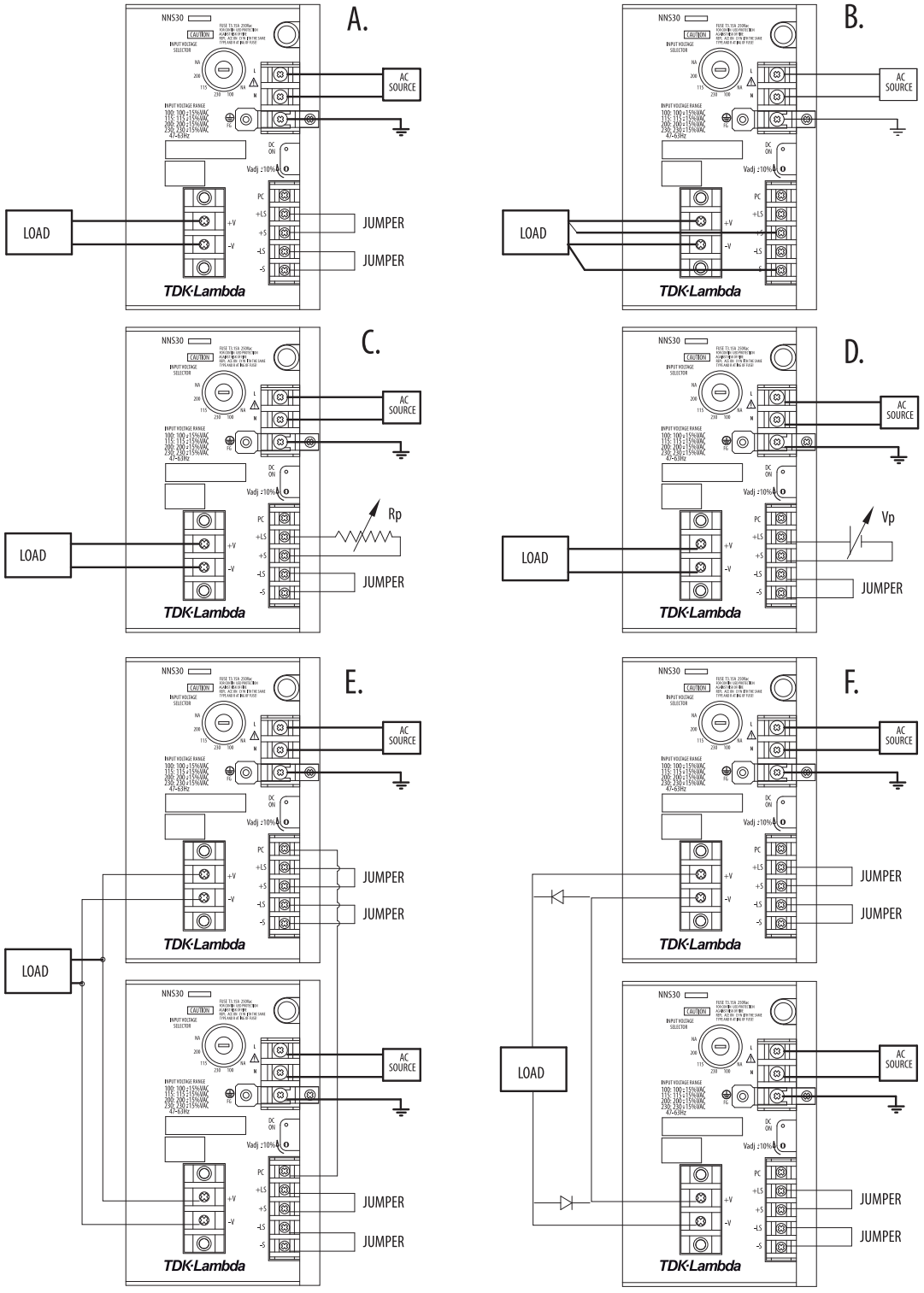
NNS - 30 Instruction Manual

Dwg. No.	IA501-04-01J	

Items			Model	NNS 30-5	NNS 30-12	NNS 30-15	NNS 30-24	NNS 30-48
1	Nominal Output Voltage		V	5	12.0	15.0	24.0	48.0
2	Maximum Output Current		A	6	4.0	3.4	2.3	1.1
3	Maximum Output Power		W	30	48	51	55.2	52.8
4	Efficiency (Typ)	(*1)	%	35%	45%	46%	50%	54%
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	1.14	1.41	1.47	1.45	1.35
7	In-rush Current (Typ)		A	20A@ 100VAC 10A@ 200VAC, cold start				
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	4.8mV
11	Maximum Load Regulation		mV	1.5mV	3.6mV	4.5mV	7.2mV	14.4mV
12	Over Current Protection	(*4)	A	6.30~7.80	4.20~5.20	3.57~4.42	2.42~3.00	1.15~1.43
13	Over Voltage Protection Crowbar Type	(*6)	V	6.0~7.2V	14.5~17.2V	18.1~21.5V	29.0~34.3V	58.1~68.6V
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				
22	Storage Humidity RH		%	10~95%				
23	Cooling		-	Convection Cooling				
24	Temperature Coefficient	(*1)	-	0.02% / °C				
25	Withstand Voltage		-	Input-Output...3.75K VAC Input-Chassis...2.5K VAC for 1 min. @ 20mA				
26	Insulation 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				
28	Shock		-	Less than 20 G				
29	Weight		gm	2930				
30	Size (W*H*D)	(*5)	mm	80 x 124 x 178				
31	EMC		-	Designed to meet EN55032, CISPR-32, FCC Part 15, VCCI-class B				
32	Safety		-	IEC/UL/CSA 60950-1, IEC/EN/UL/CSA 62368-1				

NOTES
* 1: At 100VAC and maximum Output Power.
* 2: For cases where conformance various safety specs. (UL, UL-C, etc.) are required, input voltage will be 250VAC max. and frequency range 47~ 63Hz.
* 3: Floating output or grounded +V or -V Terminal.
* 4: Foldback current limit with automatic recover for each output.
* 5: See Outline Drwings.
* 6: For each output - OVP circuit will shut down output, manual reset. (Line recycle)

IMPORTANT,
See Installation Instructions Before Connecting to the Supply.



