

# SWT100 INSTRUCTION MANUAL

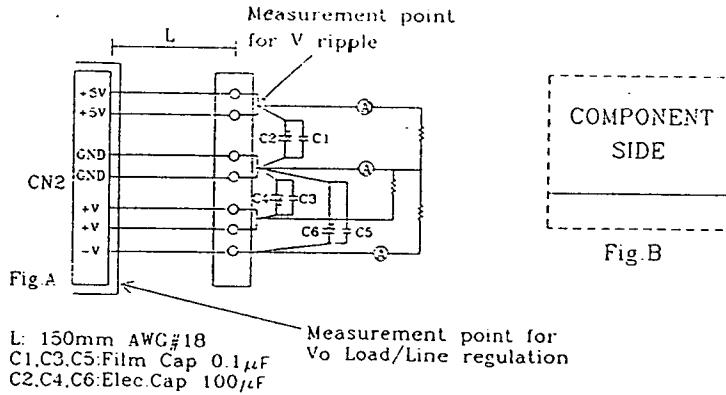
DWG.NO.CA704-04-01

## SPECIFICATION

ITEMS	MODEL	SWT100						REV	
		522	CH1	CH2	CH3	525	CH1	CH2	
1	NOMINAL OUTPUT VOLTAGE	V	+5	+12	-12	-5	+12	-5	
2	MAX. OUTPUT CURRENT (*1)	A	8	4	0.8	8	4	0.8	
3	MIN. OUTPUT CURRENT	A	0.5	0	0	0.5	0	0	
4	PEAK OUTPUT CURRENT	A	-	-	-	-	-	-	
5	MAX. OUTPUT POWER (PEAK) (*1)	W		97.6			92		
6	EFFICIENCY (TYP) (*2)	%			74				
7	INPUT VOLTAGE RANGE (*3)	-			AC85-265V (Continuously)				
8	INPUT CURRENT (TYP) (*2)	A			2.6 (Vin=100VAC) / 1.3 (Vin=200VAC)				
9	INRUSH CURRENT (TYP) (*11)	A			15A / 100VAC 30A / 200VAC				
10	OUTPUT VOLTAGE				CH1: -5V fixed, CH2,3 fixed				
					Shipment condition: CH1: $\pm 1\%$ CH2: $\pm 3\%$ CH3: $\pm 5\%$				
11	MAX. RIPPLE & NOISE (*4)	mV			$\pm 5V$ : 120mV, $\pm 12V$ : 150mV				
12	MAX. LINE REGULATION (*4.5)	%			CH1: 1%, CH2: 2%, CH3: 1% at minimum load, 50% & 100%				
13	MAX. LOAD REGULATION (*4.6)	%			CH1 (+5V): 2%, CH2: 4%, CH3: 2%				
14	MAX. TEMPERATURE DRIFT (*4.7)	$^{\circ}\text{C}$			0.04 $^{\circ}\text{C}$				
15	OVER CURRENT PROTECTION (*8)	-			Automatic recovery, O.C.P point $> 105^{\circ}\text{C}$				
16	OVER VOLTAGE PROTECTION (*9)	V			$> 6$ (CH1 only)				
17	HOLD - UP TIME (TYP) (*2)	ms			17ms (Input 100 VAC)				
18	OPERATING TEMPERATURE (*10)	$^{\circ}\text{C}$			Convection cooling 0-50 $^{\circ}\text{C}$ : 100% load; 60 $^{\circ}\text{C}$ : 70% load				
19	OPERATING HUMIDITY	RH			30%-90%RH				
20	STORAGE TEMPERATURE	$^{\circ}\text{C}$			-20 $^{\circ}\text{C}$ - 85 $^{\circ}\text{C}$				
21	STORAGE HUMIDITY	RH			10%-95%RH				
22	COOLING	-			Convection cooling (100% load)				
23	EMI	-			Conform to FCC-B, VCCI-2, EN55022				
24	WITHSTAND VOLTAGE	V			I/P-O/P: 3KVAC, I/P-FG: 2.5KVAC, O/P-FG: 500VAC 1Min				
25	ISOLATION RESISTANCE	-			Output to chassis 500VDC, $> 100\text{M}\Omega$				
26	VIBRATION	G			10 - 55Hz Amplitude (sweep 1min) Less than 2G X, Y, Z 1h each				
27	SHOCK	G			less than 20G				
28	OUTPUT GROUNDING	-			All common ground(3 terminals)				
29	SAFETY	-			Conform to UL1950, CSA22.2-234, EN60950, DENTORI				
30	WEIGHT	g			600				
31	SIZE (W*D*H)	inch			4.25 x 7.75 x 1.77 (3.75 x 7.25 mounting hole 3.5mm)				
		m/m			107.95 x 196.85 x 44.96				

