File E161936
Project 03SC02868

April 23, 2003

REPORT

on

COMPONENT - POWER SUPPLIES,
INFORMATION TECHNOLOGY EQUIPMENT,
INCLUDING ELECTRICAL BUSINESS EQUIPMENT

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Hyogo, Japan

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DESCRIPTION

PRODUCT COVERED:

USR/CNR, Component - Power Supply, Models PCSA-470P-X2xx, CSA-470P-E2yx, PCSA-470P-E2Jx **and PCSA-470P-E2Px**, where the "y" represents A-Z except J **and P**, 0-9 or blank and "x" represents A-Z, 0-9 or blank.

ELECTRICAL RATING:

Model	Input						
	V		A		Hz		
PCSA-470P-X2xx	100 - 240		5.0 - 2.1		50 / 60		
Tmra: 30°C	Maximum Output				Peak Output		
	V (dc)	A		W	A		W
100% Load	+ 3.3	31	(+)	(+)	31	(+)	(+)
	+ 5	36	36	331	40	40	200
	+ 12	16.7			20		240
	- 5	0.5			0.5		2.5
	-12	0.9			0.9		10.8
	+ 5VSB	2.2		11	3		15
Tmra: 60°C	Maximum Output				Peak Output		
	V (dc)	A		W	A		W
70% Load	+ 3.3	21.7	(+)	(+)	21.7	(+)	(+)
	+ 5	25.2	25.2	231.7	28	28	140
	+ 12	11.7			14		168
	- 5	0.35			0.35		1.75
	-12	0.63			0.63		7.56
	+ 5VSB	1.54		7.7	2.1		10.5

Model	Input						
	V		A		Hz		
PCSA-470P-E2yx	100 - 240		5.0 - 2.1		50 / 60		
Tmra: 30°C	Maximum Output				Peak Output		
	V (dc)	A		W	A		W
100% Load	+ 3.3	31	(+)	(+)	31	(+)	(+)
	+ 5	36	36	331	40	40	200
	+ 12	16.7			20		240
	-12	0.9			0.9		10.8
	+ 5VSB	2.2		11	3		15
Tmra: 60°C	Maximum Output				Peak Output		
	V (dc)	A		W	A		W
70% Load	+ 3.3	21.7	(+)	(+)	21.7	(+)	(+)
	+ 5	25.2	25.2	231.7	28	28	140
	+ 12	11.7			14		168
	-12	0.63			0.63		7.56
	+ 5VSB	1.54		7.7	2.1		10.5

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Model	Input		
	V	A	Hz
PCSA-470P-E2Jx	100 - 240	5.0 - 2.1	50 / 60

Tmra: 30°C	Maximum Output				Peak Output		
	V (dc)	A		W	A		W
100% Load	+ 3.3	20	(+) 20	(+) 294	30	(+) 40	(+) 150
	+ 5	20			30		
	+ 12	16.7			23.3		280
	-12	0.9			0.9		10.8
	+ 5VSB	2.2		11	3		15

Tmra: 60°C	Maximum Output				Peak Output		
	V (dc)	A		W	A		W
70% Load	+ 3.3	14	(+) 14	(+) 205.8	21	(+) 28	(+) 105
	+ 5	14			21		
	+ 12	11.7			16.3		196
	-12	0.63			0.63		7.56
	+ 5VSB	1.54		7.7	2.1		10.5

Model	**Input**		
	V	**A**	**Hz**
PCSA-470P-E2Px	**100 - 240**	**5.0 - 2.1**	**50 / 60**

Tmra: 45°C	**Maximum Output**				**Peak Output**		
	V (dc)	**A**		**W**	**A**		**W**
100% Load	**+ 3.3**	**25**	**(+) 30**	**(+) 336**	**31**	**(+) 40**	**(+) 440**
	+ 5	**30**			**40**		
	+ 12	**18**			**24**		
	-12	**0.9**			**0.9**		**10.8**
	+ 5VSB	**2.2**			**3**		**15**

Tmra: 60°C	**Maximum Output**				**Peak Output**		
	V (dc)	**A**		**W**	**A**		**W**
85% Load	**+ 3.3**	**21.3**	**(+) 25.5**	**(+) 285.6**	**26.4**	**(+) 40**	**(+) 374**
	+ 5	**25.5**			**34**		
	+ 12	**15.3**			**20.4**		
	-12	**0.77**			**0.77**		**9.18**
	+ 5VSB	**1.87**			**2.55**		**12.75**

(+) = Total Maximum Output
Peak Output = Maximum 5 seconds, 45 seconds interval

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ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in (or with) complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Special Considerations - The following items are considerations that were used when evaluating this product.

