TEST REPORT

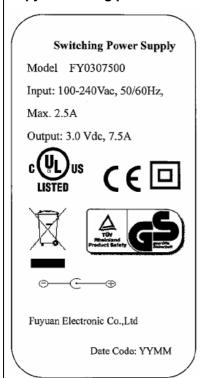
IEC 60950-1 and/or EN 60950-1

1EC 00930-1 and/of LN 00930-1							
	n technology equipment – Safety – art 1: General requirements						
Report reference No	17004848 001						
Tested by (printed name and signature): Approved by (printed name and signature):							
Date of issue:	, ,						
Testing Laboratory Name	, ,						
Address	· ·						
Testing location:	CBTL CCATL SMT TMP						
Address:	See cover page						
Applicant's Name:	Fuyuan Electronic Co., Ltd.						
Address:	Xiewu village, Hengshan, Shipai town, Dongguan, Guangdong, China						
Test specification							
Standard:	EN 60950-1:2001 + A11:2004						
Test procedure:	GS-approval						
Non-standard test method:	N/A						
Test Report Form No	IECEN60950_1B						
TRF originator:	SGS Fimko Ltd						
Master TRF:	dated 2003-03						
Copyright © 2003 IEC System for Configencya, Switzerland. All rights reserved	ormity Testing and Certification of Electrical Equipment (IECEE), d.						
	n part for non-commercial purposes as long as the IECEE is acknowledged as copyright o responsibility for and will not assume liability for damages resulting from the reader's s placement and context.						
Test item description	Switching Power Supply						
Trademark:	Fuyuang						
Manufacturer:	Same as applicant						
Model and/or type reference:	FYxxxyyyy I) xxx: Three digits, from 030 to 580 indicates 10 times of output voltage in volt, II) yyyy: Four digits, from 0300 to 7500 indicates the output current in						
	mA.						
	Engineering sample without serial number						
Rating(s):	·						
	Output: see table A on page 5-15						

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Copy of marking plate:



Remark: Marking plate for the model with maximum output current to present other models.

Summary of testing:

The tests of Switching Power Supply FYxxxyyyy series were carried out under the most unfavourable combination within the manufacturer's operating specifications of the following parameters:

- -supply voltage, which ranged from 100Va.c. to 240Va.c.
- -operating temperature, Max. ambient temperature 25℃ declared by the client
- -operating mode: continuous
- -operating load: the highest normal load, also see table A on page 5-15.

The critical tests were performed for this equipment included clauses 1.6.2, 1.7.13, 2.1.1.5, 2.1.1.7, 2.2.2, 2.2.3, 2.4.2, 2.9.2, 2.10.2, 2.10.3, 2.10.4, 4.2.7, 4.5.1, 4.5.2, 5.1.6, 5.2 and 5.3 in scope of this standard, for temperature test the thermocouples method used and different orientation is considered, regarding fault condition test simulated faults applied.

This report covers FYxxxyyyy series which are desk-top type switching power supply intended to use for information technology equipments.

Test of models FY1267500, FY2405000, FY4802500 and FY5802000 representing all models, test for models FY0307500 and FY1207500 for reference only.

The EUTs passed the test.



TÜV Rheinland Group

TRF originator: SGS Fimko

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Particulars: test item vs. test requirements

Equipment mobility: movable

Operating condition: continuous

Mains supply tolerance (%) +6% for upper limit, -10% for lower limit.

Tested for IT power systems No

IT testing, phase-phase voltage (V) N.A.

Class of equipment Class II

Mass of equipment (kg)....: < 0.32kg

Protection against ingress of water IP20

Test case verdicts

Test case does not apply to the test object ..: N/A

Test item does meet the requirement: P(ass)

Test item does not meet the requirement: F(ail)

Testing

Date of receipt of test item May. 2006

Date(s) of performance of test May. 2006 ~ Jun. 2006

General remarks

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

The test result presented in this report relate only to the object(s) 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.

Comments:

Summary of compliance with National Differences (for explanation of codes see below):

DE=Germany

For National Differences see end of this test report.

Factory(ies):

Same as manufacturer.

TRF No.:IECEN60950_1B

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General product information:

FYxxxyyyy series:

Input: 100-240Vac, 50/60Hz, 2.5A

I) xxx: Three digits, from 030 to 580 indicates 10 times of output voltage in volt,

II) yyyy: Four digits, from 0300 to 7500 indicates the output current in mA.

Output: see Table A.

The EUTs are desk-top type switching power supply intended to use for information technology equipments.

Top enclosure and bottom enclosure were secured by ultrasonic.

Model list and components difference see table A as bellow.

Table A (Mod	lel list and co	mponen	ts diffe	erence)				
Туре	Input	(Output		Components Difference			
Designation	VAC	W	V	mA	Sec.winding	D8 D9	C15 C16	
FY0300300	100-240	0.9	3	300	2X0.9MM 3T	20A 45V	1000uF 10V	
FY0300400	100-240	1.2	3	400				
FY0300500	100-240	1.5	3	500				
FY0301000	100-240	3	3	1000				
FY0301500	100-240	4.5	3	1500				
FY0302000	100-240	6	3	2000				
FY0303000	100-240	9	3	3000				
FY0304000	100-240	12	3	4000				
FY0305000	100-240	15	3	5000				
FY0306000	100-240	18	3	6000				
FY0307000	100-240	21	3	7000				
FY0307500	100-240	22.5	3	7500				
FY0420300	100-240	1.26	4.2	300	2X0.9MM 3T	20A 45V	1000uF 10V	
FY0420400	100-240	1.68	4.2	400				
FY0420500	100-240	2.1	4.2	500				
FY0420600	100-240	2.52	4.2	600				
FY0420700	100-240	2.94	4.2	700				
FY0420800	100-240	3.36	4.2	800				
FY0420900	100-240	3.78	4.2	900				
FY0421000	100-240	4.2	4.2	1000				
FY0421500	100-240	6.3	4.2	1500				
FY0422000	100-240	8.4	4.2	2000				
FY0423000	100-240	12.6	4.2	3000				
FY0424000	100-240	16.8	4.2	4000				
FY0425000	100-240	21	4.2	5000				
FY0426000	100-240	25.2	4.2	6000				
FY0427000	100-240	29.4	4.2	7000				
FY0427500	100-240	31.5	4.2	7500				
FY0500300	100-240	1.5	5	300	2X0.9MM 3T	20A 45V	1000uF 10V	

TRF No.:IECEN60950_1B TRF originator: SGS Fimko



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FY0500400	100-240	2	5	400			
FY0500500	100-240	2.5	5	500			
FY0500600	100-240	3	5	600			
FY0500700	100-240	3.5	5	700			
FY0500800	100-240	4	5	800			
FY0500900	100-240	4.5	5	900			
FY0501000	100-240	5	5	1000			
FY0501500	100-240	7.5	5	1500			
FY0502000	100-240	10	5	2000			
FY0503000	100-240	15	5	3000			
FY0504000	100-240	20	5	4000			
FY0505000	100-240	25	5	5000			
FY0506000	100-240	30	5	6000			
FY0507000	100-240	35	5	7000			
FY0507500	100-240	37.5	5	7500			
FY0600300	100-240	1.8	6	300	2X0.9MM 3T	20A 45V	1000uF 10V
FY0600400	100-240	2.4	6	400			
FY0600500	100-240	3	6	500			
FY0600600	100-240	3.6	6	600			
FY0600700	100-240	4.2	6	700			
FY0600800	100-240	4.8	6	800			
FY0600900	100-240	5.4	6	900			
FY0601000	100-240	6	6	1000			
FY0601500	100-240	9	6	1500			
FY0602000	100-240	12	6	2000			
FY0603000	100-240	18	6	3000			
FY0604000	100-240	24	6	4000			
FY0605000	100-240	30	6	5000			
FY0606000	100-240	36	6	6000			
FY0607000	100-240	42	6	7000			
FY0607500	100-240	45	6	7500			
FY0750300	100-240	2.25	7.5	300	2X0.9MM 3T	20A 45V	1000uF 10V
FY0750400	100-240	3	7.5	400			
FY0750500	100-240	3.75	7.5	500			
FY0750600	100-240	4.5	7.5	600			
FY0750700	100-240	5.25	7.5	700			
FY0750800	100-240	6	7.5	800			
FY0750900	100-240	6.75	7.5	900			
FY0751000	100-240	7.5	7.5	1000			
FY0751500	100-240	11.25	7.5	1500			
FY0752000	100-240	15	7.5	2000			
FY0753000	100-240	22.5	7.5	3000			
FY0754000	100-240	30	7.5	4000			
FY0755000	100-240	37.5	7.5	5000			
FY0756000	100-240	45	7.5	6000			
FY0757000	100-240	52.5	7.5	7000			
FY0757500	100-240	56.25	7.5	7500			



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FY0850300	100-240	2.55	8.5	300	2X0.9MM 4T	20A 45V	1000uF 16V
FY0850400	100-240	3.4	8.5	400			
FY0850500	100-240	4.25	8.5	500			
FY0850600	100-240	5.1	8.5	600			
FY0850700	100-240	5.95	8.5	700			
FY0850800	100-240	6.8	8.5	800			
FY0850900	100-240	7.65	8.5	900			
FY0851000	100-240	8.5	8.5	1000			
FY0851500	100-240	12.75	8.5	1500			
FY0852000	100-240	17	8.5	2000			
FY0853000	100-240	25.5	8.5	3000			
FY0854000	100-240	34	8.5	4000			
FY0855000	100-240	42.5	8.5	5000			
FY0856000	100-240	51	8.5	6000			
FY0857000	100-240	59.5	8.5	7000			
FY0857500	100-240	63.75	8.5	7500			
		<u> </u>			I		
FY0900300	100-240	2.7	9	300	2X0.9MM 4T	20A 45V	1000uF 16V
FY0900400	100-240	3.6	9	400			
FY0900500	100-240	4.5	9	500			
FY0900600	100-240	5.4	9	600			
FY0900700	100-240	6.3	9	700			
FY0900800	100-240	7.2	9	800			
FY0900900	100-240	8.1	9	900			
FY0901000	100-240	9	9	1000			
FY0901500	100-240	13.5	9	1500			
FY0902000	100-240	18	9	2000			
FY0903000	100-240	27	9	3000			
FY0904000	100-240	36	9	4000			
FY0905000	100-240	45	9	5000			
FY0906000	100-240	54	9	6000			
FY0907000	100-240	63	9	7000			
FY0907500	100-240	67.5	9	7500			
							•
FY1000300	100-240	3	10	300	2X0.9MM 4T	20A 45V	1000uF 16V
FY1000400	100-240	4	10	400			
FY1000500	100-240	5	10	500			
FY1000600	100-240	6	10	600			
FY1000700	100-240	7	10	700			
FY1000800	100-240	8	10	800			
FY1000900	100-240	9	10	900			
FY1001000	100-240	10	10	1000			
FY1001500	100-240	15	10	1500			
FY1002000	100-240	20	10	2000			
FY1003000	100-240	30	10	3000			
FY1004000	100-240	40	10	4000			
FY1005000	100-240	50	10	5000			
FY1006000	100-240	60	10	6000			



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FY1007000	100-240	70	10	7000			
FY1007500	100-240	75	10	7500			
1 1 1007 300	100-240	13	10	7300			
FY1200300	100-240	3.6	12	300	2X0.9MM 4T	20A 45V	1000uF 16V
FY1200400	100-240	4.8	12	400			
FY1200500	100-240	6	12	500			
FY1200600	100-240	7.2	12	600			
FY1200700	100-240	8.4	12	700			
FY1200800	100-240	9.6	12	800			
FY1200900	100-240	10.8	12	900			
FY1201000	100-240	12	12	1000			
FY1201500	100-240	18	12	1500			
FY1202000	100-240	24	12	2000			
FY1203000	100-240	36	12	3000			
FY1204000	100-240	48	12	4000			
FY1205000	100-240	60	12	5000			
FY1206000	100-240	72	12	6000			
FY1207000	100-240	84	12	7000			
FY1207500	100-240	90	12	7500			
111201000	100 2 10		–				<u> </u>
]FY1260300	100-240	3.78	12.6	300	2X0.9MM 4T	20A 45V	1000uF 16V
FY1260400	100-240	5.04	12.6	400			
FY1260500	100-240	6.3	12.6	500			
FY1260600	100-240	7.56	12.6	600			
FY1260700	100-240	8.82	12.6	700			
FY1260800	100-240	10.08	12.6	800			
FY1260900	100-240	11.34	12.6	900			
FY1261000	100-240	12.6	12.6	1000			
FY1261500	100-240	18.9	12.6	1500			
FY1262000	100-240	25.2	12.6	2000			
FY1263000	100-240	37.8	12.6	3000			
FY1264000	100-240	50.4	12.6	4000			
FY1265000	100-240	63	12.6	5000			
FY1266000	100-240	75.6		6000			
FY1267000	100-240	88.2	12.6	7000			
FY1267500	100-240	94.5	12.6	7500			
FY1350300	100-240	4.05	13.5	300	2X0.9MM 5T	20A 80V	1000uF 16V
FY1350400	100-240	5.4	13.5	400			
FY1350500	100-240	6.75	13.5	500			
FY1350600	100-240	8.1	13.5	600			
FY1350700	100-240	9.45	13.5	700			
FY1350800	100-240	10.8	13.5	800			
FY1350900	100-240	12.15	13.5	900			
FY1351000	100-240	13.5	13.5	1000			
FY1351500	100-240	20.25	13.5	1500			
FY1352000	100-240	27	13.5	2000			
FY1353000	100-240	40.5	13.5	3000			
FY1354000	100-240	54	13.5	4000			



