

SWT30 INSTRUCTION MANUAL

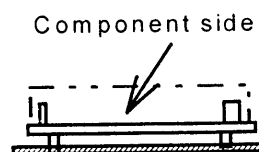
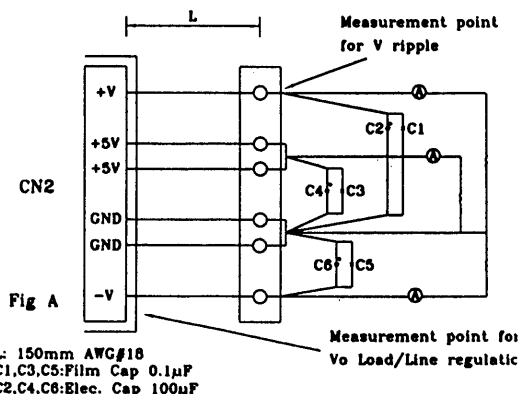
DWG.NO.: CA701-04-01D

SPECIFICATIONS

ITEMS	MODEL	SWT30-522			SWT30-525			SWT30-5FF			REV	
		CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3		
1	NOMINAL OUTPUT VOLTAGE	V	+5	+12	-12	+5	+12	-5	+5	+15	-15	
2	MIN. OUTPUT CURRENT	A	0.2	0.4	0	0.2	0.4	0	0.2	0.4	0	
3	MAX. OUTPUT CURRENT	A	2	1.5	0.3	2	1.5	0.3	2	1	0.3	
4	PEAK OUTPUT CURRENT (*10)	A	3	3	-	3	3	-	3	2.2	-	
5	MAX. OUTPUT POWER (PEAK)	W	31.6(49.6)			29.5(47.5)			29.5(47.5)			
6	EFFICIENCY (TYP) (* 1)	-	70%									
7	INPUT VOLTAGE RANGE (* 2)	-	AC85~265V (Continuously), 47 ~ 63Hz / 110~340VDC									C
8	INPUT CURRENT (TYP) (* 1)	-	0.90A(Vin=100VAC) / 0.45A(Vin=200VAC)									
9	INRUSH CURRENT (TYP)	-	15A / 100VAC, 30A / 200VAC (cold start, Ta=25°C)									
10	OUTPUT VOLTAGE	-	CH1 +5V fixed, CH2.3 fixed Shipment condition: CH1: ±1%, CH2(+12V): ±3%,CH2(+15V):±5%, CH3: ±5%									
11	MAX. RIPPLE & NOISE (* 3)	-	±5V: 120mV; ±12V: 150mV; ±15V: 150 mV									
12	MAX. LINE REGULATION (*3,4)	-	CH1:1%, CH2: 2%, CH3: 1%									
13	MAX. LOAD REGULATION (*3,5)	-	CH1:2%, CH2: 4%, CH3: 2%									
14	MAX. TEMPERATURE DRIFT (*3,6)	-	0.04%/°C									
15	OVER CURRENT PROTECTION (* 7)	-	Automatic recovery, O.C.P point : 170% ~									
16	OVER VOLTAGE PROTECTION (* 8)	-	6V ~ (CH1 only)									
17	HOLD - UP TIME (TYP) (* 1)	-	17ms (Input 100 VAC)									
18	OPERATING TEMPERATURE (* 9)	-	Convection cooling 0~50°C:100% load; 60°C: 70% load									
19	OPERATING HUMIDITY	-	30%~90%RH									
20	STORAGE TEMPERATURE	-	-20°C ~ +85°C									
21	STORAGE HUMIDITY	-	10%~95%RH									
22	COOLING	-	Convection cooling									
23	EMI	-	Conform to FCC-B, VCCI-2, EN55022B									
24	WITHSTAND VOLTAGE	-	I/P-O/P:3kVAC(20mA), I/P-FG:2.5kVAC(20mA), O/P-FG:500VAC(100mA) for 1min									D
25	ISOLATION RESISTANCE	-	More than 100MΩ at Ta=25°C and 70%RH, Output - FG 500VDC									
26	VIBRATION	-	10 - 55Hz Amplitude (sweep 1min) Less than 19.6m/s ² X ,Y ,Z 1Hr each									D
27	SHOCK	-	less than 196.1m/s ²									D
28	OUTPUT GROUNDING	-	All channels common ground (2 terminals)									
29	SAFETY	-	Conform to UL1950, CSA950, EN60950, DENTORI									
30	WEIGHT	-	230g									
31	SIZE (W*D*H)	m/m	76.2 x 127.0 x 30.5									
		inch	3.00 x 5.00 x 1.20 (2.55 x 4.55 mounting hole ø3.5mm)									

NOTES:

