for 3N10150, 3N10157	Sumitomo Bakelite Co., Ltd.	PM-9820	Phenolic, V-0, RTI 150°C, Minimum 0.64mm thickness	UL94	UL	
Alternate Bobbin of Inductor (T101) for 3N10150, 3N10157	Hitachi Chemical Co., Ltd.	CP-J-8600, CP- J-8800	Phenolic, V-0, RTI 150°C, Minimum 0.64mm thickness	UL94	UL	
Electrolytic	Various	Various	450V, 82uF	--	--	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
Capacitor (C112, C113) for 3N10149						
Electrolytic Capacitor (C136) for 3N10150, 3N10157	Various	Various	420V, 270uF	--	--	
FET (Q103)	Various	Various	900V, 3A.	--	--	
Fuse (F102)	Skygate Co., Ltd.	SG5013P-R	250Vac, T2.0AH	EN60127-1, EN60127-2, DENAN	VDE, PSE	
Alternate Fuse (F102)	Conquer Electronics Co., Ltd.	UDA-A	250Vac, T2.0AH	EN60127-1, EN60127-2, DENAN	VDE, PSE	
Insulation tube on Wire of Fuse (F102)	Sumitomo Electric Fine Polymer Inc.	807	105°C, VW-1, 600V	UL 224	UL	
Alternate Insulation tube on Wire of Fuse (F102)	Sumitomo Electric Fine Polymer Inc.	817	105°C, VW-1, 600V	UL 224	UL	
Alternate Insulation tube on Wire of Fuse (F102)	Nikkan Industries Co., Ltd.	S-693-600	200°C, VW-1, 600V	UL 224	UL	
Insulation tube on Fuse (F102) (Upper)	Nikkan Industries Co., Ltd.	S-693-600	Reinforced insulation. 200°C, VW-1, 600V, Minimum 0.4mm thickness, Minimum 28mm long.	UL 1441	UL	
Transformer (T102)	Tabuchi Electric Co., Ltd.	PTTX178	Class B, Open type construction. Core: Ferrite Overall maximum 29.3 mm by maximum 21.3 mm by maximum 13.3 mm. Coil: Wound on Bobbin. See Enclosure 7-05	--	--	

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
Insulation System of Transformer (T102)	Tabuchi Electric Co., Ltd.	ZFS-B1	Class B	UL1446	UL	
Bobbin of Transformer (T102)	Sumitomo Bakelite Co., Ltd.	PM-9820	Phenolic, V-0, RTI 150°C, Minimum 0.64mm thickness	UL94	UL	
Alternate Bobbin of Inductor (T102)	Hitachi Chemical Co., Ltd.	CP-J-8600, CP-J-8800	Phenolic, V-0, RTI 150°C, Minimum 0.64mm thickness	UL94	UL	
Primary Wire of Transformer (T102)	Furukawa Electric Co., Ltd.	TEX-E	Reinforced Insulation, 130°C, 1.41kVpeak, 0.23 mm dia.	IEC60950-1	VDE	
Insulation Tape of Transformer (T102) (Pri-Sec)	Teraoka Seisakusho Co., Ltd.	631S, 632S, 630F	Minimum 1 layer, each layer minimum 0.025mm or 0.050mm thickness	UL510	UL	
Alternate Insulation Tape of Transformer (T102) (Pri-Sec)	3M Company Electrical Markets Div. (EMD)	1318-1, 1350F-1	Minimum 1 layer, each layer minimum 0.025mm or 0.050mm thickness	UL510	UL	
Alternate Insulation Tape of Transformer (T102) (Pri-Sec)	Jingjiang Yahua Pressure Sensitive Glue Co., Ltd.	CT	Minimum 1 layer, each layer minimum 0.025mm or 0.050mm thickness	UL510	UL	
Varnish of Transformer (T102)	Hitachi Chemical Co., Ltd.	WP-2952F-2G	130°C	UL1446	UL	
Alternate Varnish of Transformer (T102)	Kyocera Chemical Corp.	TNB2024	130°C	UL1446	UL	
Alternate Varnish of Transformer (T102)	Noroo Paint & Coatings Co., Ltd.	DVB-2085	130°C	UL1446	UL	

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

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
Bridging Capacitor (C132)	Murata Mfg. Co., Ltd.	KX	250Vac, 3300pF (Marked with Y1. 25/125/21 according to IEC60384-14.)	IEC60384-14	VDE	
Alternate Bridging Capacitor (C132)	TDK-EPC Corp.	CD	250Vac, 3300pF (Marked with Y1. 25/125/21 according to IEC60384-14.)	IEC60384-14	VDE	
Photocoupler (PC201, PC202, PC203)	NEC Electronics Corporation Compound Semiconductor Devices Division	PS2561AL-1	Isolation Voltage 5000V, Max Operating (Ambient) Temp 100°C	IEC60950-1	SEMKO	
Alternate Photocoupler (PC201, PC202, PC203)	Sharp Corp. Electronic Components and Devices Group	PC123	Isolation Voltage 5000V, Max Operating (Ambient) Temp 110°C	IEC60950-1	SEMKO	
Diode (D201)	Various	Various	400V, 1A (SELV Limiting Component)	--	--	
Diode (D202)	Various	Various	400V, 5A (SELV Limiting Component)	--	--	
Diode (D203)	Various	Various	200V, 5A (SELV Limiting Component)	--	--	
Diode (D204)	Various	Various	150V, 10A (SELV Limiting Component)	--	--	
Fuse (ICP201)	Skygate Co., Ltd.	0603FT	50Vdc, 2.0A (Opening time of 200% percent of rating: <5 sec)	UL248-1 UL248-14	UL	
Thermal Link (F201)	Tamura Thermal Device Corporation	HU3X	250Vac, 3.0A, TF=115°C	EN60691, GB9816-1998	VDE, CCC	
Connector (CN201)	Various	Various	Minimum V-2	UL1977	UL	
Secondary wire	Various	Style 1061	VW-1, 80°C	UL758	UL	
Heatsink of Primary Side	Various	Various	Aluminum, Minimum 2.0mm (Enclosure ID 7-	--	--	

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

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
			06 for detail)			
Heatsink of Secondary Side	Various	Various	Aluminum, Minimum 2.0mm (Enclosure ID 7- 07 for detail)	--	--	
PWB	Various	Various	Minimum V-1, minimum 130°C	UL796	UL	
--	--	--	--	--	--	
Ballast Power Supply for models NP- M300WS, NP- M350XS, NP- M420X, NP- M420XV, NP- P350W, NP- P420X	Ushio Inc.	PHG261A3HD	(Input: 250-420 Vdc, 1.25 AOutput: Maximum 180 Vac, Maximum 4.1 Arms, Maximum 280 W)	IEC 60950-1	CB certified by UL	
Ballast Power Supply for models NP- M260WS, NP- M300XS, NP- P350X	Murata Mfg Co., Ltd.	PHG231A8GD	(Input: 250-420 Vdc. Output: Maximum 180 Vac, maximum 3.6 A, maximum 250 W)	IEC 60950-1	CB certified by UL	
Ballast Power Supply for model NP-M260XS	Murata Mfg Co., Ltd.	PHG231A8FD	(Input: 250-420 Vdc. Output: Maximum 180 Vac, maximum 3.6 A, maximum 250 W)	IEC 60950-1	CB certified by UL	
Insulation Sheet for Power Supply	Sun Delta Corp.	VS525	(Basic) V-0, minimum 0.5 mm thick	UL94	UL	
Insulation Sheet for Ballast Power Supply	Sun Delta Corp.	VS525	(Basic) V-0, minimum 0.5 mm thick	UL94	UL	
Lamp Driver Cable (connected between outputs of Ballast Power Supply and Lamp Assembly)	Various	Style 10739	(Reinforced) 2 provided. 20kVdc, 20 AWG, 200°C, VW-1, minimum 0.4 mm thick.	UL 758	UL	
Connector of Lamp Driver Cable for Ballast	Japan Solderless Terminal Mfg Co., Ltd.	Type H, Series VH	250 V, 5 A for 20AWG wire. V- 0 for housing	IEC61984	TUV	

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

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
Power Supply			material			
Housing material of Lamp Driver Connector (Plug)	Tosoh Corp., Polymers Div.	GS-40	V-0, minimum 0.8 mm thick, RTI: 200°C.	UL 94	UL	
Lamp Assembly	--	NP-17LP (for models NP- M300WS, NP- M350XS, NP- M420X, NP- M420XV, NP- P350W, NP- P420X), NP16LP (for models NP- M260WS, NP- M300XS, NP- P350X), NP15LP (for model NP- M260XS) (These type names are described for user service to replace the lamp.)	(Consists of following parts marked [LAMP].)	--	--	
Lamp (for models NP- M300WS, NP- M350XS, NP- M420X, NP- M420XV, NP- P350W, NP- P420X) [LAMP]	Ushio Inc.	NSHA260NE with or without "/C"	82Vac, 3.2A	--	--	
Lamp (for models NP- M260WS, NP- M300XS, NP- P350X) [LAMP]	Ushio Inc.	NSHA210NEB with or without "/C"	82 Vac, 2.8 A.	--	--	
Lamp (for model NP-M260XS) [LAMP]	Ushio Inc.	NSHA180NEH with or without "/C"	69 V ac, 2.6 A.	--	--	
Lamp Cable [LAMP]	Various	Style 10739	(Reinforced) 2 provided. 20 kV, 20 AWG, 200°C, VW-1, minimum 0.4 mm thick.	UL 758	UL	

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

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
Housing material of connector on Lamp Cable [LAMP]	Tosoh Corp., Polymers Div.	GS-40	V-0, minimum 0.8 mm thick, RTI: 200°C.	UL 94	UL	
Lamp holder [LAMP]	Polyplastics Co., Ltd.	E130i	V-0, minimum 0.75 mm thick, RTI: 240°C.	UL 94	UL	
Lamp housing	DIC Corp.	FZ-1140D5	V-0, minimum 0.75mm thick. RTI: 200°C	UL 94	UL	
Thermal protector (located on the other side wall of Lamp house)	Uchiya Thermostat Co., Ltd.	UP62G	125V, 140°C, 1.0 A (10,000 cycles of endurance was tested in European certification body.)	EN60730	VDE	
Thermistor for fan control (TH-1 PWB)	TDK-EPC Corp.	NTCG163JF103 FT	NTC. Operating Temperature: - 40 - 125°C, Resistance under 25°C: 10k ohm. (100,000 cycles of endurance)	UL 1434	UL	
Alternate	Murata Mfg. Co., Ltd.	NCP18XH103F0 3RB	NTC. Operating temperature: -40 - 125°C, Resistance under 25°C: 10k ohm. (100,000 cycles of endurance)	UL 1434	UL	
Secondary Fuses (F1001, F1002, F1003)	SkyGate Co., Ltd.	1206FT5A	32V, 5.0 A (Overcurrent protection device for 4.2 Vdc and 6.2 Vdc output lines)	UL 248-1, UL 248-14	UL	
Alternate	Kamaya Electronic Co., Ltd.	FHC32502AD	32V, 5.0 A (Overcurrent protection device for 4.2 Vdc and 6.2 Vdc output lines)	UL 248-1, UL 248-14	UL	

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

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
Printed Wiring Boards of Secondary Circuit	Various	Various	Minimum V-1, minimum 105°C.	UL 796	UL	
Moving Parts	--	--	--	--	--	
LCD Fan 1 (Front)	Toshiba Home Technology Corp.	SF8028H12-59A	12Vdc, 300mA	--	--	
LCD Fan 2 (Rear)	Toshiba Home Technology Corp.	SF8028H12-60A	12Vdc, 300mA	--	--	
Lamp Fan	Toshiba Home Technology Corp.	SF6023CLH12-52E	12Vdc, 150mA	--	--	
Exhaust Fan	Minebea Motor Mfg. Corp.	3110EL-04W-M49	12Vdc, 0.26A	--	--	
Housing Material of LCD Fan 1 (Front) / LCD Fan 2 (Rear) / Lamp Fan / Exhaust Fan	Various	Various	Minimum V-2	--	--	
Ballast Fan	Minebea Motor Mfg. Corp.	2404KL-04W-B39	12Vdc, 0.13A	--	--	
Motor of Iris Unit	Nidec Copal Corporation	LPF10-085	5Vdc, 0.185A	--	--	
Base Plate of Iris Unit	Toray Industries Inc.	LX70M35	V-0, minimum 0.38mm thick	UL 94	UL	
Enclosures and other plastic parts	--	--	--	--	--	
Top Cover (mechanical/electrical/fire)	Teijin Chemicals Ltd., Research & Development Div.	DN-5807B	5VB, minimum 2 mm thick. RTI: 80°C	UL 94	UL	
Alternate	Teijin Chemicals Ltd.	LN-2520	5VB, minimum 2 mm thick. RTI: 125°C	UL 94	UL	
Bottom Cover (mechanical/electrical/fire)	Teijin Chemicals Ltd., Research & Development Div.	DN-5807B	5VB, minimum 2 mm thick. RTI: 80°C	UL 94	UL	
Alternate	Teijin Chemicals Ltd.	LN-2520	5VB, minimum 2 mm thick. RTI: 125°C	UL 94	UL	

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

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
IO Panel (mechanical/electrical/fire)	Teijin Chemicals Ltd., Research & Development Div.	DN-5807B	5VB, minimum 1.8 mm thick. RTI: 80°C	UL 94	UL	
Alternate	Teijin Chemicals Ltd.	LN-2520	5VB, minimum 2.0 mm thick. RTI: 125°C	UL 94	UL	
Lamp Cover (mechanical/electrical/fire)	Teijin Chemicals Ltd., Research & Development Div.	DN-5807B	5VB, minimum 1.8 mm thick. RTI: 80°C	UL 94	UL	
Alternate	Teijin Chemicals Ltd.	LN-2520	5VB, minimum 2.0 mm thick. RTI: 125°C	UL 94	UL	
Filter Holder (Decorative)	Teijin Chemicals Ltd., Research & Development Div.	DN-5807B	V-0, minimum 1.2 mm thick. RTI: 80°C	UL 94	UL	
Alternate	Teijin Chemicals Ltd.	LN-2520	V-0, minimum 1.2 mm thick. RTI: 125°C	UL 94	UL	
Air Filter A / Air Filter B	Various	Various	Class 1 and 2 (Material minimum HF-2)	UL900	UL	
Filter Case (Internal)	Teijin Chemicals Ltd.	LN-2520	V-0, minimum 1.8 mm thick. RTI: 125°C	UL 94	UL	
Alternate	Teijin Chemicals Ltd., Research & Development Div.	DN-5807B	5VB, minimum 1.8 mm thick. RTI: 80°C	UL 94	UL	
Case BS (Internal)	Teijin Chemicals Ltd.	LN-2520	V-0, minimum 1.5 mm thick. RTI: 125°C	UL 94	UL	
EX-Fan-Duct (Internal)	Teijin Chemicals Ltd.	LN-2520	V-0, minimum 1.5 mm thick. RTI: 125°C	UL 94	UL	
Control Button, Remote Controller Sensor Cover, Lens Cover guide, Lens Cover sensor,	Various	Various	Minimum HB at thickness and color used.	UL 94	UL	

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

1.5.1	TABLE: list of critical components					Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard (edition/year)	mark(s) of conformity ¹⁾	
Cushions and grommet for speaker (Decorative parts)						
Foot, Foot holder, Foot lever of bottom cover (Decorative)	Various	Various	Minimum HB at thickness and color used.	UL 94	UL	
Remote Controller Case (Decorative)	Various	Various	Minimum HB at thickness and color used.	UL 94	UL	
Optional Accessory	--	--	--	--	--	
Ceiling Mount Kit (optional)	Shin-Ei Sangyo Co., Ltd.	NP12CM	Steel, 1.5kg	--	--	
Computer Cable	Various	Various	Maximum 3.05 m long, marked VW-1	UL758	UL	
Rating Label (Optional)	Malugo Label Co., Ltd.	M1UV-MT	(Located bottom case. Maybe attached instead of laser marking method.)	--	--	
¹⁾ an asterisk indicates a mark which assures the agreed level of surveillance						

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Clause	Requirement + Test	Result - Remark	Verdict

1.6.2	TABLE: electrical data (in normal conditions)						Pass
U (V)	I (A)	I rated (A)	P (W)	Fuse #	I fuse (A)	condition/status	
100	3.61	3.9	357.6	F101	3.61	50Hz, model NP-P350W	
100	3.58	3.9	356.2	F101	3.58	60Hz, model NP-P350W	
200	1.80	1.9	344.9	F101	1.80	50Hz, model NP-P350W	
200	1.79	1.9	344.9	F101	1.79	60Hz, model NP-P350W	
240	1.56	1.7 (1.9 *1)	343.7	F101	1.56	50Hz, model NP-P350W	
240	1.54	1.7 (1.9 *1)	344.0	F101	1.54	60Hz, model NP-P350W	
100	3.18	3.4	315.5	F101	3.18	50Hz, model NP-M300XS	
100	3.18	3.4	315.6	F101	3.18	60Hz, model NP-M300XS	
200	1.62	1.7	308.1	F101	1.62	50Hz, model NP-M300XS	
200	1.61	1.7	308.0	F101	1.61	60Hz, model NP-M300XS	
240	1.41	1.5 (1.7 *1)	307.3	F101	1.41	50Hz, model NP-M300XS	
240	1.39	1.5 (1.7 *1)	307.0	F101	1.39	60Hz, model NP-M300XS	
100	2.64	2.8	261.8	F101	2.64	50Hz, model NP-M260XS	
100	2.64	2.8	261.6	F101	2.64	60Hz, model NP-M260XS	
200	1.31	4	253.9	F101	1.31	50Hz, model NP-M260XS	
200	1.31	1.4	253.8	F101	1.31	60Hz, model NP-M260XS	
240	1.16	1.2 (1.4 *1)	253.8	F101	1.16	50Hz, model NP-M260XS	
240	1.13	1.2 (1.4 *1)	253.7	F101	1.13	60Hz, model NP-M260XS	
supplementary information:							
Fan volume was set at 37°C, Normal. Model NP-M300XS (rated current 1.5-3.4A) represented model NP-P350X (rated current 1.5-3.5A) , due to similarity in construction. *1) Rating of moldels with suffix (+ or C).							

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements						Pass
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)	
Unit	--	--	--	--	--	--	
Working Voltage Measurement (#1)	--	-	--	--	--	--	
Lamp Socket (+) - GND (Ignition)	940	236	--	--	--	--	
Lamp Socket (+) - GND (Steady State)	240	91.3	--	--	--	--	
Lamp Socket (-) - GND (Ignition)	248	99.5	--	--	--	--	
Lamp Socket (-) - GND (Steady State)	176	90.4	--	--	--	--	
C20 of Ballast Power Supply - Chassis / Basic	420	250	2.0	8.6	2.5	9.6	
Edge of Ballast Power Supply PWB - Ballast Fan / Reinforced	420	250	4.0	9.6	--	--	
Power Supply	--	--	--	--	--	--	

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Clause	Requirement + Test			Result - Remark		Verdict
[Pattern] Line - Neutral before Fuse (F101) / Functional	420	240	1.5	3.6	2.4	3.6
[Pattern] Line - Neutral after Fuse (F101) / Functional	420	240	1.5	3.4	2.4	3.4
[Pattern] Neutral (C103 (L101 side)) - GND / Basic	420	240	2.0	7.5 (*1)	2.4	7.5 (*1)
[Component side] Line - Neutral (CN101 pin) / Basic	420	240	2.0	6.6	2.4	6.6
Pattern between Capacitor (C102, C103) / Basic	420	240	2.0	8.1 (*1)	2.4	8.1 (*1)
Pattern between Transformer (T102) / Reinforced	696	369	4.8	7.8	7.4	7.8
Pattern between Bridging Capacitor (C132) / Reinforced	696	369	4.8	8.2	7.4	8.2
Pattern between Bridging Capacitor (PC203) / Reinforced	696	369	4.8	8.2	7.4	8.2
PR1 pins - SEC pins of Transformer (T102) via Core / Reinforced	696	369	4.8	12.4	7.4	16.2
Functional:						
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
See above.	--	--	--	--	--	--
Basic/supplementary:						
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
See above.	--	--	--	--	--	--
Reinforced:						
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
See above.	--	--	--	--	--	--
supplementary information:						
Test was conducted to Model NP-P350W with Lamp Type NSHA260NE. *1: These distances were able to consider to comply with Reinforced insulation.						

2.10.5	TABLE: distance through insulation measurements					Pass
Distance through insulation (DTI) at/of:		U peak (V)	Urms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
Insulation Sheet for Power Supply, Sun Delta Corp., type VS525 (Basic)		696	369	2034Vac (In fact, test was performed at 3000Vac)	--	--

IEC 60950-1					
Clause	Requirement + Test		Result - Remark		Verdict
Insulation Sheet for Ballast Power Supply, Sun Delta Corp., type VS525 (Basic)	420	250	1500Vac (In fact, test was performed at 3000Vac)	--	--
Lamp Driver Cable (connected between outputs of Ballast Power Supply and Lamp Assembly) and Lamp Cable [LAMP], Style 10739 (Reinforced) (#1)	940	--	3000Vac	0.4	minimum 0.4
Primary lead (between Appliance Inlet and Power Supply), UL Style 1015 (Basic) (#2)	420	250	1500Vac	--	--
Insulation tube on Fuse (F102) (Upper), Nikkan Industries Co., Ltd., Type S-693-600 (Reinforced) (#3)	696	369	3000Vac	0.4	minimum 0.4
supplementary information:					
#1: 41000 Vdc electrical strenght test complied under UL certificate.					
#2: 2000 Vac electrical strength test complied under UL certificate.					
#3: 3500 Vac electric strength test complied under UL certificate.					

4.3.8	TABLE: Batteries								Pass
The tests of 4.3.8 are applicable only when appropriate battery data is not available.									
Is it possible to install the battery in a reverse polarity position?					No				
	Non-rechargeable batteries			Rechargeable batteries					
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. specs.		Meas. current	Manuf. specs.	Meas. current	Manuf. specs.	Meas. current	Manuf. specs.
Max. current during normal operation	--	--	--	--	--	--	--	--	--

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Clause	Requirement + Test	Result - Remark	Verdict

Test results:		Verdict
- Chemical leaks		
- Explosion of the battery		
- Emission of flame or expulsion of molten metal		
- Electric strength tests of equipment after completion of tests		
supplementary information:		
See Cl. 4.3.8.		

4.5	TABLE: Thermal requirements						Pass
	Supply voltage (V)..... :	See below.	See below.	See below.	See below.	--	—
	Ambient Tmin (°C) :	--	--	--	--	--	—
	Ambient Tmax (°C) :	See below.	See below.	See below.	See below.	--	—
Maximum measured temperature T of part/at:		T (°C)					allowed Tmax (°C)
Model NP-P350W		--	--	--	--	--	--
Test Condition		1	1	2	2	--	--
Supply Voltage		90V, 60Hz	90V, 60Hz	90V, 60Hz	90V, 60Hz	--	--
Sample position		Table Top	Table Top	Table Top	Table Top	--	--
Ambient		24	26	23	37	--	--
Unit		--	--	--	--	--	--
AC Inlet live pin		36	38	32	46	--	70 (Rated)
Lamp holder close to Lamp		159	161	140	154	--	220 (RTI)
Lamp Driver Connector		57	59	49	63	--	200 (RTI)
Lamp Cable		152	154	130	144	--	200 (Rated)
Lamp housing		119	121	103	117	--	200 (RTI)
LCD Fan 1 (Front)		25	27	25	39	--	100 (Class A)
LCD Fan 2 (Rear)		26	28	28	42	--	100 (Class A)
Lamp Fan		36	38	31	45	--	100 (Class A)
Exhaust Fan		78	80	66	80	--	100 (Class A)
Ballast Fan		34	36	34	48	--	100 (Class A)

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Clause	Requirement + Test				Result - Remark	Verdict
Motor of Iris Unit	68	70	51	65	--	100 (Class A)
Exhaust openings at Top Cover	72	74	60	74	--	80 (RTI)
Lamp Cover	53	55	45	59	--	80 (RTI)
Bottom Cover near Power Supply	36	38	31	45	--	80 (RTI)
Power Supply	--	--	--	--	--	--
Connector (CN101)	36	38	33	47	--	100 (Rated)
Capacitor (C102)	36	38	32	46	--	125 (Rated)
Capacitor (C104)	39	41	34	48	--	100 (Rated)
PTC (TH101)	84	86	73	87	--	130 (PWB)
Inductor (L101) coil	61	63	51	65	--	90 (Class A)
Diode (D101)	52	54	44	58	--	130 (PWB)
FET (Q103)	54	56	45	59	--	130 (PWB)
Inductor (T101) coil	74	76	65	79	--	90 (Class A)
Electrolytic Capacitor (C136)	40	42	35	49	--	105 (Rated)
Transformer (T102) coil	61	63	52	66	--	110 (Class B)
Transformer (T102) core	53	55	44	58	--	125 (C132 Rated)
Photocoupler (PC202)	51	53	41	55	--	100 (Rated)
Heatsink of Primary Side near D101	60	62	51	65	--	105 (Primary wire Rated)
Heatsink of Secondary Side near Transformer (T102)	63	65	47	61	--	130 (PWB)
Ballast Power Supply	--	--	--	--	--	--
Inductor (L1)	39	41	34	48	--	90 (Class A)
FET (Q1)	65	67	50	64	--	105 (PWB)
Diode (D1)	67	69	53	67	--	105 (PWB)
Transformer (T2)	51	53	42	56	--	90 (Class A)
Inductor (L2)	68	70	56	70	--	90 (Class A)

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Clause	Requirement + Test			Result - Remark		Verdict
FET (Q14)	60	62	45	59	--	105 (PWB)
Inductor (L3)	68	70	53	67	--	90 (Class A)
Optical Isolator (PC1)	39	41	33	47	--	100 (Rated)
Test time	1hr51 min	--	14hr53 min	--	--	--
Model NP-P350W	--	--	--	--	--	--
Test Condition	3	3	4	4	--	--
Supply Voltage	90V, 60Hz	90V, 60Hz	90V, 60Hz	90V, 60Hz	--	--
Sample position	Table Top	Table Top	Table Top	Table Top	--	--
Ambient	24	26	25	40	--	--
Unit	--	--	--	--	--	--
AC Inlet live pin	34	36	31	46	--	70 (Rated)
Lamp holder close to Lamp	197	199	147	162	--	220 (RTI)
Lamp Driver Connector	64	66	46	61	--	200 (RTI)
Lamp Cable	181	183	139	154	--	200 (Rated)
Lamp housing	134	136	90	105	--	200 (RTI)
LCD Fan 1 (Front)	24	26	26	41	--	100 (Class A)
LCD Fan 2 (Rear)	25	27	29	44	--	100 (Class A)
Lamp Fan	33	35	30	45	--	100 (Class A)
Exhaust Fan	71	73	54	69	--	100 (Class A)
Ballast Fan	34	36	33	48	--	100 (Class A)
Motor of Iris Unit	72	74	49	64	--	100 (Class A)
Exhaust openings at Top Cover	70	72	53	68	--	80 (RTI)
Lamp Cover	56	58	40	55	--	80 (RTI)
Bottom Cover near Power Supply	35	37	30	45	--	80 (RTI)
Power Supply	--	--	--	--	--	--
Connector (CN101)	34	36	31	46	--	100 (Rated)
Capacitor (C102)	35	37	31	46	--	125 (Rated)
Capacitor (C104)	37	39	32	47	--	100 (Rated)
PTC (TH101)	78	80	65	80	--	130 (PWB)
Inductor (L101) coil	49	51	43	58	--	90 (Class

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
						A)
Diode (D101)	47	49	39	54	--	130 (PWB)
FET (Q103)	51	53	41	56	--	130 (PWB)
Inductor (T101) coil	65	67	54	69	--	90 (Class A)
Electrolytic Capacitor (C136)	37	39	33	48	--	105 (Rated)
Transformer (T102) coil	59	61	49	64	--	110 (Class B)
Transformer (T102) core	52	54	42	57	--	125 (C132 Rated)
Photocoupler (PC202)	49	51	39	54	--	100 (Rated)
Heatsink of Primary Side near D101	54	56	44	59	--	105 (Primary wire Rated)
Heatsink of Secondary Side near Transformer (T102)	60	62	44	59	--	130 (PWB)
Ballast Power Supply	--	--	--	--	--	--
Inductor (L1)	38	40	32	47	--	90 (Class A)
FET (Q1)	57	59	44	59	--	105 (PWB)
Diode (D1)	61	63	48	63	--	105 (PWB)
Transformer (T2)	48	50	39	54	--	90 (Class A)
Inductor (L2)	65	67	50	65	--	90 (Class A)
FET (Q14)	54	56	40	55	--	105 (PWB)
Inductor (L3)	60	62	47	62	--	90 (Class A)
Optical Isolator (PC1)	38	40	32	47	--	100 (Rated)
Test time	1hr49 min	--	1hr57 min	--	--	--
Model NP-P350W	--	--	--	--	--	--
Test Condition	5	5	5	5	--	--
Supply Voltage	90V, 60Hz	90V, 60Hz	264V, 60Hz	264V, 60Hz	--	--
Sample position	Table Top	Table Top	Table Top	Table Top	--	--
Ambient	25	40	25	40	--	--

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

Unit	--	--	--	--	--	--
AC Inlet live pin	32	47	32	47	--	70 (Rated)
Lamp holder close to Lamp	126	141	126	141	--	220 (RTI)
Lamp Driver Connector	54	69	55	70	--	200 (RTI)
Lamp Cable	166	181	167	182	--	200 (Rated)
Lamp housing	106	121	106	121	--	200 (RTI)
LCD Fan 1 (Front)	25	40	25	40	--	100 (Class A)
LCD Fan 2 (Rear)	26	41	26	41	--	100 (Class A)
Lamp Fan	30	45	30	45	--	100 (Class A)
Exhaust Fan	50	65	50	65	--	100 (Class A)
Ballast Fan	32	47	32	47	--	100 (Class A)
Motor of Iris Unit	50	65	50	65	--	100 (Class A)
Exhaust openings at Top Cover	51	66	51	66	--	80 (RTI)
Lamp Cover	44	59	44	59	--	80 (RTI)
Bottom Cover near Power Supply	31	46	30	45	--	80 (RTI)
Power Supply	--	--	--	--	--	--
Connector (CN101)	30	45	30	45	--	100 (Rated)
Capacitor (C102)	32	47	31	46	--	125 (Rated)
Capacitor (C104)	32	47	31	46	--	100 (Rated)
PTC (TH101)	57	72	47	62	--	130 (PWB)
Inductor (L101) coil	33	48	31	46	--	90 (Class A)
Diode (D101)	37	52	32	47	--	130 (PWB)
FET (Q103)	45	60	42	57	--	130 (PWB)
Inductor (T101) coil	48	63	34	49	--	90 (Class A)
Electrolytic Capacitor (C136)	31	46	30	45	--	105 (Rated)
Transformer (T102) coil	55	70	54	69	--	110 (Class B)
Transformer (T102) core	49	64	48	63	--	125 (C132 Rated)
Photocoupler (PC202)	44	59	41	56	--	100

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

						(Rated)
Heatsink of Primary Side near D101	41	56	34	49	--	105 (Primary wire Rated)
Heatsink of Secondary Side near Transformer (T102)	54	69	53	68	--	130 (PWB)
Ballast Power Supply	--	--	--	--	--	--
Inductor (L1)	33	48	33	48	--	90 (Class A)
FET (Q1)	45	60	46	61	--	105 (PWB)
Diode (D1)	46	61	46	61	--	105 (PWB)
Transformer (T2)	40	55	40	55	--	90 (Class A)
Inductor (L2)	49	64	49	64	--	90 (Class A)
FET (Q14)	39	54	39	54	--	105 (PWB)
Inductor (L3)	40	55	40	55	--	90 (Class A)
Optical Isolator (PC1)	36	51	36	51	--	100 (Rated)
Test time	2hr10 min	--	2hr22 min	--	--	--
Model NP-M300XS	--	--	--	--	--	--
Test Condition	6	6	7	7	--	--
Supply Voltage	90V, 60Hz	90V, 60Hz	90V, 60Hz	90V, 60Hz	--	--
Sample position	Table Top	Table Top	Table Top	Table Top	--	--
Ambient	23	26	24	37	--	--
Unit	--	--	--	--	--	--
AC Inlet live pin	36	39	31	44	--	70 (Rated)
Lamp holder close to Lamp	145	148	123	136	--	220 (RTI)
Lamp Driver Connector	91	94	78	91	--	200 (RTI)
Lamp Cable	141	144	116	129	--	200 (Rated)
Lamp housing	108	111	86	99	--	200 (RTI)
LCD Fan 1 (Front)	25	28	28	41	--	100 (Class A)
LCD Fan 2 (Rear)	25	28	29	42	--	100 (Class A)
Lamp Fan	36	39	32	45	--	100 (Class A)
Exhaust Fan	69	72	52	65	--	100

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

						(Class A)
Ballast Fan	34	37	32	45	--	100 (Class A)
Motor of Iris Unit	64	67	50	63	--	100 (Class A)
Exhaust openings at Top Cover	53	56	42	55	--	80 (RTI)
Lamp Cover	47	50	42	55	--	80 (RTI)
Bottom Cover near Power Supply	41	44	35	48	--	80 (RTI)
Power Supply	--	--	--	--	--	--
Connector (CN101)	43	46	34	47	--	100 (Rated)
Capacitor (C102)	34	37	31	44	--	125 (Rated)
Capacitor (C104)	36	39	31	44	--	100 (Rated)
PTC (TH101)	81	84	68	81	--	130 (PWB)
Inductor (L101) coil	54	57	45	58	--	90 (Class A)
Diode (D101)	55	58	44	57	--	130 (PWB)
FET (Q103)	57	60	44	57	--	130 (PWB)
Inductor (T101) coil	69	72	57	70	--	90 (Class A)
Electrolytic Capacitor (C136)	42	45	37	50	--	105 (Rated)
Transformer (T102) coil	65	68	55	68	--	110 (Class B)
Transformer (T102) core	59	62	48	61	--	125 (C132 Rated)
Photocoupler (PC202)	54	57	42	55	--	100 (Rated)
Heatsink of Primary Side near D101	62	65	50	63	--	105 (Primary wire Rated)
Heatsink of Secondary Side near Transformer (T102)	66	69	49	62	--	130 (PWB)
Ballast Power Supply	--	--	--	--	--	--
Heatsink near FET (Q1)	65	68	50	63	--	120 (PWB)
Inductor (L2) Coil	75	78	62	75	--	150 (RTI)
Bottom of Resistor (R27) near Inductor (L2)	70	73	56	69	--	120 (PWB)
Transformer (B2) Coil	42	45	36	49	--	150 (RTI)
Bottom of FET (Q3)	64	67	48	61	--	120