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FY1355000	100-240	67.5	13.5	5000			1
FY1356000	100-240	81	13.5	6000			
FY1357000	100-240	94.5	13.5	7000			
111007000	100 240	04.0	10.0	1 7000 1			<u> </u>
FY1500300	100-240	4.5	15	300	2X0.9MM 5T	20A 80V	1000uF 25V
FY1500400	100-240	6	15	400			
FY1500500	100-240	7.5	15	500			
FY1500600	100-240	9	15	600			
FY1500700	100-240	10.5	15	700			
FY1500800	100-240	12	15	800			
FY1500900	100-240	13.5	15	900			
FY1501000	100-240	15	15	1000			
FY1501500	100-240	22.5	15	1500			
FY1502000	100-240	30	15	2000			
FY1503000	100-240	45	15	3000			
FY1504000	100-240	60	15	4000			
FY1505000	100-240	75	15	5000			
FY1506000	100-240	90	15	6000			
FY1507000	100-240	105	15	7000			
FY1600300	100-240	4.8	16	300	2X0.9MM 5T	20A 80V	1000uF 25V
FY1600400	100-240	6.4	16	400			
FY1600500	100-240	8	16	500			
FY1600600	100-240	9.6	16	600			
FY1600700	100-240	11.2	16	700			
FY1600800	100-240	12.8	16	800			
FY1600900	100-240	14.4	16	900			
FY1601000	100-240	16	16	1000			
FY1601500	100-240	24	16	1500			
FY1602000	100-240	32	16	2000			
FY1603000	100-240	48	16	3000			
FY1603750	100-240	60	16	3750			
FY1604000	100-240	64	16	4000			
FY1605000	100-240	80	16	5000			
FY1606000	100-240	96	16	6000			
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FY1700300	100-240	5.1	17	300	2X0.9MM 6T	20A 80V	1000uF 25V
FY1700500	100-240	6.8	17	400			
FY1700500	100-240	8.5	17	500			
FY1700600	100-240	10.2	17	600			
FY1700700	100-240	11.9	17	700			
FY1700800	100-240	13.6	17	800			
FY1700900	100-240	15.3	17	900			
FY1701000	100-240	17	17	1000			
FY1701500	100-240	25.5	17	1500			
FY1702000	100-240	34	17	2000			
FY1703000	100-240	51	17	3000			
FY1704000	100-240	68	17	4000			
FY1705000	100-240	85	17	5000			



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FY1706000	100-240	102	17	6000			
1 1 1 7 0 0 0 0 0	100-240	102	17	0000			
FY1800300	100-240	5.4	18	300	2X0.9MM 6T	20A 100V	1000uF 25V
FY1800400	100-240	7.2	18	400			
FY1800500	100-240	9	18	500			
FY1800600	100-240	10.8	18	600			
FY1800700	100-240	12.6	18	700			
FY1800800	100-240	14.4	18	800			
FY1800900	100-240	16.2	18	900			
FY1801000	100-240	18	18	1000			
FY1801500	100-240	27	18	1500			
FY1802000	100-240	36	18	2000			
FY1803000	100-240	54	18	3000			
FY1804000	100-240	72	18	4000			
FY1805000	100-240	90	18	5000			
FY1806000	100-240	108	18	6000			
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FY1900300	100-240	5.7	19	300	2X0.9MM 6T	20A 100V	1000uF 25V
FY1900400	100-240	7.6	19	400			
FY1900500	100-240	9.5	19	500			
FY1900600	100-240	11.4	19	600			
FY1900700	100-240	13.3	19	700			
FY1900800	100-240	15.2	19	800			
FY1900900	100-240	17.1	19	900			
FY1901000	100-240	19	19	1000			
FY1901500	100-240	28.5	19	1500			
FY1902000	100-240	38	19	2000			
FY1903000	100-240	57	19	3000			
FY1903150	100-240	59.85	19	3150			
FY1904000	100-240	76	19	4000			
FY1904750	100-240	90.25	19	4750			
FY1905000	100-240	95	19	5000			
FY1906000	100-240	114	19	6000			
FY2100300	100-240	6.3	21	300	2X0.9MM 6T	20A 100V	1000uF 25V
FY2100400	100-240	8.4	21	400			
FY2100500	100-240	10.5	21	500			
FY2100600	100-240	12.6	21	600			
FY2100700	100-240	14.7	21	700			
FY2100800	100-240	16.8	21	800			
FY2100900	100-240	18.9	21	900			
FY2101000	100-240	21	21	1000			
FY2101500	100-240	31.5	21	1500			
FY2102000	100-240	42	21	2000			
FY2103000	100-240	63	21	3000			
FY2104000	100-240	84	21	4000			
FY2105000	100-240	105	21	5000			
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FY2400300	100-240	7.2	24	300	2X0.9MM 7T	20A 150V	470uF 35V



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FY2400400	100-240	9.6	24	400			
FY2400500	100-240	12	24	500			
FY2400600	100-240	14.4	24	600			
FY2400700	100-240	16.8	24	700			
FY2400800	100-240	19.2	24	800			
FY2400900	100-240	21.6	24	900			
FY2401000	100-240	24	24	1000			
FY2401500	100-240	36	24	1500			
FY2402000	100-240	48	24	2000			
FY2402500	100-240	60	24	2500			
FY2403000	100-240	72	24	3000			
FY2403500	100-240	84	24	3500			
FY2404000	100-240	96	24	4000			
FY2404500	100-240	108	24	4500			
FY2405000	100-240	120	24	5000			
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FY2550300	100-240	7.65	25.5	300	2X0.9MM 7T	20A 150V	470uF 35V
FY2550400	100-240	10.2	25.5	400			
FY2550500	100-240	12.75	25.5	500			
FY2550600	100-240	15.3	25.5	600			
FY2550700	100-240	17.85	25.5	700			
FY2550800	100-240	20.4	25.5	800			
FY2550900	100-240	22.95	25.5	900			
FY2551000	100-240	25.5	25.5	1000			
FY2551500	100-240	38.25	25.5	1500			
FY2552000	100-240	51	25.5	2000			
FY2552500	100-240	63.75	25.5	2500			
FY2553000	100-240	76.5	25.5	3000			
FY2553500	100-240	89.25	25.5	3500			
FY2554000	100-240	102	25.5	4000			
FY2554500	100-240	114.75	25.5	4500			
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FY2900300	100-240	8.7	29	300	2X0.9MM 9T	20A 150V	470uF 35V
FY2900400	100-240	11.6	29	400			
FY2900500	100-240	14.5	29	500			
FY2900600	100-240	17.4	29	600			
FY2900700	100-240	20.3	29	700			
FY2900800	100-240	23.2	29	800			
FY2900900	100-240	26.1	29	900			
FY2901000	100-240	29	29	1000			
FY2901500	100-240	43.5	29	1500			
FY2902000	100-240	58	29	2000			
FY2902500	100-240	72.5	29	2500			
FY2903000	100-240	87	29	3000			
FY2903500	100-240	101.5	29	3500			
FY2904000	100-240	116	29	4000			
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FY3000300	100-240	9	30	300	2X0.9MM 9T	20A 150V	470uF 35V
FY3000400	100-240	12	30	400			



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FY3000500	100-240	15	30	500			
FY3000600	100-240	18	30	600			
FY3000700	100-240	21	30	700			
FY3000800	100-240	24	30	800			
FY3000900	100-240	27	30	900			
FY3001000	100-240	30	30	1000			
FY3001500	100-240	45	30	1500			
FY3002000	100-240	60	30	2000			
FY3002500	100-240	75	30	2500			
FY3003000	100-240	90	30	3000			
FY3003500	100-240	105	30	3500			
FY3400300	100-240	10.2	34	300	2X0.9MM 10T	20A 150V	470uF 50V
FY3400300	100-240	13.6	34	400	270.5WW 101	20/1007	470di 50V
FY3400500	100-240	17	34	500			
FY3400600	100-240	20.4	34	600			
FY3400700	100-240	23.8	34	700			
FY3400700	100-240	27.2	34	800			
FY3400900	100-240	30.6	34	900			
FY3401000	100-240	34	34	1000			
FY3401500	100-240	51	34	1500			
FY3402000	100-240	68	34	2000			
FY3402500	100-240	85	34	2500			
FY3403000	100-240	102	34	3000			
F13403000	100-240	102	34	3000			
FY3600300	100-240	10.8	36	300	2X0.9MM 10T	20A 150V	470uF 50V
FY3600400	100-240	14.4	36	400			
FY3600500	100-240	18	36	500			
FY3600600	100-240	21.6	36	600			
FY3600700	100-240	25.2	36	700			
FY3600800	100-240	28.8	36	800			
FY3600900	100-240	32.4	36	900			
FY3601000	100-240	36	36	1000			
FY3601500	100-240	54	36	1500			
FY3602000	100-240	72	36	2000			
FY3602500	100-240	90	36	2500			
FY3603000	100-240	108	36	3000			
	<u> </u>					1	•
FY3800300	100-240	11.4	38	300	2X0.9MM 11T	16A 200V	470uF 50V
FY3800400	100-240	15.2	38	400			
FY3800500	100-240	19	38	500			
FY3800600	100-240	22.8	38	600			
FY3800700	100-240	26.6	38	700			
FY3800800	100-240	30.4	38	800			
FY3800900	100-240	34.2	38	900			
FY3801000	100-240	38	38	1000			
FY3801500	100-240	57	38	1500			
FY3802000	100-240	76	38	2000			
	100-240	95	38	2500		I	I



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			_				
FY3803000	100-240	114	38	3000			
		1	1	1		-	T
FY4250300	100-240	12.75	42.5	300	2X0.9MM 12T	16A 200V	470uF 50V
FY4250400	100-240	17	42.5	400			
FY4250500	100-240	21.25	42.5	500			
FY4250600	100-240	25.5	42.5	600			
FY4250700	100-240	29.75	42.5	700			
FY4250800	100-240	34	42.5	800			
FY4250900	100-240	38.25	42.5	900			
FY4251000	100-240	42.5	42.5	1000			
FY4251500	100-240	63.75	42.5	1500			
FY4252000	100-240	85	42.5	2000			
FY4252500	100-240	106.25	42.5	2500			
FY4252800	100-240	119	42.5	2800			
		_	ı	,			T
FY4300300	100-240	12.9	43	300	2X0.9MM 12T	10A 200V	470uF 50V
FY4300400	100-240	17.2	43	400			
FY4300500	100-240	21.5	43	500			
FY4300600	100-240	25.8	43	600			
FY4300700	100-240	30.1	43	700			
FY4300800	100-240	34.4	43	800			
FY4300900	100-240	38.7	43	900			
FY4301000	100-240	43	43	1000			
FY4301500	100-240	64.5	43	1500			
FY4302000	100-240	86	43	2000			
FY4302500	100-240	107.5	43	2500			
FY4302700	100-240	116.1	43	2700			
FY4400300	100-240	13.2	44	300	2X0.9MM 12T	16A 200V	470uF 50V
FY4400400	100-240	17.6	44	400			
FY4400500	100-240	22	44	500			
FY4400600	100-240	26.4	44	600			
FY4400700	100-240	30.8	44	700			
FY4400800	100-240	35.2	44	800			
FY4400900	100-240	39.6	44	900			
FY4401000	100-240	44	44	1000			
FY4401500	100-240	66	44	1500			
FY4402000	100-240	88	44	2000			
FY4402500	100-240	110	44	2500			
FY4402700	100-240	118.8	44	2700			
FY4500300	100-240	13.5	45	300	2X0.9MM 12T	16A 200V	470uF 50V
FY4500400	100-240	18	45	400			
FY4500500	100-240	22.5	45	500			
FY4500600	100-240	27	45	600			
FY4500700	100-240	31.5	45	700			
FY4500800	100-240	36	45	800			
FY4500900	100-240	40.5	45	900			
FY4501000	100-240	45	45	1000			



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FY4501500	100-240	67.5	45	1500			1
FY4502000	100-240	90	45	2000			
FY4502500	100-240	112.5	45	2500			
1 14302300	100-240	112.5	43	2300			
FY4600300	100-240	13.8	46	300	2X0.9MM 12T	16A 200V	470uF 50V
FY4600400	100-240	18.4	46	400			
FY4600500	100-240	23	46	500			
FY4600600	100-240	27.6	46	600			
FY4600700	100-240	32.2	46	700			
FY4600800	100-240	36.8	46	800			
FY4600900	100-240	41.4	46	900			
FY4601000	100-240	46	46	1000			
FY4601500	100-240	69	46	1500			
FY4602000	100-240	92	46	2000			
FY4602500	100-240	115	46	2500			
<u>.</u>							
FY4800300	100-240	14.4	48	300	2X0.8MM 12T	16A 200V	330uF 63V
FY4800400	100-240	19.2	48	400			
FY4800500	100-240	24	48	500			
FY4800600	100-240	28.8	48	600			
FY4800700	100-240	33.6	48	700			
FY4800800	100-240	38.4	48	800			
FY4800900	100-240	43.2	48	900			
FY4801000	100-240	48	48	1000			
FY4801500	100-240	72	48	1500			
FY4802000	100-240	96	48	2000			
FY4802500	100-240	120	48	2500			
FY5100300	100-240	15.3	51	300	2X0.9MM 14T	16A 200V	330uF 63V
FY5100400	100-240	20.4	51	400			
FY5100500	100-240	25.5	51	500			
FY5100600	100-240	30.6	51	600			
FY5100700	100-240	35.7	51	700			
FY5100800	100-240	40.8	51	800			
FY5100900	100-240	45.9	51	900			
FY5101000	100-240	51	51	1000			
FY5101500	100-240	76.5	51	1500			
FY5102000	100-240	102	51	2000			
FY5102200	100-240	112.2	51	2200			
E)/E500000	400.010	1440		0000	200 00404 447	164 2001	220 C21/
FY5502000	100-240	116	55	2000	2X0.9MM 14T	16A 200V	330uF 63V
FY5800300	100-240	17.4	58	300	2X0.9MM 14T	16A 200V	330uF 63V
FY5800400	100-240	23.2	58	400			
FY5800500	100-240	29	58	500			
FY5800600	100-240	34.8	58	600			
FY5800700	100-240	40.6	58	700			
FY5800800	100-240	46.4	58	800			
FY5800900	100-240	52.2	58	900			
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	FY5801000	100-240	58	58	1000
	FY5801500	100-240	87	58	1500
Ī	FY5802000	100-240	116	58	2000



