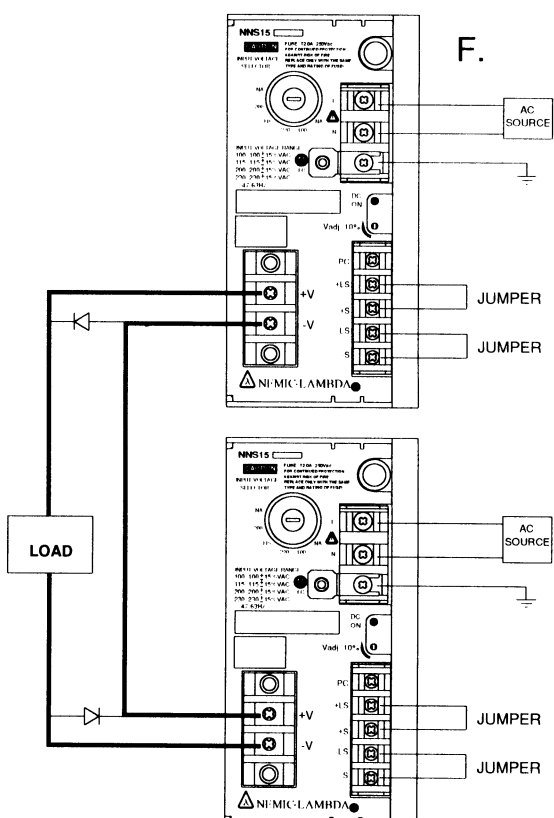
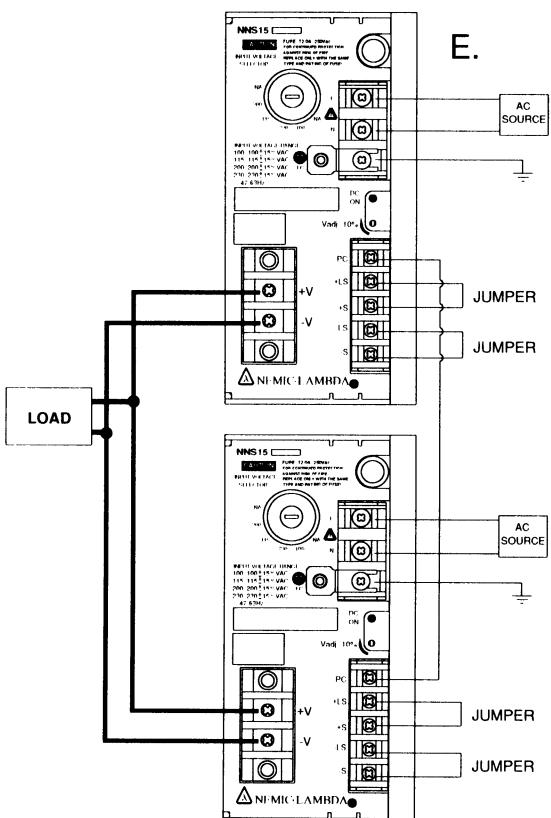
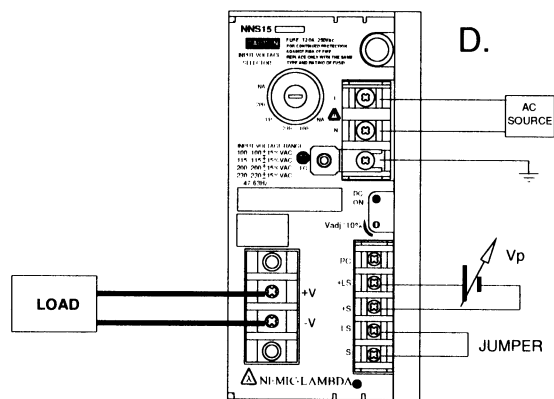
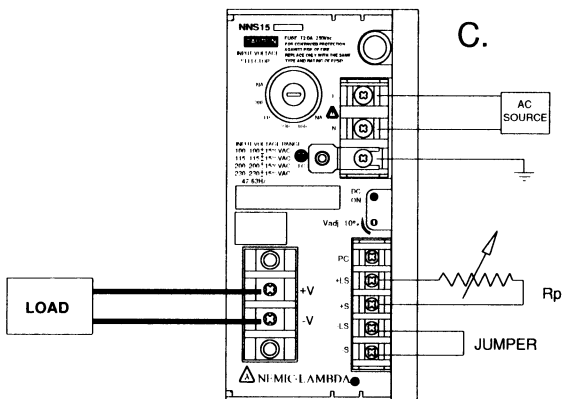
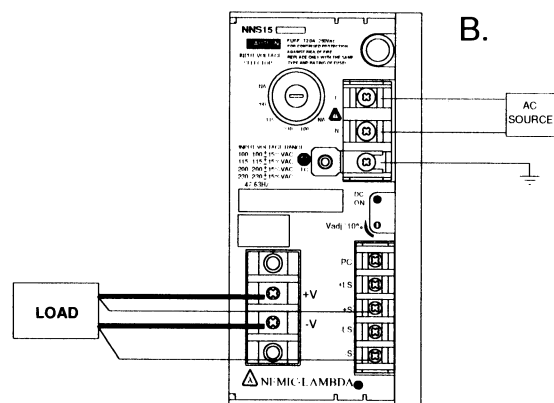
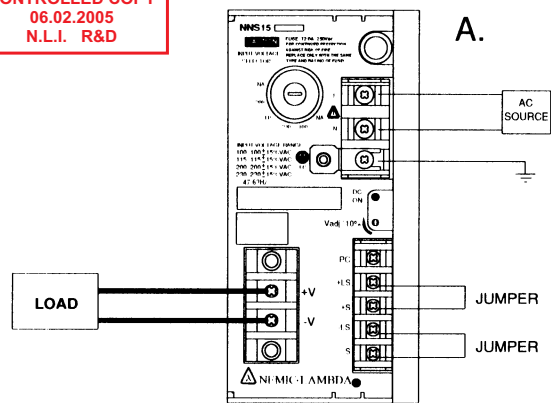