### NOTES:

- \*1:With Convection cooling.
- \*2: At 100VAC, 200VAC and Max output power (Convection cooling). Ta=25 $^{\circ}\text{C}$ .
- \*3: For cases where conformance to various safety specs (UL,CSA, EN) are required to be described as 100-120VAC, 200-240VAC, 50/60 Hz on name plate.
- \*4: Please refer to Fig. A for measurement determination of line & load regulation and output ripple voltage.
- \*5: From 85-132VAC / 170-265VAC, constant load.
- \*6: From Min. load - Full load ( Maximum power ), constant input voltage. (100VAC or 200VAC)
- \*7: From 0 $^{\circ}\text{C}$  - +50 $^{\circ}\text{C}$ , constant input voltage and load.
- \*8: Current limiting with automatic recovery. Avoid to operate over load or dead short for more than 30 seconds.
- \*9:Over voltage clamping by zener diode
- \*10:At standard mounting method. Fig. B.
- \*11:When resuming operation in less than 5sec. after power failure, soft start circuit will not limit the in-rush current at turn-on.



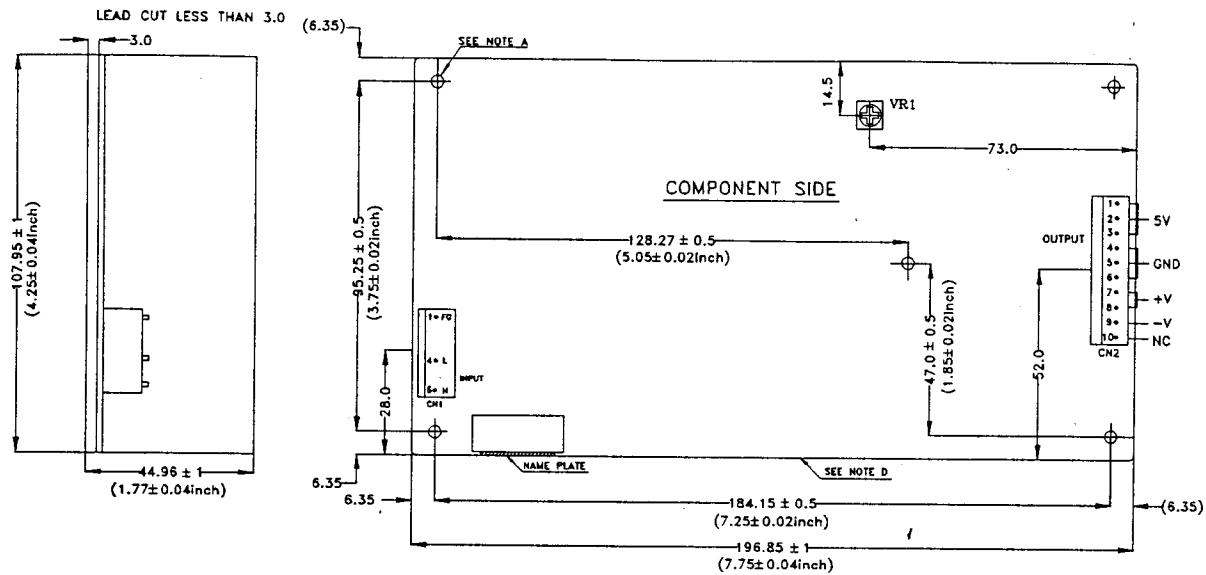
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DWG.NO.CA701-04-02

## 1. OUTLINE AND CONNECTION



### CONNECTORS USED:

PART DESCRIPTION	CATALOG NO.	MANUFACTURER	QTY
PIN HEADER(INPUT SIDE CN1)	5414-30B	MOLEX	1
PIN HEADER(OUTPUT SIDE CN2)	5273-10A	MOLEX	1

### ACCESSORIES:

PART DESCRIPTION	CATALOG NO.	MANUFACTURER	QTY
SOCKET HOUSING (CN1)	09-52-4064 5239-06	MOLEX	1
SOCKET HOUSING (CN2)	09-52-41C4 5239-10	MOLEX	1

NOTES:

PINS

08-7C-0013

13

A :THE 4 Ø3.5mm HOLES ARE CUSTOMER CHASSIS MOUNTING HOLES. ALL MUST BE SCREWED IN ORDER TO CONFORM TO THE EMI NOISE AND VIBRATION SPEC.. WASHERS ETC. USED MUST NOT EXCEED Ø6mm.

B :MODEL NAME, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT AND PEAK OUTPUT CURRENT ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.

C :COUNTRY OF MANUFACTURE WILL BE SHOWN HERE.

D :MINIMUM 4mm SPACING BETWEEN PCB EDGE, TOP OF POWER SUPPLY AND CUSTOMER CHASSIS.