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	IEC 60950-1 / EN 6095	50-1	
Clause	Requirement – Test	Result – Remark	Verdict
1	GENERAL		Р
1.5	Components		Р
1.5.1	General		Р
	Comply with IEC 60950 or relevant component standard	Components which were found to affect safety aspects comply with the requirements of this standard or within the safety aspects of the relevant IEC component standards. (see appended table 1.5.1)	Р
1.5.2	Evaluation and testing of components	Components which are certified to IEC and /or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	Р
1.5.3	Thermal controls	No thermal controls used.	Р
1.5.4	Transformers	Transformer complies with the relevant requirements of this standard, particularly those of Annex C.	Р
1.5.5	Interconnecting cables	SELV output cable provided as part of this equipment and no higher energy levels than 240VA, it is not possible to present a hazard.	Р
1.5.6	Capacitors in primary circuits:	X2-cap (C1) used between L and N complies with the requirements of IEC 60384-14: 1993.	P
1.5.7	Double insulation or reinforced insulation bridged by components	See below	Р
1.5.7.1	General		Р
1.5.7.2	Bridging capacitors	Y1-cap (C9) complying with IEC 60384-14: 1993 provided to bridge double/reinforced insulation.	Р
1.5.7.3	Bridging resistors	No such resistors used.	N/A



	Page 17 of 70	Report No.: 17	004848 001
	IEC 60950-1 / EN 609	50-1	
Clause	Requirement – Test	Result – Remark	Verdict
1.5.7.4	Accessible parts	The accessible conductive parts and circuits on secondary complied with the requirements of 2.4 after performing electric strength test of insulation between primary and accessible parts.	Р
1.5.8	Components in equipment for IT power systems	Not for IT power systems	N/A
1.6	Power interface		Р

1.6	Power interface		Р
1.6.1	AC power distribution systems	TN power distribution system.	Р
1.6.2	Input current	(see appended table 1.6.2)	Р
1.6.3	Voltage limit of hand-held equipment	Not hand-held equipment	N/A
1.6.4	Neutral conductor	The neutral conductor was insulated from the body throughout the equipment as if it was a line conductor.	Р

1.7	Marking and instructions		Р
1.7.1	Power rating	See below	Р
	Rated voltage(s) or voltage range(s) (V)	100-240V~	Р
	Symbol for nature of supply, for d.c. only:	AC supply only	N/A
	Rated frequency or rated frequency range (Hz)	50/60Hz	Р
	Rated current (mA or A)	2.5A	Р
	Manufacturer's name or trademark or identification mark	See page 3	Р
	Type/model or type reference	See page 5-15	Р
	Symbol for Class II equipment only	See page 3	Р
	Other symbols:	Additional symbols or markings do not give rise to misunderstanding.	Р
	Certification marks	See page 3	Р
1.7.2	Safety instructions		N/A
1.7.3	Short duty cycles	Continuous operation	N/A
1.7.4	Supply voltage adjustment:	Supply voltage not adjustable	N/A
	Methods and means of adjustment; reference to installation instructions:		N/A
1.7.5	Power outlets on the equipment:	No power outlets	N/A



No replaceable batteries used

Not equipment for restricted

access location

N/A

N/A

N/A

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Report No.: 17004848 001 IEC 60950-1 / EN 60950-1 Result - Remark Clause Requirement - Test Verdict 1.7.6 Р Fuse identification (marking, special fusing Soldered-in fuse not located in characteristics, cross-reference) operator access area, "CF1 3.15A, 250V" marked close to current fuse on PCB. 1.7.7 Wiring terminals N/A 1.7.7.1 Protective earthing and bonding terminals: Class II equipment N/A 1.7.7.2 Terminal for a.c. mains supply conductors This equipment is not N/A permanently connected equipment or provided with ordinary non-detachable power supply cords. 1.7.7.3 Terminals for d.c. mains supply conductors Not DC mains supplied. N/A 1.7.8 Controls and indicators No controls and indicators N/A 1.7.8.1 Identification, location and marking: N/A 1.7.8.2 No safety relevant colours N/A Colours: used. Symbols according to IEC 60417: 1.7.8.3 N/A 1.7.8.4 Markings using figures: No figures used for marking N/A 1.7.9 Isolation of multiple power sources: N/A Single power source 1.7.10 IT power distribution systems N/A 1.7.11 Thermostats and other regulating devices No manually adjustable N/A /resettable devices used 1.7.12 English Language(s): 1.7.13 Р Durability The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 sec. And then again for 15 sec. with the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade. There was no curling nor lifting of the label edge. 1.7.14 Removable parts No removable parts used N/A

Language(s)....:

Operator access with a tool:

Equipment for restricted access locations.....

1.7.15

1.7.16

1.7.17

Replaceable batteries



the enclosure was ultra-sonic

No restricted access locations

welded.

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Report No.: 17004848 001 IEC 60950-1 / EN 60950-1 Result - Remark Clause Requirement - Test Verdict PROTECTION FROM HAZARDS Ρ 2.1 Protection from electric shock and energy hazards Ρ 2.1.1 Ρ Protection in operator access areas 2.1.1.1 Protection provided by Access to energized parts enclosure without any openings. Test by inspection: Ρ Ρ Test with test finger 30N applied Test with test pin: Ρ Test with test probe: No TNV N/A Battery compartments: 2.1.1.2 No battery compartments used. N/A 2.1.1.3 Access to ELV wiring No ELV wiring used. N/A Working voltage (Vpeak or Vrms); minimum distance (mm) through insulation 2.1.1.4 Access to hazardous voltage circuit wiring No hazardous voltage circuit N/A wiring accessible. Energy was less than 240VA 2.1.1.5 Energy hazards:: Ρ as measured, also see appended table 2.1.1.5. 2.1.1.6 Manual controls No manual controls N/A 2.1.1.7 Discharge of capacitors in equipment N/A Not tested because of X2-cap $C1 = 0.1 \mu F$ Time-constant (s); measured voltage (V): 2.1.2 Protection in service access areas Service not considered since N/A

2.2	SELV circuits		Р
2.2.1	General requirements		Р
2.2.2	Voltages under normal conditions (V):	No voltage exceeded 42.4 V peak, or 60 V d.c. under normal operation condition in secondary SELV circuits.	Р
2.2.3	Voltages under fault conditions (V):	No voltage exceeded a limit of 71 V peak, or 120 V d.c. within 0.2 s and 42.4 V peak, or 60V d.c. for longer than 0.2 s on secondary SELV circuits under single fault condition.	P

Protection in restricted access locations

2.1.3

N/A



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N/A

N/A

N/A

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	IEC 60950-1 / EN 6095	JU-1	
Clause	Requirement – Test	Result – Remark	Verdict
2.2.3.1	Separation by double insulation or reinforced insulation (method 1)	Method 1 used.	Р
2.2.3.2	Separation by earthed screen (method 2)		N/A
2.2.3.3	Protection by earthing of the SELV circuit (method 3)		N/A
2.2.4	Connection of SELV circuits to other circuits:	SELV circuits only considered for connection to SELV circuits.	Р
2.3	TNV circuits	(No TNV circuits)	N/A
2.3.1	Limits		N/A
	Type of TNV circuits		
2.3.2	Separation from other circuits and from accessible parts		N/A
	Insulation employed:		_
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		Р
2.4.1	General requirements	Primary and secondary circuits bridged by a Y1 type capacitor. Secondary circuit tested as limited current circuits.	Р
2.4.2	Limit values	See appended table 2.4.2	Р
	Frequency (Hz)		_
	Measured current (mA)		_
	Measured voltage (V)		_
	Measured capacitance (μF)		_
2.4.3	Connection of limited current circuits to other circuits	Only intended to be connected with SELV circuits.	Р
2.5	Limited power sources	(Not required)	N/A

Inherently limited output

Impedance limited output

Overcurrent protective device limited output



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IEC 60950-1 / EN 60950-1						
Clause	Requirement – Test	Result – Remark	Verdict			
	Regulating network limited output under normal operating and single fault condition		N/A			
	Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition		N/A			
	Output voltage (V), output current (A), apparent power (VA):		_			
	Current rating of overcurrent protective device (A)		_			

2.6	Provisions for earthing and bonding	(Class II equipment)	N/A
2.6.1	Protective earthing		N/A
2.6.2	Functional earthing		N/A
2.6.3	Protective earthing and protective bonding conductors		N/A
2.6.3.1	General		N/A
2.6.3.2	Size of protective earthing conductors		N/A
	Rated current (A), cross-sectional area (mm2), AWG		_
2.6.3.3	Size of protective bonding conductors		N/A
	Rated current (A), cross-sectional area (mm2), AWG		_
2.6.3.4	Resistance (Ω) of earthing conductors and their terminations, test current (A)		N/A
2.6.3.5	Colour of insulation	:	N/A
2.6.4	Terminals		N/A
2.6.4.1	General		N/A
2.6.4.2	Protective earthing and bonding terminals		N/A
	Rated current (A), type and nominal thread diameter (mm)		_
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		N/A
2.6.5	Integrity of protective earthing		N/A
2.6.5.1	Interconnection of equipment		N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors		N/A
2.6.5.3	Disconnection of protective earth		N/A
2.6.5.4	Parts that can be removed by an operator		N/A
2.6.5.5	Parts removed during servicing		N/A
2.6.5.6	Corrosion resistance		N/A



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	IEC 60950-1 / EN 609	50-1	
Clause	Requirement – Test	Result – Remark	Verdict
2.6.5.7	Screws for protective bonding		N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A

2.7	Overcurrent and earth fault protection in primary ci	rcuits	Р
2.7.1	Basic requirements	A soldered-in fuse located in circuits used as protective device against overcurrents, short circuits. Circuits breaker in building installation used as backup protection.	P
	Instructions when protection relies on building installation	Pluggable equipment type A	N/A
2.7.2	Faults not covered in 5.3	All faults considered for this equipment	N/A
2.7.3	Short-circuit backup protection	The building installation considered as providing short-circuit backup protection	Р
2.7.4	Number and location of protective devices:	Overcurrent protection by one built-in fuse.	Р
2.7.5	Protection by several devices	Only one fuse.	N/A
2.7.6	Warning to service personnel:	Service not considered for this ultra-sonic welded switching power supply.	N/A

2.8	Safety interlocks	(No safety interlock used)	N/A
2.8.1	General principles		N/A
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



insulation is provided and maintained to comply with the requirements of this standard.

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IEC 60950-1 / EN 60950-1 Clause Requirement – Test Result - Remark Verdict 2.9 Electrical insulation Ρ 2.9.1 Properties of insulating materials Natural rubber, asbestos or Ρ hygroscopic material is not used. 2.9.2 Ρ **Humidity conditioning** 30℃, 95% R.H. for 48h Humidity (%): Temperature (°C): 2.9.3 Grade of insulation Ρ The adequate levels of safety

2.10	Clearances, creepage distances and distances three	ough insulation	Р
2.10.1	General		Р
2.10.2	Determination of working voltage	(see appended table 2.10.2)	Р
2.10.3	Clearances	(see appended table 2.10.3 and 2.10.4)	Р
2.10.3.1	General		Р
2.10.3.2	Clearances in primary circuits	(see appended table 2.10.3 and 2.10.4)	Р
2.10.3.3	Clearances in secondary circuits		N
2.10.3.4	Measurement of transient voltage levels		N
2.10.4	Creepage distances	(see appended table 2.10.3 and 2.10.4)	Р
	CTI tests		_
2.10.5	Solid insulation	Considered for enclosure and opto-coupler.	Р
2.10.5.1	Minimum distance through insulation	(see appended table 2.10.5)	Р
2.10.5.2	Thin sheet material	See below	Р



Page 24 of 70 Report No.: 17004848 001 IEC 60950-1 / EN 60950-1 Result - Remark Clause Requirement - Test Verdict Number of layers (pcs): -3 layers insulation tape wrapped between primary soldering points, components and secondary heat sink as reinforced insulation -3 layers insulation tape wrapped between secondary soldering points, components and primary heat sink as reinforced insulation -3 layers insulation tape wrapped around external of transformer as reinforced insulation 2 layers of three layers passes dielectric strength test specified in 5.2 for reinforced insulation. Electric strength test (see appended table 5.2) 2.10.5.3 Printed boards N/A Distance through insulation N/A Electric strength test for thin sheet insulating material Number of layers (pcs): N/A 2.10.5.4 Р Wound components Approved triple insulated wires used as secondary windings of transformer. Number of layers (pcs): Ρ Two wires in contact inside wound component; Insulating tape used to Ρ angle between 45° and 90°: separate primary windings and secondary triple insulated wires in crossing section, also see appended table C.2. 2.10.6 Coated printed boards N/A 2.10.6.1 General N/A 2.10.6.2 Sample preparation and preliminary inspection N/A 2.10.6.3 Thermal cycling N/A 2.10.6.4 Thermal ageing (°C): N/A 2.10.6.5 Electric strength test 2.10.6.6 Abrasion resistance test N/A Electric strength test 2.10.7 Enclosed and sealed parts: N/A

Temperature T1=T2 + Tma - Tamb +10K (°C)....:

N/A



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	IEC 60950-1 / EN 60950-1				
Clause	Clause Requirement – Test Result – Remark Verd				
2.10.8	Spacings filled by insulating compound:	Opto-coupler is approved component. Other components not applied for. (See appended table 2.10.5)	Р		
	Electric strength test	(see appended table 5.2)	_		
2.10.9	Component external terminations		N/A		
2.10.10	Insulation with varying dimensions	Insulation kept homogenous.	N/A		