NNS - 15 INSTRUCTION MANUAL

Dwg. No.	IA 500 - 04 - 01G		G
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Model			NNS 15 - 5	NNS 15 - 12	NNS 15 - 15	NNS 15 - 24	Rev	
Items								
1	Nominal Output Voltage	V	5	12.0	15.0	24.0		
2	Maximum Output Current	A	3	1.7	1.4	0.9		
3	Maximum Output Power	W	15	20.4	21	21.6		
4	Efficiency (Typ) (*1)	%	35%	45%	46%	50%		
5	Input Voltage Range (*2)	-	100: 85~115VAC 115: 98~132VAC 47~440Hz 200: 170~230VAC 230: 195~265VAC					
6	Input Current (Typ) (*1)	A	0.55	0.58	0.59	0.55		
7	In-rush Current (Typ)	A	20A @ 100VAC 10A @ 200VAC, cold start				C	
8	Output Voltage Range	%	+/- 10					
9	Maximum Ripple & Noise (*3)	mV	1mV RMS 3mV ptp					
10	Maximum Line Regulation	mV	0.5mV	1.2mV	1.5mV	2.4mV		
11	Maximum Load Regulation	mV	1.5mV	3.6mV	4.5mV	7.2mV		
12	Over Current Protection (*4)	A	3.15~ 3.90	1.79~ 2.20	1.47~ 1.82	0.95~ 1.17		
13	Over Voltage Protection Crowbar Type (*6)	V	6.0 ~ 7.2 V	14.5 ~ 17.2V	18.1~ 21.5V	29.0~ 34.3V	B	
14	Remote Programming	-	Volt / Volt, 1000Ω / Volt typ. +S to +LS Terminals					
15	Remote Sensing	-	Possible, Via +S, -S Terminals					
16	Remote ON/OFF Control	-	N.A.					
17	Parallel Operation	-	Possible, current sharing with single connection VIA PC terminal					
18	Series Operation	-	Possible					
19	Operating Temperature	°C	-20~ 71°C, -20°C...60%, 0~ 50°C...100%, 60°C...60%, 71°C...40%					
20	Operating Humidity RH	%	30~ 95%					
21	Storage Temperature	°C	-40~ 85 °C				B	
22	Storage Humidity RH	%	10~ 95%					
23	Cooling	-	Convection Cooling					
24	Temperature Coefficient (*1)	-	0.02% / °C					
25	Withstand Voltage	-	Input - Output...3.75KVAC Input - Chassis...2.5KVAC for 1 min. @ 20mA					
26	Isolation Resistance	-	More than 100M Ω at DC 500V @ 25°C and 70% RH for 1 min.					
27	Vibration	-	10~ 55Hz Amplitude (sweep 1 min.) less than 2G X,Y,Z 1h. each				B	
28	Shock	-	Less than 20 G				B	
29	Weight	gm	1750				D	
30	Size (W.H.D.) (*5)	mm	60 x 124 x 124					
31	EMI	-	Designed to meet VDE 0871 class B , FCC 20780 class B , VCCI class I					
32	Regulatory Agency	-	Meets IEC 950 , UL 1950 , UL-C 1950 , EN 60950 , TUV				E	
NOTES								
*1 : At 100 VAC and maximum Output Power.								
*2 : For cases where conformance to various safety specs. (UL, UL-C, TUV, etc.) are required, input voltage will be 250VAC max. and frequency range 47~ 63Hz.								E
*3 : Floating output or grounded +V or -V Terminal.								
*4 : Foldback current limit with automatic recovery for each output.								
*5 : See Outline Drawings.								
*6 : For each output - OVP circuit will shut down output, manual reset. (Line recycle)								B