CONNECTIONS DIAGRAM

A. LOCAL SENSING.

B. REMOTE SENSING.

C. RESISTIVE PROGRAMMING (LOCAL SENSE).

D. VOLTAGE PROGRAMMING (LOCAL SENSE).

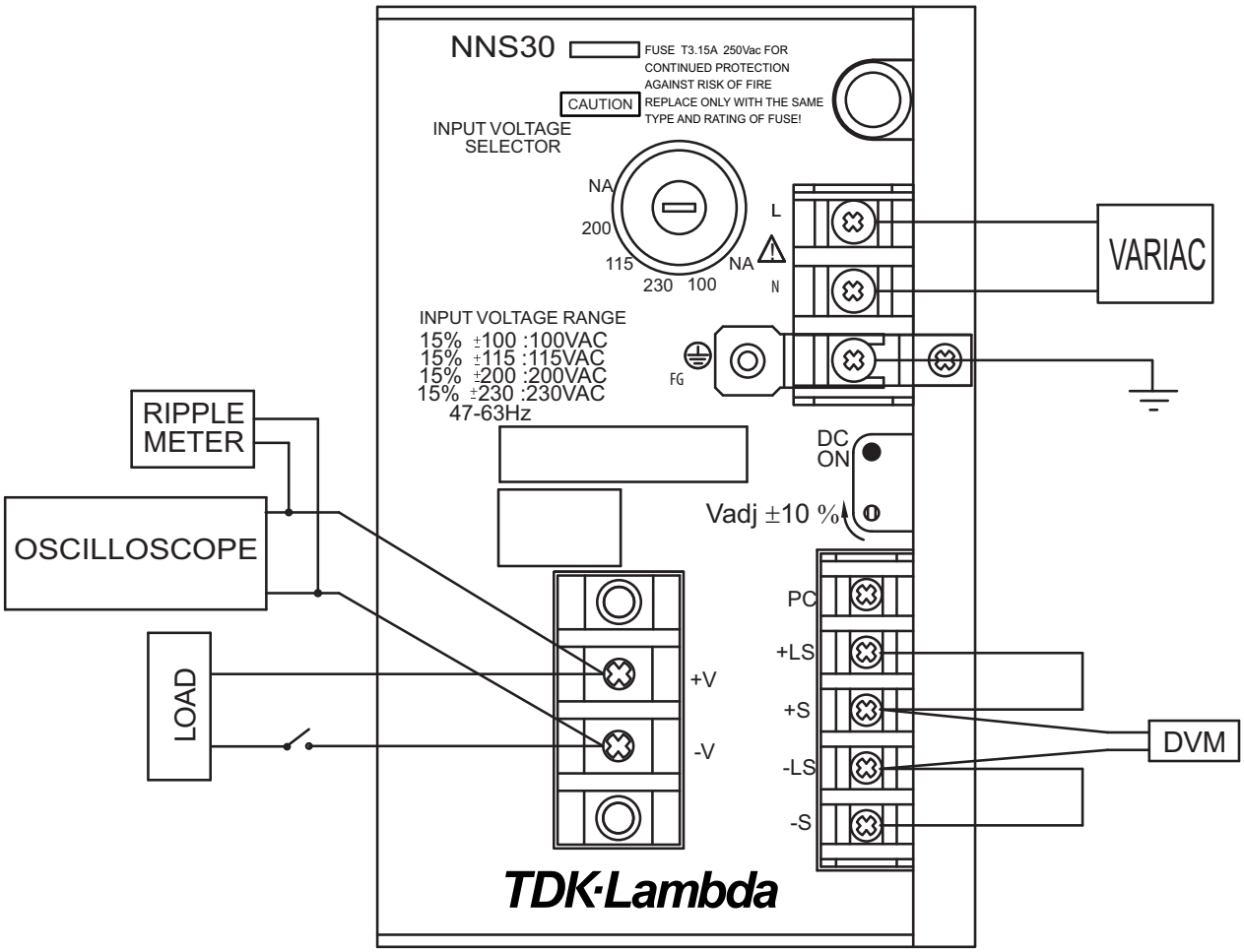
E. PARALLEL OPERATION WITH CURRENT SHARE (LOCAL SENSE).

F. SERIES OPERATION (LOCAL SENSE) EXTERNAL DIODES RATING: 3A, 50V.

NOTES:

1. NNS30 MODEL IS NOT RECOMMENDED FOR CONSTANT CURRENT LOADS.
2. MAX. CAPACITIVE LOAD RECOMMENDED:
   NNS30-5: 15,000uF NNS30-12: 8,200uF
   NNS30-15: 8,200uF NNS30-24: 3,000uF
   NNS30-48: 1,500uF

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 CONNECTJONS ONL Y.

SAFETY INSTRUCTIONS -NNS30:

1. FUSES MUST BE CHANGED BY AUTHORIZED SERVICE PERSONNEL ONLY!
   F1: T3.15A 250V FOR 100/115V ~ (SUPPLIED IN THE PACKAGE)
   2A 250V FOR 200/230V ~ (ASSEMBLED INT THE POWER SUPPLY AT SHIPMENT)