3	WIRING, CONNECTIONS AND SUPPLY		P
3.1	General		Р
3.1.1	Current rating and overcurrent protection	All internal wires are UL listed and PVC insulated, and the cross-section area of which are adequate for the current they are intended to carry.	Р
3.1.2	Protection against mechanical damage	Wires do not touch sharp edges which could damage the insulation and cause hazards.	Р
3.1.3	Securing of internal wiring	Internal wires reliably soldered and fixed by gule.	Р
3.1.4	Insulation of conductors	The insulation of the individual conductors suitable for the application and the working voltage. For the insulation material see 3.1.1 and 3.1.10	Р
3.1.5	Beads and ceramic insulators	No beads and ceramic insulators	N/A
3.1.6	Screws for electrical contact pressure	No screws for electrical contact pressure	N/A
3.1.7	Insulating materials in electrical connections	Contact pressure is not transmitted through insulating material.	N/A
3.1.8	Self-tapping and spaced thread screws	No self-tapping and spaced thread screws used	N/A
3.1.9	Termination of conductors	The conductors of internal wires tightly soldered and additionally fixed by glue.	Р
	10 N pull test	Applied.	Р
3.1.10	Sleeving on wiring	No sleeving used as supplementary insulation on internal wire.	N/A

3.2	Connection to an a.c. mains supply or a d.c. mains supply	Р
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IEC 60950-1 / EN 60950-1 Result - Remark Verdict Clause Requirement - Test 3.2.1 Ρ AC inlet used Means of connection: 3.2.1.1 Connection to an a.c. mains supply 3.2.1.2 Connection to a d.c. mains supply Not connected to d.c. mains N/A supply 3.2.2 Multiple supply connections Single supply N/A 3.2.3 Permanently connected equipment Not permanently connected N/A Number of conductors, diameter (mm) of cable and conduits: 3.2.4 Appliance inlets VDE approved AC inlet used Ρ 3.2.5 Power supply cords No power supply cord provided N/A 3.2.5.1 AC power supply cords N/A Type....: Rated current (A), cross-sectional area (mm2), AWG....: 3.2.5.2 DC power supply cords N/A 3.2.6 Cord anchorages and strain relief No cord anchorage N/A Mass of equipment (kg), pull (N) Longitudinal displacement (mm): 3.2.7 Protection against mechanical damage No power cords used N/A 3.2.8 Cord guards N/A D (mm); test mass (g): Radius of curvature of cord (mm)....: 3.2.9 Supply wiring space No such supply wirings N/A

3.3	Wiring terminals for connection of external conductors (AC inlet used)	N/A
3.3.1	Wiring terminals	
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 (mm2)	_
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



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3.3.8	Stranded wire		N/A
0.0.0	Ottalided Wile		IV/A
3.4	Disconnection from the mains supply		Р
3.4.1	General requirement		Р
3.4.2	Disconnect devices	AC inlet used	Р
3.4.3	Permanently connected equipment	Not permanently connected equipment	N/A
3.4.4	Parts which remain energized	No parts remained energized after disconnection of the appliance coupler.	N/A
3.4.5	Switches in flexible cords	No power cord	N/A
3.4.6	Single-phase equipment and d.c. equipment	The appliance coupler disconnects both poles simultaneously	P
3.4.7	Three-phase equipment	Not three-phase equipment	N/A
3.4.8	Switches as disconnect devices	No switches used	N/A
3.4.9	Plugs as disconnect devices	AC inlet used	N/A
3.4.10	Interconnected equipment	No such equipment	N/A
3.4.11	Multiple power sources	Only one power source	NA
			T
3.5	Interconnection of equipment		Р
3.5.1	General requirements		Р
3.5.2	Types of interconnection circuits:	Interconnection circuits are SELV Circuit and Limited Current Circuit.	P
3.5.3	ELV circuits as interconnection circuits	No ELV circuits	N/A
4	PHYSICAL REQUIREMENTS		Р
4.1	Stability		P
	Angle of 10°		P
	Test: force (N)	Mass: less than 0.32kg	N/A
4.2	Mechanical strength		Р
4.2.1	General		Р
4.2.2	Steady force test, 10 N	Performed on internal components	Р
4.2.3	Steady force test, 30 N	No internal enclosure	N/A
4.2.4	Steady force test, 250 N	Performed on enclosure	Р



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IEC 60950-1 / EN 60950-1 Clause Requirement - Test Result - Remark Verdict 4.2.5 Impact test 1.3m, 500g, 3times, after the Ρ test compliance was checked by 4.2.1 Fall test Performed. Р Swing test Performed. Ρ 4.2.6 See 4.2.5 Drop test N/A 4.2.7 Stress relief test 93(=82.2+10)℃, 7 hours Ρ 4.2.8 Cathode ray tubes No CRT. N/A Picture tube separately certified: N/A 4.2.9 High pressure lamps No high pressure lamps N/A 4.2.10 Wall or ceiling mounted equipment; force (N): Not such equipment N/A

4.3	Design and construction		Р
4.3.1	Edges and corners	No sharp edges or corners	Р
4.3.2	Handles and manual controls; force (N):	No handles and manual controls used	N/A
4.3.3	Adjustable controls	No adjustable controls	N/A
4.3.4	Securing of parts	No connection likely to expose to machanical stress	Р
4.3.5	Connection of plugs and sockets	Output connectors does not comply with IEC 60083 or IEC 60320	Р
4.3.6	Direct plug-in equipment	Not direct plug-in equipment	N/A
	Dimensions (mm) of mains plug for direct plug-in:		N/A
	Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N)		N/A
4.3.7	Heating elements in earthed equipment	No heating elements used	N/A
4.3.8	Batteries	No batteries used	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 (I)		N/A
	Flash point (°C)		N/A
4.3.13	Radiation; type of radiation:	See 4.3.13.5	Р
4.3.13.1	General		N/A
4.3.13.2	Ionizing radiation	No ionizing radiation	N/A



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	Measured radiation (pA/kg):		_
	Measured high-voltage (kV):		
	Measured focus voltage (kV):		
	CRT markings:		
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	No ultraviolet radiation	N/A
	Part, property, retention after test, flammability classification:		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation:		N/A
4.3.13.5	Laser (including LEDs)	The LED for indication considered as inherently LED Class 1.	Р
	Laser class	Class 1	
4.3.13.6	Other types		N/A
4.4	Protection against hazardous moving parts (No haz	zardous moving parts used)	N/A
4.4.1	General		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		Р
4.5.1	Maximum temperatures	(see appended table 4.5.1)	Р
	Normal load condition per Annex L	See table 1.6.2.	Р
4.5.2	Resistance to abnormal heat	(see appended table 4.5.2)	Р
4.6	Openings in enclosures		Р
4.6.1	Top and side openings	No openings	Р
	Dimensions (mm):		
4.6.2	Bottoms of fire enclosures	No openings	Р
	Construction of the bottom:		_
4.6.3	Doors or covers in fire enclosures		N/A
4.6.4	Openings in transportable equipment		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C)/time (weeks):		_

Resistance to fire

4.7

Ρ



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4.7.1	Reducing the risk of ignition and spread of flame		Р
	Method 1, selection and application of components wiring and materials	Use of materials complies with the required flammbility classes which are detailed in 4.7.2 and 4.7.3, in addition, the simulated faults of 5.3.6 are applied.	Р
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure	With having the following parts: Components in primary circuits Components in secondary circuits not supplied by limited power source Insulated wiring The fire enclosure is required.	P
4.7.2.1	Parts requiring a fire enclosure	See above	Р
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials		Р
4.7.3.1	General		Р
4.7.3.2	Materials for fire enclosures	Fire enclosure with flammability of V-0.	Р
4.7.3.3	Materials for components and other parts outside fire enclosures	PVC insulated output cable with class VW-1	Р
4.7.3.4	Materials for components and other parts inside fire enclosures	Internal components except small parts are V-2, HF-2 or better.	Р
4.7.3.5	Materials for air filter assemblies		N/A
4.7.3.6	Materials used in high-voltage components	No high-voltage components	N/A

5	ELECTRICAL DECLUDEMENTS AND SIMUL	ATED ADMODMAL CONDITIONS	P
ວ	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		Г
5.1	Touch current and protective conductor curre	ent	Р
5.1.1	General	See sub-clauses 5.1.2 to 5.1.6.	Р
5.1.2	Equipment under test (EUT)	EUT has only one mains connection.	Р
5.1.3	Test circuit	Use of figure 5A.	Р
5.1.4	Application of measuring instrument	Using measuring instrument figure D.1 in annex D.	Р



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IEC 60950-1 / EN 60950-1 Requirement - Test Result - Remark Verdict Clause 5.1.5 The test was carried out on the Ρ Test procedure EUT with terminal A of measuring network figure D.1 connected via measurement switch "s" to enclosure, output terminal of the EUT respectively. 5.1.6 Test measurements Ρ Test voltage (V) See appended table 5.1.6. Measured touch current (mA) | See appended table 5.1.6. Max. allowed touch current (mA) See appended table 5.1.6. Measured protective conductor current (mA): Max. allowed protective conductor current (mA) .: N/A 5.1.7 Equipment with touch current exceeding 3.5 mA: Touch current dose not exceed 3.5 mA. N/A No TNV. 5.1.8 Touch currents to and from 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 and a cable distribution system Test voltage (V): Measured touch current (mA): Max. allowed touch current (mA): 5.1.8.2 Summation of touch currents from N/A telecommunication networks:

5.2	Electric strength		Р
5.2.1	General	(see appended table 5.2)	Р
5.2.2	Test procedure	(see appended table 5.2)	Р

5.3	Abnormal operating and fault conditions		Р
5.3.1	Protection against overload and abnormal operation	(See appended table 5.3)	Р
5.3.2	Motors	No motors used	N/A
5.3.3	Transformers	Safety isolating transformer used, see table 5.3 for overload test and Annex C for construction	Р
5.3.4	Functional insulation	: By short-circuit, for results see appended table 5.3	Р



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5.3.5	Electromechanical components	No electromechanical component.	N/A
5.3.6	Simulation of faults	(See appended table 5.3.)	Р
5.3.7	Unattended equipment	No unattended equipment	N/A
5.3.8	Compliance criteria for abnormal operating and fault conditions	No fire or molten metal occurred and no deformation of enclosure during the tests. No reduction of clearance and creepage distance. Electric strength test is made on reinforced insulation after test	Р
	CONNECTION TO THE ECOMMUNICATION NET	TMODICS (No TMV oirovito)	NI/A
6.1	CONNECTION TO TELECOMMUNICATION NET	· , , , , , , , , , , , , , , , , , , ,	N/A
6.1	Protection of telecommunication network service pequipment connected to the network, from hazard		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from	n earth	N/A
6.1.2.1	Requirements		N/A
	Test voltage (V)		_
	Current in the test circuit (mA)		_
6.1.2.2	Exclusions:		N/A
6.2	Protection of equipment users from overvoltages of	on telecommunication networks	N/A
6.2.1	Separation requirements	Tologonimamodion notworks	N/A
6.2.2	Electric strength test procedure		N/A
6.2.2.1	Impulse test		N/A
6.2.2.2	Steady-state test		N/A
6.2.2.3	Compliance criteria		N/A
	•		
6.3	Protection of the telecommunication wiring system	from overheating	N/A
	Max. output current (A)		_
	Current limiting method:		_
7	CONNECTION TO CABLE DISTRIBUTION SYST	TEMS (No such system)	N/A
7.1	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N/A



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7.2	Protection of equipment users from overvoltages on the cable distribution system		N/A	
7.3	Insulation between primary circuits and cable distribution systems		N/A	
7.3.1	General		N/A	
7.3.2	Voltage surge test		N/A	
7.3.3	Impulse test		N/A	

Α	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE	
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)	N/A
A.1.1	Samples	_
	Wall thickness (mm)	_
A.1.2	Conditioning of samples; temperature (°C)	N/A
A.1.3	Mounting of samples	N/A
A.1.4	Test flame (see IEC 60695-11-3)	N/A
	Flame A, B, C or D	_
A.1.5	Test procedure	N/A
A.1.6	Compliance criteria	N/A
	Sample 1 burning time (s)	_
	Sample 2 burning time (s)	_
	Sample 3 burning time (s)	_
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) (UL listed materials used, see appended table 1.5.1)	Р
A.2.1	Samples, material	_
	Wall thickness (mm)	_
A.2.2	Conditioning of samples	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)	_



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A.2.7	Alternative test acc. to IEC 60695-2-2, cl. 4 and 8		N/A
	Sample 1 burning time (s)		_
	Sample 2 burning time (s):		_
	Sample 3 burning time (s):		_
A.3	Hot flaming oil test (see 4.6.2)		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A
В	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITI 5.3.2) (No moto		N/A
B.1	General requirements		N/A
	Position		_
	Manufacturer		_
	Type:		_
	Rated values:		
B.2	Test conditions		N/A
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.7	Locked-rotor overload test for d.c. motors in secondary circle	uits	N/A
B.7.1	Test procedure		N/A
B.7.2	Alternative test procedure; test time (h)		N/A
B.7.3	Electric strength test		N/A
B.8	Test for motors with capacitors		N/A
B.9	Test for three-phase motors		N/A

С	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		Р
	Position	PT1	-

Test for series motors

Operating voltage (V):