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

						(PWB)
Bottom of FET (Q6)	60	63	46	59	--	120 (PWB)
Inductor (L5) Coil	75	78	57	70	--	130 (RTI)
Output Connector (CN3)	58	61	43	56	--	85 (Rated)
Optical Isolator (PC51)	42	45	35	48	--	100 (Rated)
Test time	15hr5 min	--	2hr13 min	--	--	--
Model NP-M300XS	--	--	--	--	--	--
Test Condition	8	8	9	9	--	--
Supply Voltage	90V, 60Hz	90V, 60Hz	90V, 60Hz	90V, 60Hz	--	--
Sample position	Table Top	Table Top	Table Top	Table Top	--	--
Ambient	24	26	25	40	--	--
Unit	--	--	--	--	--	--
AC Inlet live pin	36	38	30	45	--	70 (Rated)
Lamp holder close to Lamp	192	194	135	150	--	220 (RTI)
Lamp Driver Connector	122	124	100	115	--	200 (RTI)
Lamp Cable	191	193	128	143	--	200 (Rated)
Lamp housing	146	148	86	101	--	200 (RTI)
LCD Fan 1 (Front)	25	27	29	44	--	100 (Class A)
LCD Fan 2 (Rear)	26	28	30	45	--	100 (Class A)
Lamp Fan	37	39	31	46	--	100 (Class A)
Exhaust Fan	70	72	52	67	--	100 (Class A)
Ballast Fan	36	38	32	47	--	100 (Class A)
Motor of Iris Unit	67	69	47	62	--	100 (Class A)
Exhaust openings at Top Cover	55	57	40	55	--	80 (RTI)
Lamp Cover	55	57	38	53	--	80 (RTI)
Bottom Cover near Power Supply	42	44	33	48	--	80 (RTI)
Power Supply	--	--	--	--	--	--
Connector (CN101)	39	41	31	46	--	100 (Rated)
Capacitor (C102)	36	38	30	45	--	125 (Rated)
Capacitor (C104)	37	39	30	45	--	100 (Rated)
PTC (TH101)	80	82	60	75	--	130

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

						(PWB)
Inductor (L101) coil	49	51	38	53	--	90 (Class A)
Diode (D101)	53	55	39	54	--	130 (PWB)
FET (Q103)	57	59	41	56	--	130 (PWB)
Inductor (T101) coil	65	67	48	63	--	90 (Class A)
Electrolytic Capacitor (C136)	42	44	34	49	--	105 (Rated)
Transformer (T102) coil	71	73	52	67	--	110 (Class B)
Transformer (T102) core	64	66	45	60	--	125 (C132 Rated)
Photocoupler (PC202)	56	58	39	54	--	100 (Rated)
Heatsink of Primary Side near D101	59	61	43	58	--	105 (Primary wire Rated)
Heatsink of Secondary Side near Transformer (T102)	67	69	46	61	--	130 (PWB)
Ballast Power Supply	--	--	--	--	--	--
Heatsink near FET (Q1)	67	69	46	61	--	120 (PWB)
Inductor (L2) Coil	74	76	56	71	--	150 (RTI)
Bottom of Resistor (R27) near Inductor (L2)	69	71	50	65	--	120 (PWB)
Transformer (B2) Coil	45	47	34	49	--	150 (RTI)
Bottom of FET (Q3)	65	67	42	57	--	120 (PWB)
Bottom of FET (Q6)	61	63	40	55	--	120 (PWB)
Inductor (L5) Coil	72	74	49	64	--	130 (RTI)
Output Connector (CN3)	61	63	39	54	--	85 (Rated)
Optical Isolator (PC51)	44	46	33	48	--	100 (Rated)
Test time	2hr35 min	--	2hr17 min	--	--	--
Model NP-M260XS	--	--	--	--	--	--
Test Condition	10	10	11	11	--	--
Supply Voltage	90V, 60Hz	90V, 60Hz	90V, 60Hz	90V, 60Hz	--	--
Sample position	Table Top	Table Top	Table Top	Table Top	--	--

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
Ambient	24	26	23	37	--	--
Unit	--	--	--	--	--	--
AC Inlet live pin	36	38	30	44	--	70 (Rated)
Lamp holder close to Lamp	129	131	105	119	--	220 (RTI)
Lamp Driver Connector	111	113	93	107	--	200 (RTI)
Lamp Cable	131	133	103	117	--	200 (Rated)
Lamp housing	107	109	86	100	--	200 (RTI)
LCD Fan 1 (Front)	26	28	30	44	--	100 (Class A)
LCD Fan 2 (Rear)	26	28	31	45	--	100 (Class A)
Lamp Fan	35	37	30	44	--	100 (Class A)
Exhaust Fan	65	67	47	61	--	100 (Class A)
Ballast Fan	35	37	35	49	--	100 (Class A)
Motor of Iris Unit	57	59	44	58	--	100 (Class A)
Exhaust openings at Top Cover	70	72	51	65	--	80 (RTI)
Lamp Cover	47	49	38	52	--	80 (RTI)
Bottom Cover near Power Supply	37	39	30	44	--	80 (RTI)
Power Supply	--	--	--	--	--	--
Connector (CN101)	36	38	31	45	--	100 (Rated)
Capacitor (C102)	34	36	29	43	--	125 (Rated)
Capacitor (C104)	37	39	32	46	--	100 (Rated)
PTC (TH101)	70	72	56	70	--	130 (PWB)
Inductor (L101) coil	60	62	50	64	--	90 (Class A)
Diode (D101)	49	51	39	53	--	130 (PWB)
FET (Q103)	51	53	40	54	--	130 (PWB)
Inductor (T101) coil	64	66	53	67	--	90 (Class A)
Electrolytic Capacitor (C113)	37	39	31	45	--	105 (Rated)
Transformer (T102) coil	60	62	47	61	--	110 (Class B)
Transformer (T102) core	55	57	43	57	--	125 (C132 Rated)

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
Photocoupler (PC202)	50	52	38	52	--	100 (Rated)
Heatsink of Primary Side near D101	43	45	35	49	--	105 (Primary wire Rated)
Heatsink of Secondary Side near Transformer (T102)	63	65	46	60	--	130 (PWB)
Ballast Power Supply	--	--	--	--	--	--
Heatsink near FET (Q1)	50	52	39	53	--	120 (PWB)
Inductor (L2) Coil	75	77	59	73	--	150 (RTI)
Bottom of Resistor (R27) near Inductor (L2)	52	54	39	53	--	120 (PWB)
Transformer (B2) Coil	40	42	32	46	--	150 (RTI)
Bottom of FET (Q3)	60	62	44	58	--	120 (PWB)
Bottom of FET (Q6)	54	56	40	54	--	120 (PWB)
Inductor (L5) Coil	74	76	55	69	--	130 (RTI)
Output Connector (CN3)	58	60	41	55	--	85 (Rated)
Optical Isolator (PC51)	41	43	33	47	--	100 (Rated)
Test time	1hr56 min	--	2hr5min	--	--	--
Model NP-M260XS	--	--	--	--	--	--
Test Condition	12	12	13	13	--	--
Supply Voltage	90V, 60Hz	90V, 60Hz	90V, 60Hz	90V, 60Hz	--	--
Sample position	Table Top	Table Top	Table Top	Table Top	--	--
Ambient	23	40	24	26	--	--
Unit	--	--	--	--	--	--
AC Inlet live pin	29	46	32	34	--	70 (Rated)
Lamp holder close to Lamp	113	130	130	132	--	220 (RTI)
Lamp Driver Connector	109	126	108	110	--	200 (RTI)
Lamp Cable	116	133	147	149	--	200 (Rated)
Lamp housing	89	106	110	112	--	200 (RTI)
LCD Fan 1 (Front)	30	47	26	28	--	100 (Class A)
LCD Fan 2 (Rear)	31	48	26	28	--	100 (Class A)
Lamp Fan	29	46	32	34	--	100 (Class A)
Exhaust Fan	43	60	48	50	--	100

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

						(Class A)
Ballast Fan	34	51	32	34	--	100 (Class A)
Motor of Iris Unit	41	58	54	56	--	100 (Class A)
Exhaust openings at Top Cover	49	66	58	60	--	80 (RTI)
Lamp Cover	37	54	47	49	--	80 (RTI)
Bottom Cover near Power Supply	28	45	32	34	--	80 (RTI)
Power Supply	--	--	--	--	--	--
Connector (CN101)	29	46	31	33	--	100 (Rated)
Capacitor (C102)	28	45	30	32	--	125 (Rated)
Capacitor (C104)	29	46	31	33	--	100 (Rated)
PTC (TH101)	50	67	56	58	--	130 (PWB)
Inductor (L101) coil	38	55	37	39	--	90 (Class A)
Diode (D101)	35	52	39	41	--	130 (PWB)
FET (Q103)	37	54	45	47	--	130 (PWB)
Inductor (T101) coil	45	62	48	50	--	90 (Class A)
Electrolytic Capacitor (C113)	29	46	32	34	--	105 (Rated)
Transformer (T102) coil	44	61	56	58	--	110 (Class B)
Transformer (T102) core	40	57	51	53	--	125 (C132 Rated)
Photocoupler (PC202)	35	52	44	46	--	100 (Rated)
Heatsink of Primary Side near D101	32	49	35	37	--	105 (Primary wire Rated)
Heatsink of Secondary Side near Transformer (T102)	43	60	56	58	--	130 (PWB)
Ballast Power Supply	--	--	--	--	--	--
Heatsink near FET (Q1)	36	53	44	46	--	120 (PWB)
Inductor (L2) Coil	53	70	57	59	--	150 (RTI)
Bottom of Resistor (R27) near Inductor (L2)	36	53	44	46	--	120 (PWB)
Transformer (B2) Coil	31	48	37	39	--	150 (RTI)
Bottom of FET (Q3)	39	56	48	50	--	120

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

						(PWB)
Bottom of FET (Q6)	37	54	45	47	--	120 (PWB)
Inductor (L5) Coil	48	65	51	53	--	130 (RTI)
Output Connector (CN3)	37	54	45	47	--	85 (Rated)
Optical Isolator (PC51)	32	49	39	41	--	100 (Rated)
Test time	2hr18 min	--	2hr2min	--	--	--
Model NP-M260XS	--	--	--	--	--	--
Test Condition	14	14	--	--	--	--
Supply Voltage	90V, 60Hz	90V, 60Hz	--	--	--	--
Sample position	Table Top	Table Top	--	--	--	--
Ambient	25	40	--	--	--	--
Unit	--	--	--	--	--	--
AC Inlet live pin	28	43	--	--	--	70 (Rated)
Lamp holder close to Lamp	109	124	--	--	--	220 (RTI)
Lamp Driver Connector	95	110	--	--	--	200 (RTI)
Lamp Cable	118	133	--	--	--	200 (Rated)
Lamp housing	85	100	--	--	--	200 (RTI)
LCD Fan 1 (Front)	30	45	--	--	--	100 (Class A)
LCD Fan 2 (Rear)	32	47	--	--	--	100 (Class A)
Lamp Fan	28	43	--	--	--	100 (Class A)
Exhaust Fan	43	58	--	--	--	100 (Class A)
Ballast Fan	30	45	--	--	--	100 (Class A)
Motor of Iris Unit	38	53	--	--	--	100 (Class A)
Exhaust openings at Top Cover	53	68	--	--	--	80 (RTI)
Lamp Cover	36	51	--	--	--	80 (RTI)
Bottom Cover near Power Supply	29	44	--	--	--	80 (RTI)
Power Supply	--	--	--	--	--	--
Connector (CN101)	27	42	--	--	--	100 (Rated)
Capacitor (C102)	28	43	--	--	--	125 (Rated)
Capacitor (C104)	29	44	--	--	--	100 (Rated)
PTC (TH101)	53	68	--	--	--	130

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

						(PWB)
Inductor (L101) coil	35	50	--	--	--	90 (Class A)
Diode (D101)	35	50	--	--	--	130 (PWB)
FET (Q103)	41	56	--	--	--	130 (PWB)
Inductor (T101) coil	44	59	--	--	--	90 (Class A)
Electrolytic Capacitor (C113)	30	45	--	--	--	105 (Rated)
Transformer (T102) coil	50	65	--	--	--	110 (Class B)
Transformer (T102) core	46	61	--	--	--	125 (C132 Rated)
Photocoupler (PC202)	41	56	--	--	--	100 (Rated)
Heatsink of Primary Side near D101	32	47	--	--	--	105 (Primary wire Rated)
Heatsink of Secondary Side near Transformer (T102)	54	69	--	--	--	130 (PWB)
Ballast Power Supply	--	--	--	--	--	--
Heatsink near FET (Q1)	39	54	--	--	--	120 (PWB)
Inductor (L2) Coil	53	68	--	--	--	150 (RTI)
Bottom of Resistor (R27) near Inductor (L2)	39	54	--	--	--	120 (PWB)
Transformer (B2) Coil	33	48	--	--	--	150 (RTI)
Bottom of FET (Q3)	41	56	--	--	--	120 (PWB)
Bottom of FET (Q6)	39	54	--	--	--	120 (PWB)
Inductor (L5) Coil	45	60	--	--	--	130 (RTI)
Output Connector (CN3)	38	53	--	--	--	85 (Rated)
Optical Isolator (PC51)	35	50	--	--	--	100 (Rated)
Test time	2hr11 min	--	--	--	--	--
Model NP-M300XS	--	--	--	--	--	--
Test Condition	8	8	8	8	--	--
Supply Voltage	264V, 60Hz	264V, 60Hz	90V, 60Hz	90V, 60Hz	--	--
Sample position	Table Top	Table Top	Celing Moun	Celing Moun	--	--

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
Ambient	24	26	24	26	--	--
Unit	--	--	--	--	--	--
AC Inlet live pin	34	36	37	39	--	70 (Rated)
Lamp holder close to Lamp	189	191	197	199	--	220 (RTI)
Lamp Driver Connector	113	115	115	117	--	200 (RTI)
Lamp Cable	185	187	180	182	--	200 (Rated)
Lamp housing	142	144	130	132	--	200 (RTI)
LCD Fan 1 (Front)	25	27	26	28	--	100 (Class A)
LCD Fan 2 (Rear)	25	27	26	28	--	100 (Class A)
Lamp Fan	35	37	37	39	--	100 (Class A)
Exhaust Fan	64	66	72	74	--	100 (Class A)
Ballast Fan	34	36	36	38	--	100 (Class A)
Motor of Iris Unit	66	68	67	69	--	100 (Class A)
Exhaust openings at Top Cover	51	53	54	56	--	80 (RTI)
Lamp Cover	53	55	50	52	--	80 (RTI)
Bottom Cover near Power Supply	37	39	37	39	--	80 (RTI)
Power Supply	--	--	--	--	--	--
Connector (CN101)	35	37	39	41	--	100 (Rated)
Capacitor (C102)	33	35	35	37	--	125 (Rated)
Capacitor (C104)	33	35	36	38	--	100 (Rated)
PTC (TH101)	56	58	79	81	--	130 (PWB)
Inductor (L101) coil	35	37	47	49	--	90 (Class A)
Diode (D101)	41	43	53	55	--	130 (PWB)
FET (Q103)	50	52	57	59	--	130 (PWB)
Inductor (T101) coil	40	42	64	66	--	90 (Class A)
Electrolytic Capacitor (C136)	37	39	41	43	--	105 (Rated)
Transformer (T102) coil	65	67	70	72	--	110 (Class B)
Transformer (T102) core	59	61	64	66	--	125 (C132 Rated)

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
Photocoupler (PC202)	50	52	55	57	--	100 (Rated)
Heatsink of Primary Side near D101	47	49	58	60	--	105 (Primary wire Rated)
Heatsink of Secondary Side near Transformer (T102)	62	64	67	69	--	130 (PWB)
Ballast Power Supply	--	--	--	--	--	--
Heatsink near FET (Q1)	61	63	61	63	--	120 (PWB)
Inductor (L2) Coil	69	71	71	73	--	150 (RTI)
Bottom of Resistor (R27) near Inductor (L2)	64	66	66	68	--	120 (PWB)
Transformer (B2) Coil	41	43	44	46	--	150 (RTI)
Bottom of FET (Q3)	56	58	60	62	--	120 (PWB)
Bottom of FET (Q6)	55	57	58	60	--	120 (PWB)
Inductor (L5) Coil	63	65	66	68	--	130 (RTI)
Output Connector (CN3)	54	56	57	59	--	85 (Rated)
Optical Isolator (PC51)	42	44	44	46	--	100 (Rated)
Test time	14hr25 min	--	1hr43 min	--	--	--
Model NP-M300XS	--	--	--	--	--	--
Test Condition	8 Standby	8 Standby	--	--	--	--
Supply Voltage	90V, 60Hz	90V, 60Hz	--	--	--	--
Sample position	Table Top	Table Top	--	--	--	--
Ambient	25	26	--	--	--	--
Unit	--	--	--	--	--	--
AC Inlet live pin	36	37	--	--	--	70 (Rated)
Lamp holder close to Lamp	196	197	--	--	--	220 (RTI)
Lamp Driver Connector	129	130	--	--	--	200 (RTI)
Lamp Cable	215	216	--	--	--	(*1)
Lamp housing	152	153	--	--	--	200 (RTI)
LCD Fan 1 (Front)	28	29	--	--	--	100 (Class A)
LCD Fan 2 (Rear)	28	29	--	--	--	100 (Class A)
Lamp Fan	37	38	--	--	--	100 (Class A)

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Clause	Requirement + Test		Result - Remark			Verdict
Exhaust Fan	69	70	--	--	--	100 (Class A)
Ballast Fan	42	43	--	--	--	100 (Class A)
Motor of Iris Unit	68	69	--	--	--	100 (Class A)
Exhaust openings at Top Cover	55	56	--	--	--	80 (RTI)
Lamp Cover	62	63	--	--	--	80 (RTI)
Bottom Cover near Power Supply	42	43	--	--	--	80 (RTI)
Power Supply	--	--	--	--	--	--
Connector (CN101)	41	42	--	--	--	100 (Rated)
Capacitor (C102)	41	42	--	--	--	125 (Rated)
Capacitor (C104)	42	43	--	--	--	100 (Rated)
PTC (TH101)	81	82	--	--	--	130 (PWB)
Inductor (L101) coil	49	50	--	--	--	90 (Class A)
Diode (D101)	54	55	--	--	--	130 (PWB)
FET (Q103)	60	61	--	--	--	130 (PWB)
Inductor (T101) coil	66	67	--	--	--	90 (Class A)
Electrolytic Capacitor (C136)	50	51	--	--	--	105 (Rated)
Transformer (T102) coil	72	73	--	--	--	110 (Class B)
Transformer (T102) core	67	68	--	--	--	125 (C132 Rated)
Photocoupler (PC202)	58	59	--	--	--	100 (Rated)
Heatsink of Primary Side near D101	60	61	--	--	--	105 (Primary wire Rated)
Heatsink of Secondary Side near Transformer (T102)	73	74	--	--	--	130 (PWB)
Ballast Power Supply	--	--	--	--	--	--
Heatsink near FET (Q1)	63	64	--	--	--	120 (PWB)
Inductor (L2) Coil	78	79	--	--	--	150 (RTI)
Bottom of Resistor (R27) near Inductor (L2)	67	68	--	--	--	120 (PWB)
Transformer (B2) Coil	53	54	--	--	--	150 (RTI)

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Clause	Requirement + Test			Result - Remark			Verdict
Bottom of FET (Q3)	63	64	--	--	--	120 (PWB)	
Bottom of FET (Q6)	62	63	--	--	--	120 (PWB)	
Inductor (L5) Coil	68	69	--	--	--	130 (RTI)	
Output Connector (CN3)	65	66	--	--	--	85 (Rated)	
Optical Isolator (PC51)	54	55	--	--	--	100 (Rated)	
Test time	4hr2min	--	--	--	--	--	
temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	allowed T _{max} (°C)	insulation class
--	--	--	--	--	--	--	--
supplementary information:							
(*1) Maximum temperature after Lamp Fan Stopped. Temperature exceeded the limit only for a few minutes and decreased soon. During this test mode, Lamp Wire was not energized. So there is no hazard. After 60 min, temperature was less than 60°C. Test Condition 1. Normal, Tma: 26°C, Fan setting: 0°C (Model NP-P350W) 2. Normal, Tma: 37°C, Fan setting: 37°C (Model NP-P350W) 3. Eco, Tma: 26°C, Fan setting: 0°C (Model NP-P350W) 4. Eco, Tma: 40°C, Fan setting: 40°C (Model NP-P350W) 5. 25%, Tma: 40°C, Fan setting: 40°C (Model NP-P350W) 6. Normal, Tma: 26°C, Fan setting: 0°C (Model NP-M300XS) 7. Normal, Tma: 37°C, Fan setting: 37°C (Model NP-M300XS) 8. Eco, Tma: 26°C, Fan setting: 0°C (Model NP-M300XS) 9. Eco, Tma: 40°C, Fan setting: 40°C (Model NP-M300XS) 10. Normal, Tma: 26°C, Fan setting: 0°C (Model NP-M260XS) 11. Normal, Tma: 37°C, Fan setting: 37°C (Model NP-M260XS) 12. Eco, Tma: 40°C, Fan setting: 40°C (Model NP-M260XS) 13. 50%, Tma: 26°C, Fan setting: 0°C (Model NP-M260XS) 14. 50%, Tma: 40°C, Fan setting: 40°C (Model NP-M260XS) Test for Tma 26°C was conducted under fan setting 0°C condition, which is severer condition For NP-M300XS 60% mode was waived because fan volume is identical to Eco mode. For NP-M260XS Eco, 26 °C mode was waived because fan volume is identical to Eco 26 °C mode of model NP-M300XS.							

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Clause	Requirement + Test	Result - Remark	Verdict

4.5.5	TABLE: Ball pressure test of thermoplastic parts		Pass
	allowed impression diameter (mm)	less than or equal to 2.0	—
part		test temperature (°C)	impression diameter (mm)
Core Case of Inductor (L101, L102), Mitsubishi Engineering-Plastics Corp., Type 5010N6, minimum 0.71 thickness		125	1.5
Alternate Core Case of Inductor (L101, L102), Wintech Polymer Ltd., Type 2092, minimum 0.38 thickness		125	1.26
Alternate Core Case of Inductor (L101, L102), LG Chemical Ltd., Type Lupox GP-2306F, minimum 0.71 thickness		125	1.0
Alternate Core Case of Inductor (L101, L102), LG Chemical Ltd., Type Lupoy GP-1006F, minimum 0.71 thickness		125	1.49
Alternate Core Case of Inductor (L101, L102), LG Chemical Ltd., Type Lupox GP-2156F, minimum 0.71 thickness		125	0.67
Lamp Driver Connector, Tosoh Corp., Type GS40, minimum 0.8 mm thickness		125	0.6
supplementary information:			
--			

4.7	TABLE: resistance to fire					Pass
part	manufacturer of material	type of material	thickness (mm)	flammability class	Evidence	
--	--	--	--	--		
supplementary information:						
(see appended table 1.5.1)						

5.2	TABLE: electric strength tests, impulse tests and voltage surge tests			Pass
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No	
Lamp Socket - Chassis (#1)	DC	1410	No	
Functional:				
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No	
--	--	--	--	

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Clause	Requirement + Test	Result - Remark	Verdict

Basic/supplementary:			
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
PRI-GND	DC	2877	No
Reinforced:			
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
PRI-SEC	DC	4243	No
supplementary information:			
(#1) Model NP-P350W was tested at voltage equal to 150% of the peak working voltage per 2.10.3.5. Also, Test point of 4243Vdc Electric Strength Test, according to Cl. 5.2 was included this point.			

5.3	TABLE: fault condition tests					Pass
	ambient temperature (°C)				See below.	—
	Power source for EUT: Manufacturer, model/type, output rating				--	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
<Abnormal Operation Test>	--	--	--	--	--	Model NP-M300XS was tested in Eco, Tma 26°C, Fan setting 0°C (worst model in heating test)
Unit	All ventilation blocked	90Vac, 60Hz	2hr20min	F101	10	Unit stopped after 9min. Then unit operated after 10min. Finally unit stopped after 9min. Maximum temperature of Transformer (T102) coil and Thermal protector. Transformer (T102) coil: 113°C Thermal protector: 156°C Ambient: 25°C Input: 2.65A -> 0.45A -> 0.03ANB, NC, NT
Unit	LCD Fan 1 (Front) Disconnected.	90Vac, 60Hz	3hr21min	F101	10	Unit stopped immediately. Maximum temperature of Transformer (T102) coil and Thermal protector. Transformer (T102) coil: 86°C Thermal protector: 40°C Ambient:

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Clause	Requirement + Test			Result - Remark		Verdict
						23°C Input: 0.39ANB, NC, NT
Unit	LCD Fan 2 (Rear) Disconnected.	90Vac, 60Hz	1hr37min	F101	10	Unit was operated. But lamp did not turn on. Maximum temperature of Transformer (T102) coil and Thermal protector. Transformer (T102) coil: 36°C Thermal protector: 25°C Ambient: 25°C Input: 0.56ANB, NC, NT
Unit	Lamp Fan Disconnected.	90Vac, 60Hz	3hr7min	F101	10	Unit stopped immediately. Maximum temperature of Transformer (T102) coil and Thermal protector. Transformer (T102) coil: 86°C Thermal protector: 41°C Ambient: 24°C Input: 0.39ANB, NC, NT
Unit	Exhaust Fan Disconnected.	90Vac, 60Hz	1hr38min	F101	10	Unit was operated. But lamp did not turn on. Maximum temperature of Transformer (T102) coil and Thermal protector. Transformer (T102) coil: 41°C Thermal protector: 25°C Ambient: 24°C Input: 0.54ANB, NC, NT
Unit	Ballast Fan Disconnected.	90Vac, 60Hz	1hr14min	F101	10	Unit was operated. But lamp did not turn on. Maximum temperature of Transformer (T102) coil and Thermal protector. Transformer (T102) coil: 36°C Thermal protector: 25°C Ambient: 24°C Input: 0.57ANB, NC, NT
Iris motor (stepper), Nidec Copal Corporation, Type LPF10-085	Continuous energized (1pin-2pin)	5.0 Vdc	2hrs. 20min.	--	--	The iris motor was tested on bench. Temperature stabilized. Measured Temp. : Motor body: 89°C Ambient: 22°C NT, NC
<Lamp Rupture>	--	--	--	--	--	--
Unit	Lamp Rupture	100Vac, 60Hz	--	--	--	Model NP-P350W was tested. No glass particles

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Clause	Requirement + Test			Result - Remark		Verdict
						other than dust were emitted from the apparatus. Test was conducted three times.
<Transformer Abnormal Operation Test>	--	--	--	--	--	Model NP-M300XS was tested in Eco, Tma 26°C, Fan setting 0°C (worst model in heating test)
Power Supply: T102	Pin 8 - pin 12 overload (Tested after ICP201 to C205 (-))	90 V ac / 60Hz	4hr40min	F101	10	Approximately 30 seconds later since load adjusted to 2.30A load. Component damaged and 17.5V output stopped. IP: ICP201, CD: D201 Input: 3.29A=>2.63A T102 Pri. side coil: 119°C T102 Sec. side coil: 108°C T102 Core coil: 93°C Ambient: 25°C NC, NT, NB
Power Supply: T102	T102 pin 8 - pin 12 Short	90 V ac / 60Hz	1hr	F101	10	Unit stopped immediately. Maximum temperature of T102 coil, core and Heatsink of F201. T102 coil: 110°C (110°C) T102 core: 100°C (100°C) Heatsink of F201: 65°C (65°C) Ambient: 26°C (26°C) Input: 0.28A No component damaged. NB, NC
T102	T102 pin 9 - pin 12 Short	90 V ac / 60Hz	1hr	F101	10	Unit stopped immediately. Maximum temperature of T102 coil, core and Heatsink of F201. T102 coil: 114°C (116°C) T102 core: 103°C (105°C) Heatsink of F201: 65°C (67°C) Ambient: 24°C (26°C) Input: 0.24A No component damaged. NB, NC
Power Supply: T102	T102 pin 13 - pin 12 Short	90 V ac / 60Hz	1hr	F101	10	Unit stopped immediately. Maximum temperature of T102 coil, core and Heatsink of F201. T102 coil: 115°C (117°C) T102 core: 103°C

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Clause	Requirement + Test			Result - Remark		Verdict
						(105°C)Heatsink of F201: 72°C (74°C)Ambient: 24°C (26°C)Input: 0.32ANo component damaged.NB, NC
Power Supply: T102	T102 pin 14 - pin12 Short	90 V ac / 60Hz	1hr30min	F101	10	Unit stopped immediately.Maximum temperature of T102 coil, core and Heatsink of F201.T102 coil: 156°C (157°C)T102 core: 138°C (139°C)Heatsink of F201: 95°C (96°C)Ambient: 25°C (26°C)Input: 0.55ANo component damaged.NB, NC
<Power Supply Output Overload/Short-circuit Test>	--	--	--	--	--	Model NP-M300XS was tested in Eco, Tma 26°C, Fan setting 0°C (worst model in heating test)
Power Supply: 4.2 V outputs	CN201 pin1-3 - pin4-6 Overload	90 V ac / 60Hz	5hr52min	F101	10	CT: 7.5A, 3.88V load.When load adjusted to 8.0A, unit stopped after 4min.Maximum temperature of T102 coil, core and Heatsink of F201.T102 coil: 110°C (111°C)T102 core: 98°C (99°C)Heatsink of F201: 120°C (121°C)Ambient: 25°C (26°C)Input: 3.30A -> 0.03ACD: F201NB, NC
Power Supply: 6.2 V outputs	CN201 pin7 - pin4-6 Overload	90 V ac / 60Hz	3hr35min	F101	10	CT: 6.0A, 5.94V load.When load adjusted to 6.5A, unit stopped after4min.Maximum temperature of T102 coil, core and Heatsink of F201.T102 coil: 114°C (116°C)T102 core: 94°C (96°C)Heatsink of F201: 117°C (119°C)Ambient: 24°C (26°C)Input: 3.28A -> 0.03ACD: F201NB, NC
Power Supply: 15.0 V	CN201 pin11,12 - pin4-6 Overload	90 V ac / 60Hz	3hr40min	F101	10	CT: 3.0A, 15.02V load.When load adjusted to 3.5A, unit stopped after

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Clause	Requirement + Test			Result - Remark		Verdict
outputs						17min.Maximum temperature of T102 coil, core and Heatsink of F201.T102 coil: 144°C (144°C)T102 core: 140°C (140°C)Heatsink of F201: 116°C (116°C)Ambient: 26°C (26°C)Input: 3.46A -> 0.03ACD: F201NB, NC
Power Supply: 4.2 V outputs	CN201 pin1-3 - pin4-6 short	90 V ac / 60Hz	1hr	F101	10	Unit stopped immediately.Maximum temperature of T102 coil, core and Heatsink of F201.T102 coil: 51°C (52°C)T102 core: 48°C (49°C)Heatsink of F201: 59°C (60°C)Ambient: 25°C (26°C)Input: 0.03ANo component damaged.NB, NC
Power Supply: 6.2 V outputs	CN201 pin7 - pin4-6 short	90 V ac / 60Hz	1hr	F101	10	Unit stopped immediately.Maximum temperature of T102 coil, core and Heatsink of F201.T102 coil: 92°C (93°C)T102 core: 83°C (84°C)Heatsink of F201: 96°C (97°C)Ambient: 25°C (26°C)Input: 0.19ANo component damaged.NB, NC
Power Supply: 15.0 V outputs	CN201 pin11,12 - pin4-6 short	90 V ac / 60Hz	1hr	F101	10	Unit stopped immediately.Maximum temperature of T102 coil, core and Heatsink of F201.T102 coil: 66°C (67°C)T102 core: 66°C (67°C)Heatsink of F201: 57°C (58°C)Ambient: 25°C (26°C)Input: 0.03ANo component damaged.NB, NC
Power Supply: 17.5 V outputs	CN201 pin15 - pin4-6 short	90 V ac / 60Hz	1hr56min	F101	10	Input: 2.72A=>0.27AProjection and Fan Stopped immediately. CD: ICP201 Stabilized Temperature was as below.T102 Pri. side coil: 56°C T102 Sec. side coil:

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Clause	Requirement + Test	Result - Remark	Verdict

						54°C Core coil: 54°C Ambient: 25°C NC, NT, NB
<Locked-Rotor Overload Test for DC Motors in Secondary Circuits>	--	--	--	--	--	--
LCD Fan 1 (Front), Toshiba Home Technology Corp., type SF8028H1 2-59A (LCD Fan 2 (Rear), Toshiba Home Technology Corp., type SF8028H1 2-60A is identical to type SF8028H1 2-59A)	Locked rotor	12 Vdc	7 hours	--	--	Temperature stabilized. Maximum temperature of motor body was 55°C at ambient 25°C. NC, NT.
Lamp Fan, Toshiba Home Technology Corporation, Type SF6023CL H12-52E	Locked rotor	12 Vdc	7 hours	--	--	Temperature stabilized. Maximum temperature of motor body was 38°C at ambient 25°C. NC, NT.
Exhaust Fan, Minebea Motor Manufacturing Corporation, Type 3110EL-04W-M49	Locked rotor	12 Vdc	7 hours	--	--	Temperature stabilized. Maximum temperature of motor body was 35°C at ambient 25°C. NC, NT.
Ballast Fan,	Locked Rotor	12Vdc	7 hr	--	--	Maximum temperature of

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Clause	Requirement + Test				Result - Remark	

Minebea Motor Mfg. Corp., type, 2404KL-04W-B39						motor body: 37°C at 24 °C ambient. NC, NT
<SELV Reliability Test>	--	--	--	--	--	--
Power Supply model 3N10157: +4.2Voutpu t	IC201 Anode - Gate Short	240Vac60Hz	--	F101	10	12.4Vpeak
Power Supply model 3N10157: +15.0Voutp ut	IC201 Anode - Gate Short	240Vac60Hz	--	F101	10	41.2Vpeak
Power Supply model 3N10157: +17.5Voutp ut	IC201 Anode - Gate Short	240Vac60Hz	--	F101	10	40.8Vpeak
Power Supply model 3N10157: +4.2Voutpu t	D204 Short	240Vac60Hz	--	F101	10	4.72Vdc(MAX)
Power Supply model 3N10157: +15.0Voutp ut	D204 Short	240Vac60Hz	--	F101	10	40.0Vpeak
Power Supply model 3N10157: +17.5Voutp ut	D204 Short	240Vac60Hz	--	F101	10	34.0Vpeak
Power Supply model 3N10157: +6.2Voutpu	D203 Short	240Vac60Hz	--	F101	10	7.0Vdc (max)

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Clause	Requirement + Test	Result - Remark	Verdict

t						
Power Supply model 3N10157: +15.0Voutput	D203 Short	240Vac60Hz	--	F101	10	39.6Vdc
Power Supply model 3N10157: +17.5Voutput	D203 Short	240Vac60Hz	--	F101	10	28.0Vdc
Power Supply model 3N10157: +15.0Voutput	D202 Short	240Vac60Hz	--	F101	10	19.2Vdc(max)
Power Supply model 3N10157: +17.5Voutput	D202 Short	240Vac60Hz	--	F101	10	19.2Vdc(max)
Power Supply model 3N10157: +15.0Voutput	D201 Short	240Vac60Hz	--	F101	10	19.2Vdc(max)
Power Supply model 3N10157: +17.5Voutput	D201 Short	240Vac60Hz	--	F101	10	20.0Vdc(max)
<Component Failure Test>	--	--	--	--	--	--
Power Supply model 3N10157: D101	(+) - (~) (TH101 side) Short	264Vac60Hz	<1sec.	F101	10	IP: F101, CD: D101. NC, NT, NB
Power Supply model 3N10157:	(A) - (K) Short	264Vac60Hz	<1sec.	F101	10	IP: F101, CD: D103. NC, NT, NB

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Clause	Requirement + Test	Result - Remark	Verdict

D102						
Power Supply model 3N10157: D110	(A) - (K) Short	264Vac60Hz	15min.	F101	10	Unit operated normally, but component damaged. Input: 93.7mA=>93.7mACD: Q101 or Q102. NC, NT, NB. Tested 3 times at same result.
Power Supply model 3N10157: Q102	(D) - (S) Short	264Vac60Hz	<1sec.	F101	10	IP: F101. NC, NT, NB
Power Supply model 3N10157: Q102	(G) - (S) Short	264Vac60Hz	30min.	F101	10	Unit operated normally. Input: 93.6mA=>93.6mA. NC, NT, NB
Power Supply model 3N10157: C113	Short	264Vac60Hz	<1sec.	F101	10	IP: F101, CD: D110. NC, NT, NB
Power Supply model 3N10157: C113	(+) side Open	264Vac60Hz	30min.	F101	10	Operated normally. Input: 0.48A. NB, NC, NT.
Power Supply model 3N10157: C113	(+) side Open	90Vac60Hz	30min.	F101	10	Operated normally. Input: 0.82A. NB, NC, NT. Test condition A
Power Supply model 3N10157: Q103	(D) - (S) Short	264Vac60Hz	<1sec.	F101	10	IP: F102. NB, NC, NT
Power Supply model 3N10157: Q103	(G) - (S) Short	264Vac60Hz	30min.	F101	10	Unit shutdown immediately. Input: 95.1mA=>95.1mA. NC, NT, NB
Power Supply model 3N10157: Q103	(D) - (G) Short	264Vac60Hz	<1sec.	F101	10	IP: F102, CD: ZD104. Input: 93.2mA. NB, NC, NT
Power Supply	Pin 1 - Pin 8 Short	264Vac60Hz	<1sec.	F101	10	All outputs stopped immediately. Input: 94.0mA.