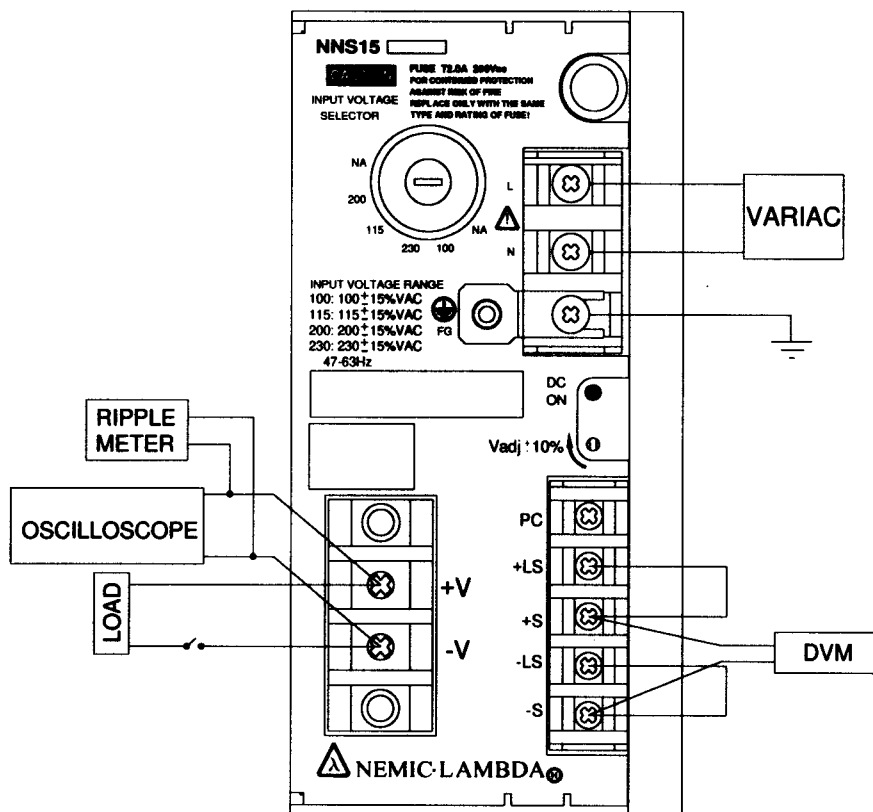
CONNECTIONS DIAGRAM

- LOCAL SENSING.
- REMOTE SENSING.
- RESISTIVE PROGRAMMING (LOCAL SENSE).
- VOLTAGE PROGRAMMING (LOCAL SENSE).
- PARALLEL OPERATION WITH CURRENT SHARE (LOCAL SENSE).
- SERIES OPERATION (LOCAL SENSE) EXTERNAL DIODES RATING: 3A, 50V.

NOTES

- NNS15 MODEL IS NOT RECOMMENDED FOR CONSTANT CURRENT LOADS.
- MAX. CAPACITIVE LOAD RECOMMENDED:
NNS15-5: 10,000uF NNS15-12: 8,200uF
NNS15-15: 8,200uF NNS15-24: 3,000uF

CONNECTIONS FOR PERFORMANCE CHECKS



NOTES:

1. REGULATION AND RIPPLE METERS MUST NOT BE GROUNDED THROUGH THREE-WIRE LINE CORD TO GROUND.
2. PERFORM CHECKS WITH LOCAL SENSING CONNECTIONS ONLY.