B.10

N/A



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Clause	Requirement – Test	Result – Remark	Verdict
	Manufacturer	Fuyuan Electronic Co.,Ltd	_
	Type:	See 1.5.1	_
	Rated values	Class B	_
	Method of protection:	Over-current protection	_
C.1	Overload test	See appended table 5.3	Р
C.2	Insulation	See appended table C.2	Р
	Protection from displacement of windings:	Bobbin, insulation tape	Р
D	ANNEX D, MEASURING INSTRUMENTS FOR TO (see 5.1.4)	DUCH-CURRENT TESTS	Р
D.1	Measuring instrument	ANNEX D figure D.1	Р
D.2	Alternative measuring instrument		N/A
E	ANNEX E, TEMPERATURE RISE OF A WINDING	G (see 1.4.13)	N/A
F	ANNEX F, MEASUREMENT OF CLEARANCES A (see 2.10)	ND CREEPAGE DISTANCES	Р
G	ANNEX G, ALTERNATIVE METHOD FOR DETER	RMINING MINIMUM	N/A
G.1	Summary of the procedure for determining minimum clearances		N/A
G.2	Determination of mains transient voltage (V):		N/A
G.2.1	AC mains supply		N/A
G.2.2	DC mains supply		N/A
G.3	Determination of telecommunication network transient voltage (V)		N/A
G.4	Determination of required withstand voltage (V):		N/A
G.5	Measurement of transient levels (V)		N/A
G.6	Determination of minimum clearances		N/A
Н	ANNEX H, IONIZING RADIATION (see 4.3.13)		N/A
J	ANNEX J, TABLE OF ELECTROCHEMICAL POT	ENTIALS (see 2.6.5.6)	N/A
	Metal used:		_
	ı	1	-



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K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and	15.3.7)	N/A
K.1	Making and breaking capacity		N/A
K.2	Thermostat reliability; operating voltage (V):		N/A
K.3	Thermostat endurance test; operating voltage (V):		N/A
K.4	Temperature limiter endurance; operating voltage (V)		N/A
K.5	Thermal cut-out reliability		N/A
K.6	Stability of operation		N/A

L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.1)	
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 Test with unit connected to rated output current	Р

М	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)	N/A
M.1	Introduction	N/A
M.2	Method A	N/A
M.3	Method B	N/A
M.3.1	Ringing signal	N/A
M.3.1.1	Frequency (Hz)	_
M.3.1.2	Voltage (V)	_
M.3.1.3	Cadence; time (s), voltage (V)	_
M.3.1.4	Single fault current (mA)	_
M.3.2	Tripping device and monitoring voltage	N/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage	N/A
M.3.2.2	Tripping device	N/A
M.3.2.3	Monitoring voltage (V)	N/A



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N	ANNEX N, IMPULSE TEST GENERATORS (see clause G.5)	e 2.10.3.4, 6.2.2.1, 7.3.2 and	N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A
			1
Р	ANNEX P, NORMATIVE REFERENCES		Р
_			•
Q	ANNEX Q, BIBLIOGRAPHY		Р
			1
R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR PROGRAMMES	OR QUALITY CONTROL	N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A
S	ANNEX S, PROCEDURE FOR IMPULSE TEST	ING (see 6.2.2.3)	N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A
r			
Т	ANNEX T, GUIDANCE ON PROTECTION AGAI (see 1.1.2)	INST INGRESS OF WATER	N/A
			_
U	ANNEX U, INSULATED WINDING WIRES FOR INSULATION (see 2.10.5.4)	USE WITHOUT INTERLEAVED	Р
		VDE approved triple insulated wires used as secondary windings of transformer	_
V	ANNEY V. AC DOWED DISTRIBUTION SYSTE	MS (222 1 6 1)	Р
	ANNEX V, AC POWER DISTRIBUTION SYSTE	IVIS (SEE 1.0.1)	_
V.1		TN power eveteme	N/A
V.2	TN power distribution systems	TN power systems	P N/A
V.3	TT power systems		N/A
V.4	IT power systems		N/A
W	ANNEX W, SUMMATION OF TOUCH CURREN	ITS	N/A



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W.1	Touch current from electronic circuits		N/A		
W.1.2	Earthed circuits		N/A		
W.2	Interconnection of several equipments		N/A		
W.2.1	Isolation		N/A		
W.2.2	Common return, isolated from earth		N/A		
W.2.3	Common return, connected to protective earth		N/A		

X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		N/A
X.1	Determination of maximum input current		N/A
X.2	Overload test procedure		N/A

Υ	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)	
Y.1	Test apparatus	N/A
Y.2	Mounting of test samples	N/A
Y.3	Carbon-arc light-exposure apparatus:	N/A
Y.4	Xenon-arc light exposure apparatus	N/A



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17004848 001 Report No.: IEC 60950-1 / EN 60950-1 Requirement - Test Verdict Clause Result - Remark CENELEC COMMON MODIFICATIONS [C], P SPECIAL NATIONAL CONDITIONS [S] AND A-DEVIATIONS (NATIONAL DEVIATIONS) [A] (EN 60950-1:2001, Annex ZB and Annex ZC) C: Delete all the "country" notes in the reference Deleted. Ρ General document according to the following list: 1.1.5 Note 2 1.5.8 Note 2 1.6.1 Note 1.7.2 Note 4 1.7.12 Note 2 2.6 Note 2.2.3 Note 2.2.4 Note 2.3.2 Note 2, 7, 8 2.3.3 Note 1, 2 2.3.4 Note 2,3 2.7.1 Note 2.10.3.1 Note 4 3.2.3 Note 1, 2 3.2.1.1 Note 3.2.5.1 Note 2 4.3.6 Note 1,2 4.7.2.2 Note 6.1.2.2 Note 4.7.3.1 6.1.2.1 Note 2 Note Note 2 6.2.2.2 Note 6.2.2 Note 6.2.2.1 Note 4 7.1 Note Note 1, 2 Annex H Note 2 G2.1 1.2.4.1 S (DK): Certain types of Class I appliances (see N/A 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets. 1.5.1 A (SE. Ordinance 1990:944 and N/A CH, Ordinance on environmentally hazardous substances SR 814.013, Annex 3.2, Mercury): Add NOTE - Switches containing mercury such as thermostats, relays and level controllers are not allowed. 1.5.8 S (NO): Due to the IT power system used (see N/A annex V, Fig. V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V). 1.7.2 S (FI, NO, SE): CLASS I PLUGGABLE EQUIPMENT N/A TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows: FI: "Laite on liitettävä suojamaadoituskoskettimilla N/A varustettuun pistorasiaan" NO: "Apparatet må tilkoples jordet stikkontakt" N/A SE: "Apparaten skall anslutas till jordat uttag" N/A A (DK, Heavy Current Regulations): Supply cords N/A of class I equipment, which is delivered without a plug, must be provided with a visible tag with the following text: Lederen med grøn/gul isolation må kun tilsluttes

en klemme mærket



TRF originator: SGS Fimko

Page 40 of 70 Report No.: 17004848 001 IEC 60950-1 / EN 60950-1 Result - Remark Clause Requirement - Test Verdict eller If essential for the safety of the equipment, the tag must in addition be provided with a diagram which shows the connection of the other conductors, or be provided with the following text: "For tilslutning af de øvrige ledere, se medfølgende instalationsveiledning." 1.7.5 S (DK): Socket-outlets for providing power to N/A other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For stationary equipment the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a. 1.7.5 A (DK, Heavy Current Regulations): N/A CLASS II EQUIPMENT shall not be fitted with socketoutlets for providing power to other equipment. 1.7.12 A (DE, Gesetz über technische Arbeitsmittel Ρ Switching power supply. (Gerätesicherheitsgesetz) [Law on technical Not technical labour labour equipment {Equipment safety law}], of 23rd equipment. October 1992, Article 3, 3rd paragraph, 2rd sentence, together with the "Allgemeine Verwaltungsvorschrift zur Durchführung des Zweiten Abschnitts des Gerätesicherheitsgesetzes" [General administrative regulation on the execution of the Second Section of the Equipment safety law], of 10th January 1996, article 2, 4th paragraph item 2): Directions for use with rules to prevent certain hazards for (among others) maintenance of the technical labour equipment, also for imported technical labour equipment shall be written in the German language. NOTE: Of this requirement, rules for use even only by service personnel are not exempted. 1.7.15 A (CH, Ordinance on environmentally hazardous N/A substances SR 814.013): Annex 4.10 of SR 814.013 applies for batteries. A (DE, Regulation on protection against hazards Deleted by EN 60950-1: N/A by X-ray, of 8th January 1987, Article 5 [Operation 2001+A11: 2004 of X-ray emission source], clauses 1 to 4): a) A licence is required by those who operate an X-ray emission source. b) A licence in accordance with Cl. 1 is not required by those who operate an X-ray emission source on which the electron acceleration voltage does not exceed 20 kV if 1) the local dose rate at a distance of 0,1 m from

the surface does not exceed 1 µSv/h and



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IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	2) it is adequately indicated on the X-ray emission source that		
	 i) X-rays are generated and ii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer. 		
	c) A licence in accordance with Cl. 1 is also not required by persons who operate an X-ray emission source on which the electron acceleration voltage exceeds 20 kV if		
	the X-ray emission source has been granted a type approval and		
	2) it is adequately indicated on the X-ray emission source that		
	i) X-rays are generated		
	ii) the device stipulated by the manufacturer or importer guarantees that the maximum permissible local dose rate in accordance with the type approval is not exceeded and		
	iii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer.		
	d) Furthermore, a licence in accordance with Cl. 1 is also not required by persons who operate X-ray emission sources on which the electron acceleration voltage does not exceed 30 kV if		
	1) the X-rays are generated only by intrinsically safe CRTs complying with Enclosure III, No. 6,		
	the values stipulated in accordance with Enclosure III, No. 6.2 are limited by technical measures and specified in the device and		
	3) it is adequately indicated on the X-ray emission source that the X-rays generated are adequately screened by the intrinsically safe CRT.		
2.2.4	S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.		N/A
2.3.2	S (NO): Requirements according to this annex, 6.1.2.1 apply.		N/A
2.3.3 and 2.3.4	S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.		N/A
2.6.3.3	S (GB): The current rating of the circuit shall be taken as 13 A, not 16 A.		N/A
2.7.1	C: Replace the subclause as follows:	Single fuse provided and	Р
	Basic requirements	building installation used for protection for parts indicated in	
	To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as	b).	



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	IEC 60950-1 / EN 60950-1				
Clause	Requirement – Test	Result – Remark	Verdict		
	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 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.				
	S (GB): To protect against excessive currents and short-circuits in the PRIMARY CIRCUIT OF DIRECT PLUG-IN EQUIPMENT, protective device shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT.		N/A		
2.7.2	C: Void.		N/A		
2.10.2	C: Replace in the first line "(see also 1.4.7)" by "(see also 1.4.8)".	Replaced	Р		
2.10.3.1	S (NO): Due to the IT power distribution system used (see annex V, Fig. V.7), the A.C. MAINS SUPPLY voltage is considered to be equal to the line-to-line voltage and will remain at 230 V in case of a single earth fault		N/A		



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	IEC 60950-1 / EN 609	50-1	
Clause	Requirement – Test	Result – Remark	Verdict
3.2.1.1	S (CH): Supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets: SEV 6532-2.1991, Plug type 15, 3P+N+PE 250/400 V, 10 A		N/A
	SEV 6533-2.1991, Plug type 11, L+N 250 V, 10 A SEV 6534-2.1991, Plug type 12, L+N+PE 250 V, 10 A		
	In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998:		
	SEV 5932-2.1998, Plug type 25, 3L+N+PE 230/400 V, 16 A SEV 5933-2.1998, Plug type 21, L+N 250 V, 16 A SEV 5934-2.1998, Plug type 23, L+N+PE 250 V, 16 A		
	S (DK): Supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1.		N/A
	CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.		
	If ply-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.		
	S (ES): Supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994.		N/A
	Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993.		
	CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994.		
	If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.		



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	IEC 60950-1 / EN 609	DU- I	
Clause	Requirement – Test	Result – Remark	Verdict
	S (GB): Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 – The Plugs and Socket etc. (Safety) Regulations 1994, unless exempted by those regulations.		N/A
	NOTE – 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		
	S (IE): Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 – National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.		N/A
3.2.3	C: Delete Note 1 and in Table 3A, delete the conduit sizes in parentheses.		N/A
3.2.5.1	C: 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-F2".	Considered.	Р
	In Table 3B, replace the first four lines by the following:		
	Up to and including 6 0.75^{1} Over 6 up to and including 10 $(0.75)^{2}$ 1.0 Over 10 up to and including 16 $(1.0)^{3}$ 1.5		
	In the Conditions applicable to Table 3B delete the words "in some countries" in condition ¹⁾ .		
	In Note 1, applicable to Table 3B, delete the second sentence.		
3.2.5.1	S (GB): A power supply cord with conductor of 1,25 mm ² is allowed for equipment with a rated current over 10 A and up to and including 13 A.		N/A
3.3.4	C: In table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following:		N/A
	"Over 10 up to and including 16 1,5 to 2,5 1,5 to 4"		
	Delete the fifth line: conductor sizes for 13 to 16 A.		