E :INPUT TERMINALS

N - NEUTRAL

L - LIVE(CONNECTED TO INTERNAL FUSE)

⊕ - GROUND (FOR PROTECTIVE EARTH CONNECTION)

F :OUTPUT TERMINALS

+5V :CH1 OUTPUT TERMINAL

+V :CH2 OUTPUT TERMINAL

-V :CH3 OUTPUT TERMINAL

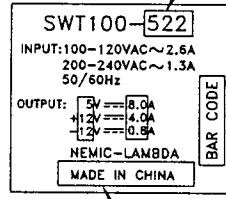
GND :CH1,CH2,CH3 GROUND TERMINAL

G :VR1 IS THE VOLUME FOR ADJUSTING OUTPUT VOLTAGE OF CH1. CH1 IS ADJUST TO 5V (FIXED) DURING MASS PRODUCTION. DO NOT ADJUST UNNECESSARILY.

### NAME PLATE

#### NAME PLATE

SEE NOTE B



SEE NOTE C

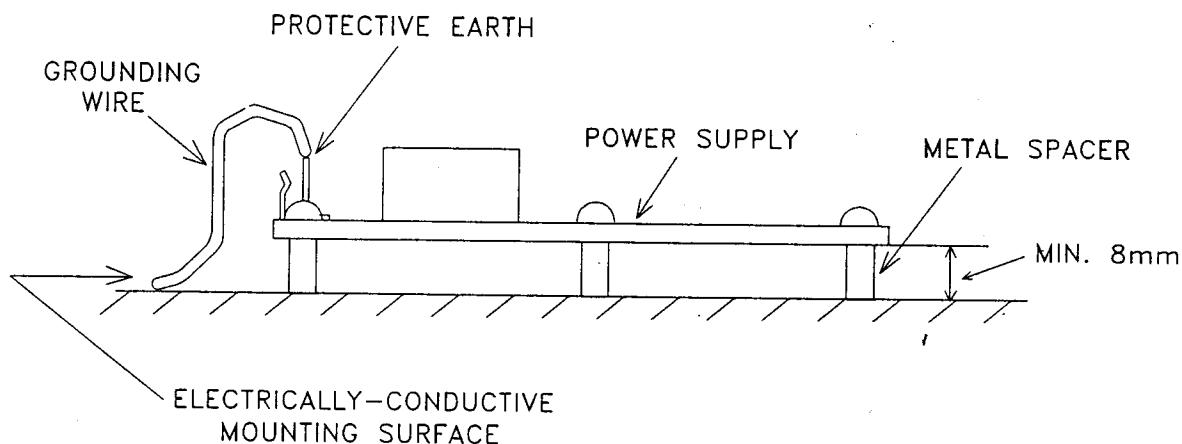
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DWG.NO.CA704-04-03

## INSTALLATION:



2. TO MEET SAFETY REQUIREMENTS, THE POWER SUPPLY TERMINALS MUST NOT BE USED DIRECTLY AS THE EXTERNAL TERMINATIONS OF ANY EQUIPMENT.  
Recommended screw torque is 5kg.cm.

### 3. PROTECTIVE EARTHING:

3.1 FOR SAFETY, ENSURE SECURE CONNECTION OF THE  $\ominus$  TERMINAL TO THE GROUND TERMINAL OF THE EQUIPMENT AS THE PROTECTIVE EARTH CONNECTION. SCREWS AND WASHERS USED MUST BE OF SUITABLE MATERIAL AS IN ANNEX J IN EN60950 STANDARD.

### 4. MOUNTING

4.1 FOR OPTIMUM NOISE PERFORMANCE, MOUNT THE POWER SUPPLY UNIT (PSU) ON AN ELECTRICALLY-CONDUCTIVE SURFACE

4.2 IF SPACER HEIGHT IS LESS THAN 8mm, BASIC INSULATION MUST BE PROVIDED BETWEEN THE PSU AND THE GROUNDED MOUNTING SURFACE.

4.3 EXCEPT FOR THE SOLDER OF THE PSU, A MINIMUM SPACING OF 4mm MUST BE MAINTAINED BETWEEN THE PSU AND EQUIPMENT CHASSIS.

4.4 THE PSU MUST BE INSTALLED WHERE EQUIPMENT VENTILATION ENSURE FREE CONVECTION COOLING.

4.5 AWG #24~#18 WIRES SHOULD BE USED FOR INPUT AND OUTPUT CONVECTION. TO IMPROVE NOISE PERFORMANCE, INPUT AND OUTPUT WIRES SHOULD BE WELL SEPARATED, BUT EACH PAIR SHOULD BE TWISTED TOGETHER.

4.6 RECOMMENDED SCREWS TORQUE IS 5Kg.cm.

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