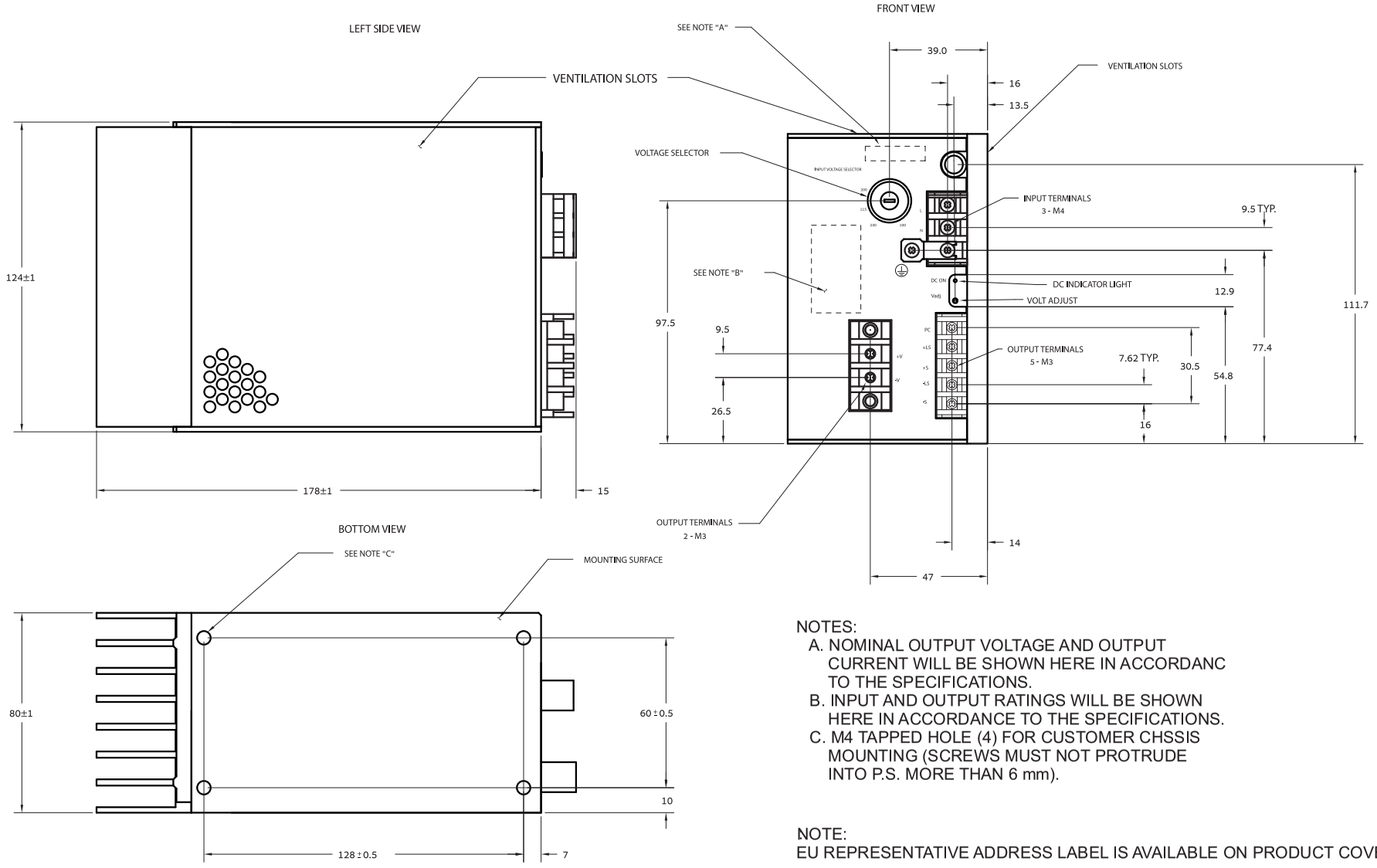
   F2: 5V 20A 125V
   12V, 15V 15A 125V
   24V, 48V 10A 125V

2. THE POWER SUPPLY SHOULD BE INSTALLED IN SUCH A WAY THAT THE FUSE HOLDER IS NOT OPERATOR ACCESSIBLE.
3. 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.)
4. MAXIMUM LEAKAGE CURRENT OF END-USE EQUIPMENT SHOULD NOT EXCEED 3.5mA.

CE MARK

CE Marking when applied to a product covered by this handbook indicates compliance with the Low Voltage Directive (LVD) of the European Union in that it complies with EN 62368-1.
A “Declaration of Conformity” in accordance with the preceding directive and standard has been made and is on file at our EU representative: TDK-LAMBDA Germany GmbH, Karl-Bold-Str. 40, D-77855 Achern.
The latest revision of EU Declaration of Conformity is available via company web site www.emea.tdk-lambda.com/manual.

OUTLINE DRAWING NNS30



NOTES:

A. NOMINAL OUTPUT VOLTAGE AND OUTPUT CURRENT WILL BE SHOWN HERE IN ACCORDANC TO THE SPECIFICATIONS.

B. INPUT AND OUTPUT RATINGS WILL BE SHOWN HERE IN ACCORDANCE TO THE SPECIFICATIONS.

C. M4 TAPPED HOLE (4) FOR CUSTOMER CHSSIS MOUNTING (SCREWS MUST NOT PROTRUDE INTO P.S. MORE THAN 6 mm).

NOTE:
EU REPRESENTATIVE ADDRESS LABEL IS AVAILABLE ON PRODUCT COVER.