



COMPUTER TECHNOLOGY CO., LTD.

PAGE: sheet 1 of 9

D/N : TCRD1315

12 W POWER SUPPLY

Engineering specification

Model : SYS1298-1824-W2

Part No: SYS1298-1224

Item No.		page
0	General	
1	Input Requirements	2
2	Output Requirements	3
3	Protection	5
4	PLD	6
5	COOLING	7
6	EMC	7
7	Leakage Current	7
8	Safety Approval	8
9	Hi-Pot	8
10	Environment	8
11	Vibration	8
12	MTBF	9
13	Mechanical	9
14	DC output connector type and pin assignment	9
15	Label specification	
9		
16	Package	9

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PAGE: sheet 2 of 9

D/N : TCRD1315

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Model : SYS1298-1824-W2

Part No: SYS1298-1224

General

The specification defines the performance characteristics of a 12 W, Single Output level switching power supply for _____. The power supply has designed highly reliable and meet international safety and radiation requirements.

1.0 Input requirements

1.1 Input voltage range

Type	Low range	High range
Nominal	115Vac	230Vac
Minimum	90Vac	185Vac
Maximum	132Vac	264Vac
Frequency	47-63Hz sine wave 1 ϕ	47-63 Hz sine wave 1 ϕ

☐ Auto range - switch at approximately 150Vac $\pm$ 5Vac

☒ Universal range - 90 ~ 264Vac

☐ Range - Selectable by jumper connector or wire.

☐ Range - Selectable by switch.

1.2 Input Current

1.0A rms max	At AC low line input and DC output full load
--------------	--

1.3 Input protection

1A Fuse	The power supply shall be protected against power line surges and any abnormal condition.
---------	---

1.4 Input surge current

40A/60A max	At power supply cold start, ambient temperature 25°C @ 115Vac 230Vac nominal AC input.
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COMPUTER TECHNOLOGY CO., LTD.

PAGE : sheet 3 of 9

D/N : TCRD1315

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1.5 Efficiency

65%min	At AC nominal input@ output full load
--------	---------------------------------------

1.6 Hold up time

10ms min	At AC nominal input@ output full load (1 half cycle)
----------	---

1.7 Power consumption

2.5W rms max	At AC nominal input@output min load
--------------	-------------------------------------

2.0 Output requirements

2.1 Turn on delay

200 ms max	At AC low line input@output full load
------------	---------------------------------------

* Test on delay is measured from 0 voltage output to the main output regulation.

2.2 DC output regulation

Voltage	Loading(A)			Tolerance Range	Adjustable voltage Range
	Min	Normal	Max	Total Regulation	
124V	0		0.5A	±5%	None

* Total regulation involved line regulation load regulation cross regulation---etc

* Line regulation is measured from 90Vac to 132Vac or 185vac to 264vac

* Load regulation is measured all output from min load to max load at 115vac

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FILE ADDRESS TCRD1315100



COMPUTER TECHNOLOGY CO., LTD.

PAGE : sheet 1 of 9

D/N : TCRD1315

12 W POWER SUPPLY

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Model : SYS1298-1824-W2

Part No: SYS1298-1224

or 230vac nominal AC input voltage.

2.3 Ripple/noise *

Voltage	Low frequency *1	High frequency *2	* 3	* 4
(DC)	Ripple mv(p-p)	Ripple mv(p-p)	Noise mv(p-p)	Ripple/Noise(p-p)
+24V	—	—	—	240mV

* The ripple is measured from peak to peak with band width limit of 20MHZ.

(By passed at the end of connector with 10uf electrolytic and 0.1uf ceramic disk capacitor under DC output full Load, AC nominal input 25°C ambient temperature).

* 1,2,3,4 Unless has special requirements otherwise * 4 is the testing spec.

2.4 Output transient response (dv , tmax)

0.3v dv max	At AC nominal input loading from 50% load to max load or peak load.
16ms t max	Dynamic rise time 10uS max , duty 40mS max , Dynamic load step is slew rate of 0.5A/uS

* Test only for main output or designed by customer.

2.5 Power output limit : Peak 15 W

2.6 Burn in test : Will be defined after meeting.

2.7 Led display : none

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FINAL REV V1.0
FILE ADDRESS TCRD1315 F001



COMPUTER TECHNOLOGY CO., LTD.