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Clause	Requirement + Test	Result - Remark	Verdict

model 3N10157: IC102						IP: F102CD: Q103, Q105, IC101, ZD107, ZD106, IC102, R146. NB, NC, NT
Power Supply model 3N10157: IC102	Pin 2 - Pin 8 Short	264Vac60Hz	First15min Second15 minThird15 min	F101	10	First:All outputs stopped immediately. Input: 94.0mA. CD: ZD107, R146, PC201, J7. NB, NC, NTSecond: All outputs stopped immediately. Input: 94.0mA. CD: ZD107, R146, PC201, J7. NB, NC, NTThird: All outputs stopped immediately. Input: 94.0mA. CD: ZD107, R146, PC201, J7. NB, NC, NT
Power Supply model 3N10157: D117	(A) - (K) Short	264Vac60Hz	15min.	F101	10	Output shutdown immediately. No component damaged.Input: 94.0mA. NC, NT, NB
Power Supply model 3N10157: C130	Short	264Vac60Hz	15min.	F101	10	Output shutdown immediately. No component damaged. Input: 94.0mA. NC, NT, NB
Power Supply model 3N10157: PC201	(E) - (C) Short	264Vac60Hz	15min.	F101	10	Unit shutdown immediately. Input: 93.3mA=>93.3mA. NC, NT, NB
Power Supply model 3N10157: PC201	(A) - (K) Short	264Vac60Hz	15min.	F101	10	Unit shutdown immediately. Input: 93.3mA=>93.3mA. NC, NT, NB
Power Supply model 3N10157: PC202	(E) - (C) Short	264Vac60Hz	15min.	F101	10	Unit shutdown immediately. Input: 93.3mA=>93.3mA. NC, NT, NB
Power Supply model 3N10157: PC202	(A) - (K) Short	264Vac60Hz	15min.	F101	10	Unit operated normally.Input: 93.5mA => 93.5mA. NC, NT, NB
Power Supply model 3N10157:	(E) - (C) Short	264Vac60Hz	15min.	F101	10	Unit operated normally. Input: 94.7mA => 94.7mA. NC, NT, NB

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Clause	Requirement + Test			Result - Remark		Verdict
PC203						
Power Supply model 3N10157: PC203	(A) - (K) Short	264Vac60Hz	15min.	F101	10	Unit operated normally. Input: 94.0mA => 94.0mA. NC, NT, NB
--	--	--	--	--	--	--
Power Supply model 3N10149: Q101	(D) - (S) Short	264Vac60Hz	<1sec.	F101	8.0	IP: F101, CD: TH101. NB, NC, NT
Power Supply model 3N10149: Q101	(G) - (S) Short	264Vac60Hz	30min.	F101	8.0	Operated normally. NB, NC, NT
Power Supply model 3N10149: D110	(A) - (K) Short	264Vac60Hz	15min.	F101	8.0	Unit operated normally, but component damaged. Input: 93.7mA=>93.7mACD: Q101. NC, NT, NB. Tested 3 times at same result.
supplementary information	--	--	--	--	--	Skygate Co., Ltd., Type SG5013P-R was used for Fuse (F102). Pre-arcing time of Type SG5013P-R was longer than pre-arcing time of Conquer Electronics Co., Ltd., Type UDA-A. Results Key: IP = Internal protection operated (component indicated) CT = Constant temperatures were obtained CD = Components damaged (damaged components indicated) NB = No indication of dielectric breakdown NC = Cheesecloth remained intact NT = Tissue paper remained intact
supplementary information:						

Enclosure
National Differences

China*
Germany
Group
Japan*
Korea
Singapore*

* No National Differences Declared

** Only Group Differences

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SubClause	Difference + Test	Result - Remark	Verdict

Germany - Differences to IEC 60950-1:2005 (Second Edition)			
1.7.2.1	If for the assurance of safety and health certain rules during use, amending or maintenance of a technical labour equipment or readymade consumer product are to be followed, a manual in German language has to be delivered when placing the product on the market. Of this requirement, rules for use even only by SERVICE PERSONS are not exempted.	See enclosure id 7-02 for manufacturer's letter.	Pass

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

Group - Differences to IEC 60950-1:2005 (Second Edition)			
1.3.Z1	Exposure to excessive sound pressure - The apparatus shall be so designed and constructed as to present no danger when used for its intended purpose, either in normal operating conditions or under fault conditions, particularly providing protection against exposure to excessive sound pressures from headphones or earphones. NOTE Z1 A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 1: General method for "one package equipment", and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 2: Guidelines to associate sets with headphones coming from different manufacturers.		N/A
1.5.1	Add the following NOTE Z1: The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC	See enclosure id 7-05 for manufacturer's letter.	Pass
1.7.2.1	Add the following NOTE Z1: In addition, the instructions shall include, as far as applicable, a warning that excessive sound pressure from earphones and headphones can cause hearing loss.		N/A
2.7.1	Replace the subclause as follows: Basic requirements To protect against excessive current, short-circuits and earth faults in primary circuits, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 5.3 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for pluggable equipment type B or permanently connected equipment. to rely on	Fuse (F101) is provided in the equipment.	Pass

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for pluggable equipment type A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.		
2.7.2	Void	Considered.	N/A
3.2.3	Delete the NOTE and conduit sizes in parentheses in Table 3A		N/A
3.2.5.1	Replace: "60245 IEC 53" by "H05 RR-F" "60227 IEC 52" by "H03 VV-F or H03 VVH2-F" "60227 IEC 53" by "H05 VV-F or H05 VVH2-F" In table 3B, replace the first four lines by the following: Up to and including 6 0.75 a) Over 6 up to and including 10 0.75 b) 1.0 Over 10 up to and including 16 1.0 c) 1.5 In the conditions applicable to table 3B, delete the words "in some countries" in condition a). In Note 1, applicable Table 3B, to delete the second sentence.		Pass
3.3.4	In table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: "Over 10 up to and including 16 1.5 to 2.5 1.5 to by 4" Delete the fifth line: conductor sizes for 13 to 16A.		N/A
4.3.13.6	Add the following NOTE Z1: Attention is drawn to 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz. Standards taking into account this Recommendation which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.		N/A
H	Replace the last paragraph of this annex by: At any point 10 cm from the surface of the operator access area, the dose rate shall not exceed 1 µSv/h (0,1 mR/h) (see note). Account is taken of the background level.		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

	Replace the notes as follows: NOTE - These values appear in Directive 96/29/Euratom. Delete Note 2.		
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Korea - Differences to IEC 60950-1:2005 (Second Edition)			
1.5.101	Plugs for the connection of the apparatus to the mains supply shall comply with the Korean requirement (KSC 8305)	See enclosure id 7-02 for manufacturer's letter.	Pass
8	EMC - The apparatus shall comply with the relevant CISPR standards	See enclosure id 7-02 for manufacturer's letter.	Pass

Enclosures

Enclosures

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Marking Plate	13-01	Model NP-M260WS (This represents model with suffix. Difference is electric rating only)
Marking Plate	13-02	Model NP-M260XS (This represents model with suffix. Difference is electric rating only)
Marking Plate	13-03	Model NP-M300WS (This represents model with suffix. Difference is electric rating only)
Marking Plate	13-04	Model NP-M300XS (This represents model with suffix. Difference is electric rating only)
Marking Plate	13-05	Model NP-M350XS (This represents model with suffix. Difference is electric rating only)
Marking Plate	13-06	Model NP-M420X (This represents model with suffix. Difference is electric rating only)
Marking Plate	13-07	Model NP-M420XV (This represents model with suffix. Difference is electric rating only)
Marking Plate	13-08	Model NP-P350W (This represents model with suffix. Difference is electric rating only)
Marking Plate	13-09	Model NP-P350X (This represents model with suffix. Difference is electric rating only)
Marking Plate	13-10	Model NP-P420X (This represents model with suffix. Difference is electric rating only)
Photographs	3-01	Top view (Lens Shift model)
Photographs	3-02	Bottom view (Lens Shift model)
Photographs	3-03	Stand-by marking
Photographs	3-04	I/O Connectors
Photographs	3-05	Internal view (Top Cover removed)
Photographs	3-06	Internal view (PWB and Lamp Assembly removed)
Photographs	3-07	Internal view (Location of Ballast Power Supply, Ballast Fan, Exhaust Fan)
Photographs	3-08	Internal view (Lamp Housing removed)
Photographs	3-09	Internal view (Location of Power Supply)
Photographs	3-10	Internal view (Location of LCD Fan 1 (Front), LCD Fan 2 (Rear) Lamp Fan)
Photographs	3-11	Top view (Short Focus model)
Photographs	3-12	Top view (Normal Lens model, Enclosures only)
Photographs	3-13	Close-up View of Caution Marking (ISO 3864, No. 5036)

Enclosures

Photographs	3-14	Bottom view with Ceiling Mount Kit
Photographs	3-15	Remote Controller
Photographs	3-16	Lamp Assembly (Top view)
Photographs	3-17	Lamp Assembly (Bottom view)
Photographs	3-18	Component side of Power Supply, Model 3N10149
Photographs	3-19	Solder side of Power Supply, Model 3N10149
Photographs	3-20	Component side of Power Supply, Model 3N10150
Photographs	3-21	Solder side of Power Supply, Model 3N10150
Photographs	3-22	Component side of Power Supply, Model 3N10157
Photographs	3-23	Solder side of Power Supply, Model 3N10157
Diagrams	4-01	Specification of Transformer (T102), Type PTTX178
Diagrams	4-02	Specification of Inductor (T101), Types CHT169 and CHT170
Diagrams	4-03	Specification of Inductors(L101, L102), Types ADR16H-2R3120SD-N and ADR20H-2R5130T
Diagrams	4-04	Circuit Diagram of Power Supply, 3N10149
Diagrams	4-05	Circuit Diagram of Power Supply, 3N10150
Diagrams	4-06	Circuit Diagram of Power Supply, 3N10157
Diagrams	4-07	Circuit Diagram of Secondary Circuit for LPS
Schematics + PWB	5-01	Pattern trace of Power Supply
Manuals	6-01	User Manual (Lamp Replacement)
Manuals	6-02	User Manual (Battery Replacement)
Manuals	6-03	Service Manual (Ceiling Mount Kit)
Miscellaneous	7-01	Fan speed setting
Miscellaneous	7-02	Letter of Assurance
Miscellaneous	7-03	National Difference for Japan (J60950)
Miscellaneous	7-04	National Difference for Japan (J3000)
Miscellaneous	7-05	RoHS Declaration
Miscellaneous	7-06	Heatsink of Primary Side
Miscellaneous	7-07	Heatsink of Secondary Side
Miscellaneous	7-08	UV from Lamp
Licenses	8-01	X-Capacitor, type LE
Licenses	8-02	Y-Capacitor, type KX
Licenses	8-03	Y-capacitor, type CD
Licenses	8-04	Photocoupler, type PS2561AL-1
Licenses	8-05	Photocoupler, type PC123
Licenses	8-06	Triple Insulated Wire, type TEX-E
Licenses	8-07	Ballast Power Supply, type PHG261A3HD

Issue Date: 2010-11-18

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Enclosures

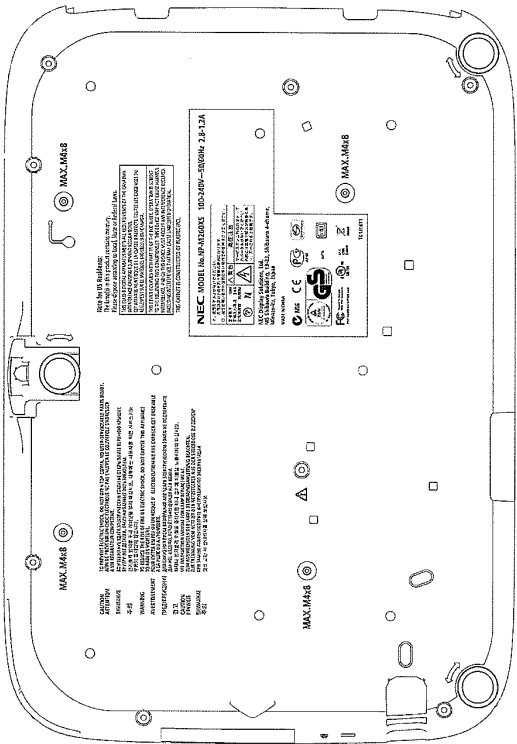
Report Reference #

E209547-A96-CB-1

Licenses	8-08	Ballast Power Supply, type PHG231A8GD and PHG231A8FD
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MarkingPlate ID 13-02

Confidential



品名	型式	規格	標準	試験	検査	承認	備考
NEC Model No. M-4S800	100-100V-50/60Hz 2.0-1.2A	UL 1446	UL 1446	UL 1446	UL 1446	UL 1446	UL 1446
品名	型式	規格	標準	試験	検査	承認	備考
NEC Model No. M-4S800	100-100V-50/60Hz 2.0-1.2A	UL 1446	UL 1446	UL 1446	UL 1446	UL 1446	UL 1446

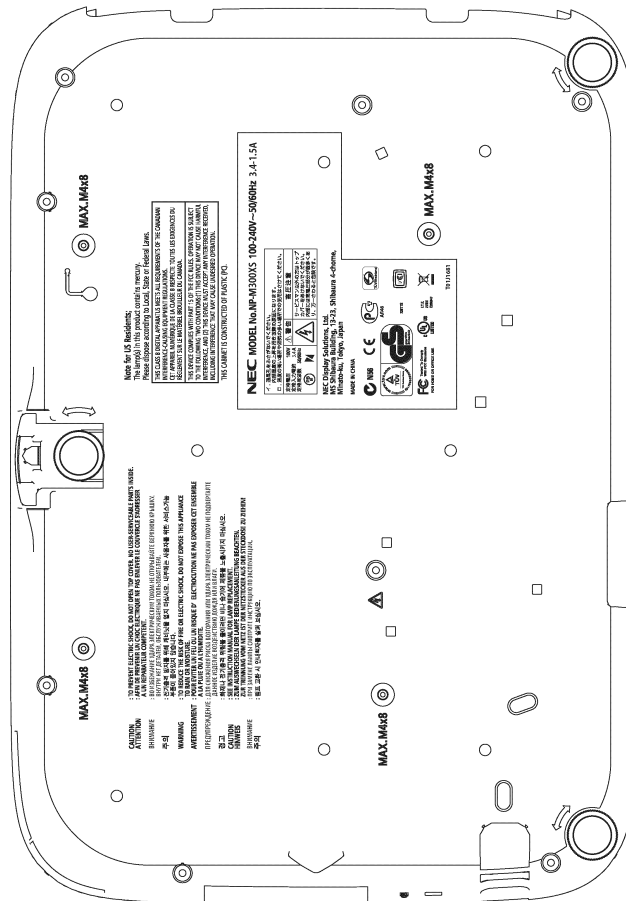
UL Japan, Inc.

NEC Display Solutions Ltd.

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MarkingPlate ID 13-04

Confidential

[illegible]

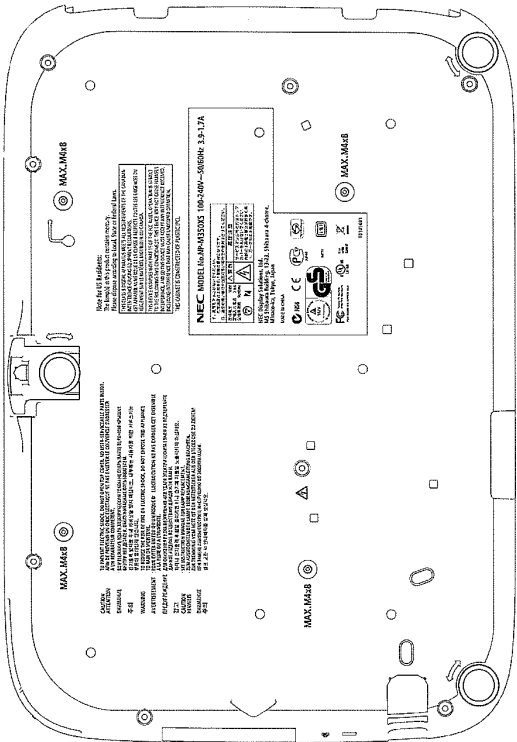
岡本 神坂 小川

28

0123456789

MarkingPlate ID 13-05

Confidential



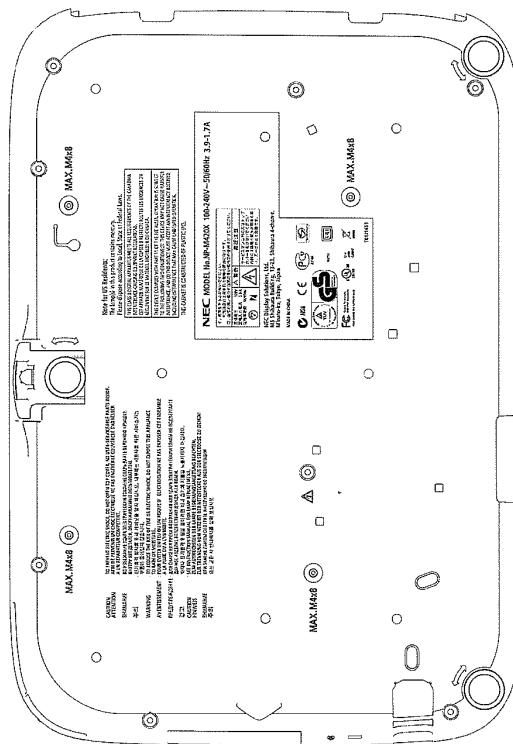
品名	仕様	単位	数量	備考	納入先	納入日	納入場所	納入担当者	納入完了日	納入完了場所	納入完了担当者
MAX.M468	100-1000-100000	個	1		NEC						
MAX.M468	100-1000-100000	個	1		NEC						
MAX.M468	100-1000-100000	個	1		NEC						
MAX.M468	100-1000-100000	個	1		NEC						
MAX.M468	100-1000-100000	個	1		NEC						
MAX.M468	100-1000-100000	個	1		NEC						
MAX.M468	100-1000-100000	個	1		NEC						
MAX.M468	100-1000-100000	個	1		NEC						
MAX.M468	100-1000-100000	個	1		NEC						
MAX.M468	100-1000-100000	個	1		NEC						

図本 仕様 小冊

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MarkingPlate ID 13-06

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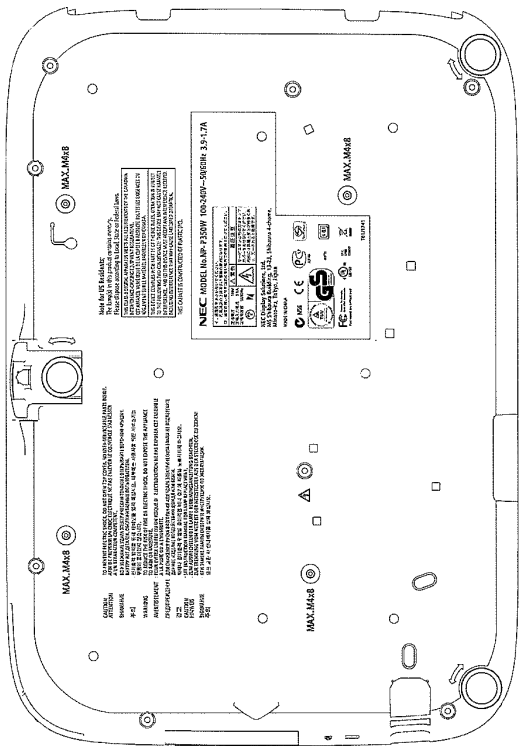
NAME

圖本 395 小川

28

MarkingPlate ID 13-08

Confidential

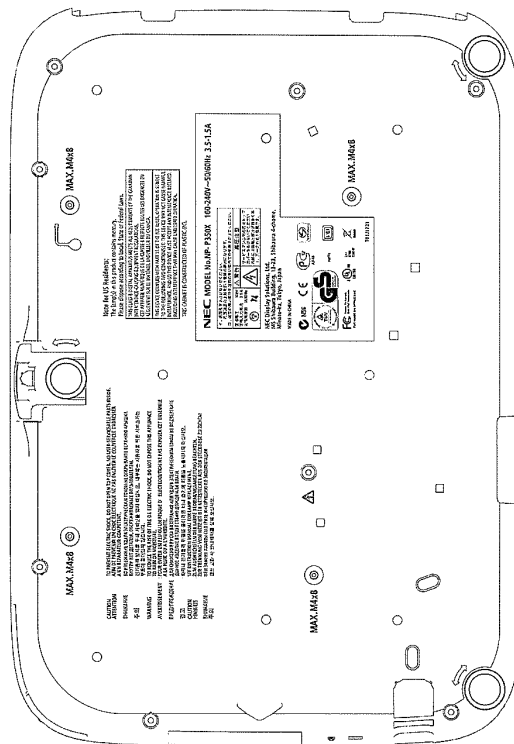


型番	100-240V	品名	NEC Model No. NP-P300H
寸法	100mm x 240mm	重量	約 1.5kg
消費電力	約 1.5W	入力電圧	100-240V
出力電圧	約 1.5V	出力電流	約 1.5A
出力電力	約 1.5W	入力電流	約 1.5A
入力電力	約 1.5W	出力電圧	約 1.5V
出力電流	約 1.5A	出力電力	約 1.5W
入力電流	約 1.5A	入力電力	約 1.5W
入力電圧	約 1.5V	出力電流	約 1.5A
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出力電力	約 1.5W	出力電力	約 1.5W
出力電力	約 1.5W	出力電力	約 1.5W
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出力電力	約 1.5W	出力電力	約 1.5W
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出力電力	約 1.5W	出力電力	約 1.5W
出力電力	約 1.5W	出力電力	約 1.5W
出力電力	約 1.5W	出力電力	約

NEC

NEC Display Solutions Ltd.

MarkingPlate ID 13-09

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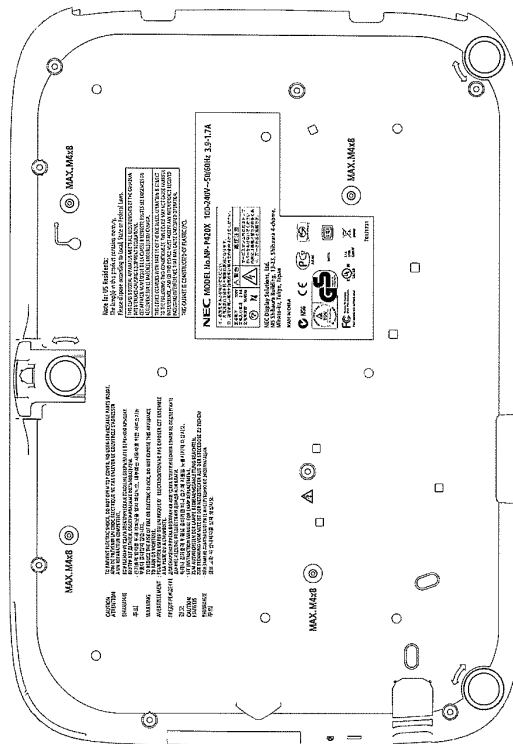
NEC

國本 神坂 小川

26

Enclosures

MarkingPlate ID 13-10



資料	品名	単位	数量	価格	計上
1	鉛筆 4本	個	—	—	—
	品名	単位	数量	価格	計上
	鉛筆 10本	個	—	—	—

備考 1. NY-P420X
2. BOTTOM COVER=42MX
3.
4.
5. 欠品あり □
6. 訂正書 10月13日
NEC Display Solutions Ltd.

Photographs ID 3-01



Photographs ID 3-02



Photographs ID 3-03

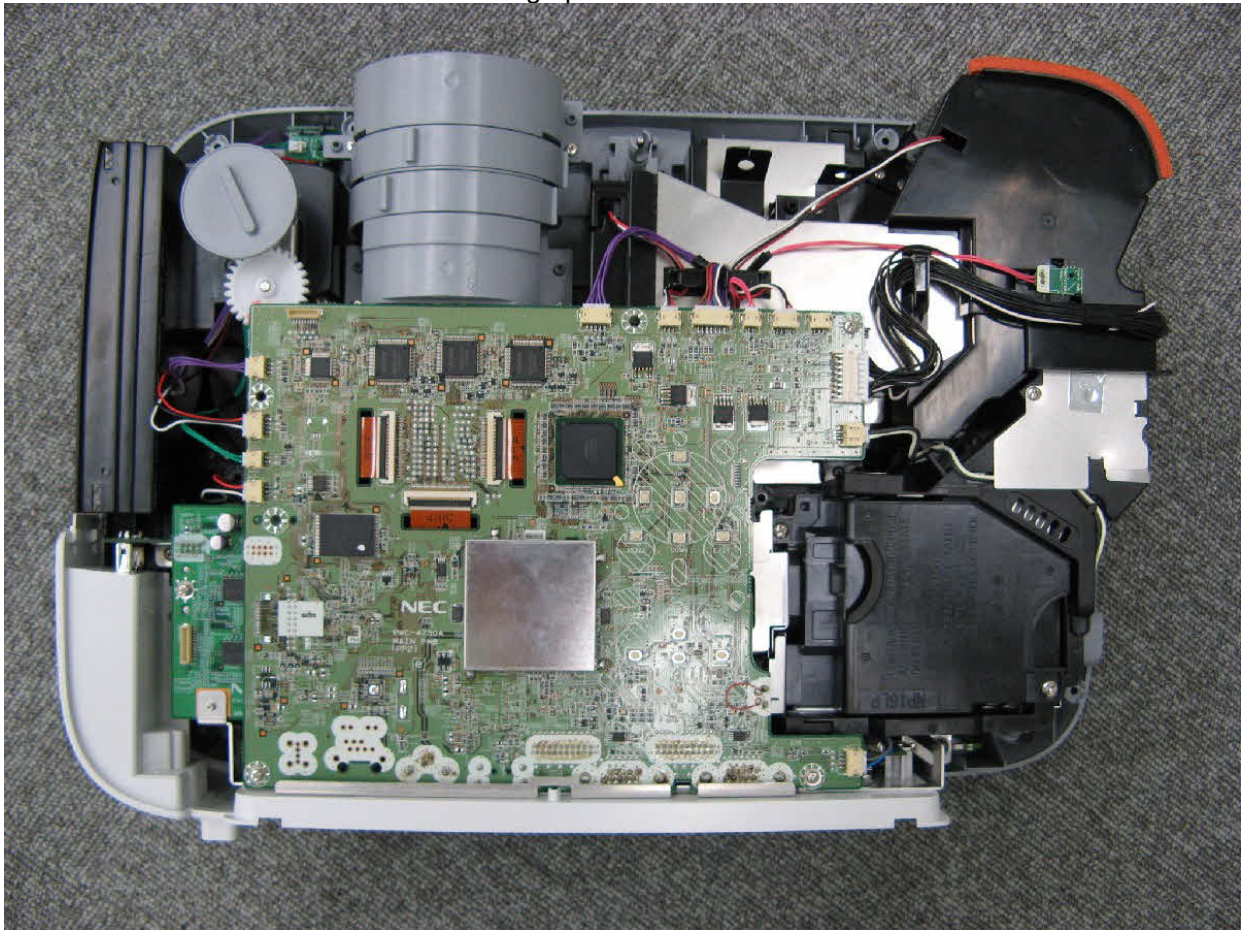


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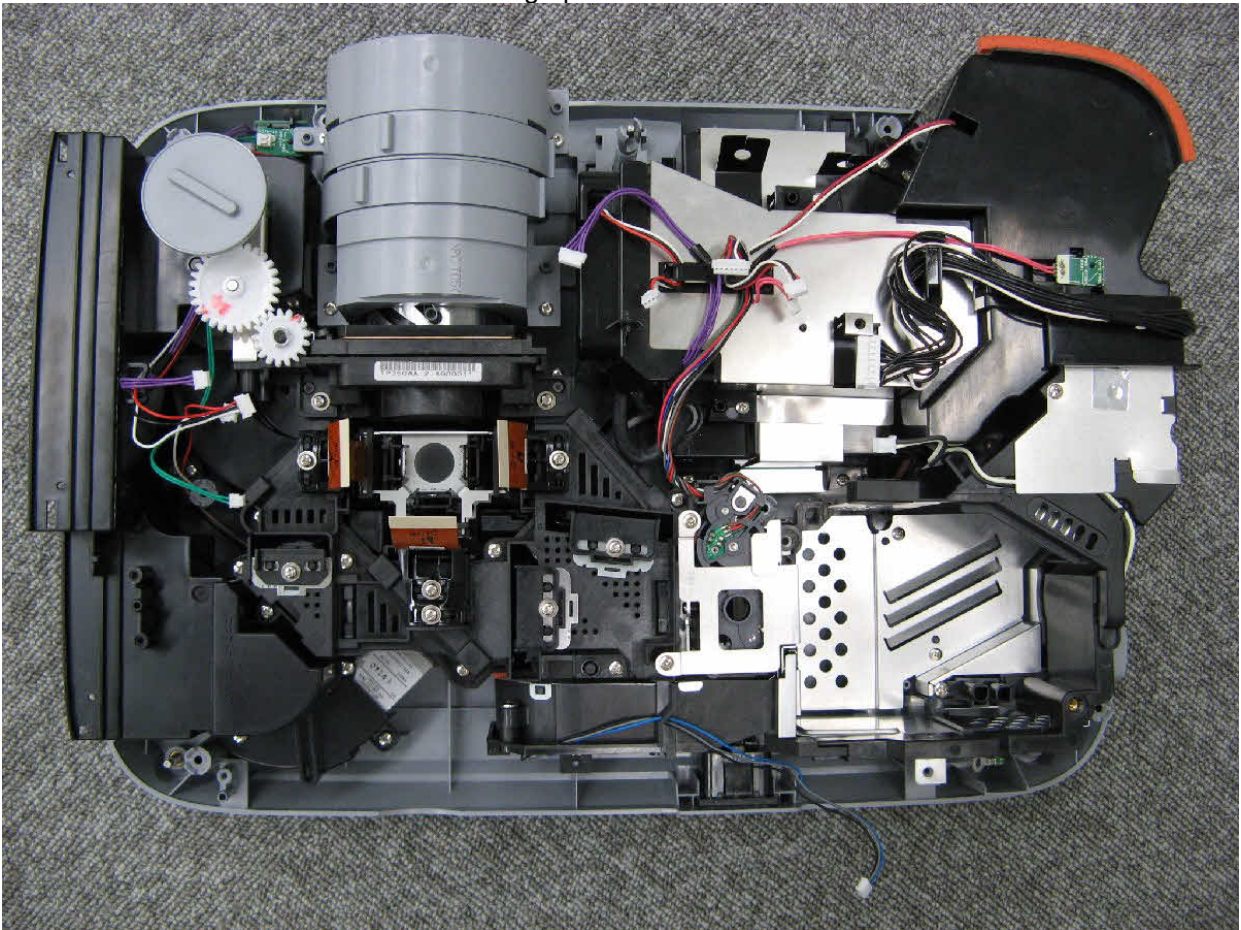