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Clause Poguiroment Teet Poguit Pemark				
Clause	Requirement – Test	Result – Remark	Verdict	
3.3.4	S (GB): The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is: - 1,25 mm² to 1,5 mm² nominal cross-sectional area.		N/A	
4.3.6	S (GB): The torque test is performed using a socket outlet complying with BS 1363 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C.		N/A	
	S (IE): DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 – National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.		N/A	
4.3.13.6	C: Add the following note:	Added	N/A	
	NOTE 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 are currently under development.			
6.1.2.1	S (FI, NO, SE): Add the following text between the first and second paragraph:		N/A	
	If this insulation is solid, including insulation forming part of a component, it shall at least consist of either			
	- two layers of thin sheet material, each of which shall pass the electric strength test below, or			
	- one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.			
	If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES AND CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition			
	- passes the tests and inspection criteria of 2.10.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.7 shall be performed using 1,5 kV), and			
	- is subject to ROUTINGE TESTING for electric			



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	IEC 60950-1 / EN 6095	50 1	1
Clause	Requirement – Test	Result – Remark	Verdict
	strength during manufacturing, using a test voltage of 1,5 kV.		
	It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2.		
	A capacitor classified Y3 according to EN 132400:1994, may bridge this insulation under the following conditions:		
	- the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950:2000, 6.2.2.1;		
	- the additional testing shall be performed on all the test specimens as described in EN 132400;		
	- the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400, in the sequence of tests as described in EN 132400.		
6.1.2.2	S (FI, NO, SE): The exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a service person.		N/A
7.1	S (FI, NO, SE): Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.		N/A
G.2.1	S (NO): Due to the IT power distribution system used (see annex V, Fig. V.7), the A.C. MAINS SUPPLY voltage is considered to be equal to the line-to-line voltage, and will remain at 230 V in case of a single earth fault.		N/A
Annex H	C: Replace the last paragraph of this annex by:	Replaced	N/A
	At any point 10 cm from the surface of the operator access area, the dose rate shall not exceed 1 μ Sv/h (0,1 mR/h) (see note). Account is taken of the background level.		
	Replace the notes as follows:		
	NOTE These values appear in Directive 96/29/Euratom.		
	Delete Note 2.		
Annex P	C: Replace the text of this annex by:		P



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	IEC 60950-1 / EN 60950-1				
Clause	Requirement -	– Test	Result – Remark	Verdict	
Annex Q	C: Replace the title of IEC 61032 by "Protection of persons and equipment by enclosures – Probes for verification".			Р	
	Add the following notes for the standards indicated:				
	IEC 60127 NOTE Harmonized as EN 60127 (Series) (not modified) IEC 60269-2-1 NOTE Harmonized as HD 630.2.1 S4:2000 (modified) IEC 60529 NOTE Harmonized as EN 60529:1991 (not modified) IEC 61032 NOTE Harmonized as EN 61032:1998 (not modified) IEC 61140 NOTE Harmonized as EN 61140:2001 (not modified) ITU-T Recommendation K.31				
		NOTE in Europe, the sugges	sted document is EN 50083-1.		



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		-1 / EN 60950-1	
Clause	Requirement – Test	Result – Remark	Verdict
Annex ZA	C: NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR RELEVANT EUROPEAN PUBLICATIONS		
	from other publications. These normat places in the text and the publications subsequent amendments to or revision	by dated or undated reference, provisions ive references are cited at the appropriate are listed hereafter. For dated references, as of any of these publications apply to this rated in it by amendment or revision. For of the publication referred to applies	
	NOTE When an international publication has be (mod), the relevant EN/HD applies.	een modified by common modifications, indicated by	
	— EN 60065:1998 + corr. June 1999 EN 60073:1996 HD 566 S1:1990 HD 214 S2:1980 HD 611.4.1.S1:1992 HD 21 1) Series HD 22 2) Series EN 60309 Series EN 60317-43:1997 EN 60320 Series HD 384.3 S2:1995 HD 384.4.41 S2:1996 EN 132400:1994 4) + A2:1998 + A3:1998 + A4:2001 EN 60417-1 HD 625.1 S1:1996 + corr. Nov. 1996 EN 60695-2-2:1994 EN 60695-2-11:2001 — — — — EN 60695-11-10:1999 EN 60730-1:2000 EN 60825-1:1994 + corr. Febr. 1995 +	IEC 60050-151 IEC 60050-195 IEC 60065 (mod):1998 IEC 60073:1996 IEC 60085:1984 IEC 60112:1979 IEC 60216-4-1:1990 IEC 60227 (mod) Series IEC 60309 Series IEC 60317-43:1997 IEC 60320 (mod) Series IEC 60364-3 (mod):1993 IEC 60364-4-41 (mod):1992 IEC 60384-14:1993 IEC 60695-2-2:1991 IEC 60695-2-2:1991 IEC 60695-11-3:2000 IEC 60695-11-3:2000 IEC 60695-11-10:1999 IEC 60695-11-20:1999 IEC 60695-11-20:1999 IEC 60730-1:1999 (mod) IEC 60825-1:1993	
	A11:1996 + corr. July 1997 EN 60825-2:2000 — EN 60851-3:1996	IEC 60825-2:2000 IEC 60825-9:1999 IEC 60851-3:1996	
	EN 60851-5:1996 EN 60851-6:1996	IEC 60825-5:1996 IEC 60851-6:1996	
	EN 60990:1999	IEC 60885-1:1987 IEC 60990:1999 IEC 61058-1:2000	
	EN 61965:2001 EN ISO 178:1996 EN ISO 179 Series EN ISO 180:2000	IEC 61965:2000 ISO 178:1993 ISO 179 Series ISO 180:1993	



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IEC 60950-1 / EN 60950-1				
Clause	Requirement – Test		Result – Remark	Verdict
Clause	EN ISO 527 Series EN ISO 4892 Series EN ISO 8256:1996 EN ISO 9773:1998		998 998 eries 984 Series 1989 1990	Verdict
	1) The HD 21 series is related to, but not directly equivalent with the IEC 60227 series 2) The HD 22 series is related to, but not directly equivalent with the IEC 60245 series 3) IEC 60364-4-41:1992 is superseded by IEC 60364-4-41:2001 4) EN 132400, Sectional Specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains (Assessment level D), and its amendments are related to, but not directly equivalent to IEC 60384-14			



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1.5.1 TAI	BLE: list of critical c	omponents			
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity 1.
Inlet	Yue Qing Bei Er Jia Electronic Co. Ltd.	ST-A03-005	AC 2.5A, 250V	EN 60320-1	VDE 40014833
	Rich Bay Co., Ltd.	R-201SN90	AC 2.5A, 250V	EN 60320-1	VDE 40006957
	Walter Electronic Co. Ltd.	PDU	AC 250V, T3.15A	EN 60127-1 EN 60127-3	VDE 40006776
Fuse (CF1)	Shenzhen Lanson Electronics Co. Ltd.	Txxx250V	AC 250V, T3.15A	EN 60127-1 EN 60127-3	VDE 40010682
	Xiamen Faratronic Co. Ltd.	MKP62	0.1µF, 275Vac, X2, 110℃	IEC 60384-14	VDE 40000358
X2-cap C1	Carli Electronics Co., Ltd.	MPX	0.1µF, 275Vac, X2, 100℃	IEC 60384-14	VDE 40008520
	Tenta Electric Industrial Co. Ltd.	MEX	0.1μF, 275Vac, X2, 100℃	IEC 60384-14	VDE 119119
	Success Electronics Co., Ltd.	SE	2200pF, 250Vac, Y1, 125℃	IEC 60384-14	VDE 126596
Y1-cap C9	JAY-NAY Co., Ltd.	JN	2200pF, 250Vac, Y1, 125℃	IEC 60384-14	VDE 40001831
	Hsuan Tai Electronic Co. Ltd.	CY	2200pF, 400Vac, Y1, 105℃	IEC 60384-14	VDE 40008912
Optocoupler (IC2)	Everlight Electronics Co., Ltd.	EL817	Isolation Voltage=850V Peak Transient Over voltage = 6000V, CTI 175, internal Cr.=6.0mm, external Cr.=7.7mm, Dti=0.5mm	IEC 60747-5-2, IEC 60950	VDE 132249
	VISHAY Semiconductor GmbH	TCET1114G	Isolation Voltage=850V Peak Transient Over voltage = 8000V, CTI 175, internal Cr.=4.3mm, external Cr.=8.1mm, Dti=0.7mm	IEC 60747-5-2, IEC 60950	VDE 115667



Page 51 of 70 Report No.: 17004848 001 Isolation Voltage=850V **Peak Transient** Over voltage = COSMO 8000V, IEC 60747-5-2. Electronics KPC817 CTI 175, VDE 101347 IEC 60950 Corporation internal Cr.=5.3mm, external Cr.=8.0mm, Dti=0.5mm PCB V-0, 130℃ Various **UL 94** UL Recognized Various V-0, 130℃ **GE PLASTICS** 920/923 **UL 94** UL E161723 **CHINA LTD** Thickness 2.4mm **Enclosure** TEIJIN V-0. 105℃ **CHEMICALS UL 94** UL E50075 LN-1250G Thickness 2.4mm LTD Fuyuan Transformer Electronic FYxxxyyyy PT Class B Test in appliance (PT1) Co.,Ltd **CHANG CHUN** Bobbin of PT1 PLASTICS CO T375J V-0, 150℃ **UL 94** UL E59481 and L1 LTD **FUQING** YONGBIN **ADHESIVE** DEJZ3 130℃ UL 510 UL E185774 **TAPE** Insulating Tape **FACTORY** of PT1 and L1 JINGJIANG YAHUA 130℃ **PRESSURE** PΖ UL 510 UL E165111 SENSITIVE **GLUE CO LTD GREAT** Triple insulated **LEOFLON** TRW 155℃, 600V EN 60950 VDE 136581 wire of PT1 **INDUSTRIAL** CO LTD XIN LONG Magnet wire of MAGNET WIRE 130℃ UL 1446 UEW UL E171028 PT1 and L1 CO LTD Fuyuan Line Filter (L1) Electronic FY120L1 130℃ Test in appliance Co.,Ltd DONGGUAN **QUANTAI** UL T-2 125℃, 600V **UL224 ELECTRONICS** E227336 CO LTD Shrinkable **CHANGYUAN** tubing Changbao 102 125℃, 600V **UL224** UL E180908 **ELECTRONICS** (SHENZHEN) **UNICHEM CO** UL **KUHS-225** 125℃, 600V **UL224** LTD E157822 D1-D4 Min. 3A, 800V Ripple Cap. Min.150µF, 400V, Various (C2)105℃



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	Output cable	Various	Various		UL	UL Recognized
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1.6.2	TABLE:	electrical dat	a (in normal	conditions)			Р
Fuse #	Irated (A)	U (V)	P (W)	I (mA)	Ifuse (mA)	Condition/status	
FY1267	500						
		90V/50Hz	108.2	1887	1887	12.6V/7500mA	
	-	90V/60Hz	105.6	1846	1846		
CF1	2.5	100V/50Hz	107.6	1698	1698		
CF1	2.5	100V/60Hz	105.0	1656	1656		
CF1	2.5	240V/50Hz	107.2	947	947		
CF1	2.5	240V/60Hz	110.6	912	912		
		254.4V/50 Hz	110.8	912	912		
		254.4V/60 Hz	110.8	862	862		
FY24050	000						
		90V/50Hz	133.0	2420	2420	24.0V/5000mA	
	-	90V/60Hz	132.8	2250	2250		
CF1	2.5	100V/50Hz	132.7	2090	2090		
CF1	2.5	100V/60Hz	131.8	1991	1991		
CF1	2.5	240V/50Hz	129.2	1150	1150		
CF1	2.5	240V/60Hz	131.1	1125	1125		
		254.4V/50 Hz	130.6	1056	1056		
		254.4V/60 Hz	133.0	1058	1058		
FY4802	500						
		90V/50Hz	129.5	2300	2300	48.0V/2500mA	
		90V/60Hz	128.5	2160	2160		
CF1	2.5	100V/50Hz	127.8	2020	2020		
CF1	2.5	100V/60Hz	128.1	1942	1942		
CF1	2.5	240V/50Hz	127.8	1125	1125		
CF1	2.5	240V/60Hz	127.2	1035	1035		



Page 53 of 70 Report No.: 17004848 001 254.4V/50 1027 1027 124.4 Hz 254.4V/60 126.7 1020 1020 Hz FY5802000 130.4 90V/50Hz 2340 2340 58.0V/2000mA 129.1 2170 2170 ----90V/60Hz CF1 127.6 2.5 2020 2020 100V/50Hz CF1 2.5 128.1 1943 1943 100V/60Hz CF1 2.5 126.7 240V/50Hz 1102 1102 CF1 2.5 129.0 1107 1107 240V/60Hz 124.0 1042 1042 254.4V/50 Hz 254.4V/60 127.9 1019 1019 Hz FY0307500 32.8 595 595 90V/50Hz 3.0V/7500mA 30.6 578 578 90V/60Hz 34.2 544 544 CF1 2.5 100V/50Hz CF1 524 524 31.1 2.5 100V/60Hz CF1 36.3 323 323 2.5 240V/50Hz CF1 34.7 295 295 2.5 240V/60Hz 37.4 293 293 254.4V/50 Hz 35.2 291 291 254.4V/60 Hz FY1207500 104.8 1195 1195 90V/50Hz 12.0V/7500mA 104.7 1821 1821 --90V/60Hz CF1 2.5 104.1 1693 1693 100V/50Hz CF1 2.5 103.9 1620 100V/60Hz 1620 CF1 2.5 106.1 923 923 240V/50Hz CF1 2.5 104.1 892 240V/60Hz 892 254.4V/50 108.8 836 836 Hz 885 254.4V/60 106.3 885 Hz

Note(s):



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TRF originator: SGS Fimko

2.1.1.5	TABLE: max	k. V, A, VA test				Р
	(rated) V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (m (V <i>A</i>	
FY1267500						
12	2.6	7.5	12.12	15.14	140	.9
FY2405000						
2	4	5.0	23.8	5.07	118	.3
FY4802500						
4	.8	2.5	46.3	2.73	124	.2
FY5802000						
5	8	2.0	58.5	2.05	117	.6
FY0307500						
(3	7.5	3.27	9.45	21.	2
FY1207500						
1	2	7.5	12.1	8.98	106	.8
Note: the ou	tput energy le	ess than 240VA.				