PAGE: sheet 5 of 9

D/N: TCRD1315

12 W POWER SUPPLY

Engineering specification

Model : SYS1298-1824-W2

Part No: SYS1298-1224

3.0 Protection

3.1 Short protection / Over current protection

The power supply will self-protect any output to ground, And auto recovery when abnormal circuit faults remove.

An output short circuit is defined as any output impedance of less than 0.1 ohms.

Voltage	OCP Current(A)	Power in(W)	OCP method		
			latch off	Current limit	Fold back
+24V	1-2		☐	☐	☒
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐

3.2 Over voltage protection

Voltage	OVP Range	OVP Method		
		Latch Off	Auto recovery	Voltage limit
+24V	26-28V	☐	☐	☒
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐

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PAGE sheet 6 of 9

D/N TCRD1315

12 W POWER SUPPLY

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Model : SYS1298-1824-W2

Part No: SYS1298-1224

3.3 No load protection

The power supply is provided with no load operation to prevent the power supply and system from damage.

3.4 Temperature coefficient: Less than $\pm 0.5\%$ / $^{\circ}\text{C}$

4.0 PLD (power line disturbance)

4.1 LINE POWER SURGE

The power supply shall meet its specification with a rise in AC voltage to 120% of maximum rated line voltage (288 voltage for 100-240 Vac operation) for a maximum of 20 milliseconds at 50Hz and 16 millisecond at 60Hz. The surge is to be applied five times with an interval of one minute between surges.

4.2 LINE VOLTAGE SAG

The power supply shall continue to meet its specifications with a line voltage drop (and subsequent return to minimum rated voltage) to 68 Vac with a total power sag cycle time of 20 ms (rise and fall time shall equal 10 ms each).

5.0 COOLING

Cooling Method	
By ____ mm fan force air cooling	☐
By natural air.	☒

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COMPUTER TECHNOLOGY CO., LTD.

PAGE sheet 7 of 9

D/N : TCRD1315

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Part No: SYS1298-1224

6.0 EMC

Meet EN55022 class B, Fcc part 15 Sub part B class B.

6.1 CE spec.

- ☒ EN55022 Limits and methods of measurement of radio disturbance characteristics of information technology equipment.
- ☐ EN55011 Limits and methods of measurement of radio disturbance characteristics of industrial, scientific and medical(ISM) high frequency equipment.
- ☐ EN55014 Limits and methods of measurement of radio disturbance characteristics of household electrical appliances, portable tools and similar electrical apparatus.
- ☒ EN60555-2 By household appliances and similar electrical equipment harmonics".
- ☐ EN60555-3 By household appliances and similar electrical equipment "Voltage fluctuations".
- ☒ ESD Measurement(IEC801-2).
- ☒ RF Field strength Susceptibility Measurement(IEC801-3).
- ☒ Electrical Fast Transient/Burst Measurement(IEC801-4).

7.0 Leakage current : 0.25 mA max.

8.0 Safety approval

A : CUL D : PSE G : _____
 B : CB E : FCC H : _____
 C : BSMI F : _____ I : _____

9.0 HI-POT

- ☐ HI-POT---A IEC 320 3pin primary to secondary (FG) 1500Vac 10mA 1min
- ☒ HI-POT---B IEC 320 2pin primary to secondary 3000Vac 10mA 1min

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PAGE sheet 8 of 9

D/N : TORC1315

12 W POWER SUPPLY

Engineering specification

Model : SYS1298-1824-W2

Part No: SYS1298-1224

10. Environment

TEMPERATURE AND HUMIDITY

OPERATING TEMPERATURE 0 DEGREES C TO 40 DEGREES C.OPERATING HUMIDITY 8% TO 90% RH.(RELATIVE HUMIDITY).STORAGE TEMPERATURE -20 DEGREES C TO 85 DEGREES C.STORAGE HUMIDITY 5% TO 95% RH.(RELATIVE HUMIDITY).

11. Vibration

SWEEP AND RESONANCE SEARCH

FREQUENCY	DURATION	AXIS	AMPLITUDE
5-20-500	30 MINUTES	X,Y,Z	1G

12. M.T.B.F

Shall be 35000 power on hours on greater under 25 degrees C of ambient temperature MTBF under evaluated under.

13. Mechanical

13.1 Dimension unit : (mm)(max)

$$L \times W \times H = (75 \pm 0.5) \times (34 \pm 0.5) \times (43 \pm 0.5)$$

13.2 Weight (g) :

13.3 Drawing : As Attachment()

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COMPUTER TECHNOLOGY CO., LTD.