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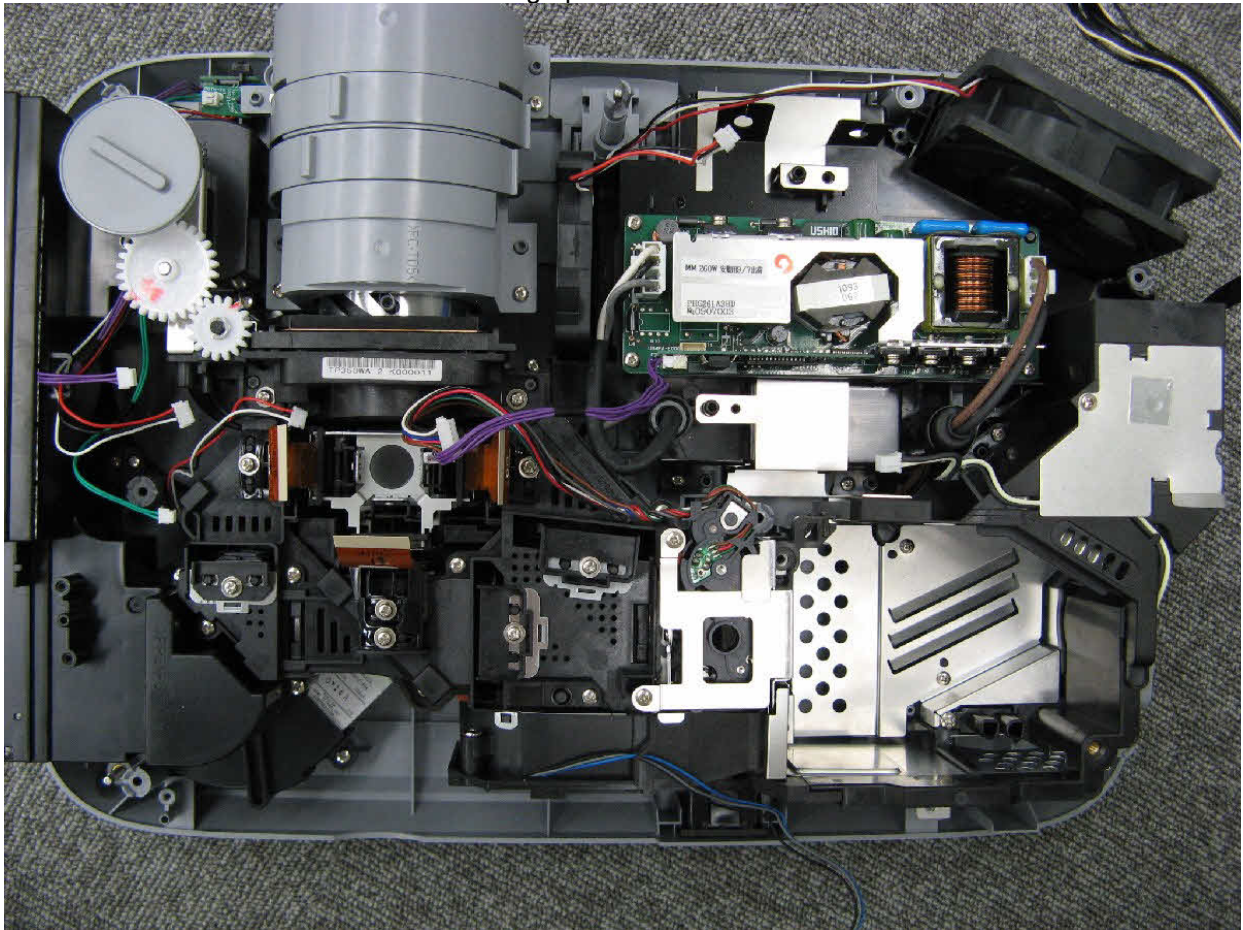
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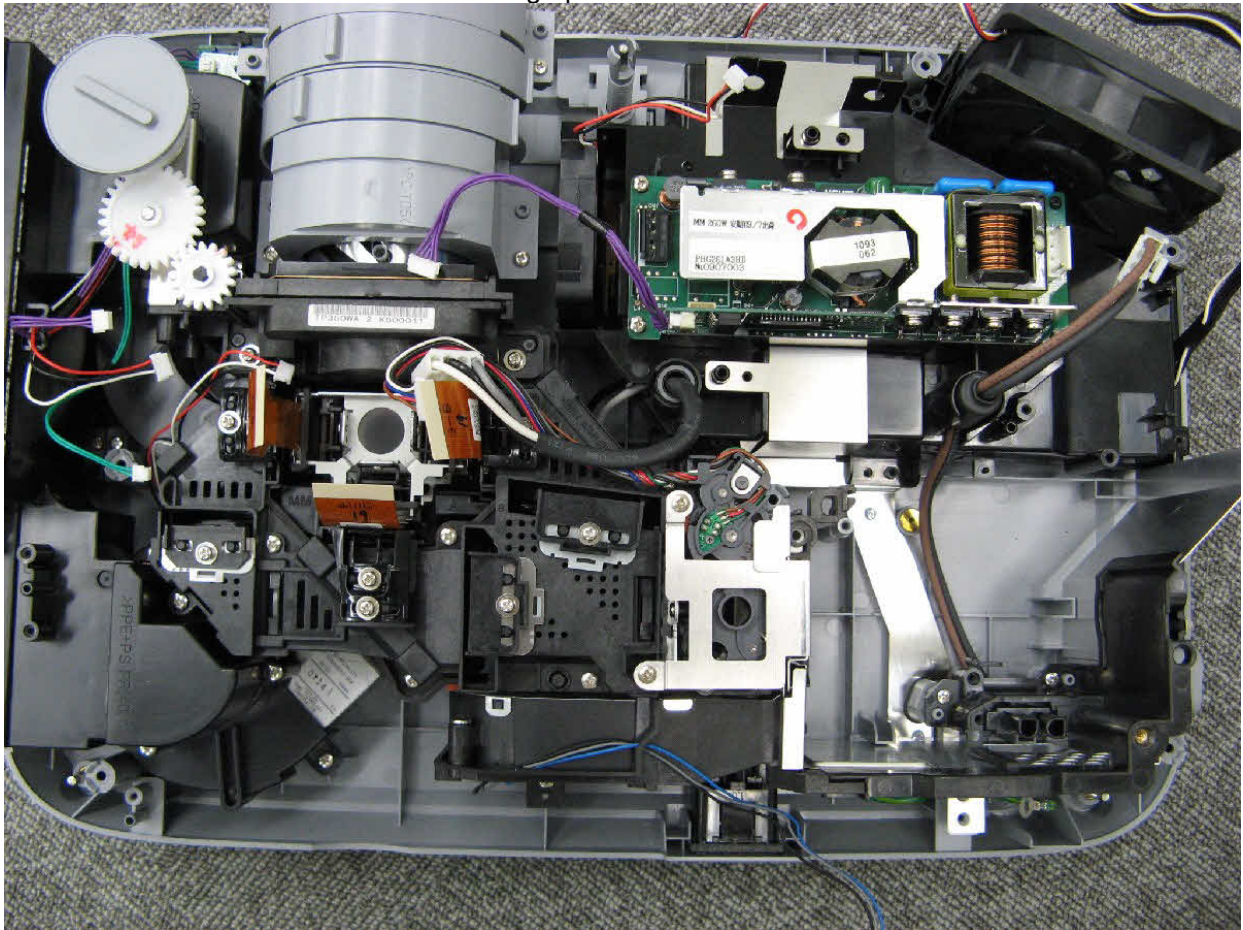
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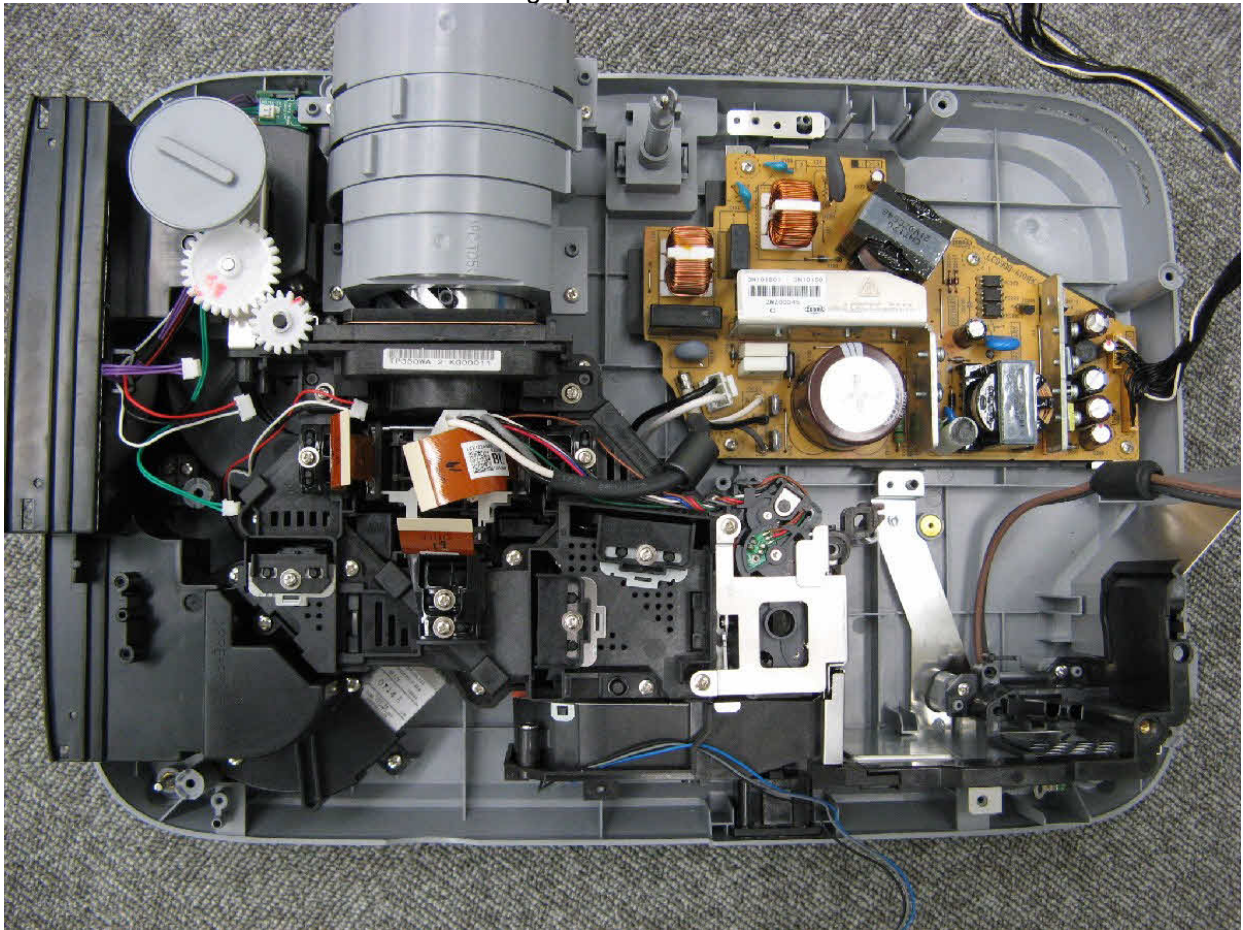
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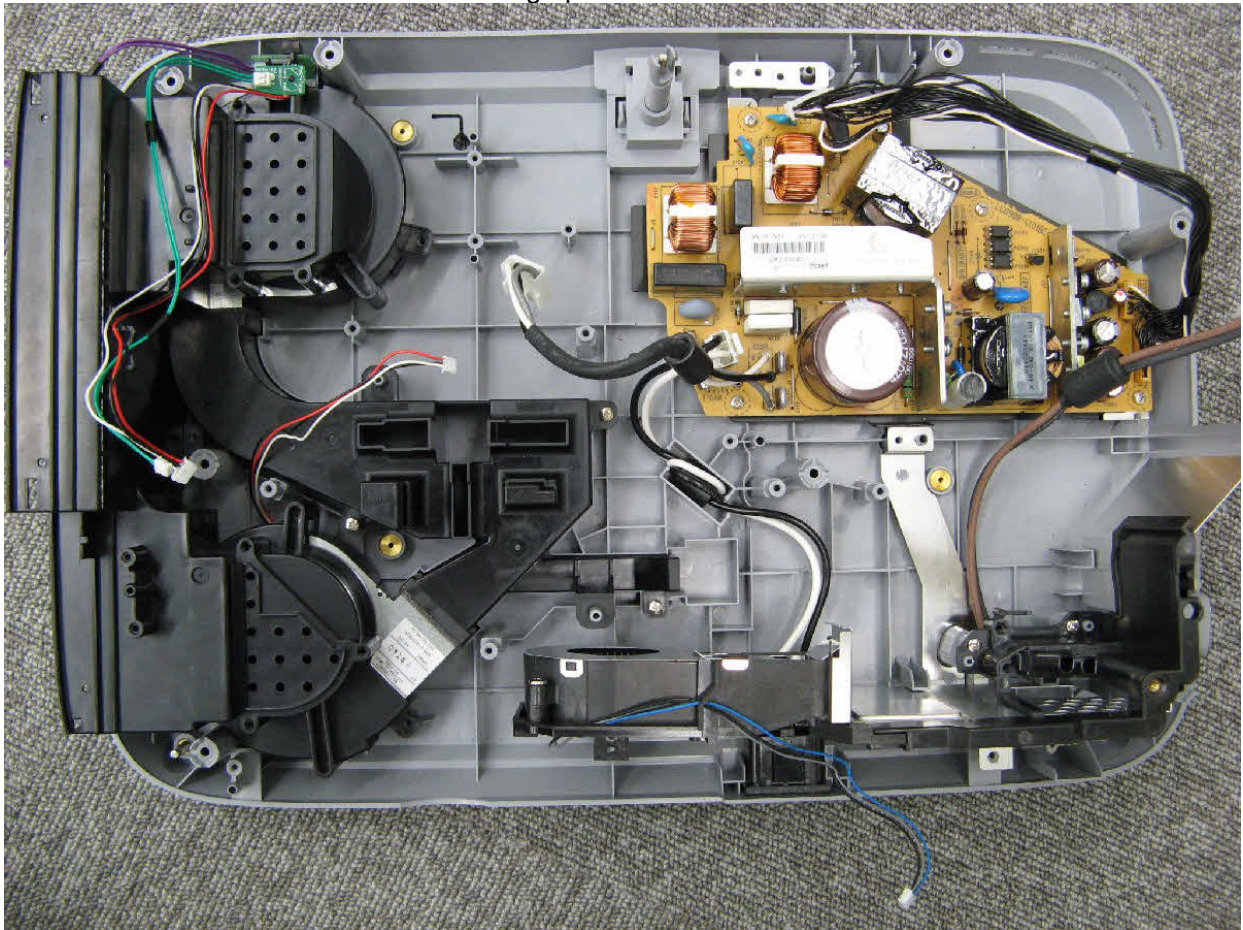
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Photographs ID 3-09



Photographs ID 3-10



Enclosures

Photographs ID 3-11



Photographs ID 3-12



Enclosures

Photographs ID 3-13

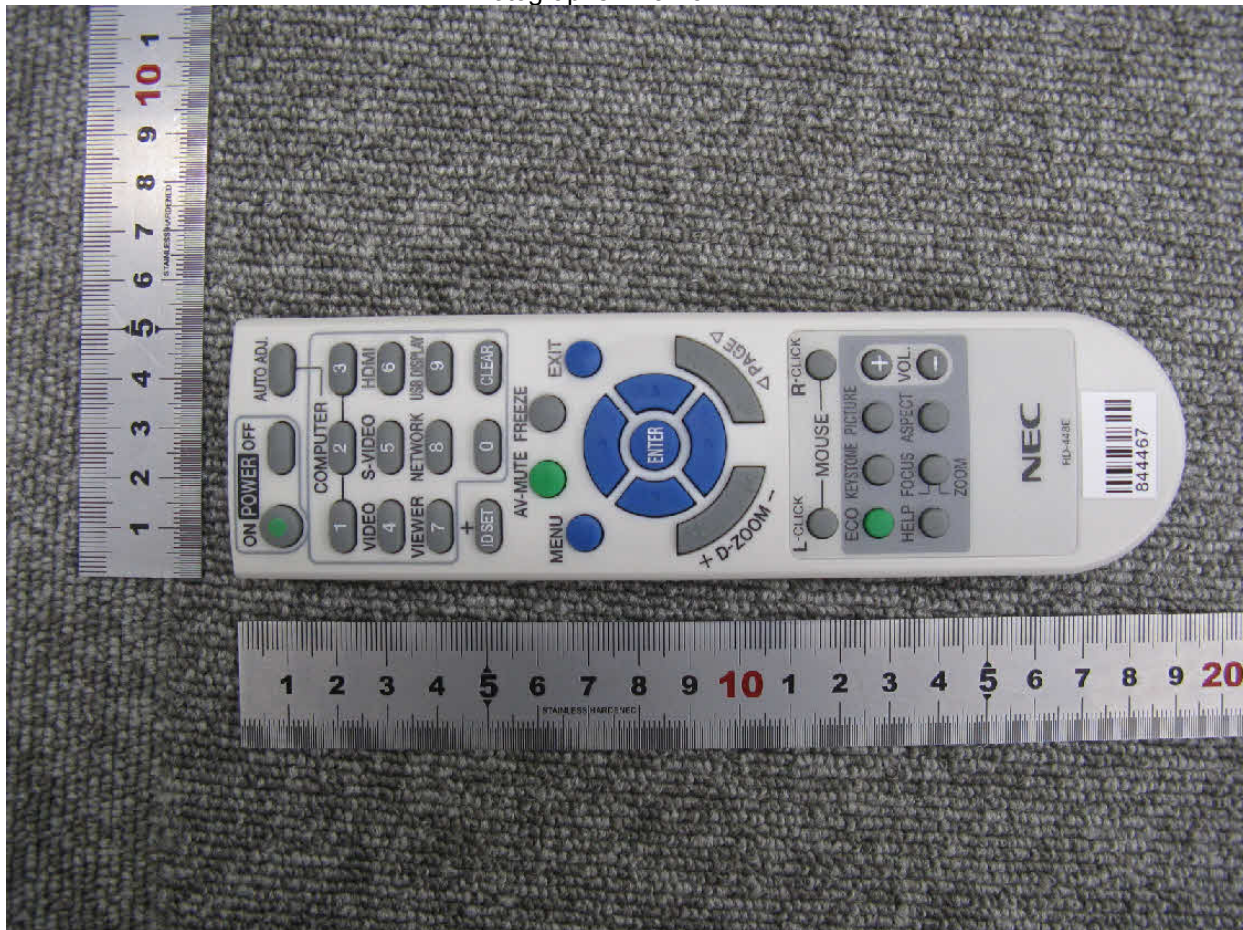


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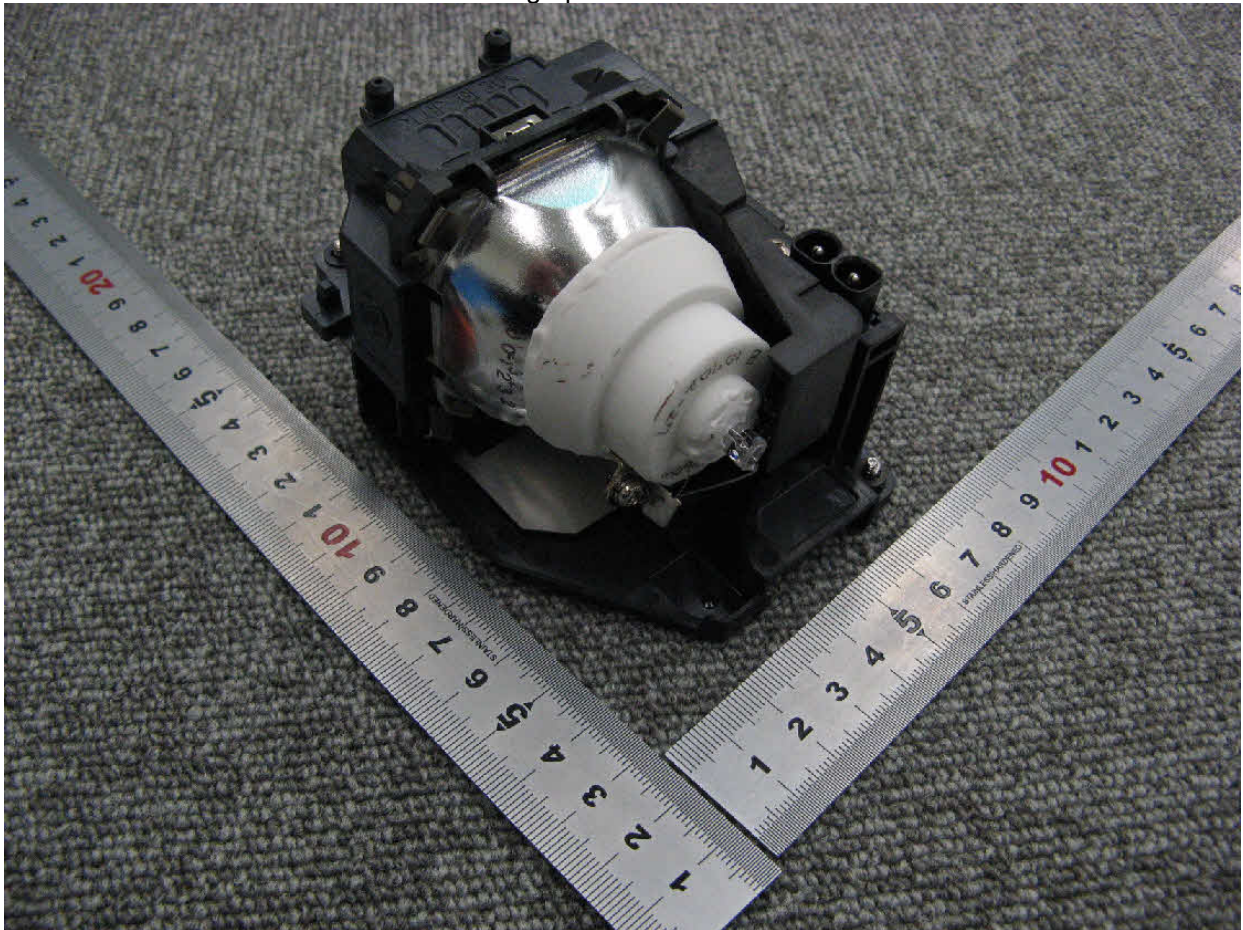
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Photographs ID 3-16

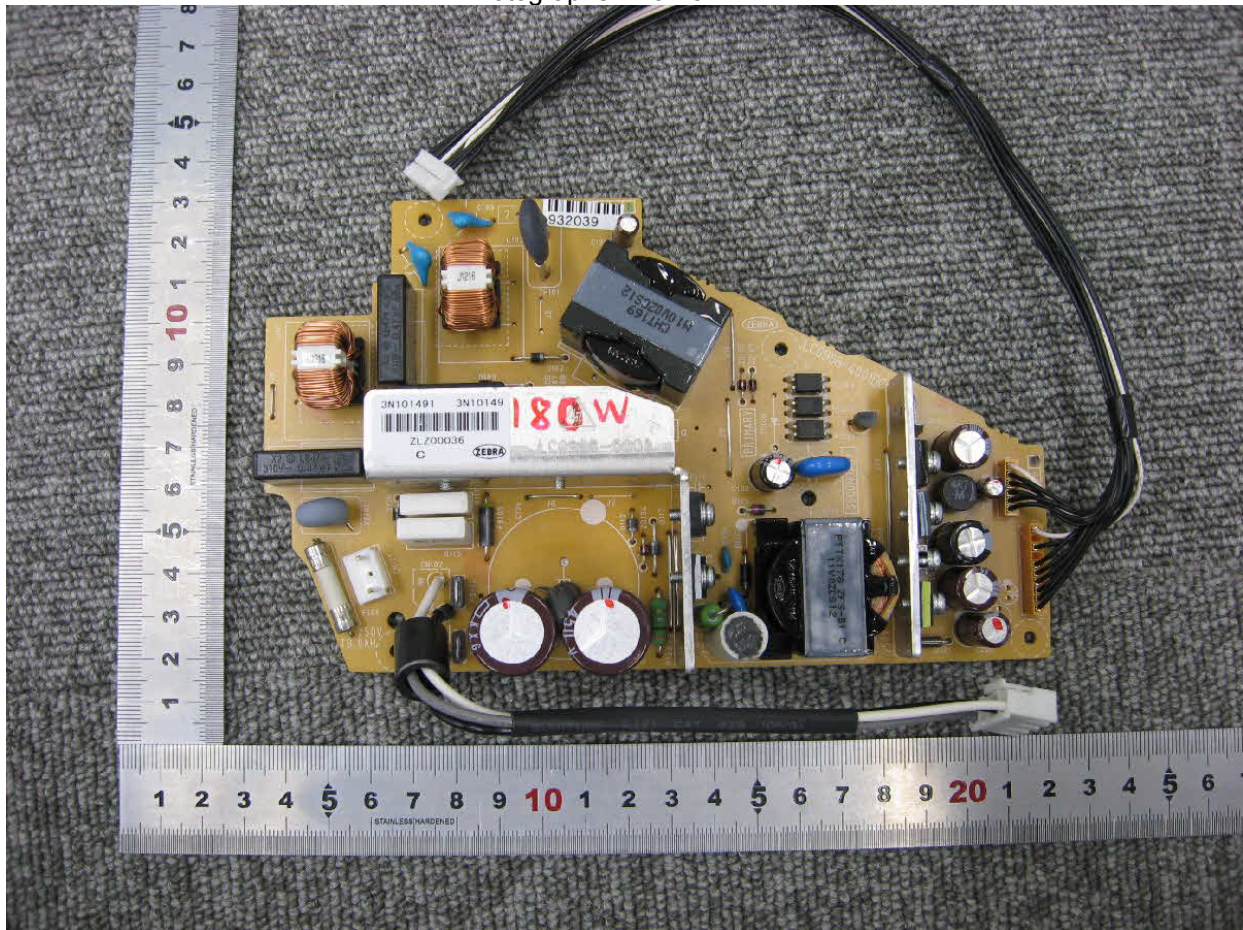


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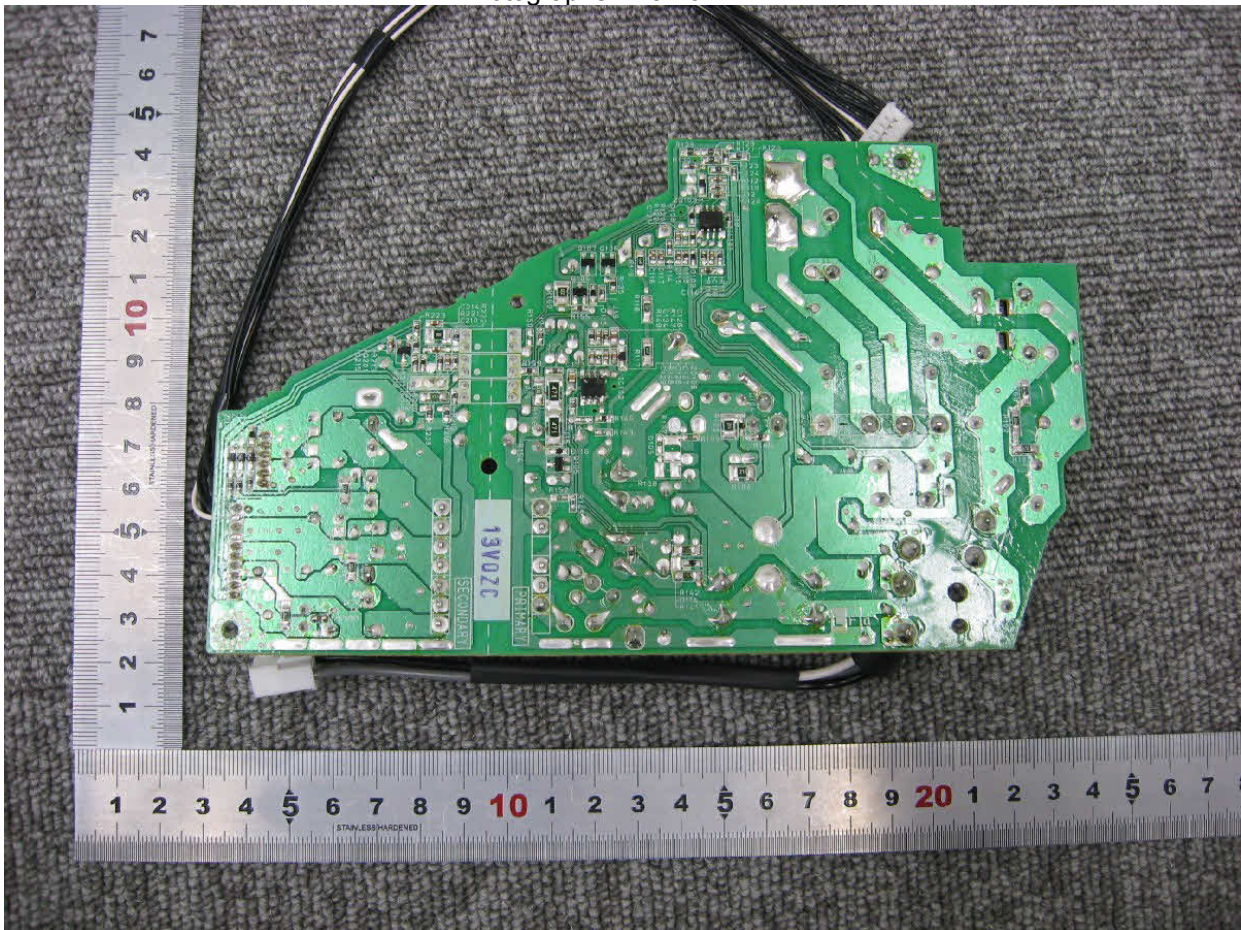
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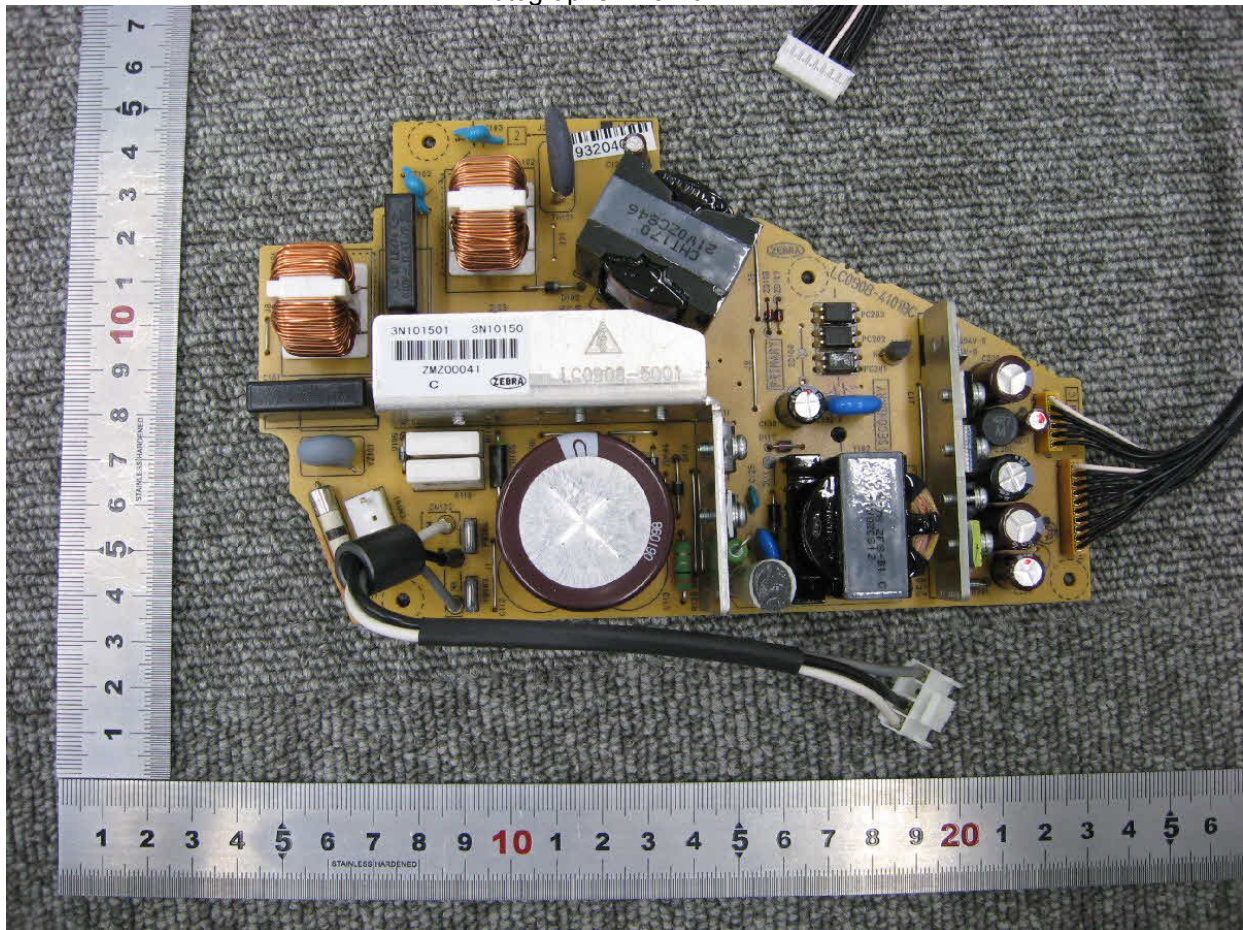
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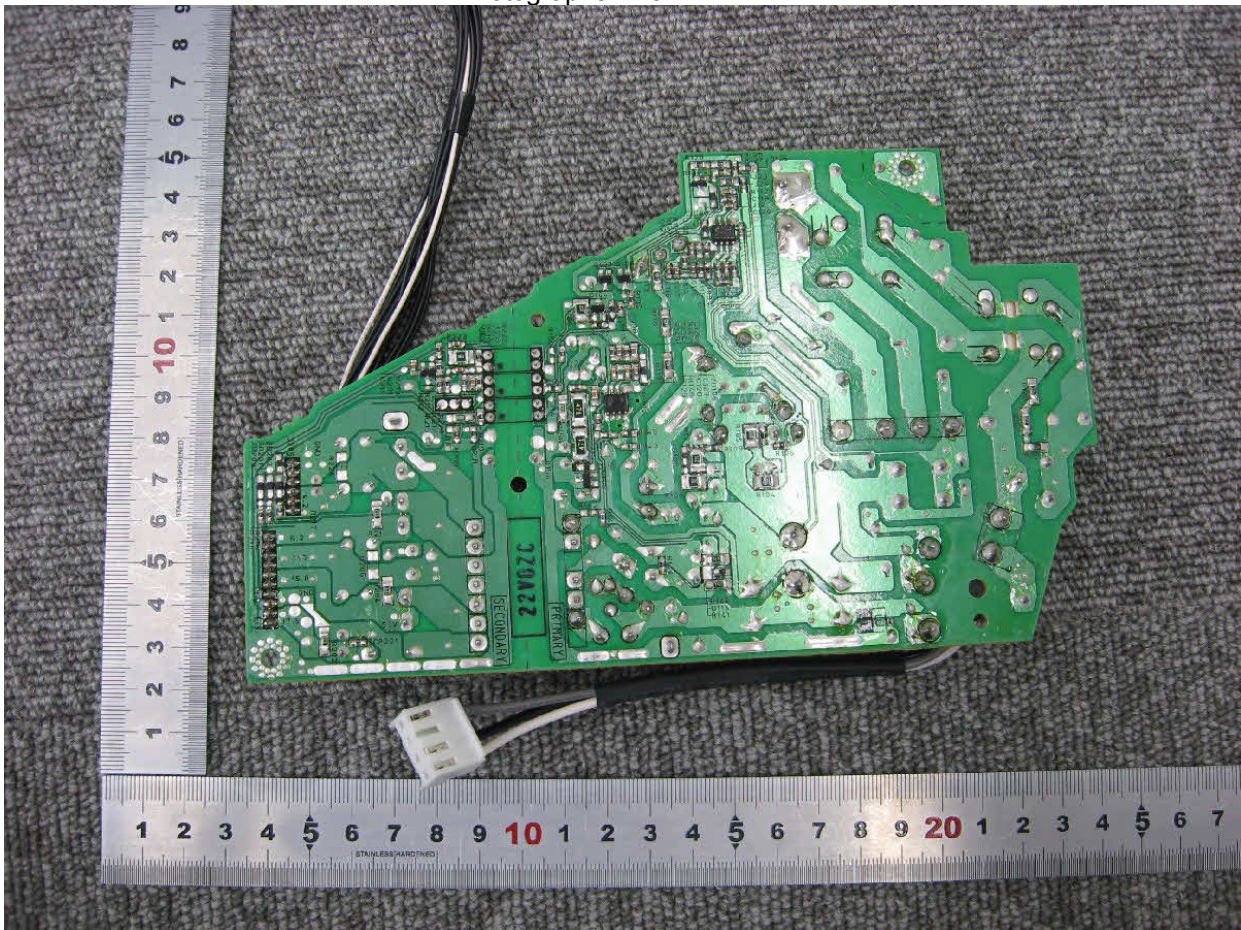
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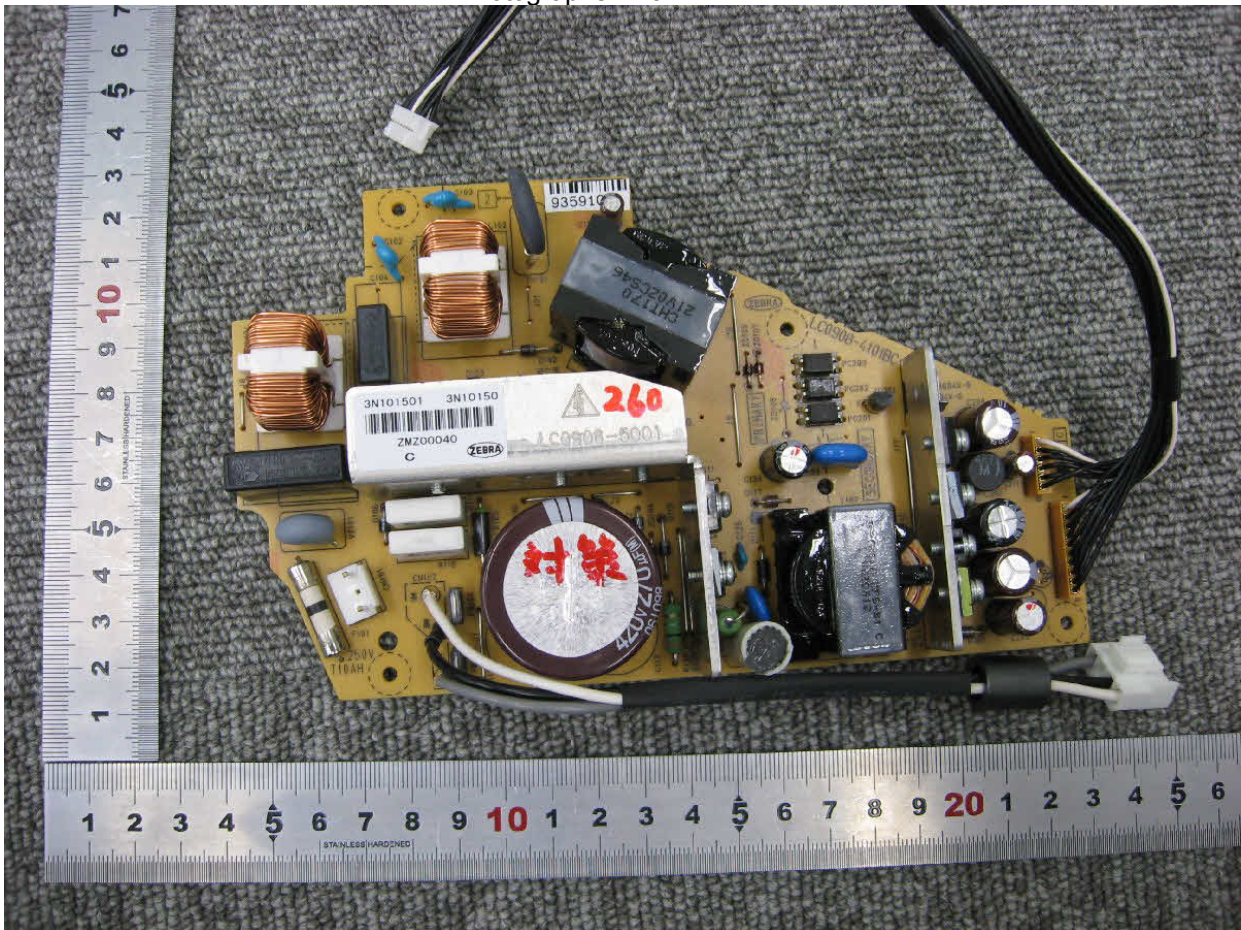
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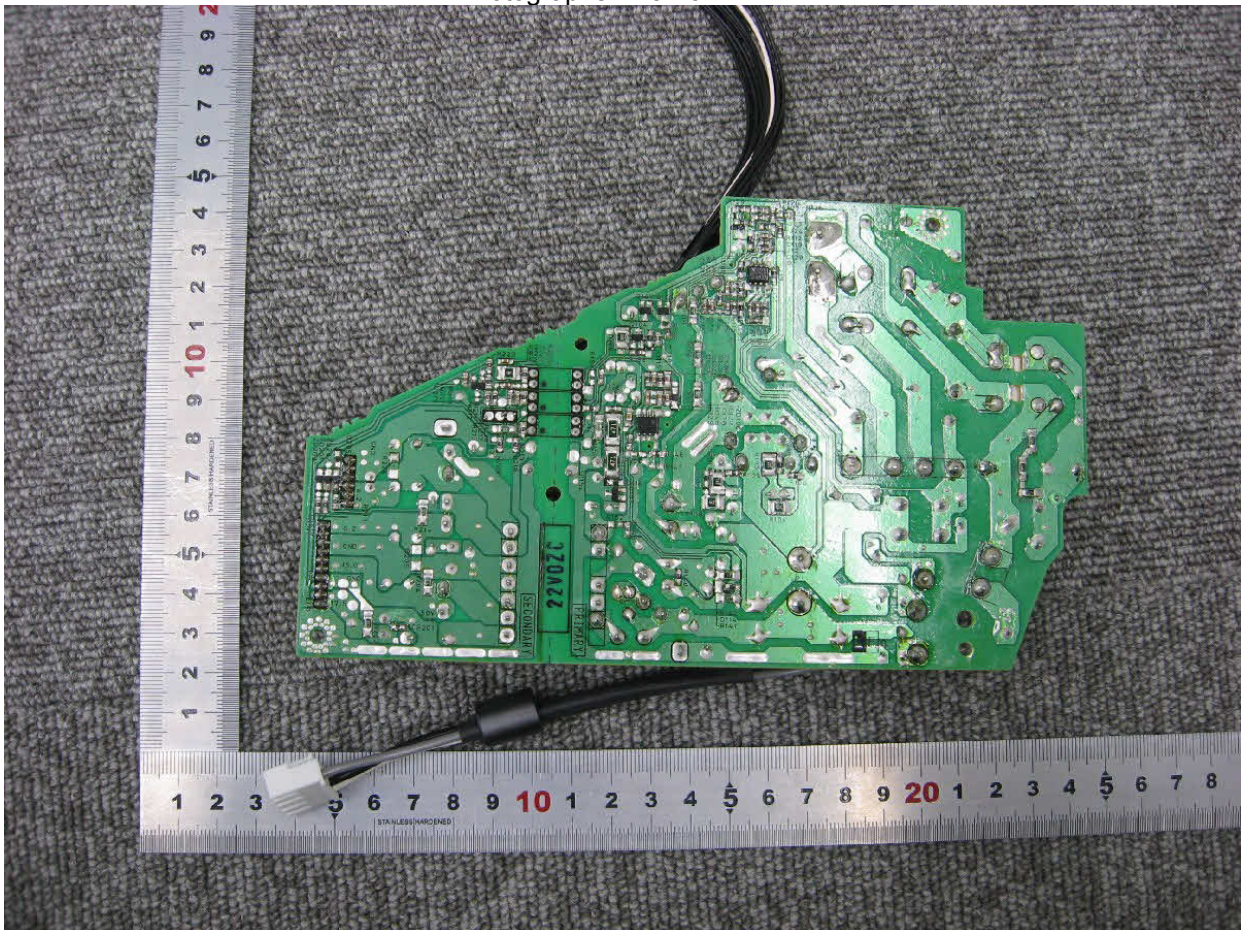