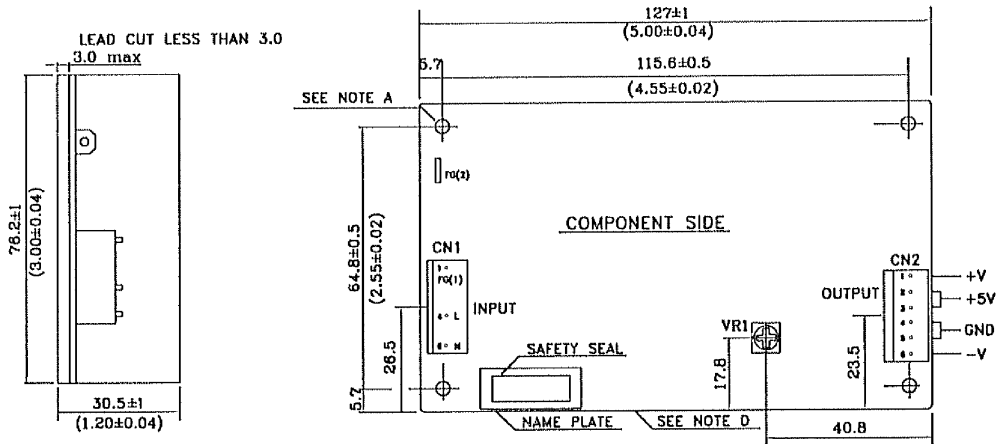
- *1. At 100VAC, 200VAC and MAX. OUTPUT POWER (Convection cooling), Ta=25°C.
- *2. For cases where conformance to various safety specs (UL,CSA, EN) are required to be described as 100~120VAC, 200~240VAC, 50/60 Hz on name plate.
- *3. Please refer to Fig A for measurement determination of line & load regulation and output ripple voltage.
- *4. From 85~132VAC / 170~265VAC, constant load.
- *5. From Min. load - Full load (Maximum power), constant input voltage.
- *6. From 0°C ~ +50°C, constant input voltage and load.
- *7. Current limiting with automatic recovery. Avoid to operate over load or dead short for more than 30 seconds.
- *8. Over voltage clamping by zener diode.
- *9. At standard mounting method, Fig B.
- *10. Peak current operation is less than 10 sec. with duty factor less than 30%. In addition, it does not has to satisfy the total regulation specification.



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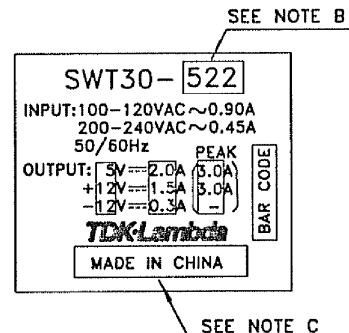
1.OUTLINE AND CONNECTION



CONNECTORS USED:

PART DESCRIPTION	CATALOG NO.	MANUFACTURER	QTY
PIN HEADER (INPUT SIDE CN1)	5414-30B	MOLEX	1
PIN HEADER(OUTPUT SIDE CN2)	5273-06A	MOLEX	1

NAME PLATE



RECOMMENDED HOUSING & TERMINAL PIN.

* NOT INCLUDED WITH THE PRODUCT.

SOCKET HOUSING (CN1)*1	5195-06	MOLEX	1
SOCKET HOUSING (CN2)*1	5195-06	MOLEX	1
TERMINAL PINS (CN1, 2)	5194PBT	MOLEX	9

HAND CRIMPING TOOL: 11-26-0058

MANUFACTURER: MOLEX

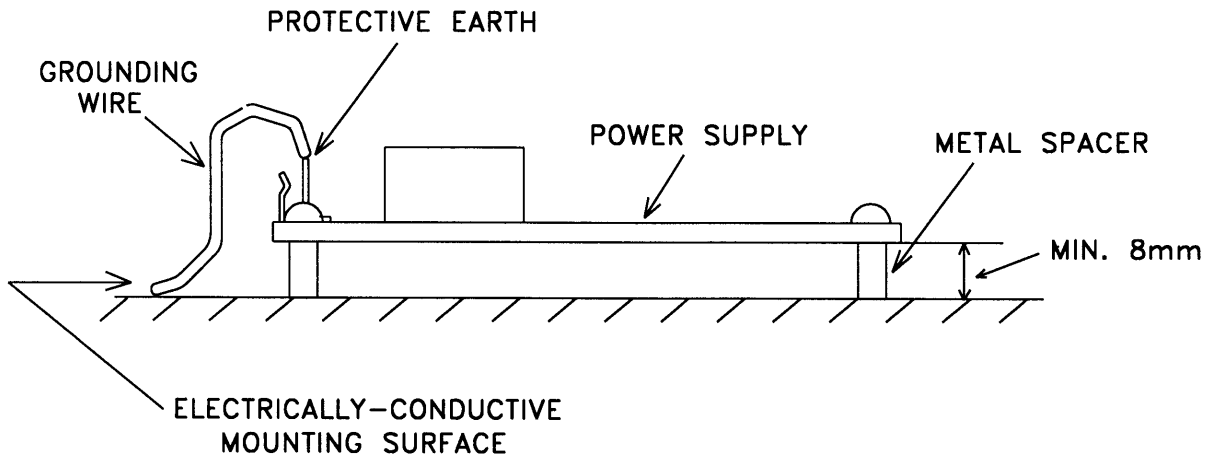
NOTES:

- A :THE 4 ϕ 3.5mm 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 ϕ 6mm.
- 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)
 \oplus - 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 ADJUSTED TO 5V (FIXED) DURING MASS PRODUCTION. DO NOT ADJUST UNNECESSARILY.
- H :FG(1) OR FG(2) IS FOR SAFETY GROUND CONNECTION. CAN USE ALTERNATIVE ONE.

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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.

THIS PRODUCT MUST BE INSTALLED IN A RESTRICTED ACCESS LOCATION, ACCESSIBLE TO AUTHORISED COMPETENT PERSONNEL ONLY.

WHERE CSA APPROVED, CSA APPROVAL IS TO LEVEL 3.

3. PROTECTIVE EARTHING:

3.1 FOR SAFETY, ENSURE SECURE CONNECTION OF THE ⊕ 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 SIDE 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.

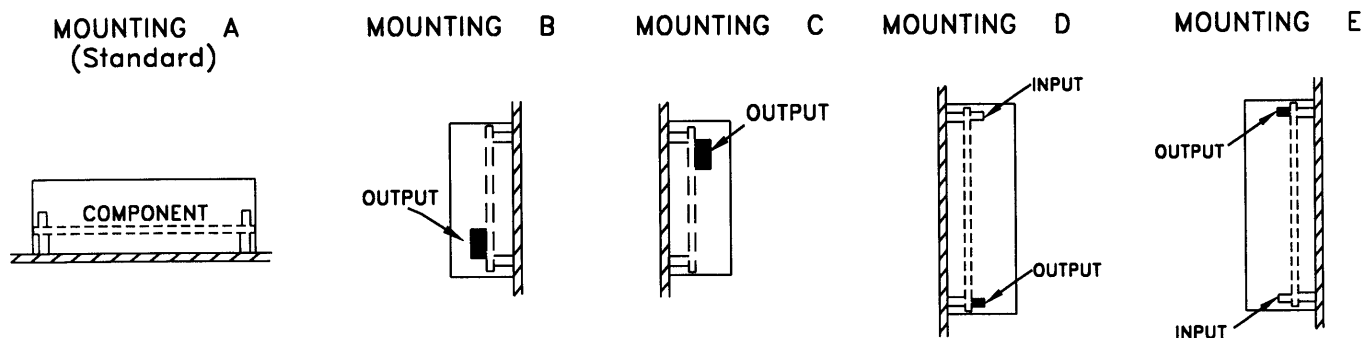
4.5 AWG #24~#18 WIRES SHOULD BE USED FOR INPUT AND OUTPUT CONVECTION. TO IMPROVE NOISE PERFORMANCE, INPUT AND OUTPUT WIRES SHOULD BE WELL SEPARATED, BUT EACH PAIR SHOULD BE TWISTED TOGETHER.

4.6 RECOMMENDED SCREWS TORQUE IS 5Kg.cm.

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5. MOUNTING POSITION AND OUTPUT DERATING



OUTPUT DERATING

T _a (°C)	LOADING CONDITION (%)				
	MOUNTING A	MOUNTING B	MOUNTING C	MOUNTING D	MOUNTING E
0	100	100	100	100	100
20	100	100	100	100	100
40	100	100	100	100	100
50	100	75	100	75	75
60	70	50	70	50	50

FUSE:F1

RATING :250V T2.5AH

TYPE :TIME-LAG

AVOID USING FAST-BLOW TYPE.

FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE.

CAUTION: CHANGE OF FUSE IS TO BE DONE BY AUTHORISED PERSONNEL ONLY.

VORSICHT: UBERLASSEN SIE WARTUNGSARBEITEN STETS DEM VON ZUGELASSENEN FACHMANN.

DO NOT TOUCH THE POWER SUPPLY HEATSINKS. THESE HEATSINKS MAY CARRY HAZARDOUS VOLTAGE WHEN THE POWER SUPPLY IS SWITCHED ON.

CE MARKING:

CE MARKING, WHEN APPLIED TO THE UNIT, INDICATES COMPLIANCE WITH THE LOW VOLTAGE DIRECTIVE (73/23/EEC). AS MODIFIED BY THE CE MARKING DIRECTIVE (93/68/EEC) IN THAT, IT COMPLIES WITH EN60950.