2.1.1.7	TABLE: 0	ABLE: discharge test				
Condition		τ calculated (s)	τ measured (s)	$t u \rightarrow 0V$ (s)	Comments	
Note(s):						

2.2.2	TABLE: I	Hazardous voltage measur	ement			Р
Transformer		Location	max. \	/oltage	Voltage Limitation	
			V peak	V d.c.	Component	
FY1267500						
PT1		Pin 9 to pin 10	52.0	-		
			-	14.4	After D8	
FY2405000					·	
PT1		Pin 9 to pin 10	68.0	-		
			-	27.7	After D8	
FY4802500					·	
PT1		Pin 9 to pin 10	132.0	-		
			-	44.5	After D8	
FY5802000						

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PT1	Pin 9 to pin 10	136.0	-	
		-	58.2	After D8
Note(s):				

2.2.3	TABLE: SEL voltage	measurement		Р
Location		Voltage measured (V)	Comments	
FY1267500				
Output (12.6	SV)	12.0	Normal load	
Output (12.6	SV)	12.3	No load	
Output (12.6	SV)	0	D8 short-circuit	
FY2405000				
Output (24V)	23.3	Normal load	
Output (24V)	23.8	No load	
Output (24V)	0	D8 short-circuit	
FY4802500				
Output (48V)	45.5	Normal load	
Output (48V)	45.7	No load	
Output (48V)	0	D8 short-circuit	
FY5802000				
Output (58V)	57.1	Normal load	
Output (58V)		57.2	No load	
Output (58V)	0	D8 short-circuit	
Note (S):				

2.4.2	TABLE: limited of	urrent circuit	measureme	ent			Р
Location		Voltage (V)	Current (mA)	Freq. (kHz)	Limit (mA)	Comments	
FY1267500							
Y1-cap (C9)		6.2	3.1	56	39.2	A 2 $k\Omega$ resistor's connected to sect C9, the other term which was directly to neutral.	ondary pin of ninal of
FY2405000							
Y1-cap (C9)		6.2	3.1	56	39.2	A 2 kΩ resistor's α connected to second C9, the other term which was directly to neutral.	ondary pin of ninal of

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FY4802500						
Y1-cap (C9)	6.2	3.1	56	39.2	connected to C9, the other	or's one terminal secondary pin of terminal of rectly connected
FY5802000	·					
Y1-cap (C9)	5.6	2.8	56	39.2	connected to C9, the other	or's one terminal secondary pin of terminal of rectly connected
Note(s):	I	L	L			

2.5	TABLE: limited power	LE: limited power source measurement (Not required)			
		Limits	Measured	Verdict	
According to Table 2B (normal condition)					
current (in A	A)				
apparent power (in VA)					
Note(s):			•		

2.6.3.4	TABLE: ground continue test			N/A
Location Resistance measured (m Ω)			Comments	
Note(s):				

2.10.2 Table: working voltage measurement					Р
Location		RMS voltage (V)	Peak voltage (V)	Comments	
FY1267500					
Pin 1-9 of P	Γ1	256	472	The highest rms and \	/peak
Pin 1-10 of F	PT1	243	440		
Pin 2-9 of P	Γ1	-	-		
Pin 2-10 of F	PT1	-	-		
Pin 3-9 of P	Γ1	208	344		
Pin 3-10 of F	PT1	203	384		
Pin 4-9 of P	Γ1	252	408		
Pin 4-10 of F	PT1	241	368		
Pin 5-9 of P	Γ1	239	360		

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Pin 5-10 of PT1	226	384	
Note (S): Supply 240V/50Hz, r	ormal load: 12.6V/7500n	nΑ	
FY2405000			
Pin 1-9 of PT1	269	512	The highest rms and Vpeak
Pin 1-10 of PT1	267	480	
Pin 2-9 of PT1	-	-	
Pin 2-10 of PT1	-	-	
Pin 3-9 of PT1	207	344	
Pin 3-10 of PT1	210	408	
Pin 4-9 of PT1	235	400	
Pin 4-10 of PT1	250	384	
Pin 5-9 of PT1	234	376	
Pin 5-10 of PT1	235	400	
Note (S): Supply 240V/50Hz, n	ormal load: 24.0V/5000n	nΑ	
FY4802500			
Pin 1-9 of PT1	263	472	The highest rms and Vpeak
Pin 1-10 of PT1	239	424	
Pin 2-9 of PT1	-	-	
Pin 2-10 of PT1	-	-	
Pin 3-9 of PT1	227	352	
Pin 3-10 of PT1	215	464	
Pin 4-9 of PT1	247	408	
Pin 4-10 of PT1	223	400	
Pin 5-9 of PT1	250	368	
Pin 5-10 of PT1	230	416	
Note (S): Supply 240V/50Hz, n	ormal load: 48.0V/2500n	nA	
FY5802000			
Pin 1-9 of PT1	272	512	The highest rms and Vpeak
Pin 1-10 of PT1	239	440	
Pin 2-9 of PT1	-	-	
Pin 2-10 of PT1	-	-	
Pin 3-9 of PT1	205	352	
Pin 3-10 of PT1	220	472	
Pin 4-9 of PT1	240	400	
Pin 4-10 of PT1	209	424	
Pin 5-9 of PT1	241	384	



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Pin 5-10 of P11	227	440	
Note (S): Supply 240V/50Hz, norma	al load: 58.0V/2000n	nA	

2.10.3 and ZABLE: clearance and creepage distance measurements 2.10.4					Р	
Clearance cl and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required dcr (mm)	dcr (mm)
On primary						
L-N on PCB (F)*	420	240	1.5	6.1	2.5	6.1
Different polarity of fuse F1 (F)	420	240	1.5	3.0	2.5	3.0
Primary components to accessit	ole part					
Heat sink on primary (with 10N) to enclosure outside (R)*	420	240	4.0	8.6	5.0	8.6
Primary components to second	ary compone	nts				
Primary to secondary of Opto- coupler IC2 (R)	512	272	4.4	6.2	5.7	6.2
Primary to secondary of Y1-cap C9 (R)	512	272	4.4	6.2	5.7	6.2
Primary to secondary of transformer (R)	512	272	4.4	6.2	5.7	6.2
Secondary to core of transformer (R)	512	272	4.4	6.2	5.7	6.2

Note(s):

The construction check performed on the transformer of model FY5802000 which has the total Max. Secondary windings diameter considering the turns.

- * F=functional insulation, R=reinforced insulation.
- 1) 3 layers insulation tape wrapped between primary soldering points, components and secondary heat sink as reinforced insulation
- 2) 3 layers insulation tape wrapped between secondary soldering points, components and primary heat sink as reinforced insulation
- 3) 3 layers insulation tape wrapped around external of transformer as reinforced insulation
- 4) Heat shrinkable tube used on fuse CF1 and C9 as functional insulation.
- 5) Triple insulated wire used for secondary winding of the transformer.

2.10.5 TABLE: distance through insulation measurements					Р
Distance thr	ough insulation di at/of:	U r.m.s. (V)	Test voltage (V)	Required di (mm)	di (mm)
Enclosure (f	or reinforced insulation)	240	3000	0.4	2.4
Opto-couple	r (for reinforced insulation)	240	3000	0.4	0.5

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4.5.1	TABLE: maximum tempera	atures P				
	test voltage (V)	100x0.9=90	OV / 240x1,06	=254V		_
	t _{amb1} (°C)					_
	t _{amb2} (°C)					_
maximun	n temperature T of part/at::		Т (°C)		allowed T _{max} (°C)
FY12675	600					
		90V	/50Hz	254V/	/50Hz	
		Label up	Label down	Label up	Label down	
Ambient		25.0	25.0	25.0	25.0	
AC inlet		56.2	55.3	43.2	46.0	70
X2-cap C	C1 body	69.9	68.1	53.6	55.2	100
L1 windir	<u> </u>	84.9	84.4	62.7	64.0	130
PCB nea	r D1	58.7	60.5	46.8	46.0	130
C2 body		86.7	85.6	65.3	66.8	105
Primary h	neatsink	74.9	72.5	63.5	65.7	
Seconda	ry heatsink	90.3	91.3	76.1	75.3	
PT1 wind	ding	87.0	86.5	83.1	86.8	120- 10=110
PT1 core		88.2	86.9	81.4	82.5	120- 10=110
Y1-cap C	9 body	76.7	74.0	66.1	69.2	105
Opto-cou	ıpler IC2 body	74.8	77.3	64.3	61.1	100
PCB nea	r R3	78.2	77.9	67.4	69.8	130
Output w	ire	68.0	68.8	58.5	55.2	
(inside)	e above PT1	79.2	80.8	68.8	71.1	
(outside)	e above PT1	66.4	64.6	57.3	55.2	95
(outside)		81.3	82.2	59.6	61.1	95
Enclosur (inside)	e under PT1	71.0	72.5	66.0	67.6	
FY24050	000					
		90V	/50Hz	254V/	/50Hz	
		Label up	Label down	Label up	Label down	
Ambient		25.0	25.0	25.0	25.0	



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AC inlet	67.7	64.5	42.3	46.0	70
X2-cap C1 body	84.2	82.8	57.7	56.4	100
L1 winding	86.2	88.8	69.4	67.1	130
PCB near D1	90.6	93.3	65.8	64.3	130
C2 body	86.6	86.6	60.6	59.3	105
Primary heatsink	84.7	82.8	63.3	60.5	
Secondary heatsink	86.4	87.8	96.5	95.3	
PT1 winding	79.6	81.0	86.9	84.5	120- 10=110
PT1 core	77.4	78.8	84.4	85.6	120- 10=110
Y1-cap C9 body	74.9	76.3	71.0	71.2	105
Opto-coupler IC2 body	76.8	75.1	65.9	68.1	100
PCB near R3	84.0	86.9	67.8	66.9	130
Output wire	65.1	63.0	79.4	77.5	
Enclosure above PT1 (inside)	72.6	70.1	74.0	73.3	
Enclosure above PT1 (outside)	64.9	64.5	65.9	65.4	95
Enclosure under PT1 (outside)	71.6	70.3	72.6	70.5	95
Enclosure under PT1 (inside)	75.1	78.3	74.6	75.4	

FY4802500

	90V/	/50Hz	254V/	50Hz	
	Label up	Label down	Label up	Label down	
Ambient	25.0	25.0	25.0	25.0	
AC inlet	51.8	50.6	42.2	46.0	70
X2-cap C1 body	63.6	65.4	53.4	54.2	100
L1 winding	76.9	77.0	63.4	60.5	130
PCB near D1	84.6	82.6	64.1	66.9	130
C2 body	86.1	88.3	67.2	68.1	105
Primary heatsink	74.0	75.9	63.4	65.3	
Secondary heatsink	69.9	71.0	66.3	65.4	
PT1 winding	85.6	85.6	84.4	86.8	120- 10=110
PT1 core	81.2	81.0	82.9	85.6	120- 10=110
Y1-cap C9 body	71.5	69.9	66.9	70.0	105

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Opto-coupler IC2 body	68.7	71.2	63.8	64.3	100
PCB near R3	76.3	77.5	67.7	69.9	130
Output wire	49.5	46.0	44.7	43.0	
Enclosure above PT1 (inside)	55.4	54.5	55.5	56.4	
Enclosure above PT1 (outside)	53.8	56.4	53.6	50.6	95
Enclosure under PT1 (outside)	66.7	67.1	65.0	67.1	95
Enclosure under PT1 (inside)	73.0	75.4	73.0	72.8	

FY5802000

	90V	/50Hz	254V/50Hz		
	Label up	Label down	Label up	Label down	
Ambient	25.0	25.0	25.0	25.0	
AC inlet	65.5	62.3	54.0	59.3	70
X2-cap C1 body	80.1	80.8	41.9	41.1	100
L1 winding	55.2	52.8	52.3	54.2	130
PCB near D1	85.9	86.9	62.5	62.0	130
C2 body	85.5	85.6	48.3	48.9	105
Primary heatsink	67.6	64.6	63.9	63.1	
Secondary heatsink	85.6	88.3	69.1	69.1	
PT1 winding	81.6	81.1	83.0	85.5	120- 10=110
PT1 core	72.7	77.9	76.2	76.8	120- 10=110
Y1-cap C9 body	71.9	74.9	84.5	85.7	105
Opto-coupler IC2 body	79.4	82.2	69.2	66.9	100
PCB near R3	56.6	52.8	62.7	62.1	130
Output wire	63.9	62.3	64.2	64.5	
Enclosure above PT1 (inside)	66.7	68.0	70.1	70.4	
Enclosure above PT1 (outside)	60.8	64.9	62.4	60.7	95
Enclosure under PT1 (outside)	70.7	66.5	71.2	71.6	95
Enclosure under PT1 (inside)	71.2	73.7	76.4	75.5	

4.	.5.2	TABLE: ball pressure test of thermoplastic parts		Р
		allowed impression diameter (mm):	≤ 2 mm	_



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Part	Test temperature (°C)	Impression diameter (mm)
Bobbin of L1	125	0.5
Bobbin of transformer	125	0.5
Enclosure	125	0.7
Note(s):		

4.6.1, 4.6.2	Table: enclosure openings (no openings)				
Location		Size (mm)	Comments		
Note(s):					

4.7	Tab	Table: resistance to fire					
Part		Manufacturer of material Type of material Thickness F (mm)					
Note(s): see appended table 1.5.1							

5.1.6 TABLE	TABLE: touch current measurement						
Condition	L→ terminal A (mA)	$N \rightarrow terminal A$ (mA)	Limit (mA)	Comments			
At output terminal	0.15	0.15	0.25	Input voltage: 254.4V			
At enclosure	0.005	0.005	0.25	Input frequency: 60Hz			
Note(s):							

5.2	TABLE: electric strength tests and impulse tests					
Test voltage	e applied between:	Test voltage (V)	Test voltage (V) Brea			
L to N after t	fuse disconnection	1500	No			
L/N and acc	essible parts	3000	No			
Primary to s	econdary of transformer	3000	No			
Secondary t	o core of transformer	3000		No		
	of 3 layers insulation tape wrapped between primary ints, components and secondary heat sink	3000		No		
Two layers of transform	of 3 layers insulation tape wrapped around external er	3000		No		

Note(s): The test performed immediately following the heating test as specified according to 4.5.1, 2.9.2 and 5.3 except the last 2 items.