SAFETY INSTRUCTIONS - NNS15:

1. FUSES MUST BE CHANGED BY AUTHORIZED SERVICE PERSONNEL ONLY!
F1: T2.0A 250V
F2: 15A 250V (NNS15 - 5)
8A 250V (NNS15 - 12, NNS15 - 15).
5A 250V (NNS15 - 24).
2. POWER SUPPLY MUST BE SECURED TO THE CHASSIS OF THE END USE EQUIPMENT BY 4 SCREWS INSERTED INTO THREADED OPENINGS IN THE BOTTOM OF THE POWER SUPPLY ENCLOSURE (REFER TO OUTLINE DRWG.)
3. MAXIMUM LEAKAGE CURRENT OF END-USE EQUIPMENT SHOULD NOT EXCEED 3.5mA.

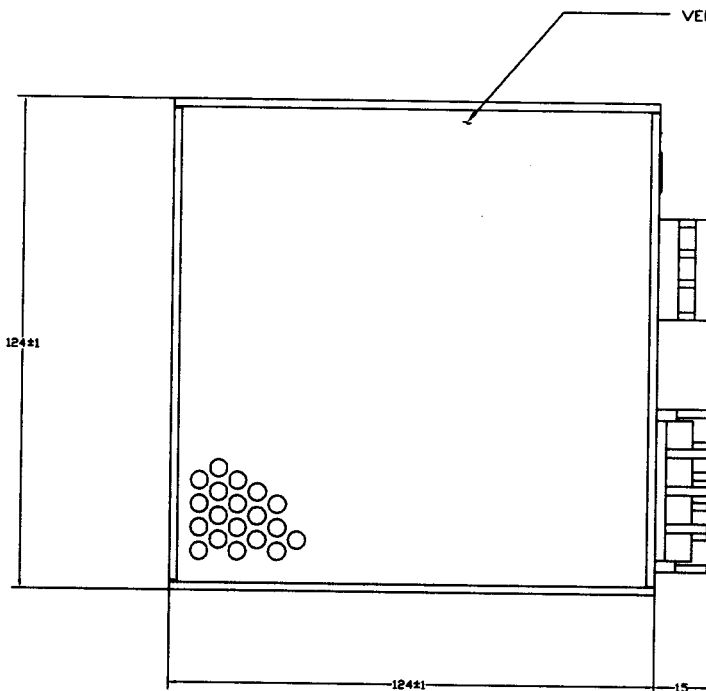
CE MARK:

1. NNS15 SERIES IS INTENDED FOR PROFESSIONAL INSTALLATION WITHIN HOST EQUIPMENT AND MUST NOT BE USED AS A STAND ALONE PRODUCT.
2. CE MARKING WHEN APPLIED TO A PRODUCT COVERED BY THIS MANUAL INDICATES COMPLIANCE WITH THE LOW VOLTAGE DIRECTIVE ONLY.

