

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.

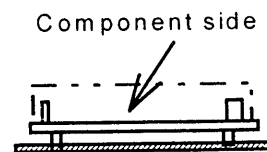
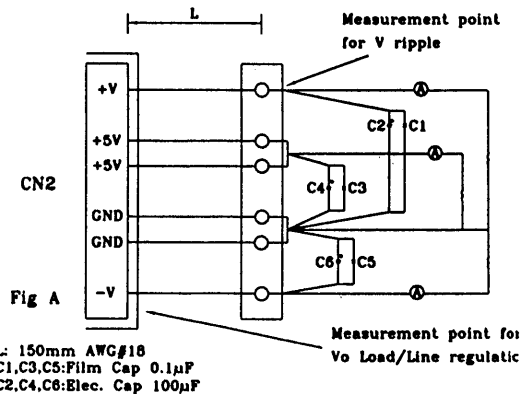
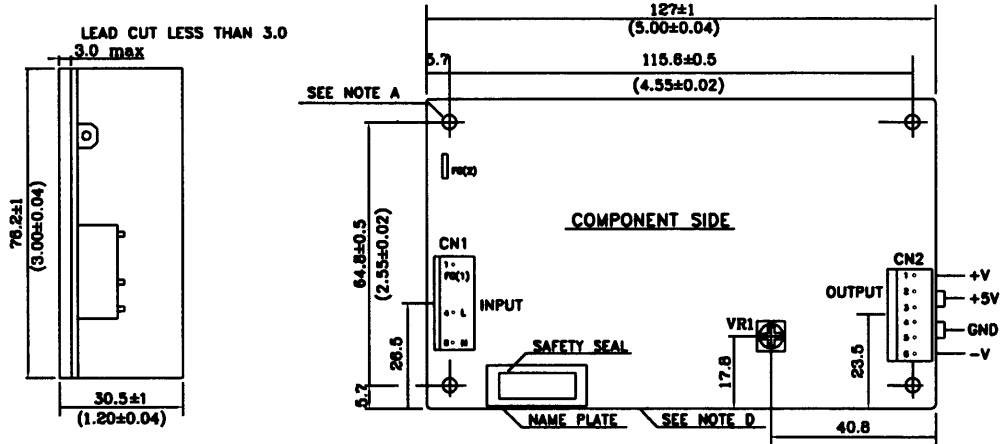


Fig B

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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

RECOMMENDED HOUSING & TERMINAL PIN.

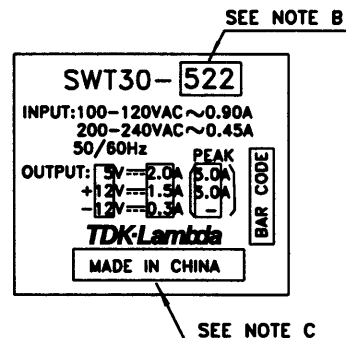
* NOT INCLUDED WITH THE PRODUCT.

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

NAME PLATE



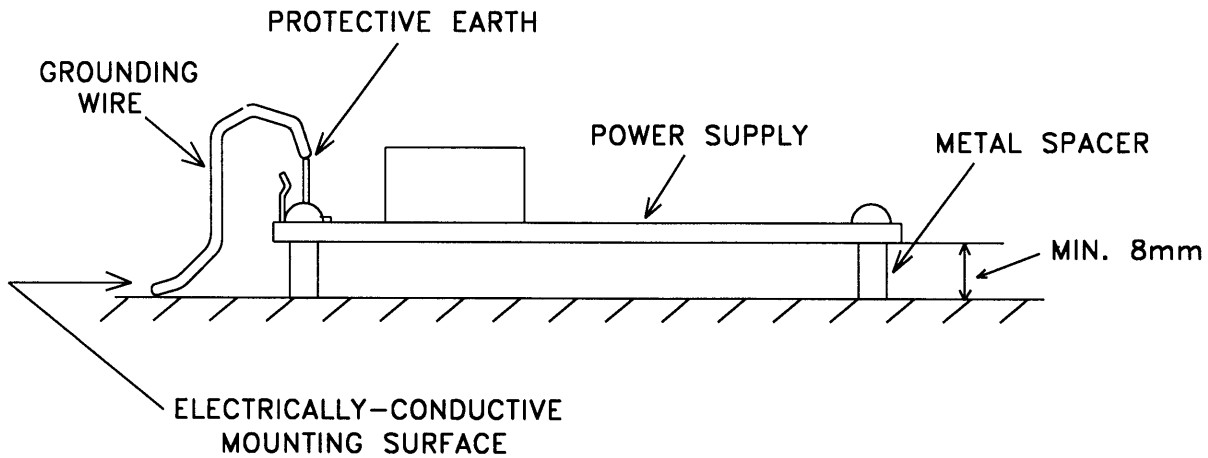
NOTES:

- 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.

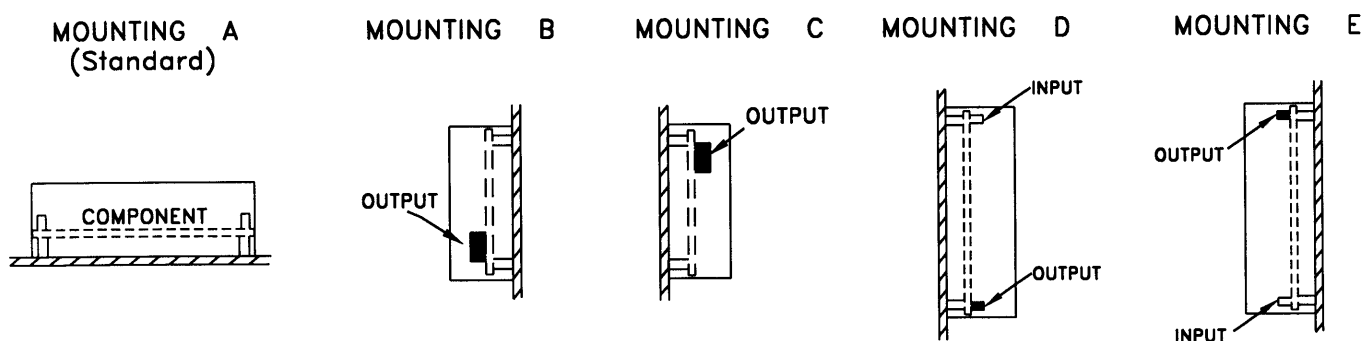
4. MOUNTING

- 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.