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Report No.: 17004848 001 5.3 TABLE: fault condition tests Ρ ambient temperature (°C) 25 model/type of power supply manufacturer of power supply rated markings of power supply component fault test voltage fuse fuse current result test time No. No. (V) (A) FY1267500 Output 240V The unit shutdown S-C CF1 1 minute $0.95 \rightarrow 0.18$ immediately, recoverable after the fault removed, no hazards observed. CF1 Output 240V After the overload applied O-L 240 0.95→1.18 for 240 minutes, the unit minutes shutdown at the max. output current 9.45A, the max. temperature of primary winding is 105.2℃. No hazards. Limit: (175-10)℃=165℃ CF1 Fuse opened immediately, D1 S-C 0.95→0 240V 1 second no hazards observed. R3 CF1 S-C 240V $0.95 \rightarrow 0.95$ 10 minutes The unit normally operation, no hazards observed. C2 CF1 S-C 240V 10 minutes $0.95 \rightarrow 0.95$ The unit normally operation, no hazards observed. R2 CF1 S-C 240V 1 second 0.95→0 Fuse opened immediately, no hazards observed. D7 CF1 S-C 240V 10 minutes $0.95 \rightarrow 0.95$ The unit normally operation, no hazards observed. D8 S-C CF1 0.95→0 240V 1 second Fuse opened immediately. no hazards observed. Pin9 to Pin10 S-C CF1 240V 1 second $0.95 \to 0$ Fuse opened immediately, of PT1 R6, T1 damaged, no hazards observed. IC2 Primary CF1 O-C 240V 10 minutes 0.95→0 The unit shutdown immediately, recoverable after the fault removed, no hazards observed. IC2 Secondary CF1 S-C 240V 1 second $0.95 \to 0$ Fuse opened immediately, R6, T1 damaged, no hazards observed.



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IC2 Primary CF1 S-C 240V 10 minutes 0.95→0 The unit shutdown immediately, recoverable after the fault removed, no hazards observed. IC2 Secondary CF1 After the short applied for O-C 240V 35 minutes $0.95 \rightarrow 1.98$ 28 minutes, the unit shutdown, the max. temperature of primary winding is 115.6℃, Max. Output voltage is 12.5Vdc. R6, T1 damaged, CF1 opened, No hazards. Limit: (175-10)℃=165℃ Pin2-pin7 of CF1 S-C 240V 10 minutes $0.95 \to 0$ The unit shutdown IC1 immediately, recoverable after the fault removed, no hazards observed. CF1 Fuse opened immediately, T1 G-S S-C 240V 1 second 0.95→0 no hazards observed. CF1 T1 G-D S-C 10 minutes 0.95→0 The unit shutdown 240V immediately, recoverable after the fault removed, no hazards observed. CF1 Fuse opened immediately, T1 D-S S-C 240V 1 second $0.95 \to 0$ no hazards observed. CF1 After the overload applied Transformer O-L 240V 540 $0.95 \rightarrow 1.25$ for 540 minutes, the unit minutes shutdown at the max. output current 9.5A, the max. temperature of primary winding is . 102.4℃. No hazards. Limit: (175-10)℃=165℃ FY2405000 240V CF1 Output The unit shutdown S-C 1 minute $1.15 \rightarrow 0.13$ immediately, recoverable after the fault removed, no hazards observed. 240V CF1 Output After the overload applied O-L 240 $1.15 \rightarrow 1.21$ for 240 minutes, the unit minutes shutdown at the max. output current 5.2A, the max. temperature of primary winding is 101.5℃. No hazards. Limit: (175-10)℃=165℃ D1 CF1 Fuse opened immediately, S-C 240V 1 second 1.15→0 no hazards observed. R3 CF1 S-C 240V 10 minutes $1.15 \rightarrow 1.15$ The unit normally operation, no hazards observed. C2 CF1 S-C 240V 10 minutes 1.15→1.15 The unit normally operation, no hazards observed.

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R2 CF1 S-C 240V 1 second 1.15→0 Fuse opened immediately, no hazards observed. D7 CF1 S-C 240V 10 minutes $1.15 \rightarrow 1.15$ The unit normally operation, no hazards observed. C₅ S-C CF1 240V 1 second 1.15→0 Fuse opened immediately, no hazards observed. D8 S-C CF1 240V 1 second 1.15→0 Fuse opened immediately, no hazards observed. Pin9 to Pin10 S-C CF1 240V 1 second 1.15→0 Fuse opened immediately, of PT1 R6, T1 damaged, no hazards observed. **IC2** Primary CF1 O-C 240V 10 minutes 1.15→0 The unit shutdown immediately, recoverable after the fault removed, no hazards observed. CF1 IC2 Secondary S-C 240V 1.15→0 1 second Fuse opened immediately, R6, T1 damaged, no hazards observed. **IC2** Primary CF1 S-C 240V 10 minutes 1.15→0 The unit shutdown immediately, recoverable after the fault removed, no hazards observed. IC2 Secondary CF1 After the short applied for O-C 240V 35 minutes 1.15→2.04 28 minutes, the unit shutdown, the max. temperature of primary winding is 122.6℃, Max. Output voltage is 23.8Vdc. R6, T1 damaged, CF1 opened, No hazards. Limit: (175-10)℃=165℃ Pin2-pin7 of CF1 S-C 10 minutes 1.15→0 240V The unit shutdown IC1 immediately, recoverable after the fault removed, no hazards observed. CF1 Fuse opened immediately. T1 G-S S-C 240V 1 second 1.15→0 no hazards observed. CF1 T1 G-D S-C 240V 10 minutes 1.15→0 The unit shutdown immediately, recoverable after the fault removed, no hazards observed. CF1 Fuse opened immediately, T1 D-S S-C 240V 1 second 1.15→0 no hazards observed. CF1 After the overload applied Transformer O-L 240V 540 $1.15 \rightarrow 1.35$ for 540 minutes, the unit minutes shutdown at the max. output current 5.7A, the max. temperature of primary winding is 102.1℃. No hazards. Limit: (175-10)℃=165℃

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FY4802500						
Output	S-C	240V	1 minute	CF1	1.13→0.12	The unit shutdown immediately, recoverable after the fault removed, no hazards observed.
Output	O-L	240V	240 minutes	CF1	1.13→1.18	After the overload applied for 240 minutes, the unit shutdown at the max. output current 2.7A, the max. temperature of primary winding is 101.5℃. No hazards. Limit: (175-10)℃=165℃
D1	S-C	240V	1 second	CF1	1.13→0	Fuse opened immediately, no hazards observed.
R3	S-C	240V	10 minutes	CF1	1.13 → 1.13	The unit normally operation, no hazards observed.
C2	S-C	240V	10 minutes	CF1	1.13 → 1.13	The unit normally operation, no hazards observed.
R2	S-C	240V	1 second	CF1	1.13→0	Fuse opened immediately, no hazards observed.
D7	S-C	240V	10 minutes	CF1	1.13→1.13	The unit normally operation, no hazards observed.
C5	S-C	240V	1 second	CF1	1.13 → 0	Fuse opened immediately, no hazards observed.
D8	S-C	240V	1 second	CF1	1.13→0	Fuse opened immediately, no hazards observed.
Pin9 to Pin10 of PT1	S-C	240V	1 second	CF1	1.13→0	Fuse opened immediately, R6, T1 damaged, no hazards observed.
IC2 Primary	O-C	240V	10 minutes	CF1	1.13→0	The unit shutdown immediately, recoverable after the fault removed, no hazards observed.
IC2 Secondary	S-C	240V	1 second	CF1	1.13→0	Fuse opened immediately, R6, T1 damaged, no hazards observed.
IC2 Primary	S-C	240V	10 minutes	CF1	1.13→0	The unit shutdown immediately, recoverable after the fault removed, no hazards observed.



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IC2 Secondary Pin2-pin7 of	O-C	240V	35 minutes	CF1	1.13→2.05 1.13→0	After the shot applied for 28 minutes, the unit shutdown, the max. temperature of primary winding is 125.6℃, Max. Output voltage is 48.3Vdc. R6, T1 damaged, CF1 opened, No hazards. Limit: (175-10)℃=165℃ The unit shutdown
IC1						immediately, recoverable after the fault removed, no hazards observed.
T1 G-S	S-C	240V	1 second	CF1	1.13 → 0	Fuse opened immediately, no hazards observed.
T1 G-D	S-C	240V	10 minutes	CF1	1.13→0	The unit shutdown immediately, recoverable after the fault removed, no hazards observed.
T1 D-S	S-C	240V	1 second	CF1	1.13 → 0	Fuse opened immediately, no hazards observed.
Transformer	O-L	240V	600 minutes	CF1	1.13→1.25	After the overload applied for 600 minutes, the unit shutdown at the max. output current 3.2A, the max. temperature of primary winding is 115.4℃. No hazards. Limit: (175-10)℃=165℃
FY5802000						
Output	S-C	240V	1 minute	CF1	1.10→0.09	The unit shutdown immediately, recoverable after the fault removed, no hazards observed.
Output	O-L	240V	240 minutes	CF1	1.10→1.18	After the overload applied for 240 minutes, the unit shutdown at the max. output current 2.2A, the max. temperature of primary winding is 112.4℃. No hazards. Limit: (175-10)℃=165℃
D1	S-C	240V	1 second	CF1	1.10→0	Fuse opened immediately, no hazards observed.
R3	S-C	240V	10 minutes	CF1	1.10→1.10	The unit normally operation, no hazards observed.
C2	S-C	240V	10 minutes	CF1	1.10→0.93	The unit normally operation, no hazards observed.
R2	S-C	240V	1 second	CF1	1.10→0	Fuse opened immediately, no hazards observed.



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D7	S-C	240V	10 minutes	CF1	1.10→1.10	The unit normally operation, no hazards observed.
C5	S-C	240V	1 second	CF1	1.10→0	Fuse opened immediately, no hazards observed.
D8	S-C	240V	1 second	CF1	1.10→0	Fuse opened immediately, no hazards observed.
Pin9 to Pin10 of PT1	S-C	240V	1 second	CF1	1.10→0	Fuse opened immediately, R6, T1 damaged, no hazards observed.
IC2 Primary	O-C	240V	10 minutes	CF1	1.10→0	The unit shutdown immediately, recoverable after the fault removed, no hazards observed.
IC2 Secondary	S-C	240V	1 second	CF1	1.10→0	Fuse opened immediately, R6, T1 damaged, no hazards observed.
IC2 Primary	S-C	240V	10 minutes	CF1	1.10→0	The unit shutdown immediately, recoverable after the fault removed, no hazards observed.
IC2 Secondary	O-C	240V	35 minutes	CF1	1.10 → 2.14	After the shot applied for 35 minutes, the unit shutdown, the max. temperature of primary winding is 122.4℃, Max. Output voltage is 58.2Vdc. R6, T1 damaged, CF1 opened, No hazards. Limit: (175-10)℃=165℃
Pin2-pin7 of IC1	S-C	240V	10 minutes	CF1	1.10→0	The unit shutdown immediately, recoverable after the fault removed, no hazards observed.
T1 G-S	S-C	240V	1 second	CF1	1.10→0	Fuse opened immediately, no hazards observed.
T1 G-D	S-C	240V	10 minutes	CF1	1.10→0	The unit shutdown immediately, recoverable after the fault removed, no hazards observed.
T1 D-S	S-C	240V	1 second	CF1	1.10→0	Fuse opened immediately, no hazards observed.
Transformer	O-L	240V	540 minutes	CF1	0.95→1.04	After the overload applied for 540 minutes, the unit shutdown at the max. output current 2.8A, the max. temperature of primary winding is 138.8℃. No hazards. Limit: (175-10)℃=165℃

Note (S): S-C=short-circuited, O-C=open-circuited, O-L=overload. The unit passed 3000V hi-pot test between primary and accessible parts after the above single fault condition performed.



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C.2	Safety isolation transformer							
	Construction details:							
Transformer pa	art name: PT1							
Manufacturer:	See appended table 1.5.1							
Type:	See appended table 1.5.1							
	struction check performed on the transformendings diameter considering the turns.	r of model FY5802000 which	has the to	otal Max.				
Recurring peak	c voltage	512V						
Required clear (from table 2H	ance for reinforced insulation and 2J)	4.4mm						
Effective voltage	ge rms	272V						
Required creep (from table 2L)	page distance for reinforced insulation	5.6mm						
Measured min.	. creepage distance							
Location		inside (mm)	outside (mm)					
Primary-secondary		Triple insulated wires used	6.2					
Primary-core		Core considered as primary	Core considered as primary					
Secondary-cor	e	Triple insulated wires used	es 6.2					
Primary-primar	у	%						
Measured min.	. clearances							
Location		inside (mm)	outs	ide (mm)				
Primary-secon	dary	Triple insulated wires used	6.2					
Primary-core		Core considered as primary	Core considered as primary					
Secondary-cor	e	Triple insulated wires used	6.2					
Primary-primar	у	%	%					
Construction:								



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Concentric windings on type T375J bobbin (Phenolic, thickness 0.8mm, V-0), three layers insulation tape wrapped around external of transformer as reinforced insulation. Triple insulated wires used as secondary winding. Insulating tape used to separate primary windings and secondary triple insulated wires in crossing section. The lead pins soldered to primary windings were directly moulded in bobbin and the lead pins of secondary windings were directly moulded in PCB.

Pin numbers	
Prim.	1→3, 4→5
Sec.	9→10
Bobbin	
Material	CHANG CHUN PLASTIC CO LTD, type T375J, V-0, 150℃.
Thickness	0.8mm
Electric strength test	
With 3000 V a.c. after humidity treatment	
Result	Pass