PAGE sheet 9 of 9

D/N TCRD1315

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Engineering specification

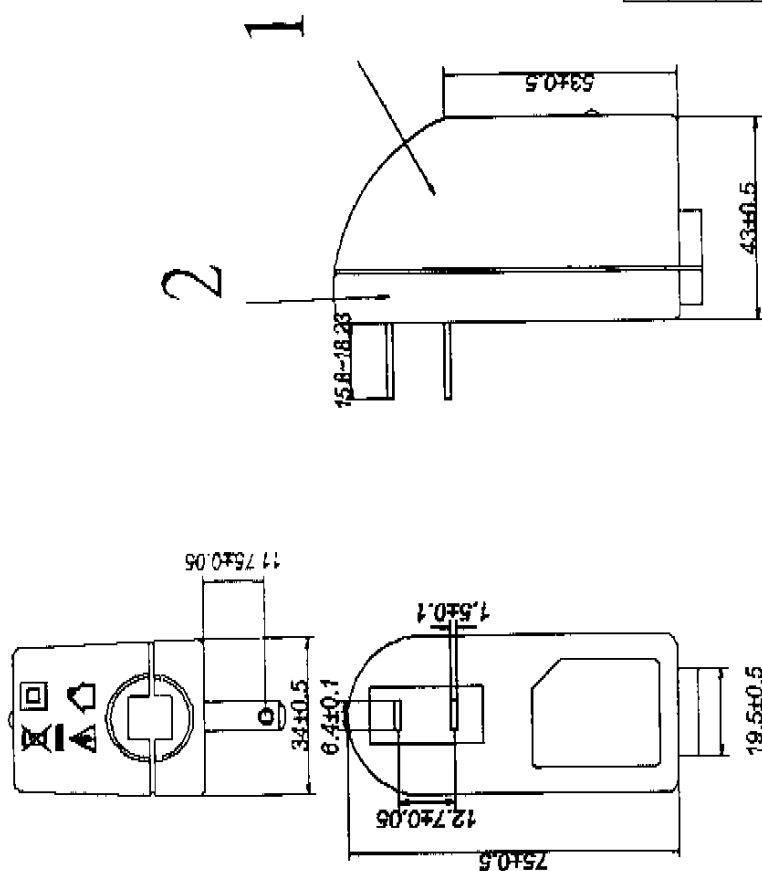
Model : SYS1298-1824-W2

Part No: SYS1298-1224

14. DC output connector type and pin assignment : As Attachment()**15. Label specification : As Attachment()****16. Package : As Attachment()**

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FINAL REV V1.0
FILE ADDRESS TCRD1315-DOC



3					
2	下蓋		黑色		PPO
1	上蓋		黑色		PPO
序號	名稱	料號	顏色	材質	

MODEL NAME	SYS1298-W2	APPROVAL 2	ISSUED STAMP	
PART NO.		APPROVAL 1		
DRAWING NAME	APPEARANCE	ENGINEER		
PART NAME		DRAWING BY	HUANG DE SHENG 1229	
DWG PATH:		DOC.NO.		
		SCALE	6:5	SHEET
				1 of 1

Sunny

TEL:(0769)337756-9 3377358
FAX:(0769)3377351-2
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26.2

19.5 3.8

3.5

JOYCO Relia-Pin SWITCHING ADAPTER

MODEL: SYS1298-1824-W2

PART NO:252866

INPUT: 100-240V ~ 1.0A MAX

20-30VA, 50-60Hz

OUTPUT: +24V --- 0.5A

OUTPUT POWER: 12W MAX.

FC

UL LISTED 85LJ US E150716

R33215

LEVEL 3

P E C

100-240V

1.0A

24V

0.5A

12W

100-240V ~ 1.0A MAX

20-30VA, 50-60Hz

OUTPUT: +24V --- 0.5A

OUTPUT POWER: 12W MAX.