Enclosures

Photographs ID 3-22



Photographs ID 3-23



Enclosures

Diagrams ID 4-01

No.1/2

MATERIAL LIST MODEL NO. PTTX178			
<u>UL1446 Class B insulation system ZFS-B1</u>			
ITEM	DESCRIPTION	MANUFACTURER	UL File Temp.Index Elec.
1. Core Tape	Polyester film tape 0.025mm thickness 2 turns.	Teraoka Seisakusho Co., Ltd. No.631S, No632S, No.630F 3M Company No.1318-1, No1350F-1 Jingjiang Yahua Pressure Sensitive Glue Co., Ltd. No. CT	E56086 130°C(B) E17385 130°C(B) E165111 130°C(B)
2. Core	Ferrite Core type EEH29 MBT1 or PM12 or 3KDW L=29.3mm H=21.3mm W=13.3mm	JFE Ferrite Corp. Isu Ceramics Co., Ltd. Shanghai Bao Steel Magnetics Co., Ltd.	
3. Bobbin	Phenolic 0.64mm Min. thickness. PM-9820 94V-0 or CP-J-8600 or CP-J-8800 94V-0	Sumitomo Bakelite Co., Ltd. Hitachi Chemical Co., Ltd.	E41429 150°C(B) E42956 150°C(B)
4. Primary Windings	Triple insulated copper wire TEX-E E206440	Furukawa Electric Co., Ltd.	
5. Secondary Windings	Polyurethane enamelled copper wire. UL Type No. UL File No		
	UEWU E82222	Sumitomo Electric Industries, Ltd.	130°C(B)
	UEW-BU E68042	Hitachi Cable Ltd.	130°C(B)
	UEW-U E94931	Shin-Etsu Electric Wire Co., Ltd.	130°C(B)
	UEW-U E142108	Pacific Thai Electric Wire & Cable Co., Ltd.	130°C(B)
	UEW E137472	Thai Hitachi Enamel Wire Co., Ltd.	130°C(B)
	UEX1 E94903	Siam Electric Industries Co., Ltd.	130°C(B)
	UEWF E234896	Tai-i Copper(Guanzhou) Co., Ltd.	130°C(B)
	UEX E133754	Sumitomo Electric Wintec(MALAYSIA) Sdn Bhd.	130°C(B)
	TYPFU-130 E197768	Ta Ya Electric Wire Factory	130°C(B)
	TYPFU-130 E84201	Ta Ya Electric Wire & Cable Co., Ltd.	
	UEW-U E81427	Fuji Fine Co., Ltd.	130°C(B)
	UEW-U E193774	Dalian Fuji Fine Co., Ltd.	130°C(B)
	E E204861	Dong Guan Nissen Cable Co., Ltd.	130°C(B)
	UEW-4 E174837	Jung Shing Wire Co., Ltd.	130°C(B)
6. Insulation between Primary and Secondary winding	Polyester film tape a) 0.025mm thickness 1 turn. b) 0.050mm thickness 1 turn.	Same as Item No.1	
7. Insulation between Secondary and Secondary winding	Polyester film tape 0.025mm thickness 1 turn.	Same as Item No.1	
8. Outer wrapper	Polyester film tape. 0.025mm thickness 2 turns.	Same as Item No.1	
9. Coil Impregnate	Varnish WP-2952F-2G TVB2024 DVB-2085	Hitachi Chemical Co., Ltd. Kyocera Chemical Corporation. Noroo Paint&Coatings Co., Ltd	

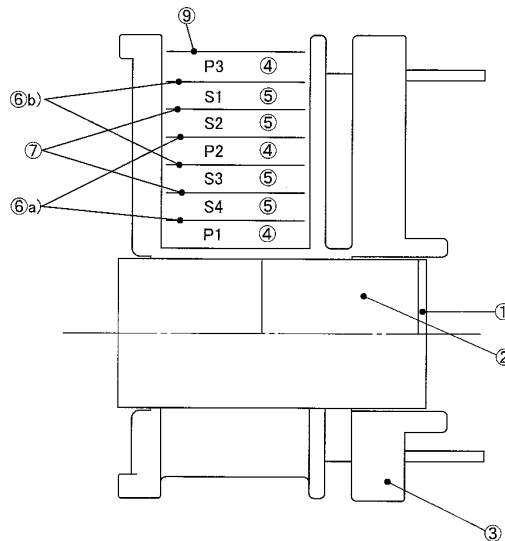
TABUCHI ELECTRIC CO., LTD.

Enclosures

Diagrams ID 4-01

No. 2/ 2

MATERIAL LIST MODEL NO. PTTX178

Winding Specification

No.	Coil	Pin terminal	Wire Size	Turns
1	P1	4 - 5	TEX-E 0.23	40
2	S4	9 - 12	LZ 1UEW 12/0.1	15
3	S3	8 - 12	1 UEW 0.23 X 2	15
4	P2	1 - 2	TEX-E 0.23	20
5	S2	13 - 11	LZ 1UEW 7/0.2	6
6	S1	14 - 10	LZ 1UEW 15/0.1	4
7	P3	5 - 6	TEX-E 0.23	40

Transformer Manufacturing Location(s):

Manufacturer

THAI TABUCHI ELECTRIC CO., LTD.

DONG GUAN TABUCHI ELECTRIC FACTORY

VIETNAM TABUCHI ELECTRIC CO.,LTD.

Factory Identification

"TT"

"C"

"V"

DATE : 2010/ 4/ 1

Checked by : H. Souma H.SoumaChecked by : M. Ochiai M.OchiaiChecked by : Hasegawa HasegawaDrawn by : M. Yamamori M.Yamamori

TABUCHI ELECTRIC CO., LTD.

Enclosures

Diagrams ID 4-02

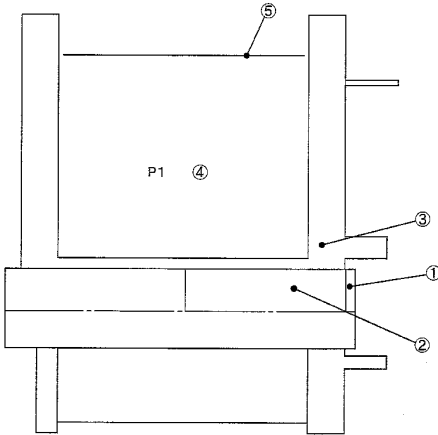
No.1/2

MATERIAL LIST MODEL NO. CHT169		
ITEM	DESCRIPTION	MANUFACTURER
1. Core Tape	Polyester film tape 0.025mm thickness 2 turns.	Teraoka Seisakusho Co., Ltd. No.631S, No632S, No.630F 3M Company No.1318-1, No1350F-1 Nitto Denko Corp. No.31C Jingjiang Yahua Pressure Sensitive Glue Co., Ltd. No.CT
2. Core	Ferrite Core type PQ32 MBT1 or PM12 or 3KDW L=32.0mm H=21.15mm W=22.0mm	JFE Ferrite Corp. Isu Ceramics Co., Ltd. Shanghai Bao Steel Magnetics Co., Ltd.
3. Bobbin	Phenolic 0.64mm Min thickness. PM-9820 94V-0 or CP-J-8600 or CP-J-8800 94V-0	Sumitomo Bakelite Co., Ltd. Hitachi Chemical Co., Ltd.
4. Windings	Polyurethane enamelled copper wire	Sumitomo Electric Wintec INC Hitachi Cable Ltd. Shin-Etsu Electric Wire Co., Ltd. Pacific Thai Electric Wire & Cable Co., Ltd. Thai Hitachi Enamel Wire Co., Ltd. Siam Electric Industries Co., Ltd. Tai-i Copper (Guangzhou) Co., Ltd. Sumitomo Electric Wintec(MALAYSIA) Sdn Bhd. Ta Ya Electric Wire Factory Ta Ya Electric Wire & Cable Co., Ltd. Fuji Fine Co., Ltd. Dalian Fuji Fine Co., Ltd. Dongguan Nissen Cable Co., Ltd. Jung Shing Wire Co., Ltd.
5. Outer wrapper	Polyester film tape 0.025mm thickness 3 turns.	Same as Item No.1
6. Coil Impregnate	Varnish WP-2952F-2G TVB2024 DVB-2085	Hitachi Chemical Co., Ltd. Kyocera Chemical Corporation. Noroo Paint&Coatings Co., Ltd

TABUCHI ELECTRIC CO., LTD.

Enclosures

Diagrams ID 4-02

MATERIAL LIST	MODEL NO. CHT169	No. 2 / 2																
																		
Transformer Manufacturing Location(s): <table style="width: 100%; border: none;"><thead><tr><th style="text-align: left; border-bottom: 1px solid black; width: 50%;">Manufacturer</th><th style="text-align: left; border-bottom: 1px solid black; width: 50%;">Factory Identification</th></tr></thead><tbody><tr><td>THAI TABUCHI ELECTRIC CO., LTD.</td><td>"TT"</td></tr><tr><td>DONG GUAN TABUCHI ELECTRIC FACTORY</td><td>"C"</td></tr><tr><td>VIETNAM TABUCHI ELECTRIC CO.,LTD.</td><td>"V"</td></tr></tbody></table> DATE : 2010/ 4/ 1 <table style="width: 100%; border: none;"><tbody><tr><td style="width: 50%;">Checked by : <u>H. Souma</u></td><td style="width: 50%;">H.Souma</td></tr><tr><td>Checked by : <u>M. Ochiai</u></td><td>M.Ochiai</td></tr><tr><td>Checked by : <u>I. Hasegawa</u></td><td>I.Hasegawa</td></tr><tr><td>Drawn by : <u>M. Yamamori</u></td><td>M.Yamamori</td></tr></tbody></table>			Manufacturer	Factory Identification	THAI TABUCHI ELECTRIC CO., LTD.	"TT"	DONG GUAN TABUCHI ELECTRIC FACTORY	"C"	VIETNAM TABUCHI ELECTRIC CO.,LTD.	"V"	Checked by : <u>H. Souma</u>	H.Souma	Checked by : <u>M. Ochiai</u>	M.Ochiai	Checked by : <u>I. Hasegawa</u>	I.Hasegawa	Drawn by : <u>M. Yamamori</u>	M.Yamamori
Manufacturer	Factory Identification																	
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Checked by : <u>I. Hasegawa</u>	I.Hasegawa																	
Drawn by : <u>M. Yamamori</u>	M.Yamamori																	

(ZEBRA) TABUCHI ELECTRIC CO., LTD.

Enclosures

Diagrams ID 4-02

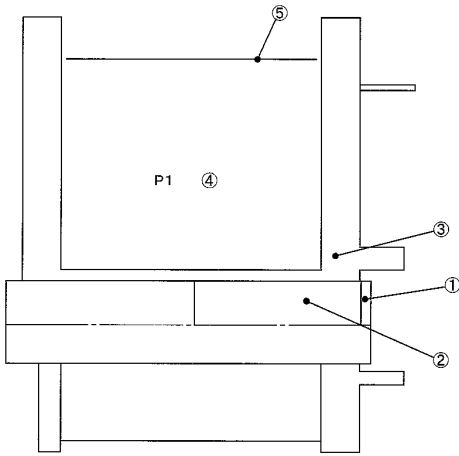
No.1/2

MATERIAL LIST MODEL NO. CHT170		
ITEM	DESCRIPTION	MANUFACTURER
1. Core Tape	Polyester film tape 0.025mm thickness 2 turns.	Teraoka Seisakusho Co., Ltd. No.631S, No632S, No.630F 3M Company No.1318-1, No1350F-1 Nitto Denko Corp. No.31C Jingjiang Yahua Pressure Sensitive Glue Co., Ltd. No.CT
2. Core	Ferrite Core type PQ32 MB3 or PC40 or PM7 or TP4 or 2K3D L=32.0mm H=26.0mm W=22.0mm	JFE Ferrite Corp. TDK Corp. Toda Isu Corporation. TDG Holding Co., Ltd. Shanghai Bao Steel Magnetics Co., Ltd.
3. Bobbin	Phenolic 0.64mm Min thickness. PM-9820 94V-0 or CP-J-8600 or CP-J-8800 94V-0	Sumitomo Bakelite Co., Ltd. Hitachi Chemical Co., Ltd.
4. Windings	Polyurethane enamelled copper wire	Sumitomo Electric Wintec INC Hitachi Cable Ltd. Shin-Etsu Electric Wire Co., Ltd. Pacific Thai Electric Wire & Cable Co., Ltd. Thai Hitachi Enamel Wire Co., Ltd. Siam Electric Industries Co., Ltd. Tai-i Copper (Guangzhou) Co., Ltd. Sumitomo Electric Wintec(MALAYSIA) Sdn Bhd. Ta Ya Electric Wire Factory Ta Ya Electric Wire & Cable Co., Ltd. Fuji Fine Co., Ltd. Dalian Fuji Fine Co., Ltd. Dongguan Nissen Cable Co., Ltd. Jung Shing Wire Co., Ltd.
5. Outer wrapper	Polyester film tape 0.025mm thickness 3 turns.	Same as Item No.1
6. Coil Impregnate	Varnish WP-2952F-2G TVB2024 DVB-2085	Hitachi Chemical Co., Ltd. Kyocera Chemical Corporation. Neroo Paint&Coatings Co., Ltd.

TABUCHI ELECTRIC CO., LTD.

Enclosures

Diagrams ID 4-02

MATERIAL LIST	MODEL NO. CHT170	No. 2 / 2																
																		
Transformer Manufacturing Location(s); <table style="width: 100%; border: none;"><thead><tr><th style="text-align: left; border-bottom: 1px solid black; padding-bottom: 5px;">Manufacturer</th><th style="text-align: left; border-bottom: 1px solid black; padding-bottom: 5px;">Factory Identification</th></tr></thead><tbody><tr><td style="padding: 5px;">THAI TABUCHI ELECTRIC CO., LTD.</td><td style="padding: 5px;">"TT"</td></tr><tr><td style="padding: 5px;">DONG GUAN TABUCHI ELECTRIC FACTORY</td><td style="padding: 5px;">"C"</td></tr><tr><td style="padding: 5px;">VIETNAM TABUCHI ELECTRIC CO.,LTD.</td><td style="padding: 5px;">"V"</td></tr></tbody></table> DATE : 2010/4/1 <table style="width: 100%; border: none; margin-top: 10px;"><tr><td style="width: 50%; padding: 5px;">Checked by : <u>H. Souma</u></td><td style="width: 50%; padding: 5px;">H.Souma</td></tr><tr><td style="padding: 5px;">Checked by : <u>M. Ochiai</u></td><td style="padding: 5px;">M.Ochiai</td></tr><tr><td style="padding: 5px;">Checked by : <u>I. Hasegawa</u></td><td style="padding: 5px;">I.Hasegawa</td></tr><tr><td style="padding: 5px;">Drawn by : <u>M. Yamamori</u></td><td style="padding: 5px;">M.Yamamori</td></tr></table>			Manufacturer	Factory Identification	THAI TABUCHI ELECTRIC CO., LTD.	"TT"	DONG GUAN TABUCHI ELECTRIC FACTORY	"C"	VIETNAM TABUCHI ELECTRIC CO.,LTD.	"V"	Checked by : <u>H. Souma</u>	H.Souma	Checked by : <u>M. Ochiai</u>	M.Ochiai	Checked by : <u>I. Hasegawa</u>	I.Hasegawa	Drawn by : <u>M. Yamamori</u>	M.Yamamori
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(ZEBRA) TABUCHI ELECTRIC CO., LTD.

Enclosures

Diagrams ID 4-03

Spec No. CC22-22078
(5/9)

1 Scope / 適応範囲

- 1.1 This specification applies to the line filter for common mode ADR16H-2R3120SD-N,
to TABUCHI ELECTRIC CO., LTD.
本納入仕様書は、田淵電機株式会社 殿に納入するコモンモードラインフィルター
ADR16H-2R3120SD-N に適用する。
- 1.2 The purpose of this specification are for application.
一 般の室内機器に使用することを前提とする。

2 Electrical Specification / 電気的特性

No	Item 項目	Specification 規格	Condition 条件
2-1	Rated Voltage 定格電圧	AC 250V rms	50-60Hz
2-2	Rated Current 定格電流	2.3 A rms	50-60Hz
2-3	Inductance インダクタンス	≥ 11 mH	1kHz (HP4284A equivalent)
2-4	Dc Resistance 直流抵抗	≤ 185 m Ω	1line at 20°C
2-5	Impulse Examination インパルス試験	No Damage 異常の無いこと。	Frequency: 1kHz, Voltage: 1kV, Pulse width: 10 pulses, After 10us impression 周波数: 1kHz, 電圧設定: 1kV, パルス幅: 10パルス、10us印加後
2-6	Withstanding Voltage 絶縁耐圧	No Damage. 異常の無い事。	AC2000V 1min or AC2400V 2sec (line to line) 巻線間にAC2000V 1分間印加 又は巻線間にAC2400V 2秒間印加
2-7	Insulation Resister 絶縁抵抗	≥ 100 M Ω	It carries out after DC500V impression. DC500V印加後
2-8	Operating Temperature 使用温度範囲	-25~+120°C	Including self-generating heat コイル自己温度上昇分を含む
2-9	Insulation Class 絶縁種	Class:E E種	

3 External / 外観

- 3.1 No dirty point that spoils a since of beauty by visual inspection.
目視にて判断できる異物の付着、損傷の無い事。
- 3.2 Even if a solder plating portion goes up to a coil inner side, suppose that it is good.
はんだメッキ部分がコイル内側に上がっても可とする。
- 3.3 A delivery inspection table is attached for every shipment.
出荷毎に出荷検査表を添付する。

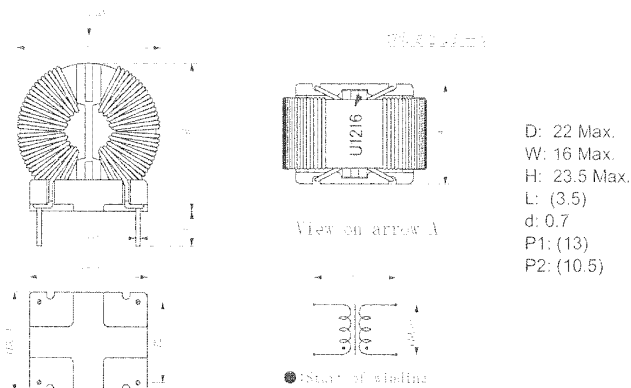


Diagrams ID 4-03

Spec No. CC22-22078
(8/9)

8 Dimension and Shepes / 外観寸法

unit: mm



No	Item 名称	Generic Name, Trade Name 品名／材質	Manufacture 製造者	Remark 備考
1	Core コア	Ferrite R-16 10:7 フェライト	JFEフェライト株 TODA ISU Corporation, Samwha Electronics Co., Ltd.	
2	Cover カバー	P.B.T.5010N6 P.B.T.2092 P.B.T.GP-2308F P.B.T.GP-1006F P.B.T.GP-2156F	Mitsubishi Engineering-Plastics Corp. 三菱エンジニアリングプラスチック株 Wintach Polymer Ltd. LG Chemical Ltd. LG Chemical Ltd. LG Chemical Ltd.	
3	Magnet Wire 電線	10EWφ0.55 (Number of turns:50ts typical) (標準巻き数:50ts)	Hitachi Cable Ltd. 日立電線株 Shin-Etsu Electric Wire Co., Ltd. 信越電線株 LS Cable Ltd. Pacific Electric Wire & Cable Co., Ltd. Tatung Co. Dong Yang Electronics Ind. Co., Ltd.	
4	Base 台座	Phenol PM-9820 フェノール PF-2736	Sumitomo Bakelite Co., Ltd 住友ベークライト株 Hexion Specialty Chemicals GmbH	
5	Seal シール	PET SH71S	Shc Co., Ltd.	
6	Ink インク	TAT PPG1075	Shachihata Inc シャチハタ株 Mega Printing Supplies Co., Ltd.	
7	Solder はんだ	Lead Free Solder 鉛フリーはんだ (Sn:3Ag 0.5Cu)	Senju Metal Industry Co., Ltd. 千住金属工業株	



Diagrams ID 4-03

Spec No. CC22-22079
(5/9)

1 Scope / 適応範囲

- 1.1 This specification applies to the line filter for common mode ADR20H-2R5130T, to TABUCHI ELECTRIC CO., LTD.
本納入仕様書は、田淵電機株式会社 殿に納入する共通モードラインフィルタ ADR20H-2R5130T に適用する。
- 1.2 The purpose of this specification are for application.
一般の室内機器に使用することを前提とする。

2 Electrical Specification / 電気的特性

No	Item 項目	Specification 規格	Condition 条件
2-1	Rated Voltage 定格電圧	AC 250V rms	50-60Hz
2-2	Rated Current 定格電流	2.5 A rms	50-60Hz
2-3	Inductance インダクタンス	≥ 13 mH	1kHz (HP4234A equivalent)
2-4	Dc Resistance 直流抵抗	≤ 143 m Ω	1line at 20°C
2-5	Impulse Examination インパルス試験	No Damage 異常の無いこと。	Frequency: 1kHz, Voltage: 1kV, Pulse width: 10 pulses, After 10us impression 周波数: 1kHz、電圧設定: 1kV、 パルス幅: 10パルス、10us印加後
2-6	Withstanding Voltage 絶縁耐圧	No Damage 異常の無い事。	AC2000V 1min or AC2400V 2sec (line to line) 巻線間にAC2000V 1分間印加 又は巻線間にAC2400V 2秒間印加
2-7	Insulation Resister 絶縁抵抗	≥ 100 M Ω	It carries out after DC500V impression. DC500V印加後
2-8	Operating Temperature 使用温度範囲	-25~+120°C	Including self-generating heat コイル自己温度上昇分を含む
2-9	Insulation Class 絶縁種	Class E E種	

3 External / 外観

- 3.1 No dirty point that spoils a since of beauty by visual inspection.
目視にて判断できる異物の付着、損傷の無い事。
- 3.2 Even if a solder plating portion goes up to a coil inner side, suppose that it is good.
はんだメッキ部分がコイル内側に上がっても可とする。
- 3.3 A delivery inspection table is attached for every shipment.
出荷毎に出荷検査表を添付する。



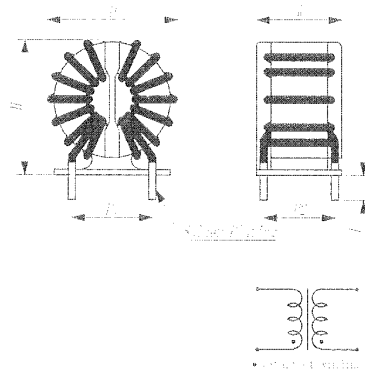
Enclosures

Diagrams ID 4-03

Spec No. CC22-22079
(8/9)

8 Dimension and Shepes / 外観寸法

unit: mm



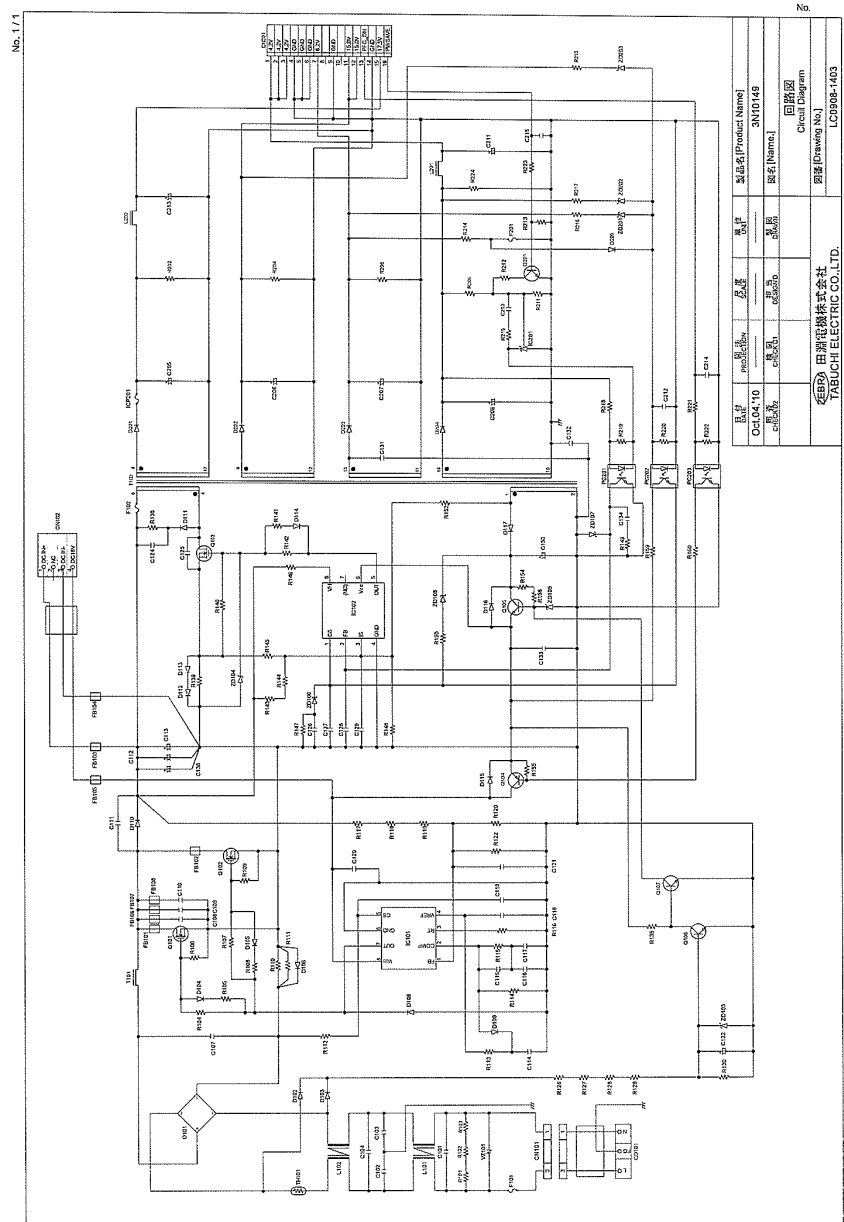
D: 28 Max.
 W: 20 Max.
 H: 28 Max.
 L: 5±2
 P1: (10)
 P2: (15)

No	Item 名称	Generic Name Trade Name 型名/材質	Manufacture 製造者	Remark 備考
1	Core コア	Ferrite R-20 12 8 フェライト	JFEフェライト株 TODA ISU Corporation. Samwha Electronics Co., Ltd	
2	Cover カバー	P.B.T.5010N6 P.B.T.2092 P.B.T.GP-2308F P.B.T.GP-1008F P.B.T.GP-2158F	Mitsubishi Engineering-Plastics Corp. 三菱エンジニアリングプラスチック株 Wintech Polymer Ltd. LG Chemical Ltd. LG Chemical Ltd. LG Chemical Ltd.	
3	Magnet Wire 電線	10EWφ0.65 (Number of turns:49ts.typical) 標準巻き数:49ts	Hitachi Cable Ltd. 日立電線株 Shin-Etsu Electric Wire Co., Ltd. 信越電線株 LS Cable Ltd. Pacific Electric Wire & Cable Co., Ltd. Tatung Co. Dong Yang Electronics Ind. Co., Ltd	
4	Solder はんだ	Lead Free Solder 鉛フリーはんだ Sn-3Ag-0.5Cu	Senju Metal Industry Co., Ltd. 千住金属工業株	