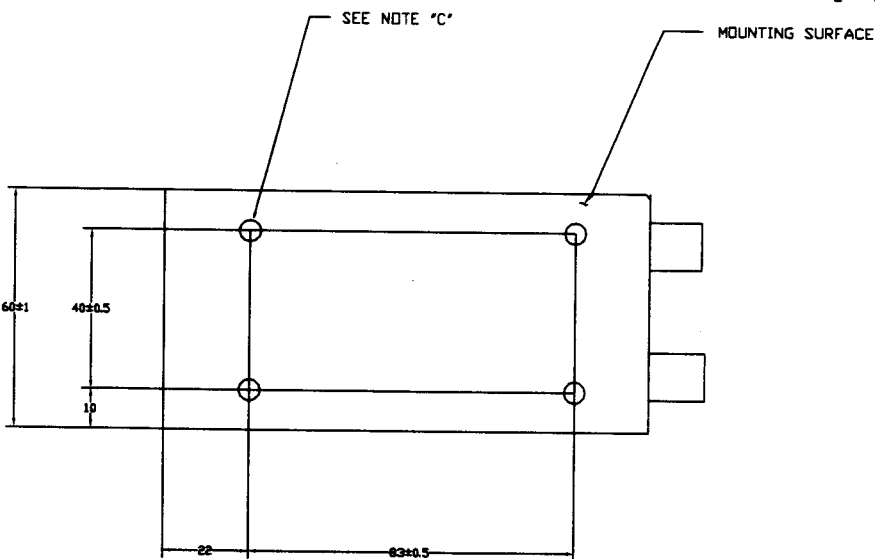
NNS15 OUTLINE

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06.02.2005
N.L.I. R&D

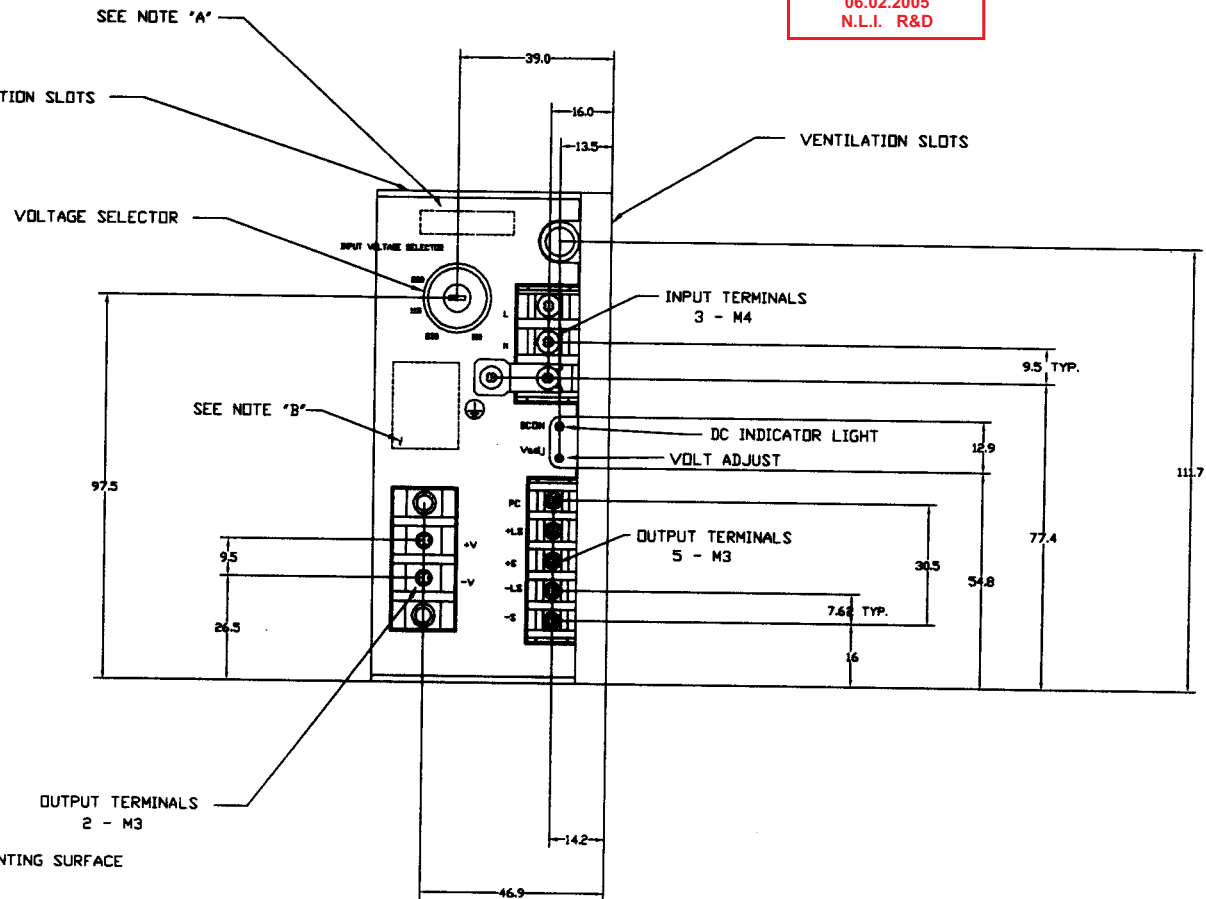
LEFT SIDE VIEW



BOTTOM VIEW



FRONT VIEW



NOTES

- A: NOMINAL OUTPUT VOLTAGE AND OUTPUT CURRENT WILL BE SHOWN HERE IN ACCORDANCE TO THE SPECIFICATIONS
- B: INPUT AND OUTPUT RATINGS WILL BE SHOWN HERE IN ACCORDANCE TO THE SPECIFICATIONS
- C: M4 TAPPED HOLES (4) FOR CUSTOMER CHASSIS MOUNTING
(SCREWS MUST NOT PROTRUDE INTO P.S. MORE THAN 6 mm)