

USED ON	MODEL NO.	REV.	ECO	DESCRIPTION	DATE	APPROVED
700227-001	NFS90-7630L	9A	FE940034	PRE. RELEASE	4/27/94	FM, HN
			FE940034-A	CHANGE PER ECO.	7/12/94	NS, SC
		9B	FE940138	CHANGE PER ECO.	8/1/94	<i>HN</i> SC
		A	FE940159	REL. TO MFG.	8-22-94	<i>HN</i> SC


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CHECKED

REC'D - 6 SEP 1994

ISSUE..... - 3 NOV 1994

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE ARE: .X=± ANGLE=± .XX=± .XXX=±	APPROVALS: DATE	
	DRAWN NARINDER 4/27/94	
CHECKED JM 4/29/94	DESCRIPTION: PRODUCT SPECIFICATION NFS90-7630L	
ENG. HN 4/27/94	MFG. ENG. FM 4/29/94	
RELEASED FM 4/29/94	CAD FILE NO: 97062801	
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SCALE: NONE SHEET 1 OF 6		

THIS SPECIFICATION IS:

DATE 3/10/94

CONFIGURATION CONTROLLED BY THE CUSTOMER

CONTROLLED BY PCA _____

GENERAL DESCRIPTION:

CUSTOMER HEWLETT PACKARD CUSTOMER SPEC NUMBER _____

ASSY# 700227-01 MODEL # NFS90-7630L TAILORED FROM _____

FUNCTIONAL DESCRIPTION: 5 OUTPUT SWITCHER AC/DC INPUT, PFD

INTENDED APPLICATION: _____

PRODUCT SAFETY REQUIREMENTS

THIS PRODUCT DESIGNED TO MEET:

UL _____ CSA 1402C VDE _____

TUV _____ BABT _____ OTHER _____

REQUIRED SAFETY AGENCY APPROVALS:

UL YES NO CSA YES NO VDE YES NO

TUV YES NO BABT YES NO OTHER _____

ELECTRICAL SPECIFICATIONS:

INPUT: AC / DC

	RANGE 1			RANGE 2		
	LOW	NOMINAL	HIGH	LOW	NOMINAL	HIGH
VOLTAGE	<u>84</u>	<u>220</u>	<u>264</u>	<u>11</u>	<u>14</u>	<u>32 V</u>
MAX RMS CURRENT	<u>2.0</u>	<u>.95</u>	<u>.90</u>	<u>12.8</u>	<u>7.9</u>	<u>3.5 A</u>
MAX INRUSH: COLD	<u>6</u>	<u>20</u>	<u>26</u>	_____	_____	_____
HOT	<u>23</u>	<u>42</u>	<u>48</u>	_____	_____	_____
HOLD-UP TIME	<u>10</u>	<u>35</u> ms	_____	_____	<u>90</u> mS	W output

POWER FAIL DETECT

TRIP POINT _____ / N/A _____ / _____ TRIP RESET

(Full power load. Trip is measured with line voltage going down; reset measured going up)

HOLD-UP TIME AFTER PFD TRIP _____ mS @ _____ WATTS

LINE FREQUENCY 45 TO 440 HZ MAXIMUM INPUT POWER 115 W

LINE TRANSIENT SPEC _____ 1000V, 70us DURATION

LINE FUSE 5A-250V _____ AMPS ON BOARD

SWITCHER SHALL START BETWEEN 40V TO 83 V LINE

SWITCHER SHALL DROP OUT N/A TO _____ V

OUTPUT: (All outputs D.C. unless noted)
 (All return common unless noted)
 (All outputs reverse polarity protected up to 1/2 rated current unless noted)
 (All outputs short circuit protected unless noted)



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REGULATION AND RIPPLE:

OUTPUT #	PIN #	NOMINAL VOLTAGE (V)	AVERAGE		I _{MAX} FAN (A)	I _{PEAK} (A)	I _{MAX} BURN-IN (A)	TOTAL ERROR BAND 25°C (V)	(STEADY LOADS) TOTAL ERROR BAND FULL AMBIENT RANGE (V)	P-P RIPPLE (mV) 0-20 MHz
			I _{MIN} (A)	I _{MAX} (A)						
1	4,5	5.60	1.50	5			5.55 TO 5.85	TO	50	
2	7	14.40	.5	1.85			13.00 TO 15.80	TO	100	
3	9	-14.40	.5	1.25			-13.00 TO 15.80	TO	100	
4	1	12	1.2	2.5			11.64 TO 12.48	TO	100	
5	11	43.40	.025	.050			38.00 TO 45.00	TO	200	
6	8,10, 2,3	RET								
7	14	REMOTE ON/OFF								
8	12	BATTERY MONITOR								
9	13	AC/DC OPERATION INDICATOR								