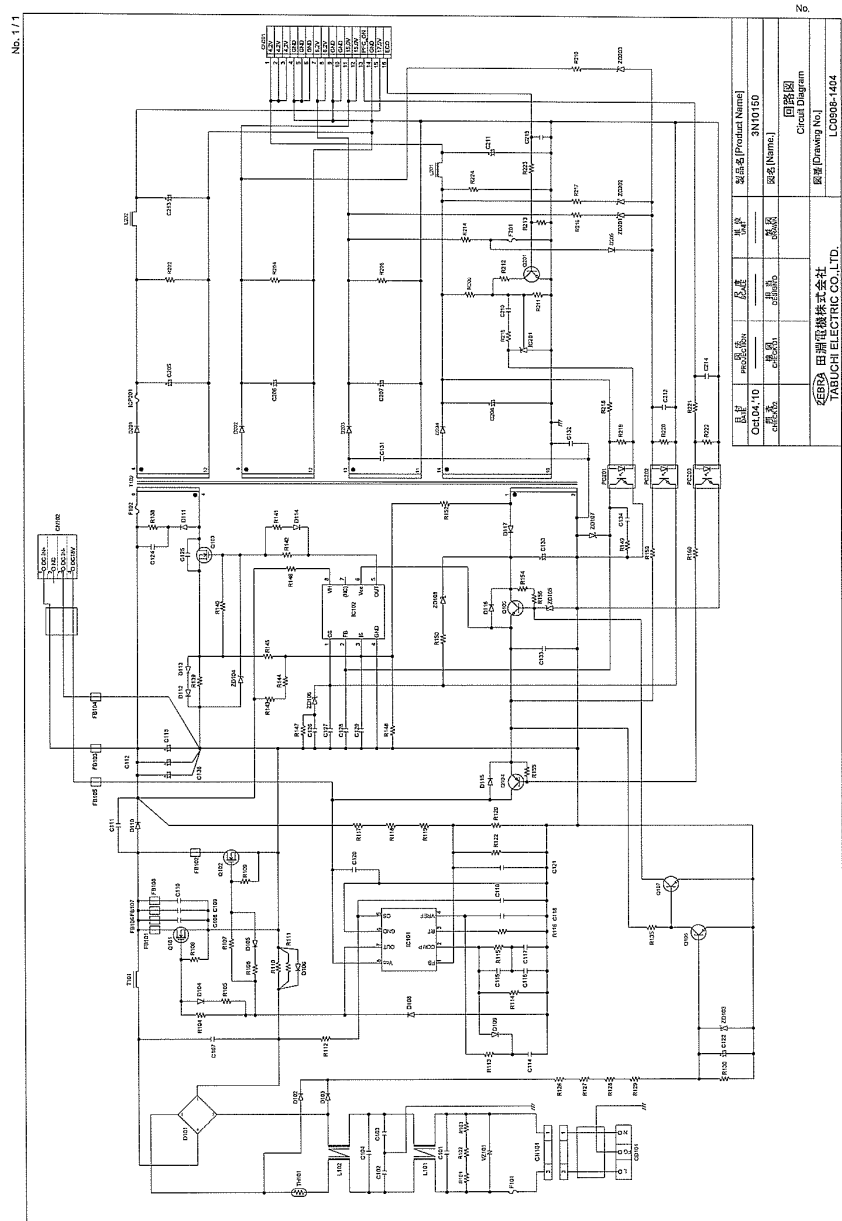
Enclosures

Diagrams ID 4-04



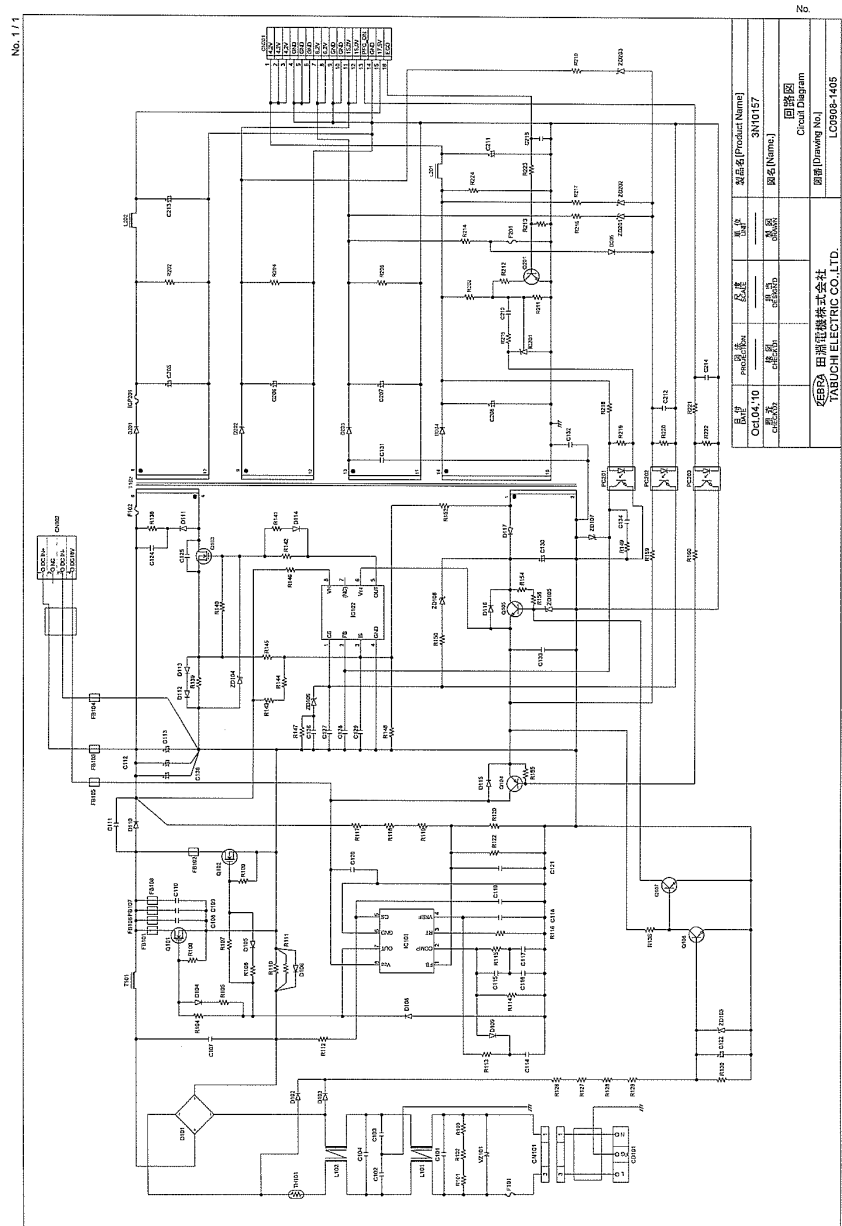
Enclosures

Diagrams ID 4-05



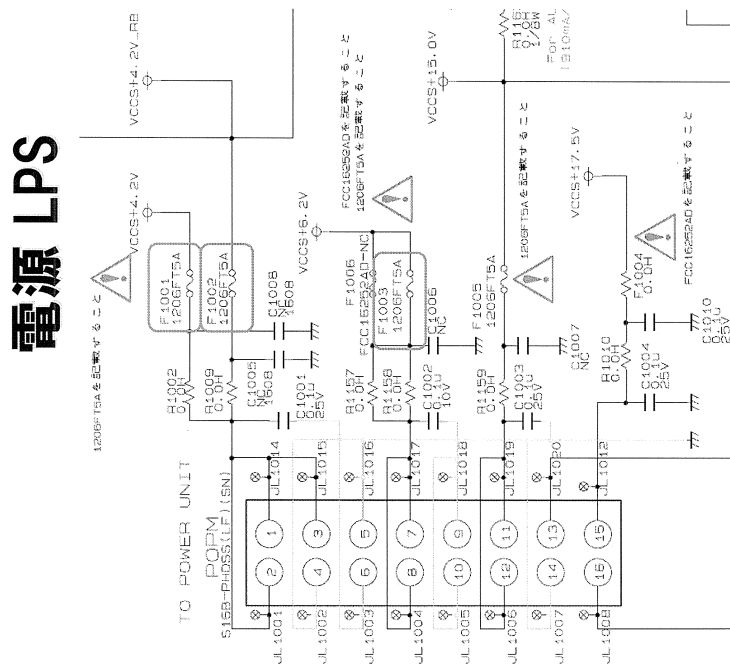
Enclosures

Diagrams ID 4-06



Enclosures

Diagrams ID 4-07



Adobe Acrobat Document

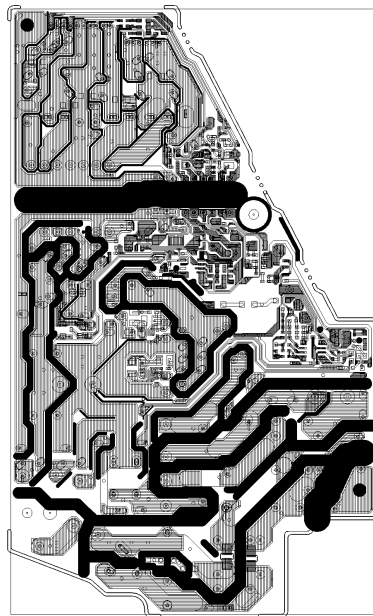
Page 9 © NEC Display Solutions, Ltd. / Development Division

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Empowered by Innovation

NEC

Schematics ID 5-01



Enclosures

Manuals ID 6-01

7. Maintenance**④ Replacing the Lamp and the Filters**

When the lamp reaches the end of its life, the LAMP indicator in the cabinet will blink red and the message "THE LAMP HAS REACHED THE END OF ITS USABLE LIFE. PLEASE REPLACE THE LAMP AND FILTER." will appear (*). Even though the lamp may still be working, replace the lamp to maintain the optimal projector performance. After replacing the lamp, be sure to clear the lamp hour meter. (→ page 91)

⚠ CAUTION

- DO NOT TOUCH THE LAMP immediately after it has been used. It will be extremely hot. Turn the projector off and then disconnect the power cord. Allow at least one hour for the lamp to cool before handling.
- Use the specified lamp for safety and performance.
- DO NOT REMOVE ANY SCREWS except one lamp cover screw and two lamp housing screws. You could receive an electric shock.
- Do not break the glass on the lamp housing.
Keep finger prints off the glass surface on the lamp housing. Leaving finger prints on the glass surface might cause an unwanted shadow and poor picture quality.
- The projector will turn off and go into standby mode when you continue to use the projector for another 100 hours after the lamp has reached the end of its life. If this happens, be sure to replace the lamp. If you continue to use the lamp after the lamp reaches the end of its life, the lamp bulb may shatter, and pieces of glass may be scattered in the lamp case. Do not touch them as the pieces of glass may cause injury. If this happens, contact your NEC dealer for lamp replacement.

**NOTE: This message will be displayed under the following conditions:*

- for one minute after the projector has been powered on
- when the  (POWER) button on the projector cabinet or the POWER OFF button on the remote control is pressed

To turn off the message, press any button on the projector cabinet or the remote control.

Optional lamp and tools needed for replacement:

- Phillips screwdriver (plus-head)
- Replacement lamp:
NP15LP (M300X/M260X/M230X/M260W/M260XS)
NP16LP (M350X/M300W/M300XS/M260WS)
NP17LP (M420XM/M420XV/M350XS/M300WS)

Flow of Replacing the Lamp and the Filters

Step 1. Replace the lamp

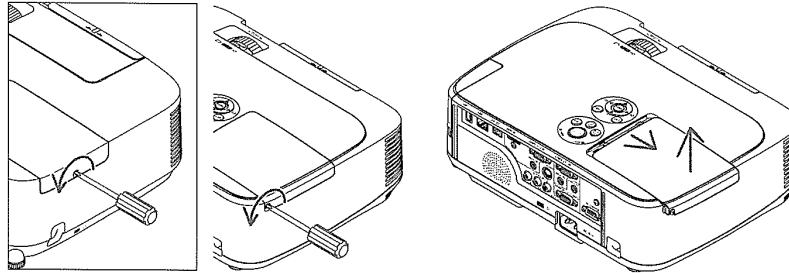
Step 2. Replace the filters (→ page 112)

Step 3. Clear the lamp usage hours and the filter usage hours (→ page 91)

Manuals ID 6-01

7. Maintenance**To replace the lamp:****1. Remove the lamp cover.**

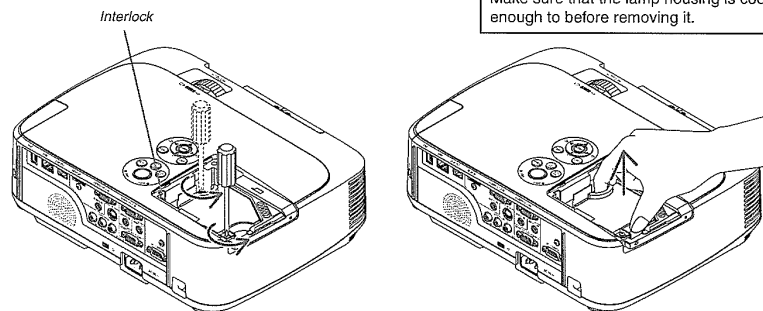
- (1) Loosen the lamp cover screw.
 - The lamp cover screw is not removable.
- (2) Push and slide the lamp cover off.



[M420X/M420XV/M350XS/
M300XS/M260XS/M300WS/
M260WS]

2. Remove the lamp housing.

- (1) Loosen the two screws securing the lamp housing until the phillips screwdriver goes into a freewheeling condition.
 - The two screws are not removable.
 - There is an interlock on this case to prevent the risk of electrical shock. Do not attempt to circumvent this interlock.
- (2) Remove the lamp housing by holding it.

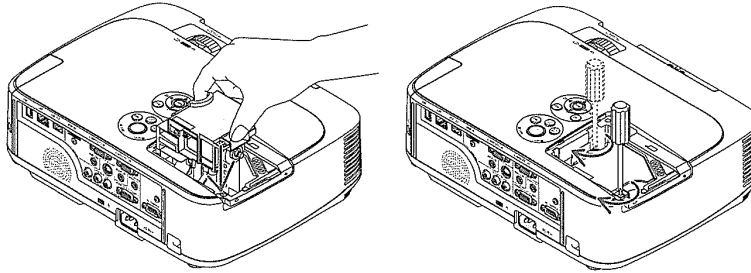


CAUTION:
Make sure that the lamp housing is cool enough to before removing it.

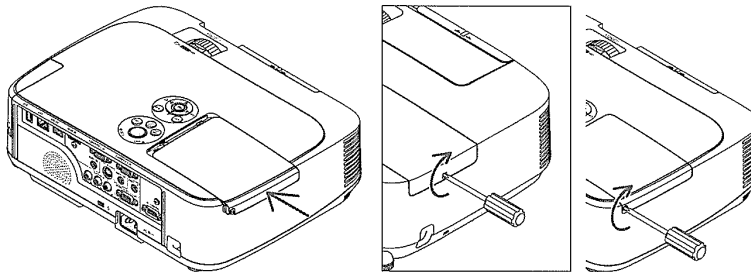
Manuals ID 6-01

7. Maintenance**3. Install a new lamp housing.**

- (1) Insert a new lamp housing until the lamp housing is plugged into the socket.
- (2) Push the top center of the lamp housing to secure it.
- (3) Secure it in place with the two screws.
 - Be sure to tighten the screws.

**4. Reattach the lamp cover.**

- (1) Slide the lamp cover back until it snaps into place.
- (2) Tighten the screw to secure the lamp cover.
 - Be sure to tighten the screw.



[M420X/M420XV/M350XS/
M300XS/M260XS/M300WS/
M260WS]

**This completes the lamp replacement.
Go on to the filter replacement.**

*NOTE: When you continue to use the projector for another 100 hours after the lamp has reached the end of its life, the projector cannot turn on and the menu is not displayed.
If this happens, press the HELP button on the remote control for 10 seconds to reset the lamp clock back to zero.
When the lamp time clock is reset to zero, the LAMP indicator goes out.*

Enclosures

Manuals ID 6-01

7. Maintenance**④ Replacing the Lamp and the Filters**

When the lamp reaches the end of its life, the LAMP indicator in the cabinet will blink red and the message "THE LAMP HAS REACHED THE END OF ITS USABLE LIFE. PLEASE REPLACE THE LAMP AND FILTER." will appear (*). Even though the lamp may still be working, replace the lamp to maintain the optimal projector performance. After replacing the lamp, be sure to clear the lamp hour meter. (→ page 91)

⚠ CAUTION

- DO NOT TOUCH THE LAMP immediately after it has been used. It will be extremely hot. Turn the projector off and then disconnect the power cord. Allow at least one hour for the lamp to cool before handling.
- Use the specified lamp for safety and performance.
- DO NOT REMOVE ANY SCREWS except one lamp cover screw and two lamp housing screws. You could receive an electric shock.
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Keep finger prints off the glass surface on the lamp housing. Leaving finger prints on the glass surface might cause an unwanted shadow and poor picture quality.
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- when the  (POWER) button on the projector cabinet or the POWER OFF button on the remote control is pressed

To turn off the message, press any button on the projector cabinet or the remote control.

Optional lamp and tools needed for replacement:

- Phillips screwdriver (plus-head)
- Replacement lamp:
NP16LP (P350X)
NP17LP (P420X/P350W)

Flow of Replacing the Lamp and the Filters

Step 1. Replace the lamp

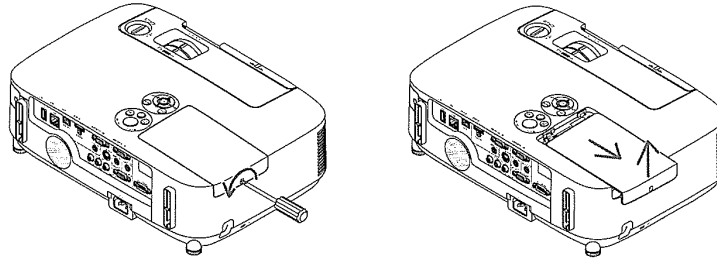
Step 2. Replace the filters (→ page 112)

Step 3. Clear the lamp usage hours and the filter usage hours (→ page 91)

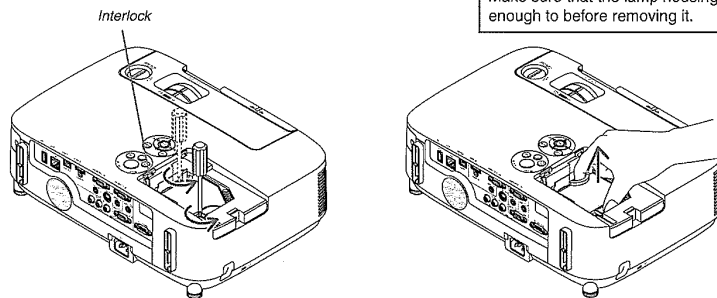
Manuals ID 6-01

7. Maintenance**To replace the lamp:****1. Remove the lamp cover.**

- (1) Loosen the lamp cover screw
 - The lamp cover screw is not removable.
- (2) Push and slide the lamp cover off.

**2. Remove the lamp housing.**

- (1) Loosen the two screws securing the lamp housing until the phillips screwdriver goes into a freewheeling condition.
 - The two screws are not removable.
 - There is an interlock on this case to prevent the risk of electrical shock. Do not attempt to circumvent this interlock.
- (2) Remove the lamp housing by holding it.



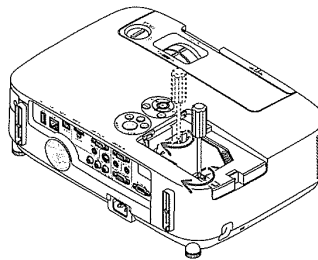
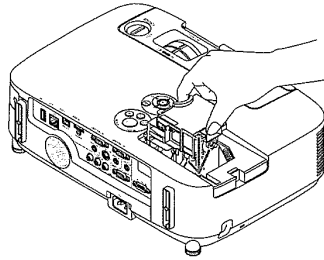
CAUTION:
Make sure that the lamp housing is cool enough to before removing it.

Enclosures

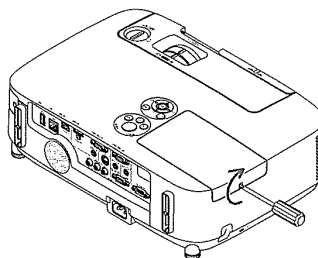
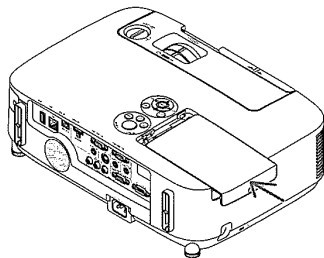
Manuals ID 6-01

7. Maintenance**3. Install a new lamp housing.**

- (1) Insert a new lamp housing until the lamp housing is plugged into the socket.
- (2) Push the top center of the lamp housing to secure it.
- (3) Secure it in place with the two screws.
 - Be sure to tighten the screws.

**4. Reattach the lamp cover.**

- (1) Slide the lamp cover back until it snaps into place.
- (2) Tighten the screw to secure the lamp cover.
 - Be sure to tighten the screw.



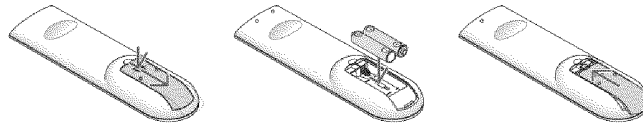
This completes the lamp replacement.
Go on to the filter replacement.

*NOTE: When you continue to use the projector for another 100 hours after the lamp has reached the end of its life, the projector cannot turn on and the menu is not displayed.
If this happens, press the HELP button on the remote control for 10 seconds to reset the lamp clock back to zero.
When the lamp time clock is reset to zero, the LAMP indicator goes out.*

Manuals ID 6-02

1. Introduction**Battery Installation**

- 1** Press firmly and slide the battery cover off.
- 2** Install new batteries (AAA). Ensure that you have the batteries' polarity (+/-) aligned correctly.
- 3** Slip the cover back over the batteries until it snaps into place. Do not mix different types of batteries or new and old batteries.

**Remote Control Precautions**

- Handle the remote control carefully.
- If the remote control gets wet, wipe it dry immediately.
- Avoid excessive heat and humidity.
- Do not short, heat, or take apart batteries.
- Do not throw batteries into fire.
- If you will not be using the remote control for a long time, remove the batteries.
- Ensure that you have the batteries' polarity (+/-) aligned correctly.
- Do not use new and old batteries together, or use different types of batteries together.
- Dispose of used batteries according to your local regulations.

Manuals ID 6-03

NEC

Portable Projector

NP12CM Ceiling Mount Unit

Installation and Adjustment Manual

Tragbarer Projektor

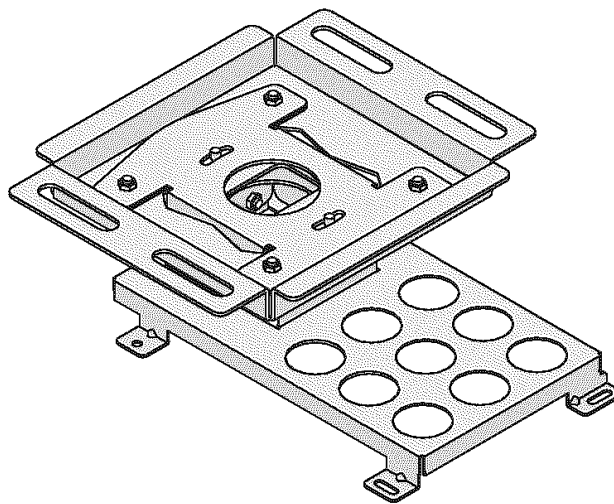
NP12CM Deckenbefestigung

Installations- und Einstellungshandbuch

データプロジェクター

天井用取付けユニット NP12CM

設置調整説明書



Manuals ID 6-03

Heed the Following



This symbol alerts the user that important information concerning the operation and maintenance of this unit has been provided. The information should be read carefully to avoid problems.

**WARNING**

- Special techniques are required to install the projector. Never try to install the projector on your own. The projector could fall, causing injury. Ask your store of purchase to install the projector.
- When mounting the projector and adjusting its angle, be sure to do so as explained in this manual. Incorrect mounting or angle adjustment could lead to the projector falling, causing injury.
- To prevent the projector from falling, install it in a place and fasten it in a way with sufficient strength to support the combined weight of the projector and the ceiling mount unit (1.5 kg) for an extended period of time as well as to withstand earthquakes. Insufficient strength or fastening may result in the projector falling and causing injury.
- To ensure safety, be sure to tighten the bolts and screws securely. Also be sure to use the included units and other metal fittings. Failure to do so may result in the projector falling and causing injury.
- When sliding the opening of the mounting adapter over the pin of the ceiling attachment unit, check that the pin of the ceiling attachment unit is fully seated in the opening. If not, the projector may fall and cause injury.
- Do not use adhesives for preventing screws from loosening, lubricants, oil, etc. on the ceiling suspension fitting. Doing so may weaken the fitting's material, causing the projector to drop and resulting in injury.
- Do not modify any parts. Doing so may result in the projector falling and causing injury.
- Do not use broken parts. Doing so may result in the projector falling and causing injury. If a part should be broken, consult your dealer.
- Do not look into the lens when the projector is turned on. Doing so could damage your eyesight.
- Make adjustments as described in this manual. Incorrect adjustments may result in the projector falling and causing injury.

**CAUTION**

- Do not obstruct the projector's ventilation holes. Doing so will prevent the dissipation of heat and may result in fires. In particular, do not use the projector in the following ways:
Do not install the projector in a wall or in a tight place where ventilation is poor, place a cover it, etc.

Enclosures

Manuals ID 6-03

Heed the Following

- Do not install the projector in front of the outlets of an air conditioner or heater or in a place where vibrations are strong. Doing so may result in fires.

- Do not install the projector in humid or dusty places or exposed to smoke or steam (such as near cooking equipment or humidifiers). Doing so may result in fires.

- When installing the projector, leave sufficient space between it and surrounding objects. Failure to leave sufficient space will prevent the dissipation of heat and may result in fires.

- When removing the screws on left and right on the mounting adapter, be sure to support the projector while doing so. Failing to do so may result in the projector swinging back abruptly and causing injury.

- for PLUGGABLE EQUIPMENT, the socket-outlet shall be installed near the equipment and shall be easily accessible.

- Use an electrical power outlet to power the projector. A direct connection to the electrical wiring is dangerous and should not be used. Also, in a ceiling suspension installation, use an electrical power outlet that is within reach so that the power plug can be plugged in and unplugged.

Installation Precautions

- Special techniques are required for the installation work of the projector and installation work should only be undertaken by qualified and licenced installers.
- NEC Display Solutions will not accept any responsibility related to any accidents or incidents due to insufficient or inferior mounting techniques.

Installation Location

Avoid places of high temperature or low temperature.

(For ambient operating temperature, see the user's manual included with the projector.)

Avoid places exposed to direct sunlight and the vicinity of ventilation holes of room air conditioning and heating.

Avoid rooms with a lot of dust, humidity, greasy smoke, or tobacco smoke.

Dirt will adhere to optical parts such as lenses and mirrors and this will cause a deterioration of image quality.

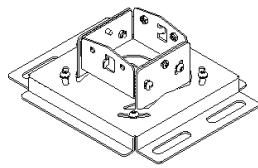
Avoid places in which the screen is exposed to direct sunlight or illumination light.

When surrounding light directly hits the screen, the image appears washed out and is difficult to view.

Manuals ID 6-03

Preparation

■ List of Packaged Parts



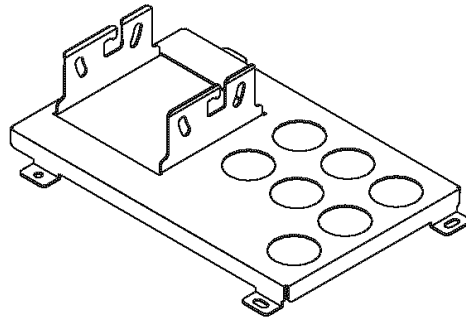
Fixed ceiling part ...1



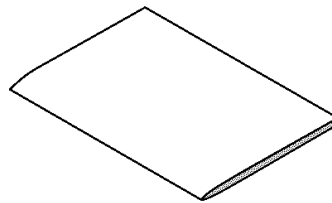
Projector mounting screws (M4)...4



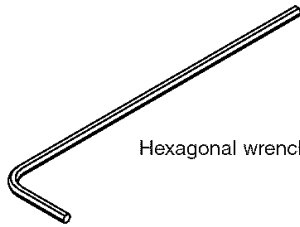
Up-down angle adjustment screws (M5) ...4



Projector mounting adapter ...1

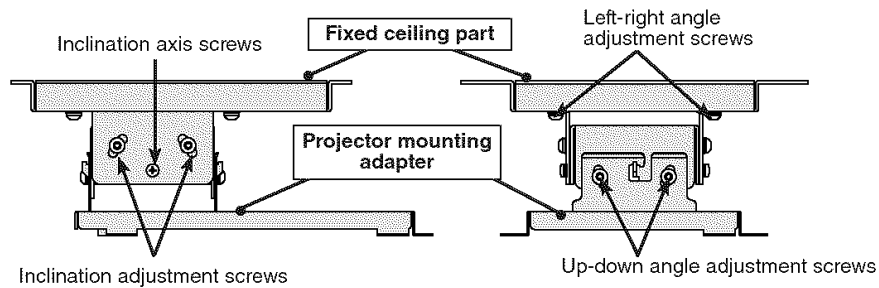


Installation and adjustment manual 1



Hexagonal wrench ...1

■ Names of the Parts



Mounting the Projector

1 Attach the Fixed Ceiling Part to the Ceiling

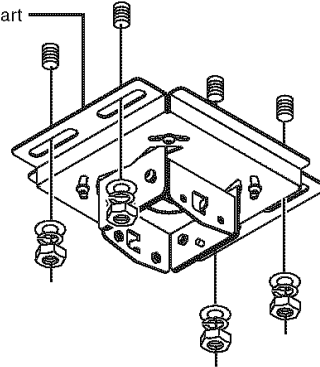
First, partially tighten the four screws, then tighten the screws firmly after positioning.



WARNING!

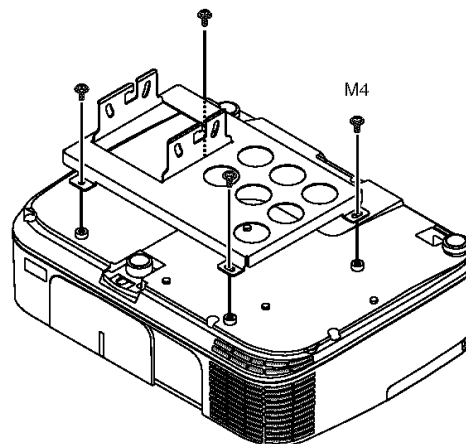
Use M8 - M10 bolts for the fixed ceiling part. Use of types other than M8 - M10 could cause the projector to fall.

Fixed ceiling part



2 Attach the Projector Mounting Adapter to the Projector

Use four M4 screws to mount the projector mounting adapter.



WARNING!

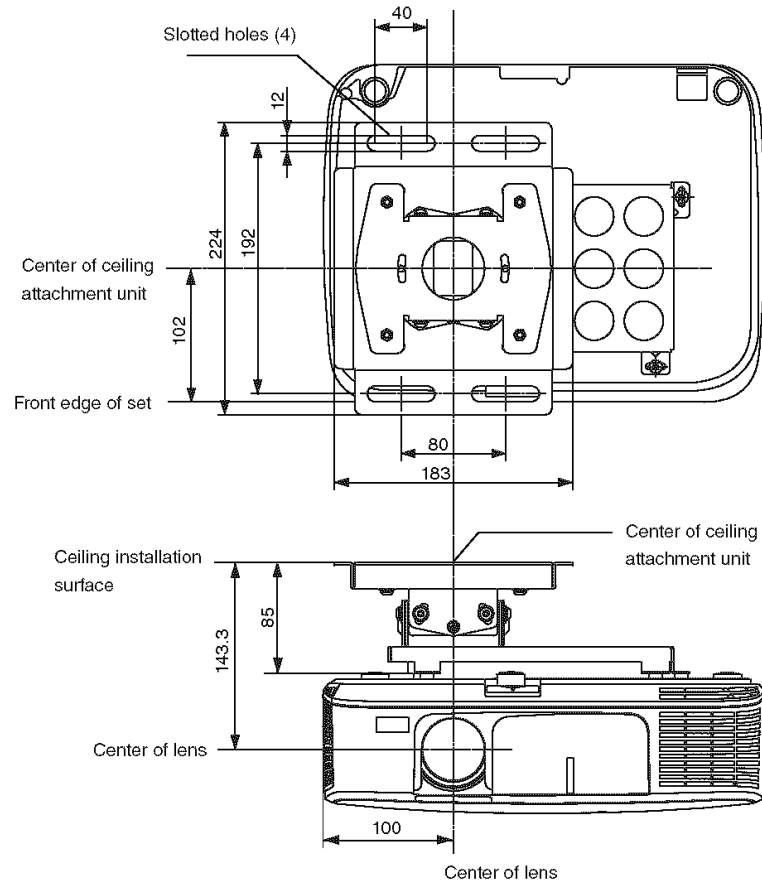
Please use the specified screws. Using other screws could lead to the projector falling, causing injury.

Manuals ID 6-03

Mounting the Projector

■ Dimensions (Unit: mm)

Ceiling installation surface dimensional drawing (units: mm)



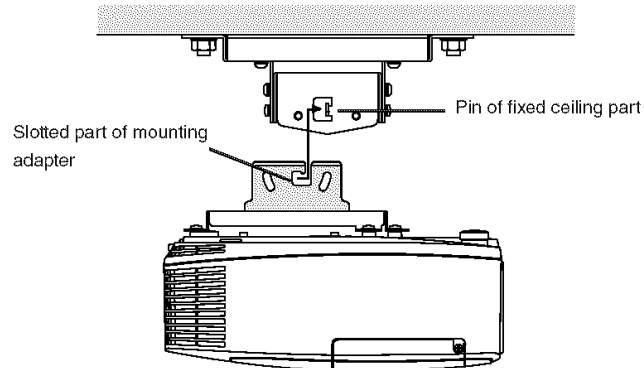
Manuals ID 6-03

Mounting the Projector

3 Suspend the Projector from the Fixed Ceiling Part

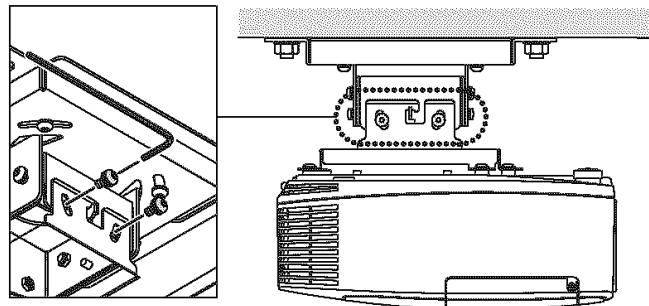
Slide the slotted part of the projector mounting adapter over the pin of the fixed ceiling part and push all the way to the back.

The projector is temporarily suspended in this condition and attention must be paid so that the unit does not fall since it is not fixed in place.

**4 Temporarily Fasten the Projector Mounting Adapter**

Temporarily fasten by partially tightening the four supplied (M5) screws. Tighten firmly after completing the screen projection angle adjustment.

Temporarily fasten the other side too.

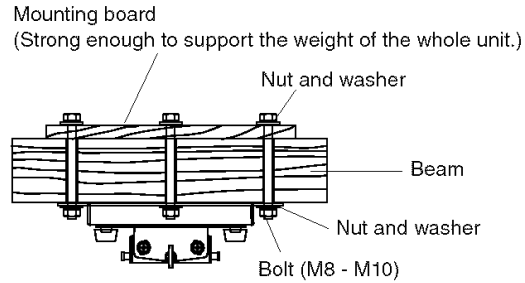


Manuals ID 6-03

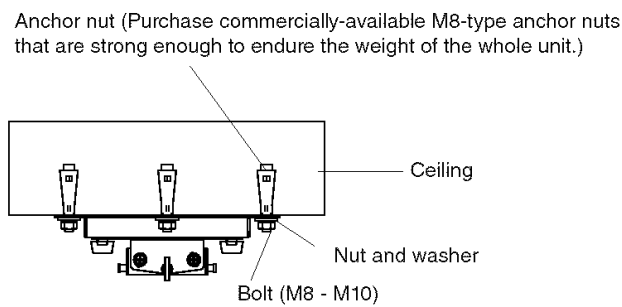
Mounting the Projector

Installation Examples

■ When the Ceiling is Wood Construction:



■ When the Ceiling is Concrete Construction:



NOTE : Mounting boards, M8-type anchor nuts, bolts, nuts and washers are commercially available.

Enclosures

Manuals ID 6-03

Adjustment of the Projection Angle

4 Fine-adjust so that the picture fits on the screen.

- (1) Adjust for the optimum picture size using the zoom lever.
- (2) Loosen the screws, then fine-adjust the angle so that the picture fits on the screen. If the picture is distorted, adjust.
- (3) After fine-adjusting, securely tighten all the screws (14 including the inclination axis screws).

NOTE:

- Note that the image quality is somewhat reduced when keystone correction is performed.
- When CEILING REAR, DESKTOP REAR, or CEILING FRONT is selected for the on-screen menu projection mode, auto keystone correction cannot be selected. Perform keystone correction manually.

After the adjustments, check that the parts are fixed securely.

Specifications

Product Name	: Projector Ceiling Mount Unit
Model	: NP12CM
Adjustment angle	: Up-down angle $\pm 10^\circ$ Left-right angle $\pm 10^\circ$ Inclination angle $\pm 10^\circ$
Dimensions	: 272.5 (W) x 224 (D) x 85 (H) mm (when assembled, not including protruding parts)
Weight	: Approximately 1.7 kg
Supplied Items	: Projector mounting screws (M4) 4 Up-down angle adjustment screws (M5)..... 4 Hexagonal wrench 1 Installation and adjustment manual (this document)..... 1

Specifications and design are subject to change without notice.