MADE IN CHINA SUNNY XXXX

RI.5.3

1. **NAME OF THE PARTY:** TAYLOR TISSOT
 2. **NAME OF THE CANDIDATE:** SCOTT TAYLOR

SCALE:3.0X

NOTE

2>Material: pvc

3>.Thickness: 180#

47-1010-10000

TEL : (0769) 8337756-9 83377358

FAX: (0769) 83377351-2

Email: sales@sunny-group.com

[illegible]

42 APPROVED

MODEL NAME CM-7081-86LS

APPROVAL

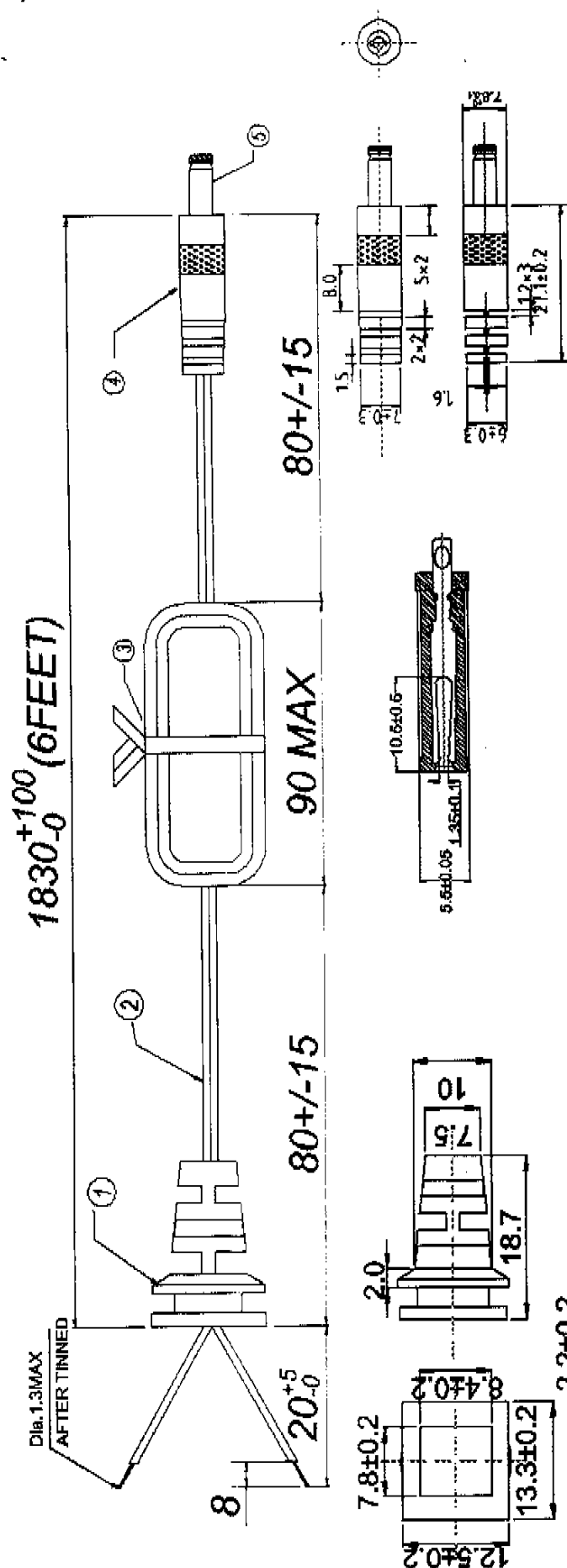
ENGINEER

DRAWING BY

DOC. NO.

SCALE	1:1	SHEET	1 OF 1
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5	SPRING LOADED CENTER/LOCKING/ FEMALE BARREL YELLOW	1 PC	2.1(+0.1/-0)*5.5(±0.05)*12(±0.3)
4	PLUG TYPE:P073(1075P073A0**)	1 PC	
3	MINI TIE=130mm BLACK	1 PC	
2	2468#22*2C PVC.BLACK 80°C.	1 PC	UL APPROVAL
1	SR TYPE:SR18(1075S018C0**)	1 PC	敏材質P60
NO.	SPECIFICATION	Q'TY	REMARK

 	UNIT	MM	APPROVAL 2 APPROVAL 1 ENGINEER ENGINEER 楊富玲 1/29 DOC.NO. SCALE SHEET 1 OF 1
	TOLERANCES		
	UNLESS OTHERWISE SPECIFIED		
	0.0 / -0.1		
	0.004 / -0.01		
	LINEAR	0.004 / -0.005	
	ANG F	1 / 2 CHINING	

印字(+V) — 无印字(-V)

Sumz	
TEL: (0769) 83377356-9 83377358	
FAX: (0769) 83377351-2	
Email: Sales@Sumzy-group.com	
MODEL NAME	
PART NO	G1074600040004080*
DRAWING NAME	DC CABLE
PART NAME	DC CABLE
DWG PATH:	

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