## CA757-01-01D

	ITEMS MODEL		SWS600L-3	SWS600L-5	SWS600L-12	SWS600L-15	SWS600L-24	SWS600L-36	SWS600L-48	SWS600L-60
1	Nominal Output Voltage	V	3.3	5	12	15	24	36	48	60
2	Maximum Output Current ( Peak Output Current ) (*1)	-	120	120	53	43	27 (31)	18	13 (15)	10
3	Maximum Output Power (Peak Output Power) (*1)		396	600	636	645	648 (744)	648	624 (720)	600
4	Efficiency (Typ) (115/230VAC) (*2)		70/72	75/77	79 / 82	79 / 82	81/84	82 / 84	82 / 84	82 / 84
5	Input Voltage Range (*3)	_	85 ~ 265VAC (47-63Hz) or 120 ~ 350VDC							
6	Input Current (Typ) (115/230VAC) (*2)	-	5.0 /2.5 7.1 / 3.6							
7	Inrush Current (Typ) (*4)		20A/40A at 115VAC, 40A/40A at 230VAC, Ta=25°C (first inrush/second inrush)							
8	PFHC	<b> </b>	Designed to meet IEC61000-3-2							
9	Power Factor (Typ) (115/230VAC) (*2)	† <u>-</u> -	0.98/0.95							
10	Output Voltage Range	V	2.64~3.96	4.0~6.0	9.6~14.4	12.0~19.5	19.2~28.8	28.8~43.2	38.4~56.0	48.0~66.0
11	Ripple and Noise (115/230VAC) $0 \le \text{Ta} \le 74^{\circ}\text{C}$	mV	120	120	150	150	150	200	200	200
	(*5) -20≤Ta≤0°C	mV	160	160	180	180	180	240	240	240
12	Line Regulation (*5,6)	mV	20	20	48	60	96	144	192	240
13	Load Regulation (*5,7)	mV	30	30	72	90	144	216	288	360
14	Temperature Coefficient	-	Less than 0.02%/°C							
15	Over Current Protection (*8)	Α	126~	126~	55.7~	45.1~	31.3~	18.9~	15.2~	10.5~
16	Over Voltage Protection (*9)	V	4.12~5.61	6.25~7.25	15.0~17.4	20.2~23.4	30.0~34.8	45.0~52.2	58.5~68.2	69.0~81.0
17	Hold-Up Time (Typ) (115/230VAC) (*2)	-	20ms							
18	Leakage current (* 10)	-	Less than 0.75mA . 0.3mA (Typ) at 115VAC / 0.5mA (Typ) at 230VAC .							
19	Remote Sensing	-	Possible							
20	Remote ON/OFF control	_	Possible							
21	Monitoring Signal	_	ALM ( Open Collector Output )							
22	Parallel Operation	_	Possible							
23	Series Operation		Possible							
24	Operating Temperature (*11)	-	- 20 ~ + 74 °C (-20°C ~ +50°C: 100%, +74°C: 50%) 100% load start up at -40°C							
25	Operating Humidity	-	20 ~ 90 %RH (No dewdrop)							
26	Storage Temperature	-	- 40 ~ +85°C							
27	Storage Humidity	_	10 ~ 95%RH (No dewdrop)							
28	Cooling	-	Forced air by build-in fan							
29	Withstand Voltage		Input - Output : 3.0kVAC (20mA), Input - FG : 2.0kVAC (20mA)			0mA)				
		-		Outp	ut - FG : 500	VAC (100mA)	(60V model	651VAC, 130	0mA)	
				Outp	ut - CNT/ALI	M/AUX : 100V	/AC (100mA)	for 1min.		
30	Isolation Resistance	l _		Input - F	G, Input - Out	tput and Outpu	t - FG: More	than $50M\Omega$ (5	500VDC)	
				Output - CN	T/ALM/AUX	: More than 50	)MΩ (100VD	C) at Ta=25°C	and 70%RH	
31	Vibration (* 12)		Designed to meet MIL-STD-810F 514.5 Category 4, 10							
32	Shock (In package)	ļ	Designed to meet MIL-STD-810F 516.5 Procedure I,VI							
33	Safety (*13)	-	Approved by UL62368-1, CSA62368-1, EN62368-1, UL60950-1, CSA60950-1, EN60950-1 (Expire date of 60950-1 : 20/12/2020), EN50178, EN61010-1; Designed to meet DENAN							
34	Line Dip		Designed to meet SEMI-F47 (200VAC line only)							
35	EMI	-	Designed to meet VCCI-B, FCC-B, EN55011/EN55032-B							
36	Immunity	_		Design	ed to meet EN	N61000-4-2 (L	evel 2,3), -3 (I	Level 3), -4 (L	evel 3),	
L					-5 (Leve	el 3,4), -6 (Lev	rel 3), -8 (Leve	el 4), -11		
37	Weight (Typ)	_	1.6kg							
38	Dimension (W x H x D)	mm			120 x 6	61 x 190 (Refe	r to Outline D	rawing)		

\* Read instruction manual carefully , before using the power supply unit.

= NOTES=

- \* 1: ( ): Peak Output Current is possible at 170~265VAC input range, operating period at Peak Output Current is less than 10sec, duty less than 35%.

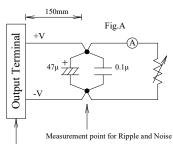
  Average output power and current is less than Maximum Output Power and Maximum Output Current.
- \* 2 : At Maximum Output Power, nominal input voltage, Ta = 25°C.
- \* 3 : For cases where conformance to various safety specs ( UL, CSA, EN ) are required, to be described as 100 240VAC, 50 / 60Hz on name plate.
- st 4 : First/second inrush current, not applicable for the in-rush current to Noise Filter for less than 0.2ms.
- \* 5 : Please refer to Fig A for measurement of line & load regulation, ripple and noise voltage.

 $Ripple \ \& \ noise \ are \ measured \ at \ 20 MHz \ by \ using \ a \ twisted \ pair \ of \ load \ wires \ terminated \ with \ a \ 0.1 uF \ and \ 47 uF \ capacitor.$ 

- \* 6:85 265VAC, constant load.
- \* 7 : No load Full load ( Maximum power ), constant input voltage.
- $\hbox{$*$ 8: Constant current limit with automatic recovery.}$

Avoid to operate at overload or dead short for more than 30 seconds.

- $*\,9: OVP\ circuit\ will\ shutdown\ output,\ manual\ reset\ (Remote\ ON/OFF\ control\ reset\ or\ Re-power\ on).$
- \* 10 Measured by each measuring method of UL, CSA, EN and DENAN (at 60Hz), Ta=25°C.
- \* 11 Refer to Output Derating Curve (CA757-01-02\_) for details of output derating versus ambient temperature.
  - Load (%) is percent of Maximum Output Power and Maximum Output Current ( Item 2 and 3).
  - Do not exceed derating of Maximum Output Power and Maximum Output Current.
  - 100% load start up at - $40^{\circ}\mathrm{C}$  is possible. However, it may not fulfil all the specifications.
- \* 12 Category 4 exposure levels: Trunk transportation over U.S. highways, Composite two-wheeled trailer.
- \* 13 As for DENAN, designed to meet at 100VAC.



Measurement point for Vo Line/Load Regulation

CA757-01-02

Ta(°C)	LOAD(%)				
Ta(C)	Mounting A,B,C				
-20~50	100%				
74	50%				