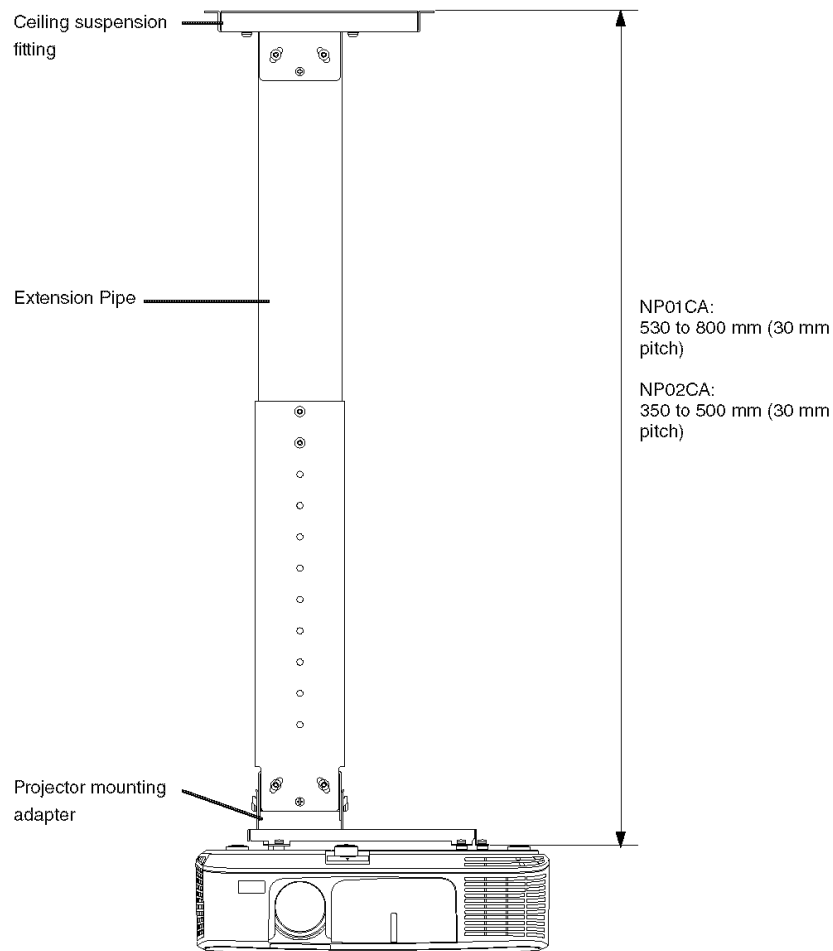
Manuals ID 6-03

Mounting the Extension Pipe

About the extension pipe

If you wish to adjust the projector's height of installation, purchase a separately sold extension pipe.

There are two types of extension pipes (models NP01CA and NP02CA). The height adjust function allows the distance from the position of installation to the projector to be adjusted within the range shown on the diagram below.



Enclosures

Misc ID 7-01

Fan speed setting

Model NP-P350 (260W)

	Normal			Eco (75%)			50%			25%		
	0°C	26°C	37°C	0°C	26°C	40°C	0°C	26°C	40°C	0°C	26°C	40°C
LCD Fan 1 (Front)	2600	2600	4000	1900	1900	4000	--	--	--	1900	1900	1900
LCD Fan 2 (Rear)	2400	2400	4300	1800	1800	4300	--	--	--	1800	1800	1800
Lamp Fan	4100	4500	4500	2000	2200	2000	--	--	--	0	0	0
Exhaust Fan	2200	2200	3000	1950	1950	3000	--	--	--	1450	1450	1450
Ballast Fan	2200	2200	4100	2000	2000	4100	--	--	--	2000	2000	2000

Model NP-M300XS (230W)

	Normal			Eco (75%)			50%			25%		
	0°C	26°C	37°C	0°C	26°C	40°C	0°C	26°C	40°C	0°C	26°C	40°C
LCD Fan 1 (Front)	2600	2600	4000	1900	1900	4000	1900	1900	4000	1900	1900	1900
LCD Fan 2 (Rear)	2400	2400	4300	1800	1800	4300	1800	1800	4300	1800	1800	1800
Lamp Fan	3900	4100	4100	1700	1950	1600	1700	1950	1600	0	0	0
Exhaust Fan	1900	1900	3000	1450	1450	3000	1450	1450	3000	1450	1450	1450
Ballast Fan	2200	2200	4100	2000	2000	4100	2000	2000	4100	2000	2000	2000

Model NP-M260XS (180W)

	Normal			Eco (75%)			50%			25%		
	0°C	26°C	37°C	0°C	26°C	40°C	0°C	26°C	40°C	0°C	26°C	40°C
LCD Fan 1 (Front)	2600	2600	4000	1900	1900	4000	1900	1900	4000	1900	1900	1900
LCD Fan 2 (Rear)	2400	2400	4300	1800	1800	4300	1800	1800	4300	1800	1800	1800
Lamp Fan	3700	4000	4000	1800	1950	1500	1000	1950	1000	0	0	0
Exhaust Fan	1800	1800	3000	1450	1450	3000	1450	1450	1450	1450	1450	1450
Ballast Fan	2200	2200	4100	2000	2000	4100	2000	2000	2000	2000	2000	2000

Enclosures

Misc ID 7-02

NEC

686-1, Nishi-oi, O-machi, Ashigarakami-gun
Kanagawa 258-8533, Japan.
Tel. Number: +81-465-85-2384
Fax. Number: +81-465-85-2393
November 4th, 2010.
Our ref. FGA100128

Subject: Letter of Assurance

Dear UL Japan, Inc.,

This document confirms that NEC Display Solutions, Ltd. was advised that the following items need to be provided to the Recognized National Certification Body along with the CB test report.

Markings and Safety Instructions – Safety instructions and markings in the language for the countries listed in the attached report will be provided at the time the CB is submitted to the Recognized National Certification Body.

Power Supply Cords and Plugs – All power cords and plug assemblies will be certified and suitable for use in the particular countries when provided with the product. The Recognized National Certification Body may require certification.

EMC Test Report -- Where specified in the National Difference, an EMC Test Report or Declaration of Conformity will accompany this product when sent to the Recognized National Certification Body who requires EMC testing.

Sincerely yours,

N. Okamoto
Norinasa Okamoto

Manager

Quality Assurance Dept.,

Quality Assurance and Production Coordination Div.

NEC Display Solutions, Ltd.

Enclosures

Misc ID 7-03

J60950(H19)			
Clause	Requirement - Test	Result - Remark	Verdict
J60950(H19) differences to IEC 60950 Third Edition			
1.2	Add the following terms. Equipment, Class 0I 1.2.4.101 Material, VTM 1.2.12.101		Pass
1.2.4.101	Add this sub-clause: CLASS 0I EQUIPMENT: Equipment where protection against electric shock is achieved by: a) using BASIC INSULATION, and b) providing a means of connecting to the protective earthing conductor in the building wiring those conductive parts that are otherwise capable of assuming HAZARDOUS VOLTAGES if the BASIC INSULATION fails, and c) using a supply cord without earthing conductor and a plug without earthing wire although the equipment has externally an earth terminal or a lead wire for earthing. Equipment provided with a cord set having a two-pin type plug with a lead wire for earthing is also regarded as Class 0I. NOTE – Class 0I equipment may have a part constructed with Double Insulation or Reinforced Insulation as well as an operating part as SELV circuit.		Pass
1.2.12.1	Replace the first sentence of this Sub-Clause by: FLAMMABILITY CLASSIFICATION OF MATERIALS: The recognition of the burning behaviour of materials and their ability to extinguish if ignited. Materials are classified as in 1.2.12.2 to 1.2.12.9, and 1.2.12.101 when tested in accordance with annex A.		N/A
	Add the following NOTE 3: NOTE 3 - Similarly, for thin MATERIALS, VTM-0 Class materials are regarded as better than those of VTM-1 Class, and VTM-1 better than VTM-2.		N/A
1.2.12.101	Add this sub-clause: VTM CLASS MATERIAL: Thin MATERIALS fulfil the specified conditions during the test of Sub-Clause A.101 applied for materials that the test and evaluation of clauses A.6 to A.10 is difficult to execute. Materials are classified to three classifications as VTM-0, VTM-1 and VTM-2 according to the state after the removal of the test flame.		N/A
1.5.1	Add to the first paragraph: "or DENAN Technical Requirements Ministerial Ordinance (1962: No. 85)"		Pass

Enclosures

Misc ID 7-03

J60950(H19)			
Clause	Requirement - Test	Result - Remark	Verdict
1.5.2	Add the following standard: "DENAN Technical Requirements Ministerial Ordinance (1962: No. 85)"		Pass
1.7.101	Add this sub-clause: Marking for CLASS 0I EQUIPMENT For CLASS 0I EQUIPMENT, the following instruction shall be indicated on the visible place of the mains plug or the main body: "Provide an earthing connection" <i>Example in Japanese:</i> 必ず接地接続を行って下さい Moreover, for CLASS 0I EQUIPMENT, the following instruction shall be indicated on the visible place of the main body or written in the operating instructions: "Provide an earthing connection before the mains plug is connected to the mains. And, when disconnecting the earthing connection, be sure to disconnect after pulling out the mains plug from the mains." <i>Example in Japanese:</i> 接地接続は必ず、電源プラグを電源につなぐ前に行ってください。又、接地接続を外す場合は、必ず電源プラグを電源から切り離してから行って下さい。	See enclosure id 7-02 for manufacturer's letter.	Pass
2.1.1.1	In the Item b) of this Sub-Clause, replace "IEC 60083" to "IEC 60083 or JIS C 8303".		N/A
2.6.3.1	Add the following after 1st paragraph of this Sub-Clause. This also applies to the conductor of lead wire for protective earthing of CLASS 0I EQUIPMENT.		Pass
2.6.4.1	Replace the second sentence in the first paragraph of this Sub-Clause by: For CLASS I EQUIPMENT with a DETACHABLE POWER SUPPLY CORD, the earthing terminal in the appliance inlet is regarded as the main protective earthing terminal.		Pass
2.6.5.4	Replace the first sentence of this Sub-Clause by: Protective earthing connections of CLASS I EQUIPMENT shall make earlier and break later than the supply connections in each of the following:		Pass

Enclosures

Misc ID 7-03

J60950(H19)			
Clause	Requirement - Test	Result - Remark	Verdict
2.6.101	Add this sub-clause: Earthing of CLASS 0I EQUIPMENT Plugs with a lead wire for earthing shall not be used for equipment having a rated voltage exceeding 150V. For plugs with a lead wire for earthing, the lead wire shall not be earthed by a clip. CLASS 0I EQUIPMENT shall be provided with an earthing terminal or lead wire for earthing in the external where easily visible.	Rated 100V for Japan.	Pass
3.2.5	Add to the first and the second paragraphs: "or DENAN Technical Requirements Ministerial Ordinance (1962: No. 85)"		Pass
	Delete 1) in Table 3B.		Pass
4.2.8	Add the following informative remark after the last sentence. Remark - IEC 61965 is also applicable instead of IEC 60065.		N/A
4.5.1	In the right column of "Table 4A – Temperature rise limits, Part 1", add a suffix symbol 7) to "50" (K), corresponding to "- without T – marking" in the left column, so as to become "50 7)".		N/A
	Add the following to Suffix 5) of Table 4A (part one and part two). With regard to "Table 4A – Temperature rise limits, Part 1", insulating materials complying with Japanese requirements (see Attachment below) are also acceptable.		N/A
	Add the following to Suffix 7) in Table 4A (part one and part two). 7) This value shall apply only to wiring or cords complying with relevant IEC standards. Others shall comply with Japanese requirements (see Attachment below).		N/A
4.7.3.2	Add the following in 7th paragraph of this Sub-Clause. - for thin materials, e.g., flexible printed boards, etc., used inside equipment, be of FLAMMABILITY CLASS VTM-2 or better.		N/A

Enclosures

Misc ID 7-03

J60950(H19)			
Clause	Requirement - Test	Result - Remark	Verdict
5.1.6 Table 5A	Replace Table 5A of this Sub-Clause by:	Evaluated as Class 01 equipment. Test voltage: 264V, 60Hz Measured current Chassis: 1.024mA_{pk} / 0.374mA_{rms} Top Enclosure: 0.0216mA_{pk} / 0.00444mA_{rms}	Pass
	Table 5A – Maximum current		
	Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s. ¹⁾
	ALL equipment	Accessible parts and circuits not connected to protective earth	0,25
	HAND-HELD	Equipment main protective earthing terminal (if any) CLASS I EQUIPMENT	0,75
	MOVABLE (other than HAND-HELD, but including TRANSPORTABLE EQUIPMENT		3,5
	STATIONARY, PLUGGABLE TYPE A		3,5
	ALL other STATIONARY EQUIPMENT		3,5
	- not subject to the conditions of 5.1.7		-
	- subject to the conditions of 5.1.7		5 % of input current
	HAND-HELD	Equipment main protective earthing terminal (if any) CLASS 0I EQUIPMENT	0,5
	Others		1,0
¹⁾ If peak values of TOUCH-CURRENT are measured, the maximum values obtained by multiplying the r.m.s. values by 1,414.			
5.3.8.2	Replace 3rd Item of the Sub-Clause by: - BASIC INSULATION between the PRIMARY CIRCUIT and accessible conductive parts of CLASS I or 0I EQUIPMENT;		N/A

Enclosures

Misc ID 7-03

J60950(H19)					
Clause	Requirement - Test	Result - Remark	Verdict		
Annex A A.101	Add this Sub-Clause: Flammability tests for classifying materials VTM Thin sheet materials shall comply with ISO 9773.		N/A		
Annex G	Add the following new note below Table G.1: 2. In Japan, MAINS TRANSIENT VOLTAGE for equipment with a Nominal AC MAINS SUPPLY VOLTAGE of 100V is to be decided based on the column where Nominal AC MAINS SUPPLY VOLTAGE in Table G.1 is 150V.		N/A		
Annex P	Add "IEC 61965:2000, Mechanical Safety for Cathode Ray Tubes".		N/A		
Annex U	Replace the second paragraph by: This annex covers to round winding wires having diameters between 0.05 mm and 5.00 mm.	Triple insulated winding wire certified under IEC 60950-1 is used. (Requirement between IEC 60950-1 and J60950(H19) are identical.)	N/A		
U.2.1	Replace the text of this Sub-Clause by: The test sample is prepared according to IEC 60851-5:1996, 4.4.1 (for a twisted pair). The sample is then subjected to the test of 5.2.2 of this standard, with a test voltage not less than twice the appropriate voltage in table 5B (see 5.2.2) of this standard. However, the minimum values shall be as follows: - for BASIC INSULATION or SUPPLEMENTARY INSULATION, 3000 V, or; - for REINFORCED INSULATION, 6000 V.		N/A		
U.2.2	Replace this Sub-Clause by: Test 8 of IEC 60851-3:1996, 5.1.1, using the mandrel diameters of table U.1. The test sample is then examined in accordance with IEC 60851-3:1996, 5.1.1.4, followed by the test of 5.2.2 of this standard except applying the test voltage between the wire and the mandrel. A test voltage shall be the appropriate voltage in table 5B (see 5.2.2) of this standard. However, the minimum values shall be as follows: - for BASIC INSULATION or SUPPLEMENTARY INSULATION, 1500 V, or; - for REINFORCED INSULATION, 3000 V. Table U.1 Table U.1 - Mandrel diameter <table><tr><td>Nominal Conductor diameter mm</td><td>Mandrel diameter mm ± 0,2 mm</td></tr></table>	Nominal Conductor diameter mm	Mandrel diameter mm ± 0,2 mm		N/A
Nominal Conductor diameter mm	Mandrel diameter mm ± 0,2 mm				

Enclosures

Misc ID 7-03

J60950(H19)													
Clause	Requirement - Test	Result - Remark	Verdict										
	<table><tr><td>0,05 – 0,34</td><td>4,0</td></tr><tr><td>0,35 – 0,49</td><td>6,0</td></tr><tr><td>0,50 – 0,74</td><td>8,0</td></tr><tr><td>0,75 – 2,49</td><td>10,0</td></tr><tr><td>2,50 – 5,00</td><td>4 times of the diameter of conductor ¹⁾</td></tr></table> ¹⁾ in compliance with IEC 60317-43. The tension to be applied to the wire during winding on the mandrel is calculated from the wire diameter to be equivalent to 118 Mpa ± 10 % (118 N/mm² ± 10 %).	0,05 – 0,34	4,0	0,35 – 0,49	6,0	0,50 – 0,74	8,0	0,75 – 2,49	10,0	2,50 – 5,00	4 times of the diameter of conductor ¹⁾		
0,05 – 0,34	4,0												
0,35 – 0,49	6,0												
0,50 – 0,74	8,0												
0,75 – 2,49	10,0												
2,50 – 5,00	4 times of the diameter of conductor ¹⁾												
U.2.3	Replace the first paragraph of this Sub-Clause by: Test 9 of IEC 60851-6:1996, followed by the electric strength test of 5.2.2 of this standard except applying the test voltage between the wire and the mandrel. A test voltage shall be the appropriate voltage in table 5B (see 5.2.2) of this standard. However, the minimum values shall be as follows: - for BASIC INSULATION or SUPPLEMENTARY INSULATION, 1500 V, or; - for REINFORCED INSULATION, 3000 V.		N/A										
U.2.4	Replace the third paragraph of this Sub-Clause, which is describing the test voltage, by: The test voltage shall not be less than the appropriate voltage in table 5B (see 5.2.2) of this standard. However, the minimum values shall be as follows: - for BASIC INSULATION or SUPPLEMENTARY INSULATION, 1500 V, or; - for REINFORCED INSULATION, 3000 V. It is applied between the shot and the conductor.		N/A										
U.3.1	Replace the text of this Sub-Clause by: The test voltage for ROUTINE TESTING shall be the appropriate voltage in table 5B (see 5.2.2) of this standard. However, the minimum values shall be as follows: - for BASIC INSULATION or SUPPLEMENTARY INSULATION, 1500 V r.m.s. or 2100 V peak, or; - for REINFORCED INSULATION, 3000 V r.m.s. or 4200 V peak.		N/A										

Enclosures

Misc ID 7-03

J60950(H19)			
Clause	Requirement - Test	Result - Remark	Verdict
U.3.2	Replace the text of this Sub-Clause by: Twisted pair samples shall be tested in accordance with IEC 60851-5:1996, 4.4.1. The minimum breakdown voltage shall not be less than twice the appropriate voltage in table 5B (see 5.2.2) of this standard. However, the minimum values shall be as follows: - for BASIC INSULATION or SUPPLEMENTARY INSULATION, 3000 V r.m.s. or 4200 V peak, or; - for REINFORCED INSULATION, 6000 V r.m.s. or 8400 V peak.		N/A

Enclosures

Misc ID 7-03

J60950(H19)			
Clause	Requirement - Test	Result - Remark	Verdict
Annex JA	Add Annex JA (Document shredding machines) Document shredding machines shall also comply with the requirements of this annex except those of STATIONARY EQUIPMENT used by connecting directly to an AC MAINS SUPPLY of three-phase 200V or more.		
JA.1	Markings and instructions In the easily visible part near the document-slot, by a method capable to make out clearly and not easily disappeared, and by easily understandable wording, shall indicate the symbol of; and, also the following precautions for use; - that use by an infant/child may cause a hazard of injury etc.; - that a hand can be drawn into the mechanical section for shredding when touching the document-slot; - that clothes can be drawn into the mechanical section for shredding when touching the document-slot; - that hairs can be drawn into the mechanical section for shredding when touching the document-slot; - in case of equipment incorporating a commutator motor, that equipment may catch fire or explode by spraying of flammable gas.		N/A

Enclosures

Misc ID 7-03

J60950(H19)			
Clause	Requirement - Test	Result - Remark	Verdict
JA.2	Inadvertent reactivation Any safety interlock which can be operated by means of the test finger, Figure JA.1, is considered to cause reactivation of the hazard. Compliance is checked by inspection and, where necessary, by a test with the test finger, Figure JA.1.		N/A
JA.3	Isolating switch Document shredding machines shall incorporate an isolating switch complying with sub-clause 3.4.2 as the device disconnecting the power of hazardous moving parts. For this switch, two-position (single-use) switch or multi-position (multifunction) switch (e.g., slide switch) may be used. If two-position switch, the positions for "ON" and "OFF" shall be indicated in accordance with sub-clause 1.7.8. If multi-position switch, the position for "OFF" shall be indicated in accordance with sub-clause 1.7.8 and other positions shall be indicated with proper terms or symbols. Compliance is checked by inspection.		N/A

Enclosures

Misc ID 7-03

J60950(H19)			
Clause	Requirement - Test	Result - Remark	Verdict
JA.4	Protection in operator access areas Any warning shall not be used instead of the structure for preventing access to hazardous moving parts. Document shredding machines shall comply with the following requirements. Push the test finger, Figure JA.1, into all openings in MECHANICAL ENCLOSURES without applying additional force. It shall not be possible to touch hazardous moving parts with the test finger. The document shredding machine is installed as intended, and all face of MECHANICAL ENCLOSURES are subjected to this test. Before testing with the test finger, remove the parts detachable without a tool. Push the wedge-probe, Figure JA.2, into the document-slot. And, against all directions of openings, if straight-cutting type, a force of 45 N shall apply to the probe, and 90 N if cross-cutting type. In this case, the weight of the probe shall not influence the test. Before testing with the test finger, remove the parts detachable without a tool. It shall not be possible to touch any hazardous moving parts, including the shredding roller or the mechanical section for shedding, with the probe.		N/A

Enclosures

Misc ID 7-03

Attachment for Suffix 7) in Table 4A of Cl. 4.5.1

The insulating materials shall not be exposed to the temperature exceeding the values when the appliance is operated at rated voltage and normal operating condition.

These values may be increased by:

- 8 degrees for Duty 2 appliance, and
- 16 degrees for Duty 3 appliance.

In order to classify the appliances, following assumptions are to be used.

- Duty 1 appliances: considered to be connected to supply mains throughout the years such as refrigerators
- Duty 2 appliances: considered to be connected to be in between Duty 1 and Duty 3 such as room heaters
- Duty 3 appliances: considered to be connected to supply mains when it is operated for rather short time such as portable coffee mill.

Permissible temperature limits of insulating materials

Natural materials	
Material	Permissible temperature limit (°C)
Bituminous compound for filter	75, (105) 1)
Paper, cotton, silk, other natural fiber and wood	90, (105) 2)
Oil denatured natural resin	105
Silica powder	500
Mica (Hard)	500, (600) 3)
(Soft)	650, (850) 3)

Notes: 1) Value applies to thermal insulating materials.

2) Value applies to materials impregnated with varnish.

3) Value in parenthesis is applied when mechanical external force is absent.

Mica splittings and untreated mica papers

Lining	Adhesive							Permissible Temperature Limit (°C)
	a	b	c	d	e	f	g	
None	X	X	X	X				130 155 180; 450, (700) 1); 600, (800) 2); 600, (700) 1); 700, (850) 2)
Paper	X	X	X	X				130
Polyethylene terephthalate film				X				130
Glass fabric				X				130
					X			155
						X		180
Polyester nonwoven fabric, Polyester woven, and Polyethylene naphthalate film				X				130 155
Polyamide-imide film, Aramide film, and Polymide film						X	X	155 180

a: with asphalt base

b: with natural resin or denatured natural resin base

c: with ceramic base

d: with oil-denatured synthetic resin, alkylid orthophthalate resin or cross-linked polyester base.

e: with silicon-denatured synthetic resin, isophthalate alkylid resin, telephthalate alkylid resin or epoxy resin.

f: with silicon resin.

g: inorganic

Notes: 1) value applies to hard mica-made heating substrate.

2) value applies to soft mica-made heating substrate.

Remarks: value in parenthesis is applied when mechanical external force is absent.

Organic materials (Thermosetting Resins)

Material	Permissible temperature limit (°C)
laminated melamine resin mixed with glass fiber	75, (100) 1)
moulded lemaine resin mixed with: cellulose	120 140
inorganics	
laminated phenol resin with: cotton fiber base	115, (85) 2)
paper base	120, (70) 3)
polyamide cloth base	75
inorganics	140
moulded phenol resin with: inorganics	150, (160) 1)
others	140, (150) 1)
moulded melamine phenol resin with the gravity of less than 1.55	130
moulded urea resin mixed with cellulose	90
unsaturated polyester-casting	120
laminated unsaturated polyester mixed with inorganics	140

Enclosures

Misc ID 7-03

moulded unsaturated polyester mixed with:	
other than organics	120
inorganic powder	140
glass fiber	155
epoxy resin-casting	120
laminated epoxy resin mixed with:	
inorganic	130, (140) ¹⁾
other than inorganics	110, (90) ²⁾
moulded epoxy resin mixed with inorganics	130
laminated diallyl phthalate resin mixed with inorganics	140
moulded diallyl phthalate resin mixed with:	
other than inorganics	130
inorganic powder	150
glass fiber	155
xylene resin-casting	140
polyamide-imide film	180
laminated silicone resin mixed with inorganics	180, (220) ¹⁾
moulded silicon resins mixed with inorganics	180, (240) ³⁾
polyimide film	210
laminated polyimide	190
polybutadiene-casting	120
moulded polybutadiene mixed with inorganics	130
laminated diphenyl oxide mixed with inorganics	180

Notes: 1) Values apply to thermal insulating materials.
2) Values apply to materials with a thickness less than 0.8 mm.
3) Values apply to materials with a thickness less than 0.8 mm when treated to retard flame.
4) Values apply to materials used for thermal insulation and to seal outlets of sheathed heating wires.

Organic materials (Thermoplastic Resins)

Material	Permissible temperature limit (°C)
methacrylic resin, cellulose resin, cellulose acetate butylate resin, ucanise, polyethylene	50
foamed polyethylene compound for insulated conductors, polyvinyl chloride	60
polyethylene compound for insulated conductors, heat-resistant polyvinyl chloride, cross-linked polyvinyl chloride compound for insulated conductors	75
cross-linked polyethylene, chlorinated polyethylene compound for insulated conductors	90
acrylonitrile acrylic rubber styrene resin, acrylonitrile chlorinate polyethylene styrene resin	55
acrylonitrile styrene resin, acrylonitrile butadiene resin, acrylonitrile butadiene chlorinated polyethylene resin	
: general	55
: reinforced with glass fiber	80
polypropylene	
: general	105, (85) ¹⁾
: reinforced with glass fiber	110
denatured polyphenyl oxide: general	75
: reinforced with glass fiber	100
Polystyrene	50, (70) ¹⁾
polyacetal	
: general	100
: reinforced with glass fiber	120
polyamide	
: general	90
: reinforced with glass fiber	120
polycarbonate	
: general	110
: reinforced with glass fiber	120
polyethylene terephthalate	
: general	120
: reinforced with glass fiber	130
polybutylene terephthalate	
: general	120
: reinforced with glass fiber	135
heat resistant polyethylene terephthalate film	135
fluorinated polyvinylidene compound for insulated conductors, polychlorotrifluoroethylene (ethylene-trifluoride resin), ethylene-tetrafluoroethylene copolymer for insulated conductors	150
tetrafluoroethylene hexafluoropropylene resin	200
polytetrafluoroethylene(ethylene-tetrafluoride), perfluoroalkoxy compound for insulated conductors	250
aramide(aromatic polyamide paper)	220
Polysulfone	140, (150) ²⁾
polyethylene naphthalate	155
polyallylate	
: general	120
: reinforced with glass fiber	130

Notes: 1) Values apply to capacitor dielectrics.
2) Values apply to thermal insulating material
3) Values apply to materials with a thickness of less than 0.8 mm
4) Inorganic materials

Inorganic materials

Material	Permission temperature limit (°C)
glass fiber (only alkaline free)	300

Enclosures

Misc ID 7-03

lead glass	380
borosilicate glass	490
quartz glass	800
ceramic	800, (1000) ¹⁾

Note: 1) Value apply to materials used as electric heating elements

Rubber compounds

Material	Permission temperature limit (°C)
natural rubber, polyurethane rubber, ebonite	60
nitrile rubber, styrene butadiene rubber, chloroprene rubber	75
butyl rubber	80
ethylene propylene (diene) rubber, chlorosulfonated polyethylene rubber	90
silicone rubber	180, (200) ¹⁾

Note : 1) Value apply to thermal insulating material and sealing compounds for sheathed heating elements.

Sleeves, Cloth, Tapes and like

Material	Impergnat or coating	Permission temperature limit (°C)
rayon, cellulose acetate, vinylon	adhesive, oil varnish	105
paper, cotton fabric, silk fabric, polyamide, polyester fabric, polyester nonwoven fabric	oil varnish	105
polyester fabric, polyester nonwoven fabric	alkyd resin varnish	120
glass fabric	(ditto)	130
paper	Iso or terephthalate alkyd resin varnish, epoxy resin varnish, alkyd resin varnish	105
polyester fabric, polyester nonwoven fabric	(ditto)	120
glass fabric, aramide paper	Iso or terephthalate, alkyd resin varnish, epoxy resin varnish	155
	silicone resin varnish, silicone rubber	180
vulcanised fiber		105
heat resistant fiber		120

Enclosures

Misc ID 7-04

J3000(H21) Attachment 206			
Clause	Requirement - Test	Result - Remark	Verdict
Japan Differences to IEC Standards			
1. General	Equipment employs appliance couplers as defined in JIS C 8283-1(2008): Equipment shall be so constructed that mechanical force is not transmitted to soldering section of appliance coupler when connector is inserted in or pulled out. This requirement is not applied to equipment which appliance coupler is security fixed, and installation of appliance coupler is not relied solely on soldering. Verdict shall be judged by visual inspection.	Recess of Appliance inlet is fitted in edge of enclosure. This construction is not transmitted the mechanical force to the soldering section.	Pass

Notes:

1. Product scope of JIS C 8283-1(2008) is harmonized with IEC60320-1 (2001).
2. General requirement is applied to all Specified and Non-Specified PSE products when J-Standard is used.

TRF No.: J3000(H21)

Enclosures

Misc ID 7-05

Declaration of Conformity

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

We declare, under our solo responsibility, that the products identified in this declaration are in conformity with the requirements of Directive 2002/95/EC on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS).

Description of equipment:

Product description: LCD Projector

Model: NP-P350W, NP-P350X, NP-P420X, NP-M260XS, NP-M260WS,
NP-M300XS, NP-M300WS, NP-M300XS, NP-M420X,
NP-M420XV

The authorized signatory to this declaration:

Name: (Mr.) Norimasa Okamoto

Manager,

Title: Quality Assurance Dept., Quality Assurance and Production
Coordination Div.

Address: 686-1, Nishioi, Oi-machi, Ashigarakami-gun, Kanagawa, 258-8533, Japan.

Signature: *N. Okamoto*

Date: November 4th, 2010.

Enclosures

Misc ID 7-07

業 者 名		MANUFACTURER	
型 検 元 日		MOLD CHECKUP	
		/ /	

試作見積用図面	
平導体端子取付面 DEVICE INSTALL SIDE	

試作見積用図面

平導体端子取付面
DEVICE INSTALL SIDE

この範囲内はバリ凸不可

LC0909-5005
TARMINAL ±C0819-5003
LC0909-5005
端子 ±C0819-5003

端子引張り強度: 5kgで引張り、外れ無い事

注記)
1) M3穴の平導体端子取付面側には、CO-3の面取りを行なう事。
2) 1) CHAMFERED M3, ONLY A SIDE WHERE DEVICES ARE MOUNTED. THE SIZE IS CO.3.
3) アルミ・銅等を腐食させる油は使用不可とする。
4) 101 THAT WOULD CAUSE CORROSION ON ALUMINUM OR COPPER SHALL NOT BE USED.
5) 打ち抜き送り寸の大きさは0.05以下とする。
6) MAXIMUM BURR: 0.05
7) まみ・反り等変形なき事。
8) NO DISTORTION NOR STRAIN IS ALLOWED.
9) UNLESS OTHERWISE SPECIFIED, R-R1
10) 指定なき公差は別表通りとする。
11) TOLERANCES ARE PER THE TABLE SHOWN.
12) この商品は、弊社にて作成した「対象化学物質・含有確認書」の1~15項の有害物質(下記参照)を含まない事。
13) 7) 1) ME REQUEST The check list for applicable chemical substances OF TABUCHI CO., LTD STYLE.
14) RoHS (6物質): 有機スズ(2物質)、ハロゲン系有機化合物(3物質)
15) RoHS (6物質): Organic tin(2 material) Halogenated Organic(3 material)
16) アスベスト類、フッ化化合物、オゾン層破壊物質、放射性物質
17) Asbestos, Azo Colorants, Ozone Depleting Substances, Radioactive Substances
18) 注: 有害物質は弊社「対象化学物質・含有確認書」を確認する事。
19) Confirm The check list for Applicable chemical substances.
20) 8) 納入時の梱包箱等には、部番、部材コード及び「RoHS」の記載をする事。
21) 8) Mention 'PARTS No.', 'CODE', 'RoHS' in the packing box in the delivery.

呼び寸法	精	普
4未満	±0.05	±0.1
4~16	±0.1	±0.15
16~63	±0.15	±0.25
63~120	±0.2	±0.35
120~250	±0.3	±0.5
250~400	±0.4	±0.65
400以上	±0.5	±0.8

曲げ角度区分	精	普
直角曲げ	±0.5	±1.0
ツノ他曲げ	±0.7	±1.5
平行度	±0.3	±0.5

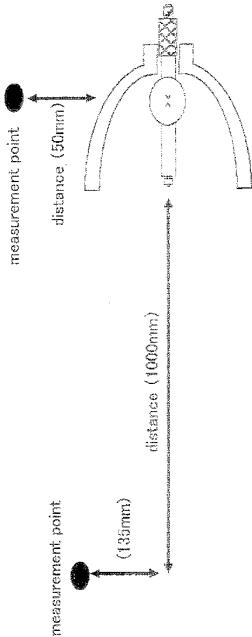
図 法	単位	材 質
PROJECTION	UNIT	MATERIAL
①	mm	AL t=2.0 (A5052P H34相当)
尺 度	1/1	材 質
SCALE		
作 成 日	09/07/13	処 理 加 工
DATE		FINISH
照 査	確 認	検 査
CHECKER	CHECKED	CHECKED
PE2	PE2	PE2
22.3.-1	22.3.-1	22.3.-1
相馬	久保田	宗田
製 図	担 当	図 面 区 分
DRAWN	DGND	DIVISION
22.3.-1	22.3.-1	22.3.-1
部 品 区 分	専 用 部 品	名 称
PARTS DIVISION		NAME
コード		ヒートシンク
部 番	試 作 見 積 用 図 面	部 番
PARTS NO.		
LC0908-50X2A		
REV.	VER.	PAGE

Misc ID 7-08

Lamp Specification

Manufacturer		Ushio Inc.		
Type/Model	NSH-A210NEB3			
Technical data	Lamp Power	Pressure (at lighting)	Pressure (at turning off)	
	230W	200mm	0.13atm	
Measurement Equipment	Name	Type	Manufacturer name	
	Spectroradiometer	USR40	Ushio Inc.	
Classification		Wave length	Result	
			Valve Only	
			Valve & Reflector Assy	
			The other side of Reflector	
UV output		UVA	310~400nm	11.7
		UVB	280~315nm	0.8
		UVC	240~280nm	0.05
UV-output through dichroic reflector			248~400nm	0.1
			400~780nm	32.2
			700~1000nm	137.4
Total visible flux				113.5
IR				—

unit : μW



Misc ID 7-08

Lamp Specification

Manufacturer	Ushio Inc.			
Type/Model	NSHA180NEH			
Technical data	Lamp Power	Pressure (at lighting)	Pressure (at turn-off)	
	180W	210atm	9.13atm	
Measurement Equipment	Name	Type	Manufacturer	
	Spectroradiometer	US340	Ushio Inc.	

