VS100P SPECIFICATIONS

A221-01-01-B

ITEMS / MODEL				VS100P-24
1	Nominal Output Voltage		-	24V
2	Minimum Output Current		-	0A
3	Average Output Current		-	4.3A
4	Peak Output Current	(*1)	-	10A
5	Average Output Power		-	103.2W
6	Peak Output Power	(*1)	-	240W
7	Efficiency (Typ)	(*2)	-	85.0%
8	Input Voltage Range	(*3)	-	85-132VAC (47-440Hz) or 110-175VDC
9	Input Current (Typ)	(*2)	-	2.5A
10	Inrush Current (Typ)	(*4)	-	20A at 100VAC
11	Output Voltage Range		-	21.6 ~ 26.4
12	Maximum Ripple & Noise (*5)	0≤Ta≤60°C	-	180mV
		-10≤Ta<0°C	-	240mV
13	Maximum Line Regulation	(*5,6)	-	96mV
14	Maximum Load Regulation	(*5,7)	-	150mV
15	Maximum Temperature Drift	(*5,8)	-	240mV
16	Over Current Protection	(*9)	-	10.2A ~ at Ta:25 ° C
17	Over Voltage Protection	(*10)	-	115% ~ 135%
18	Hold-Up Time (Typ)	(*2,13)	-	17ms
19	Leakage Current	(*11)	-	Less than 0.75mA
20	Parallel Operation			-
21	Series Operation			Possible
22	Operating Temperature	(*12)	-	Convection: -10~50°C:100%, 60°C:70%
23	Operating Humidity		-	30 ~ 90%RH (No dewdrop)
24	Storage Temperature		-	-30 ~ +85°C
25	Storage Humidity		-	10 ~ 95%RH (No dewdrop)
26	Cooling		-	Convection Cooling
27	Withstand Voltage		-	Input-Output : 2kVAC(20mA), Input-FG : 2kVAC(20mA) Output-FG : 500VAC(100mA) 1min.
28	Isolation Resistance		-	More than 100MΩ at Ta:25°C and 70%RH Output-FG 500VDC
29	Vibration		-	At no operating, 10-55Hz (sweep for 1min) 19.6m/s^2 Constant, X,Y,Z 1hour each
30	Shock		-	Less than 196.1m/s^2
31	Safety		-	Approved by UL60950, CSA60950, EN60950 & Built to meet DENAN
32	EMI	(*13)	-	Built to meet VCCI-B & FCC class B
33	Weight (Typ)		-	350g
34	Size (WxHxD)		mm	62 x 29 x 222

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

==NOTES==

*1. Operating time at peak output current is less than 10sec. with average output power and current (Duty=0.35). Please refer to Fig.A.& A221-01-03_.

*2. At 100VAC and average output power, Ta=25°C.

*3. For cases where conformance to various safety specs are required to be described as 100-120VAC, 50/60Hz on name plate.

*4. Not applicable for the inrush current to Noise Filter for less than 0.2ms.

*5. Please refer to Fig B for measurement determination of line & load regulation and output ripple voltage.

*6. 85-132VAC, constant load.

*7. Min load - full load (Average output power), constant input voltage.

*8. -10 ~ +50°C constant input voltage and load.

*9. Current limiting with automatic recovery. Avoid to operate at over load or dead short for more than 30 seconds.

*10. OVP circuit will shutdown output, manual reset (Re power on).

*11. Measured by each measuring method of UL, CSA, EN and DENAN (at 60Hz).

*12. At standard mounting method Fig C, Refer to derating curve (A221-01-02_).
- Load(%) is percent of average output load.
Do not exceed derating in both average output power and current.

*13. At 4.3A continouos output current condition.