USR/CNR indicates investigation to the U.S. and Canadian (Bi-National) Standard for Safety of Information Technology Equipment, CSA C22.2 No. 60950 * UL 60950, Third Edition, dated December 1, 2000.

The component equipment was submitted and tested for a maximum manufacturer's recommended ambient (Tmra) of 30°C or 60°C. See ELECTRICAL RATING for details of Tmra.

The component is: for building in, Class I (earthed), intended for use on a TN power systems.

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Conditions of Acceptability - When installed in the end-product, consideration shall be given to the following:

1. This component has been judged on the basis of the required spacings in the Standard for Safety of Information Technology Equipment, CSA/UL 60950, Third Edition, dated December 1, 2000, Sub-clause 2.10, which would cover the component itself if submitted for Listing.

2. The components were tested on a 20 A branch circuit. If used on a branch circuit greater than this, additional testing may be necessary.

3. Production-Line Dielectric Voltage Withstand (Electric Strength) and Grounding (Protective Earthing) Continuity Tests are being conducted on this power supply.

4. All secondary output circuits except +12 V dc output circuit are SELV and are not hazardous energy levels.

5. The +12 V dc secondary output circuit is SELV and is hazardous energy levels.

6. The terminals and connectors are suitable for factory wiring only.

7. Magnetic devices T1, T3, LF1 and LF2 have been considered as insulation Class A **for Models PCSA-470P-X2xx, PCSA-470P-E2yx and PCSA-470P-E2Jx. Magnetic devices T1 has been considered as insulation Class B; T3 and LF1 have been considered as insulation Class A; LF2 has been considered RTI rating of the bobbin material as 120°C for Model PCSA-470P-E2Px.**

8. The maximum working voltage present is 316 V rms; 536 V pk. The electric strength tests in the end-product shall be based on this value.

9. The component has been evaluated for use in a Pollution Degree 2 environment.

10. A suitable Electrical and Fire enclosure shall be provided.

11. Cover/Chassis has not been tested for Mechanical, Electrical, Fire and Internal enclosure.

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12. Models PCSA-470P-X2xx, PCSA-470P-E2yx and PCSA-470P-E2Jx:
The following components should be given special consideration during end-use Heating Tests because of temperatures achieved during component level testing: Room ambient was adjusted to 30°C or 60°C during Heating Test

Component	Maximum Temperature Achieved
T1 primary coil	90°C
T1 secondary coil	88°C

Model PCSA-470P-E2Px:
The following components should be given special consideration during end-use Heating Tests because of temperatures achieved during component level testing: Room ambient was adjusted to 30°C or 60°C during Heating Test

Component	Maximum Temperature Achieved
T1 primary coil	98°C
T1 secondary coil	103°C

13. The end-product should be marked with "CAUTION: Double Pole/Neutral Fusing" or the equivalent, or a similar marking in the service manual.

14. Maximum output rating was evaluated as "Continuous Operation". Peak output rating was evaluated as "Intermittent Operation".

15. Models PCSA-470P-X2xx, PCSA-470P-E2yx and PCSA-470P-E2Jx:
X-Capacitors (C1, C2) of the rating of 1.0 uF, 0.47 uF, or 0.22 uF is employed in this unit. Should check the rating of X-Capacitors (C1, C2), when Capacitor Discharge Test of the end-product is carried out.
Model PCSA-470P-E2Px:
X-Capacitors (C1, C2) of the rating of 1.0 uF for C1, 0.47 uF for C2 are employed in this unit. Capacitor Discharge Test has been conducted with this rating.

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