CONVECTION COOLED MAXIMUM CONTINUOUS AVERAGE POWER OUT 90 WATTS, PEAK 90 WATTS
 FAN COOLED CMF/LFM MAXIMUM CONTINUOUS AVERAGE POWER OUT _____ WATTS, PEAK _____ WATTS
 MAXIMUM OUTPUT CHANGE LOW LINE TO HIGH LINE \odot 90 WATTS

OUTPUT #	1	2	3	4	5	6	7	8
	.2%	.5%	.5%	.5%	.5%			

POWER LIMIT POINT _____ WATTS MINIMUM _____ WATTS MAXIMUM

OVERPOWER CIRCUIT BREAKER []: MAXIMUM TIME-OUT N/A SECONDS.

TRANSIENT RESPONSE:

OUTPUT #	VOLTAGE	FROM	TO	PEAK TRANSIENT	TIME TO % OR VOLTAGE
1	+5.5	1.5	3	500	1ms TO 0.5%
2	+12V	1.2	2.5	500	2ms TO 0.5%
					TO
					TO

OUTPUT #	OUTPUT VOLTAGE	OVP THRESHOLD BAND	OVERCURRENT PROTECTION THRESHOLD BAND
		TO	TO
		TO	TO
		TO	TO
		TO	TO
		TO	TO



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GENERAL SPECIFICATIONS

SHOCK AND VIBRATIONS PER H.P. ENVIRONMENT CLASS B SPEC.

FREE AIR AMBIENT TEMPERATURE -5 °C TO 70 °C

TEMPERATURE COEFFICIENT OF OUTPUTS (%/°C)

+5V V .02 +/-14.40 V .02

+12V V .02 43.40 V .02

OPERATING FREQUENCY:

AT MINIMUM POWER _____ KHz TO _____ KHz

AT MAXIMUM POWER _____ KHz TO _____ KHz

EFFICIENCY RATING \odot 70% \odot 75 WATTS OUT.

EMI REQUIREMENTS:

DESIGNED TO MEET FCC B RADIATED? YES CONDUCTED? YES

DESIGNED TO MEET VDE 0878 B,MIL STD 461 B RADIATED? YES CONDUCTED? YES

OTHER? _____

LEAKAGE CURRENT REQUIREMENTS OF SUPPLY (AS SHIPPED):

1.5 mA \odot 132V, 60Hz 3 mA \odot 265V, 50Hz (ONE POLE IS NEUTRAL)

RELATIVE HUMIDITY RANGE 15 TO 95 % **HOTTEST CASE TEMP'S**

ATTITUDE: OPERATING 15 KFT. MAXIMUM (Max. Ambient, Max. Load, Worst case line)