Fig.A

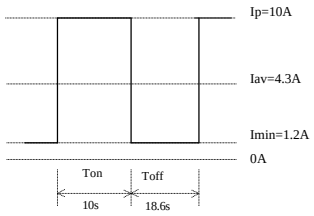
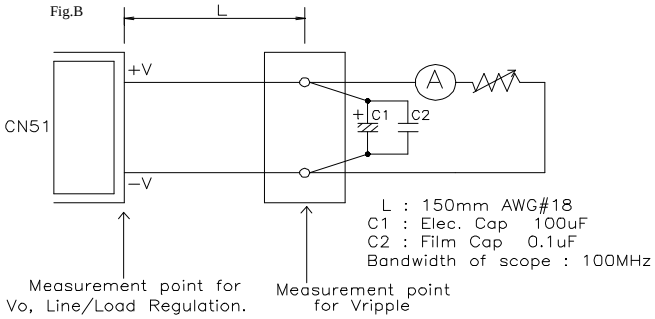
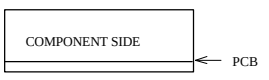


Fig.B



Probe: JEITA RC-9131

Fig.C



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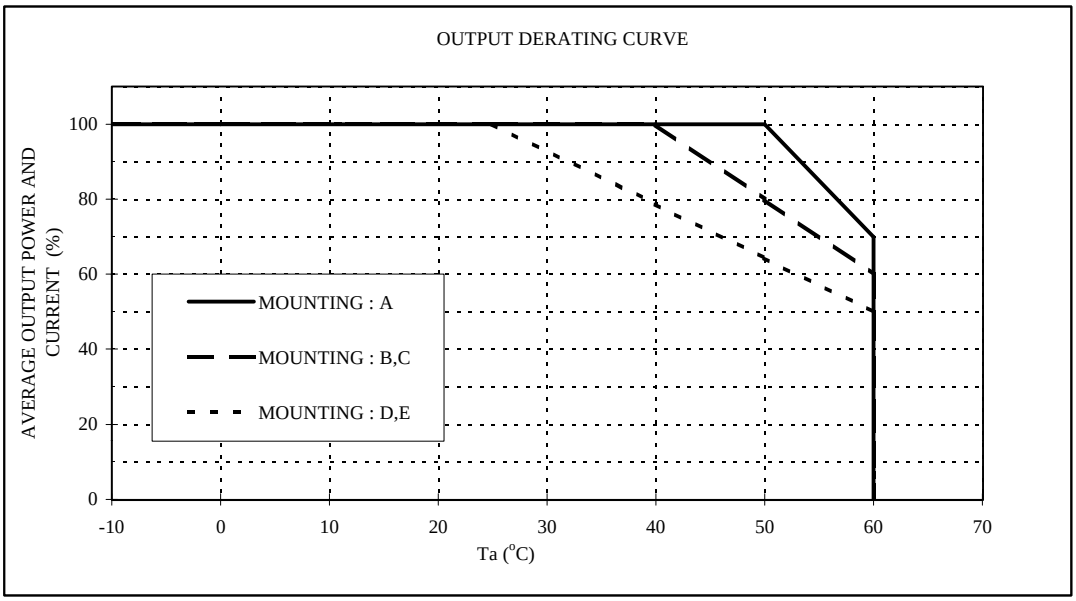
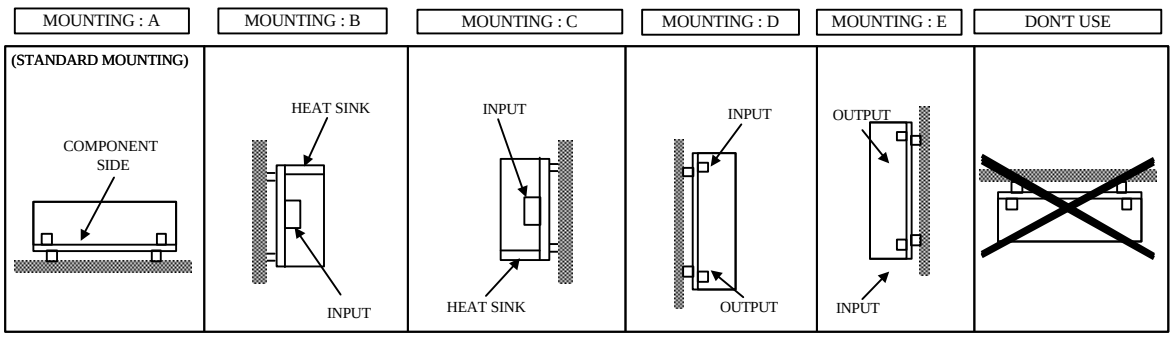
OUTPUT DERATING