Classification	Wave length	Result	The other side of Reflector
UV output	UVA	Valve Only Reflector Assy	
	UVB	8.9	174
	UVC	0.6	0.6
UV output through dichroic reflector	245-280nm	0.04	0.2
Total visible flux	245-400nm	25.3	761
IR	400-780nm	9.4	397

unit : μW

measurement point

distance (50mm)

distance (1000mm)

measurement point

(135mm)

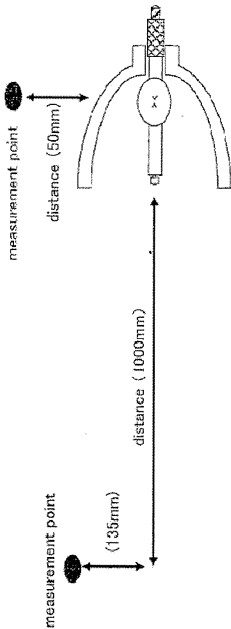
Misc ID 7-08

260Wランプ紫外線量(ランプメーカーデータ)

Lamp Specification

Manufacturer		Usito Inc.			
Type/Model		NSHA260NE			
Technical data		Lamp Power	265W		
		Pressure (at lamp)	202atm		
Measurement Equipment		Name	Type		
		Manufacturer's name	Usito Inc		
Specification		Pressure type	USR40		
Classification		Wave length	Result		
UV-output	UVA	310~400nm	Valve Only	Valve & Reflector Assy	The other side of Reflector
	UVB	280~315nm	13.1	274	
	UVC	240~280nm	0.9	1.8	
UV-output through dichroic reflector		240~400nm	0.06	0.5	
Total visible flux		400~780nm	37.2	1875	80.3
IR		700~1000nm	13.8	1022	

unit : μW



Enclosures

License ID 8-01



Licence for



CENELEC ENEC Agreement Licence Ref. No. SE/0142-1L

Product:	Capacitor for radio interference suppression
Type designation:	LE (-*)
Test Report No.	815940-01.-02 + 806055-01 + 711640-01 + 614375-01 + 611358-01.-02.-03.-04
Licence holder:	Okaya Electric Industries Co., Ltd 6-16-8 Todoroki, Setagaya-ku Tokyo 158-8543 JAPAN
The product complies with the standard(s):	EN 60384-14:2005
Licence holder is authorized to use the mark with the following limitations:	-
Date of expiry:	31 December 2011

Additional information in Appendix

Certification Body	Intertek Senko AB, Product Certification	Place	Kista - Stockholm
Signed	 Pia Ostgaard	Date	11 March 2009
Internal reference	SUL		

This licence is the result of testing a sample of the product submitted, in accordance with the provisions of the relevant specific standard. A copy of the licence shall be filed in the place of manufacturing. The licence has been established by a body which is a signatory to the CENELEC Agreement ratified by CENELEC Marks Committee on 12 April 1992.

Intertek Senko AB
Torshovgatan 13, Box 1102, SE-141 21 Kista, Sweden
Telephone: +46 (0) 8 54 01 51, Fax: +46 (0) 8 54 01 50, e-mail: senko@intertek.se
Registered in Sweden, No. 0257422474/01, Registered office: Kista, Sweden

Enclosures

License ID 8-01



APPENDIX

CENELEC ENEC Agreement Licence Ref. No. SE/0142-1L

Test Report No. 815940-01-02 + 806055-01 + 711640-01 + 614375-01 + 611368-01-02,-03,-04

Technical data

Type designation	LE(-)
Rated voltage	250 - 310VAC
Frequency	50/60Hz
Capacitance	0.1 – 3.3uF Series E6 Class X2 275VAC 55/100/56/C or B 0.01 – 1.0uF Series E6 Class X2 250-300VAC 55/110/56/C or B and 55/100/56/C or B 0.01 – 2.2uF Series E6 Class X2 275VAC 55/100/56/C or B 0.1 – 2.2uF Series E6 Class X2 300 - 310VAC 55/110/56/C or B 0.1 – 0.33uF Series E6 Class X2 275VAC 55/100/56/C or B
Tolerance	±10%
Class and subclass	X2
Climatic category	55/100/56/C or B 55/110/56/C or B
Trade mark	<L
Additional information	Fulfills standard IEC 60384-14:2005
0.1-3.3uF Series E6 Class X2 275VAC, 55/100/56/C or B 0.01-2.2uF Series E6 Class X2 275VAC 55/100/56/C or B 0.1 - 2.2uF Series E6 Class X2 310VAC, 55/110/56/C or B	Okaya (Hong Kong) Ltd. Dongguan Dongkeng Okaya Electronics Plant Huangwa Dongkeng Town, Dongguan City, Guangdong Province 511734 CHINA

11 March 2009

Intertek Sankyo AB
Tjörnen vägen 43, box 1102, SE-134 20 Kista, Sweden
Telephone: +46 8 742 22 44 Fax: +46 8 742 22 33 www.intertek.se/sankyo@intertek.se
Registered in Sweden: Org.nr 2402360-1, Reg. nr 1030184-14

11/01

License ID 8-01



0.01-10uF Series E6, Class X2, 250-300VAC,
55/110/55/C or B and 55/100/55/C or B

1.5-10uF Series E6, Class X2, 250-300VAC,
55/100/55/C or B

Tenoku Okaya Co., Ltd
93-4 Sekinoue
Sibutami Daito-Cho
Ichinoseki-Shi
Iwate-Ken 029-0521
JAPAN

Okaya (Hong Kong) Ltd
Dongguan Dongkeng Okaya Electronics Plant
Huangwu Dongkeng Town, Dongguan City,
Guangdong Province 511734
CHINA

0.1-1.0uF, Class X2, 275VAC, 55/100/55/C or B

0.1-1.0uF Series E6, Class X2, 310VAC,
55/110/55/C or B

Okaya Lanka (Private) Limited
Spur Road 4, Phase I, E.P.Z, Katunayake
SRI Lanka

CAPACITOR [LE SERIES]

Original LE	55/100/55	275Vac
Extension LE (LE-M, -S)	55/100/55	275Vac
Super extension LE (LE-M, -S, -R)	55/100/55 110/210/55	275Vac 210Vac 210Vac
Super extension LE (LE-MX)	55/100/55	275Vac

11 March 2009

Enclosures

License ID 8-02

b-6 (1/4)

VDE Prüf- und Zertifizierungsinstitut**ZEICHENGENEHMIGUNG
MARKS APPROVAL**

Murata Mfg. Co., Ltd.
(Headquarters)
10-1 Higashikotari 1-Chôme
NAGAOKAKYO-SHI, KYOTO 617-8555
JAPAN

ist berechtigt, für ihr Produkt /
is authorized to use for their product

**Festkondensator zur Unterdrückung elektromagnetischer
Störungen, geeignet für Netzbetrieb**
**Fixed capacitor for electromagnetic interference
suppression and connection to the supply mains**

die hier abgebildeten markenrechtlich geschützten Zeichen
für die ab Blatt 2 aufgeführten Typen zu benutzen /
the legally protected Marks as shown below for the types referred to on page 2 ff.



Geprüft und zertifiziert nach /
Tested and certified according to

DIN EN 60384-14 (VDE 0565 Teil 1-1):2006-04; EN 60384-14:2005-08
IEC 60384-14(ed.3)



VDE Prüf- und Zertifizierungsinstitut
VDE Testing and Certification Institute
Zertifizierungsstelle / Certification

Schlupfer

VDE Zertifikate sind nur gültig bei Veröffentlichung unter:
VDE certificates are valid only when published on:

**VDE VERBAND DER ELEKTROTECHNIK
ELEKTRONIK INFORMATIONSTECHNIK e.V.**

Aktenzeichen: 748200-4670-0054 / 87938
File ref.:

Ausweis-Nr.: 40002831 Blatt 1
Certificate No. Page

Weitere Bedingungen siehe Rückseite und Folgeblätter /
further conditions see overleaf and following pages

Offenbach, 2002-08-19
(letzte Änderung/updated, 2007-09-07)
<http://www.vde.com/zertifikat>
<http://www.vde.com/certificate>



Enclosures

License ID 8-02

b-6 (2/4)

VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Blatt /
Certificate No. page
40002831 2

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder
Murata Mfg. Co., Ltd. (Headquarters), 10-1 Higashikotari 1-Chome, NAGAKAKYO-SHI, KYOTO
617-8555, JAPAN

Aktenzeichen / File ref.
748200-4670-0054 / 87538 / FG32 / BT

letzte Änderung / updated Datum / Date
2007-09-07 2002-08-19

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 40002831.
This supplement is only valid in conjunction with page 1 of the Certificate No. 40002831.

Festkondensator zur Unterdrückung elektromagnetischer Störungen, geeignet für Netzbetrieb Fixed capacitor for electromagnetic interference suppression and connection to the supply mains

Typ(en) / Type(s):

KX, standard version
KX, reduced version

Bemessungskapazität
Rated capacitance 10 pF; 15 pF; 22 pF; 33 pF; 47 pF; 68 pF; 100 pF;
150 pF; 220 pF; 330 pF; 470 pF; 680 pF; 1000 pF;
1500 pF; 2200 pF; 3300 pF; 3900 pF; 4700 pF

Bemessungsspannung
Rated voltage a) AC 440 V
b) AC 300 V

Kapazitätsklasse und
-unterklasse
Capacity Class and subclass a) X1
b) Y1

Keramikart
Type of ceramic SL (10 pF bis/to 68 pF)
B (100 pF bis/to 1000 pF)
E (1000 pF bis/to 4700 pF)

Grenzabweichung der
Bemessungskapazität
Tolerance of rated capacitance $\pm 5\%$ (J) und/and $\pm 10\%$ (K)
for type of ceramic SL
 $\pm 10\%$ (K) und/and $\pm 20\%$ (M)
for type of ceramic B
 $\pm 20\%$ (M)
for type of ceramic E

Klimakategorie
Climatic category 25/125/21

Kategorie der passiven
Entflammbarkeit
Passive flammability category C

Fortsetzung siehe Blatt 3 /
continued on page 3

VDE Testing and Certification Institute * Institut VDE d'Essais et de Certification



Merianstrasse 28, D-63089 Offenbach

Telefon +49 (0) 69 83 06-0
Telefax +49 (0) 69 83 06-555

Enclosures

License ID 8-02

b-6 (3/4)

**VDE Prüf- und Zertifizierungsinstitut
Zeichengenehmigung**

Ausweis-Nr. /	Blatt /
Certificate No.	page
40002831	3

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder
Murata Mfg. Co., Ltd. (Headquarters), 10-1 Higashikotari 1-Chome, NAGAOKAKYO-SHI, KYOTO
617-8555, JAPAN

Aktenzeichen / File ref.
748200-4670-0054 / 87538 / FG32 / BT

letzte Änderung / updated Datum / Date
2007-09-07 2002-08-19

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 40002831.
This supplement is only valid in conjunction with page 1 of the Certificate No. 40002831.

Weitere Einzelheit(en)
Further detail(s)

Anlage Nr. 1 bis 2 und Zusammenfassung
Enclosure No. 1 to 2 and summary

VDE Prüf- und Zertifizierungsinstitut
VDE Testing and Certification Institute
Fachgebiet FG32
Section FG32

Bzh

lc

VDE Testing and Certification Institute * Institut VDE d'Essais et de Certification

Marianstrasse 28, D-63069 Offenbach



Telefon +49 (0) 69 83 06-0
Telefax +49 (0) 69 83 06-555

Enclosures

License ID 8-02

b-6 (4/4)

**VDE Prüf- und Zertifizierungsinstitut
Zeichengenehmigung**Ausweis-Nr. / Beiblatt /
Certificate No. Supplement
40002831Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder
Murata Mfg. Co., Ltd. (Headquarters), 10-1 Higashikotari 1-Chome, NAGAOKAKYO-SHI, KYOTO
617-8555, JAPANAktenzeichen / File ref.
748200-4670-0054 / 87538 / FG32 / BTletzte Änderung / updated Datum / Date
2007-09-07 2002-08-19Dieses Beiblatt ist Bestandteil des Zeichengenehmigungsausweises Nr. 40002831.
This supplement is part of the Certificate No. 40002831.**Festkondensator zur Unterdrückung elektromagnetischer
Störungen, geeignet für Netzbetrieb
Fixed capacitor for electromagnetic interference
suppression and connection to the supply mains**Fertigungsstätte(n)
Place(s) of manufactureReferenz/Reference Taiwan Murata Electronics Co., Ltd.
30009293 No. 225, Chung Chin Road
TAICHUNG CITY
TAIWANReferenz/Reference Murata Electronics (Thailand) Ltd.
30002166 Northern Region Ind. Est., 63 Moo 4
Tambol Ban-Klang Amphur Muang
TH-51000 LAMPHUNVDE Prüf- und Zertifizierungsinstitut
VDE Testing and Certification Institute
Fachgebiet FG32
Section FG32

VDE Testing and Certification Institute * Institut VDE d'Essais et de Certification

Merianstrasse 28, D-63089 Offenbach

Telefon +49 (0) 69 83 06-0
Telefax +49 (0) 69 83 06-555

Enclosures

License ID 8-03

VDE Prüf- und Zertifizierungsinstitut**ZEICHENGENEHMIGUNG
MARKS LICENCE**

TDK Corporation
Module & Devices Division
200 Tachisawa Hirasawa Nikaho-machi
YURI-GUN AKITA 018-0402
Japan

ist berechtigt, für ihr Produkt /
is authorized to use for their product

**Festkondensator zur Unterdrückung elektromagnetischer Störungen,
geeignet für Netzbetrieb**
**Fixed capacitor for electromagnetic interference suppression and
connection to the supply mains**

die hier abgebildeten markenrechtlich geschützten Zeichen für die
ab Blatt 2 aufgeführten Typen zu benutzen /
the legally protected Marks as shown below for the types referred to on page 2 ff.



Geprüft und zertifiziert nach /
Tested and certified according to

DIN EN 132400 (VDE 0565 Teil 1-1):1999-06
IEC 60384-14:1993-07, Table II + A1:1995-06

VDE Prüf- und Zertifizierungsinstitut
VDE Testing and Certification Institute
Zertifizierungsstelle
Certification

VDE VERBAND DER ELEKTROTECHNIK
ELEKTRONIK INFORMATIONSTECHNIK e.V.

Aktenzeichen: 7825-4670-0032 / 402S8 F35 / SJ

File ref.:

Ausweis-Nr.: 138550

Licence No.:

Blatt 1
page

Weitere Bedingungen siehe Rückseite und Folgebblätter /
further conditions see overleaf and following pages
Offenbach, 2001-10-12



License ID 8-03

VDE Prüf- und Zertifizierungsinstitut **Zeichengenehmigung**

Ausweis-Nr. /
Licence No. Blatt /
page
138550 2

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Licence holder

TDK Corporation Module & Devices Division
200 Tachisawa Hirasawa Nikaho-machi
YURI-GUN AKITA 018-0402, Japan

Abkürzungen / File ref.

7825-4670-0032 / 402S8 F35 / SJ

letzte Änderung / updated

2001-10-15

Datum / Date

2001-10-12

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 138550.
This supplement is only valid in conjunction with page 1 of the Licence No. 138550.

Jahresgebühr-Einheiten /
Annual fee units

Festkondensator zur Unterdrückung elektromagnetischer Störungen, geeignet für Netzbetrieb
Fixed capacitor for electromagnetic interference suppression and connection to the supply
mains

28,83

Typ(en) / Type(s):

CD

Bemessungsspannung
Rated voltage

- a) AC 400 V
- b) AC 250 V
- c) AC 250 V

Bemessungskapazität
Rated capacitance

- 100 pF, 150 pF, 220 pF, 330 pF, 390 pF,
470 pF, 680 pF, 1000 pF, 1500 pF, 2200 pF,
3300 pF, 3900 pF, 4700 pF

6,72

Kapazitätsklasse und -
unterklasse
Capacitor Class and subclass

- a) X1
- b) X1
- c) Y1

Klimakategorie + Kat. der
passiven Entflammbarkeit
Climatic category + letter for
pass. flammability

- a) 25/125/56/B
- b) 25/065/56/B
- c) 25/125/56/B

Keramikart
Type of ceramic

- (100 pF bis/to 150 pF
(220 pF bis/to 470 pF)
(680 pF bis/to 4700pF)

Grenzabweichung vom
Bemessungskapazitätswert
Tolerance on rated capacitance

- ± 10 % (K) oder/for ± 20 % (M)
- 100 pF bis/to 470 pF
± 20 % (M) 680 bis/to 4700 pF

Fortsetzung siehe Blatt 3 /
continued on page 3

VDE Testing and Certification Institute * Institut VDE d'Essais et de Certification



Merianstraße 26, D-69009 Offenbach

Telefon (+49) (69) 8306-0
Telefax (+49) (69) 8306-555

Enclosures

License ID 8-04

Intertek

Certificate



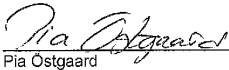
for European Product Safety

Reference No. 901309

Optoinsulator for bridging of reinforced insulation

Type designation	PS2561A..-1
Certificate holder	NEC Electronics Corporation Compound Semiconductor Devices Division 1753, Shimonumabe, Nakahara-ku Kawasaki-shi, Kanagawa 211-8668 JAPAN
The product complies with the standard(s)	EN 60065:2002 and A1 EN 60950-1:2006 IEC 60065:2001 and A1 IEC 60950-1:2005
Date of expiry	31 December 2013

Additional information in Appendix.

Certification Body	Intertek Semko AB, Product Certification	Place	Kista - Stockholm
Signed	 Pia Ostgaard	Date	9 February 2009 Page 1 of 3

This certificate is issued in accordance with the terms and conditions set out in the Appendix.

Enclosures

License ID 8-04



Appendix

Reference No. 901309

*Technical data**Type designation*

PS2561A..

Alternative designs:

PS2561A-1: 4 pin DIP
PS2561AL-1: 4 pin DIP for SMD-mounting.
PS2561AL1-1: 4 pin DIP with wider distance between leads.
PS2561AL2-1: 4 pin DIP for SMD-mounting with wider distance between leads.

Note: The samples are marked 2561.

For a RMS working voltage up to 250V, pollution degree 2 and material group IIIa or IIIb.

The following tests have been performed with positive result:

General

- Creepage distance between input and output : >7 mm
- Distance through insulation : >0.4 mm
- Internal creepage distance not measured, tests according to EN 60950 2.10.11 have been performed with positive result.
- Humidity test : 48h. in 93% relative humidity. Electric strength test 3750 V/1 min.

Special tests according to EN 60950

- Thermal cycling test: 10 cycles. Each cycle : 68 h in 100°C, 1 h in 25°C, 2 h in 0°C and 1 h in 25°C.
After the cycling test a humidity test for 48 h in 93% relative humidity.
Electric strength test between input and output 5000 V/1 minute
- Electrical test with max. input and output according to data sheets for 4 h.
Input max. : 30 mA
Output max. : 150 mW

After judgement from case to case, the opto-insulator can bridge basic, supplementary, double or reinforced insulation, provided that the ratings in data sheet are not exceeded in normal operation or under fault conditions in the appliance.

This certificate replaces previously issued ref. No. 607784 dated 13 June 2006 for above mentioned type.

A new certificate has been issued on account of updated standards.

This Certificate is for the exclusive use of Intertek's Client and is provided pursuant to the Certification agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this certificate. Only the Client is authorized to permit copying or distribution of this certificate and then only in its entirety. Use of Intertek's Certification mark is restricted to the conditions laid out in the agreement. Any further use of the Intertek name for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. Initial Factory Assessments and Follow up Services are for the purpose of assuring appropriate usage of the Certification mark in accordance with the agreement, they are not for the purposes of production quality control and do not relieve the Client of their obligations in this respect.

Page 2 of 3

Enclosures

License ID 8-04

Intertek

Appendix

Reference No. 901309

Manufacturing site(s)

Kyushu Denshi Co., Ltd
89, Nagasaki Shiranui-machi
Uki-shi Kumamoto
869-0562
JAPAN

Microwave & Optical Semiconductors Taiwan Co., Ltd.
587, Gao Shu Road
Gao Shan Li
Yangmei
Taoyuan
TAIWAN

Certification Body

Intertek Semko AB, Product Certification

Place Kista - Stockholm

Signed


Pia Ostgaard

Date 9 February 2009

This Certificate is for the exclusive use of Intertek's Client and is provided pursuant to the Certification agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this certificate. Only the Client is authorized to permit copying or distribution of this certificate and then only in its entirety. Use of Intertek's Certification mark is restricted to the conditions laid out in the agreement. Any further use of the Intertek name for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. Initial Factory Assessments and Follow up Services are for the purpose of assuring appropriate usage of the Certification mark in accordance with the agreement, they are not for the purposes of production quality control and do not relieve the Client of their obligations in this respect.

Page 3 of 3

Enclosures

License ID 8-05

Intertek

Certificate



for European Product Safety

Reference No. 911065

Optoinsulator for bridging of reinforced insulation

Type designation	PC12**
Certificate holder	Sharp Corporation 22-22, Nagaike-cho Abeno-ku, Osaka 545-8522 JAPAN
The product complies with the standard(s)	EN 60065:2002, A1 and A11 EN 60335-1:2002+A11+A1+A12+A2+A13 EN 60950-1:2006 and A11 IEC 60065:2001 and A1 IEC 60335-1:2001+A1+A2 IEC 60950-1:2006
Date of expiry	23 September 2014

Additional information in Appendix.

Certification Body Intertek Semko AB, Product Certification

Place Kista - Stockholm

Signed

A handwritten signature in black ink, appearing to read 'Nilsas Lood', written over a horizontal line.
Nilsas LoodDate 23 September 2009
Page 1 of 3

This certificate is issued in accordance with the terms and conditions set out in the Appendix.

Enclosures

License ID 8-05

Intertek

Appendix

Reference No. 911065

Technical data

Type designation

PC12**

Alternative designs:

PC1231

- PC12: 0 VCEO max 35V. Working voltage max 250V AC.
1 VCEO max 70V. Working voltage max 250V AC.
3 VCEO max 80V. Working voltage max 300V AC.

The following tests have been performed with positive result:

General

- Creepage distance between input and output : Type PC120 and PC121: >6 mm,
Type PC123 and PC1231: >8mm
- Internal creepage distance not measured, tests according to EN60950 2.10.11 have been performed with positive result.
- Distance through insulation : >0.4 mm
- Humidity test : 48h. in 93% relative humidity. Electric strength test 3000 V/1 min.

Special tests according to EN 60335

- Electric strength test between input and output after conditioning 168 h in a temperature of 160°C.(= 50°C higher than max. ambient operating temperature).
- Test in the heating cabinet : 3000 V/1 minute
- Test in room temperature : 3000 V/1 minute

Special tests according to EN 60950

- Thermal cycling test. 10 cycles. Each cycle : 68 h in 110°C, 1 h in 25°C, 2 h in 0°C and 1 h in 25°C. After the cycling test a humidity test for 48 h in 93% relative humidity. Electric strength test between input and output 5000 V/1 minute
- Electrical test with max. input and output according to data sheets for 4 h.
Input max. : PC120, PC121 and PC123: 50 mA, PC1231: 10mA.
Output max. : 150 mW

After judgement from case to case, the opto-insulator can bridge basic, supplementary, double or reinforced insulation, provided that the ratings in data sheet are not exceeded in normal operation or under fault conditions in the appliance.

This Certificate is for the exclusive use of Intertek's Client and is provided pursuant to the Certification agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this certificate. Only the Client is authorized to permit copying or distribution of this certificate and then only in its entirety. Use of Intertek's Certification mark is restricted to the conditions laid out in the agreement. Any further use of the Intertek name for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. Initial Factory Assessments and Follow up Services are for the purpose of assuring appropriate usage of the Certification mark in accordance with the agreement, they are not for the purposes of production quality control and do not relieve the Client of their obligations in this respect.

Page 2 of 3



Enclosures

License ID 8-05



Appendix

Reference No. 911065

This certificate replaces previously issued ref. No. 806762 dated 22 May 2008 for PC1231 and ref. No. 806776 dated 22 May 2008 for PC12..
A new certificate has been issued on account of revised coating materials and updated standards.

Replaces previously issued Appendix dated 23 September 2009.
A new Appendix has been issued on account of corrected address of one manufacturing site and minor misprints.

Certification Body Intertek Semko AB, Product Certification Place Kista - Stockholm

Signed

Nilsas Lood

Date 9 December 2009

This Certificate is for the exclusive use of Intertek's Client and is provided pursuant to the Certification agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this certificate. Only the Client is authorized to permit copying or distribution of this certificate and then only in its entirety. Use of Intertek's Certification mark is restricted to the conditions laid out in the agreement. Any further use of the Intertek name for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. Initial Factory Assessments and Follow up Services are for the purpose of assuring appropriate usage of the Certification mark in accordance with the agreement, they are not for the purposes of production quality control and do not relieve the Client of their obligations in this respect.

Page 3 of 3

License ID 8-06

VDE Prüf- und Zertifizierungsinstitut**GUTACHTEN MIT FERTIGUNGSÜBERWACHUNG**
CERTIFICATE OF CONFORMITY WITH FACTORY SURVEILLANCE

The Furukawa Electric Co. Ltd.
Magnet Wire Division
5-1-9 Higashiyawata
HIRATSUKA-SHI KANAGAWA-KEN 254-0016
JAPAN

ist berechtigt, für ihr Produkt /
is authorized to use for their product

Zubehör für Netzgeräte
Accessories for power supplies
Dreifach isolierte Wicklungsdrähte
Triple Insulated Winding Wires

die hier abgebildeten markenrechtlich geschützten Zeichen
für die ab Blatt 2 aufgeführten Typen zu benutzen /
the legally protected Marks as shown below for the types referred to on page 2 ff.



REG.-Nr. 6735 oder/or



oder/or VDE-REG.-Nr. 6735

REG.-Nr. 6735

Geprüft und zertifiziert nach /
Tested and certified according to

DIN EN 60950-1 (VDE 0805 Teil 1):2003-03; EN 60950-1:2001
IEC 60950-1(ed.1)

VDE Prüf- und Zertifizierungsinstitut
VDE Testing and Certification Institute
Zertifizierungsstelle / Certification

VDE Zertifikate sind nur gültig bei Veröffentlichung unter:
VDE certificates are valid only when published on:

VDE VERBAND DER ELEKTROTECHNIK
ELEKTRONIK INFORMATIONSTECHNIK e.V.

Aktenzeichen: 2135600-3339-0001 / 60258

File ref.:

Ausweis-Nr. 6735

Blatt 1

Certificate No.

Page

Weitere Bedingungen siehe Rückseite und Folgeblätter /
further conditions see overleaf and following pages

Offenbach, 1997-07-07

(letzte Änderung/updated 2005-07-21)

<http://www.vde.com/zertifikat><http://www.vde.com/certificate>

Enclosures

License ID 8-06

VDE Prüf- und Zertifizierungsinstitut Gutachten mit Fertigungsüberwachung

Ausweis-Nr. / Blatt /
Certificate No. / page
6735 2

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder
The Furukawa Electric Co. Ltd. Magnet Wire Division, 5-1-9 Higashiyawata, HIRATSUKA-SHI
KANAGAWA-KEN 254-0016, JAPAN

Aktenzeichen / File ref. letzte Änderung / updated Datum / Date
2135600-3339-0001 / 60258 / FG13 / KRZ 2005-07-21 1997-07-07

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Gutachtens mit Fertigungsüberwachung Nr. 6735.
This supplement is only valid in conjunction with page 1 of the Certificate of Conformity with factory surveillance No. 6735.

Zubehör für Netzgeräte Accessories for power supplies Dreifach isolierte Wicklungsdrähte Triple Insulated Winding Wires

Typ(en) / Type(s):

TEX-E

Zusätzliche Normen DIN EN 60065 (VDE 0860):2003-01
Additional standards EN 60065:2002-03, IEC 60065:2001 mod.

Betriebsspannung an der Isolation max.700Veff, max.1000Vpeak
Working voltage on the insulation

Frequenz max.500kHz (s. Appendix No.1)
Frequency

Isolation für verstärkte Isolation
Insulation for reinforced insulation

Drahtdurchmesser 0.2mm - 1.0mm
Wire diameter

Isolierstoffklasse "E" und / and "B"
Insulation class

Geprüfte Abschnitte IEC/EN 60950-1 Abs. 1.7; 2.9; 2.10.5.4; 5.2;
Tested clauses Annex C; Annex U
IEC/EN 60065 Abs. 8.17; Annex H

Hinweis Bei Verwendung der isolierten Drähte in
Transformatoren sind die oben genannten
Bestimmungen zu beachten.
Notice For usage of the insulated winding wires
in transformers the above mentioned Norm
must be regarded.

Fortsetzung siehe Blatt 3 /
continued on page 3

VDE Testing and Certification Institute - Institut VDE d'Essais et de Certification

Merianstrasse 28, D-63069 Offenbach



Phone +49 (0) 69 83 06-0
Telefax +49 (0) 69 83 06-555

Enclosures

License ID 8-06

**VDE Prüf- und Zertifizierungsinstitut
Gutachten mit Fertigungsüberwachung**Ausweis-Nr. / Blatt /
Certificate No. / page
6735 3Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder
The Furukawa Electric Co. Ltd. Magnet Wire Division, 5-1-9 Higashiyawata, HIRATSUKA-SHI
KANAGAWA-KEN 254-0016, JAPANAktenzeichen / File ref.
2135600-3339-0001 / 60258 / FG13 / KRZletzte Änderung / updated Datum / Date
2005-07-21 1997-07-07Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Gutachtens mit Fertigungsüberwachung Nr. 6735.
*This supplement is only valid in conjunction with page 1 of the Certificate of Conformity with factory surveillance No. 6735.*Weitere Angaben
Further information

s. Appendix. No.1

VDE Prüf- und Zertifizierungsinstitut
VDE Testing and Certification Institute
Fachgebiet FG13
Section FG13

i.A. Gmz

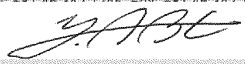
VDE Testing and Certification Institute * Institut VDE d'Essais et de Certification

Merianstrasse 28, D-63069 Offenbach

Phone +49 (0) 69 83 06-0
Telefax +49 (0) 69 83 06-555

Enclosures

License ID 8-07

		Ref. Certif. No. JPULA-03469
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		1/2
CB TEST CERTIFICATE CERTIFICAT D'ESSAI OC		
Product Produit	Ballast Power Supply	
Name and address of the applicant Nom et adresse du demandeur	Ushio Incorporated 1194 Sazuchi Besscho-cho Himeji-shi Hyogo-ken 671-0224 Japan	
Name and address of the manufacturer Nom et adresse du fabricant	Same as applicant	
Name and address of the factory Nom et adresse de l'usine Note: When more than one factory, please report on page 2. Note: Lorsque il y a plus d'une usine, veuillez utiliser la 2^{ème} page	NMB-Minebea Thai Ltd 5/2 Moo 8 Phaholyothin Rd Km 149 T Nikom Strangton-eng A Muang Lop Buri 15000 Thailand ☐ Additional Information on page2	
Ratings and principal characteristics Valeurs nominales et caractéristiques principales	Input: 250-420 Vdc, 1.25 A Output: Maximum 180 Vac, Maximum 4.1 Arms, Maximum 280 W	
Trademark (if any) Marque de fabrique (si elle existe)	None	
Model / Type Ref. Ref. De type	PHG261A3*** (***: any alphanumeric character or blank)	
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire, peuvent être indiquées sur la 2 ^{ème} page)	☐ Additional Information on page2	
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	PUBLICATION IEC 60950-1:2005 Second Edition Deviation/Other conformity standard information is shown on page 2.	
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	EDITION E209836-A6-CB-1	
This CB Test Certificate is issued by the National Certification Body Ce Certificat d'essai OC est établi par l'Organisme National de Certification		
 Underwriters Laboratories Date: 2010. 10. 06	UL Japan, Inc. Technical Center, Yokohama Business Park, 134 Godo-cho, Hodogaya-ku, Yokohama-shi, Kanagawa 240-0005 Japan TEL: 044-4524949 FAX: 044-4524946  Certification manager	

Enclosures

License ID 8-07

	2/2	Ref. Certif. No. JPULA-03469
Deviation/Other conformity standard information EN 60950-1:2006+Amd11:2009 Australia*, Austria**, Belgium**, Brazil*, China*, Czech Republic**, Denmark, Finland, France**, Germany, Group, Hungary**, Israel*, Italy**, Japan*, Korea, Netherlands**, Norway, Poland**, Singapore*, Slovakia**, Slovenia**, Spain, Sweden, Switzerland, USA / Canada, Ukraine*, United Kingdom (Based on CB Bulletin, Dated on October 6, 2010) * No National Differences Declared ** Only Group Differences		
Additional information (if necessary) Information complémentaire (si nécessaire)  UL Underwriters Laboratories Date: 2010. 10. 06  Yuji Abe Certification manager		

Enclosures

License ID 8-08

		Ref. Certif. No.	
1/2		JPULA-02961-A1/M3	
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	Ballast Power Supply		
Name and address of the applicant Nom et adresse du demandeur	Murata Mfg. Company Limited, Power Device Products Division 1-10-1 Higashikotari Nagaokakyo-shi Kyoto 617-8555 Japan		
Name and address of the manufacturer Nom et adresse du fabricant	Murata Mfg. Company Limited 1-10-1 Higashikotari Nagaokakyo-shi Kyoto 617-8555 Japan		
Name and address of the factory Nom et adresse de l'usine	Murata Electronics (Thailand) Ltd Northern Region Industrial Estate 63 Moo 4 Tambol Ban-Klang Amphur Muang Lamphun 51000 Thailand ☐ Additional Information on page2		
Notes: When more than one factory, please report on page 2. Note: Lorsque il y a plus d'une usine, veuillez indiquer la 2 ^{ème} page			
Ratings and principal characteristics Valeurs nominales et caractéristiques principales	Input: 250-420 Vdc Output: Maximum 180 Vac, maximum 3.6 A, maximum 250 W		
Trademark (if any) Marque de fabrique (si elle existe)			
Model / Type Ref. Ref. De type	PHG231A8### (###: Suffix # represents number or alphanumeric character or blank.)		
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire, peuvent être indiquées sur la 2 ^{ème} page)	This is Amendment to CB JPULA-02961-A1/M2 of 2010.03.23. Details are shown in the test report. ☐ Additional Information on page2		
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	PUBLICATION EDITION IEC 60950-1:2005 Second Edition Deviation/Other conformity standard information is shown on page 2.		
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	E190503-A106-CB-1 (Amendment 3)		
This CB Test Certificate is issued by the National Certification Body Ce Certificat d'essai OC est établi par l'Organisme National de Certification			
 Underwriters Laboratories	UL Japan, Inc. Technical Center, Yokohama Business Park, 134 Godo-cho, Hodogaya-ku, Yokohama-shi, Kanagawa 240-0005 Japan Tel: +81 45 342 1244. Fax: +81 45 342 1600 Signature: 		
Date: 2010. 06. 10	Yuji Abe Certification manager		