NON-OPERATING 50 KFT. MAXIMUM 85°C ELECTROLYTIC 60 °C

MEAN TIME BETWEEN FAILURES 100/150 KHR. MINIMUM 105°C ELECTROLYTIC 80 °C

DESIGN LIFE 13K HOURS (90,000 HRS, UNLESS NOTED) OTHER CAPACITORS 50 °C

MAXIMUM JUNCTION TEMPERATURE OF SEMICONDUCTOR DEVICES BALUN HOT SPOT 110 °C

(MAX AMBIENT, MAX LOAD, WORST CASE LINE) XFMR HOT SPOT 110 °C

MAIN SWITCH TRANS 85 °C INDUCTOR HOT SPOT _____ °C

TRANSISTORS 100 °C

SILICONS RECTIFIERS 115 °C

SCHOTTKY RECTIFIERS 115 °C

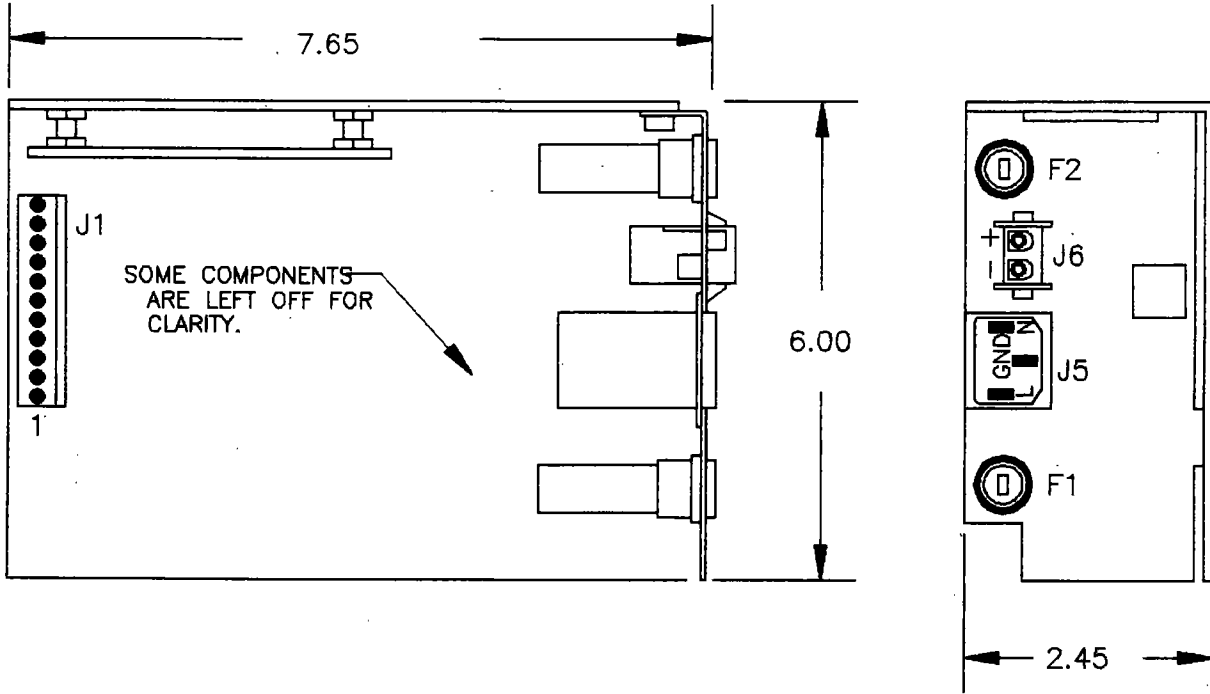
JT REGULATORS 115 °C

SCR'S TRIACS _____ °C



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OUTLINE DRAWINGS AND PINOUT
(INCLUDE ALL DIMENSION)



WEIGHT 3.05 LBS. 1.38 KG.

ENCLOSURE: _____ NO. _____ YES (ATTACH DRAWING)

SPECIAL MARKING, LABELS: CSA 1402C



SIZE
A

DWG. NO.

970628-01

REV.
A

SCALE: NONE

SHEET 5 OF 6

CONNECTOR TYPE AC (RECEPTACLE): DC (AMP 350778-1)

MATING CONNECTOR TYPE OUTPUT P/N 450010-14

INPUT	AC(J5)	PIN#	OUTPUT	PIN#
A.C. LINE	<u>L</u>		<u>+5.6V</u>	<u>4,5</u>
A.C. NEUTRAL	<u>N</u>		<u>+12V</u>	<u>1</u>
A.C. GROUND	<u>GND</u>		<u>+14.40V</u>	<u>7</u>
			<u>-14.40V</u>	<u>9</u>
INPUT	DC(J6)	PIN#	43.40V	11
11-32V	<u>1</u>		AC/DC	
			INDICATOR	<u>13</u>
RET	<u>2</u>		N.C.	<u>14</u>
			BATTERY	
			MONITOR	<u>12</u>
			RET (A)	<u>2,3</u>
			RET (B)	<u>8,10</u>

SPECIAL FEATURES OR OPTIONS OF THIS DESIGN

- 1) POWER SUPPLY OPERATES ON BOTH AC INPUT (84-264VAC) OR DC INPUT (11-32VDC)
- 2) STATUS OUTPUT: THIS SIGNAL INDICATES THE SUPPLY OPERATES ON AC INPUT (TTL HIGH)
OR DC INPUT (TTL LOW)
- 3) +5.6 & +12V SHARE SAME RETURN, +43.40V & +/-14.40V SHARE SECONDARY RETURN.

ORIENTATION IN CUSTOMER'S PRODUCT (SHOW VERTICAL, HORIZONTAL AND LATERAL AXES):



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