A221-01-02-A

Ta (°C)	AVERAGE OUTPUT POWER AND CURRENT (%)		
	MOUNTING : A	MOUNTING : B,C	MOUNTING : D,E
-10	100	100	100
0	100	100	100
25	100	100	100
40	100	100	78.6
50	100	80	64.3
60	70	60	50



*PEAK OUTPUT CURRENT DOES NOT NEED



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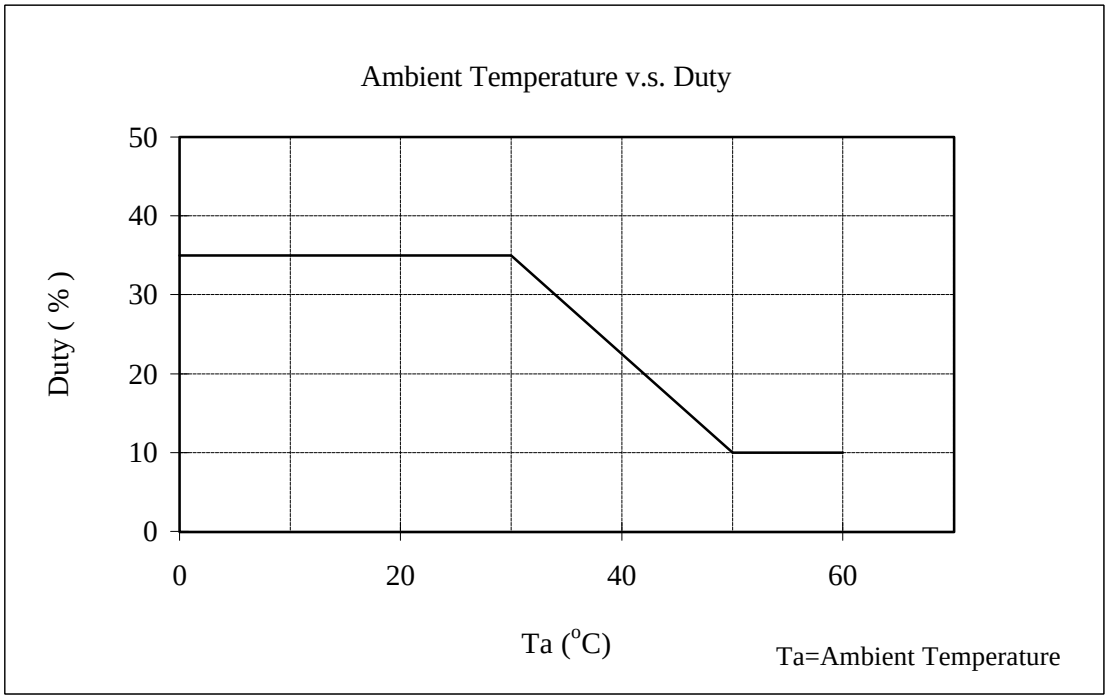
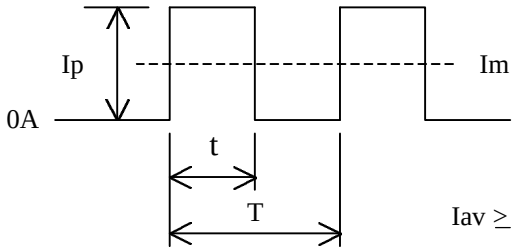
Peak Output Current Condition

A221-01-03



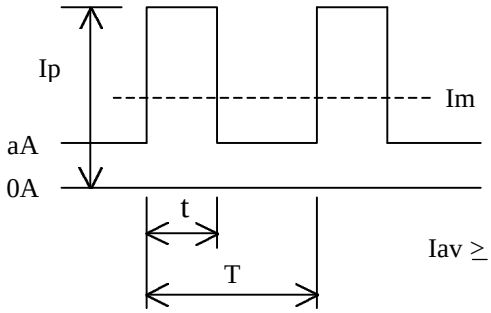
Peak Output Current

Relation between average output current and peak output current must satisfy formulas below. Also operating time at peak output current should be less than 10 sec.



Ip : Peak output current (A)
Iav : Average output current of Specification (A)
Im : Average output current (A)
t : Pulse width of peak output current (sec)
(Operating time at peak output)
T : Period (sec)

$$Iav \geq Im = \frac{Ip \times t}{T}$$



$$Iav \geq Im = \frac{(Ip-a) \times t}{T} + a$$