VS50E/CO2

SPECIFICATIONS

A239-01-01/CO2-C

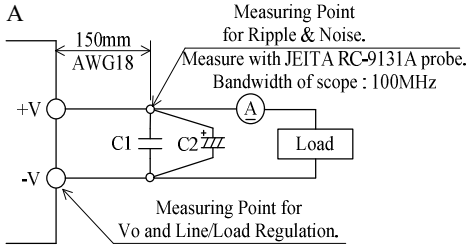
	ITEMS / MODEL			VS50E -3/CO2	VS50E -5/CO2	VS50E -12/CO2	VS50E -15/CO2	VS50E -24/CO2	VS50E -48/CO2
1	Nominal Output Voltage		V	3.3	5	12	15	24	48
2	Maximum Output Current		A	10	10	4.3	3.5	2.5	1.3
3	Maximum Output Power		W	33.0	50.0	51.6	52.5	60.0	62.4
4	Efficiency (Typ)	(*1)	%	80	85	85	85	85	87
5	Input Voltage Range	(*2)	-	85 - 132VAC (47 - 63Hz)					
6	Input Current (Typ)	(*1)	A	0.9	1.1			1.3	
7	Inrush Current (Typ)	(*1)	-	30A at Cold Start					
8	Output Voltage Range		V	2.97 - 3.63	4.5 - 5.5	10.8 - 13.2	13.5 - 16.5	21.6 - 26.4	43.2 - 52.8
9	Maximum Ripple & Noise	0≤Ta≤70°C	mV	120	120	150	150	150	200
	(*3)	-10≤Ta<0°C	mV	160	160	180	180	180	240
10	Maximum Line Regulation	(*3)(*4)	mV	20	20	48	60	96	192
11	Maximum Load Regulation	(*3)(*5)	mV	40	40	96	120	150	240
12	Temperature Coefficient	(*3)	-	Less than 0.02% / °C					
13	Over Current Protection	(*6)	A	10.5 ≤	10.5 ≤	4.51 ≤	3.67 ≤	2.62 ≤	1.36 ≤
14	Over Voltage Protection	(*7)	V	3.80 - 4.46	5.75 - 6.75	13.8 - 16.2	17.3 - 20.3	27.6 - 32.4	55.2 - 64.8
15	Hold-up Time (Typ)	(*1)	-	20ms					
16	Leakage Current	(*8)	-	Less than 0.5mA					
17	Parallel Operation		-	-					
18	Series Operation		-	Possible					
19	Operating Temperature	(*9)	-	Convection : -10 to +70°C (-10 to +50°C:100%, +60°C:70%, +70°C:20%)					
20	Operating Humidity		-	30 to 90%RH (No Condensing)					
21	Storage Temperature		-	-30 to +85°C					
22	Storage Humidity		-	10 to 95%RH (No Condensing)					
23	Cooling		-	Convection Cooling					
24	Withstand Voltage		-	Input - FG : 2kVAC (10mA), Input - Output : 2kVAC (10mA) Output - FG : 500VAC (20mA) for 1min					
25	Isolation Resistance		-	More than 100MΩ at 25°C and 70%RH Output - FG : 500VDC					
26	Vibration		-	At no operating, 10 - 55Hz (Sweep for 1min) 19.6m/s^2 Constant, X,Y,Z 1hour each.					
27	Shock		-	Less than 196.1m/s^2					
28	Safety	(*11)	-	Approved by UL62368-1, CSA62368-1, EN62368-1, UL60950-1, CSA60950-1, EN60950-1 (Expire date of 60950-1 : 20/12/2020), EN50178(OV II), Designed to meet Den-an Appendix12 (J60950-1)					
29	Conducted Emission		-	Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B					
30	Radiated Emission		-	Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B					
31	Immunity		-	Designed to meet IEC61000-4-2(Level 2,3), -3(Level 3), -4(Level 3), -5(Level 2,3), -6(Level 3), -8(Level 4), -11					
32	Weight (Typ)		g	150					
33	Size (W x H x D)	(*10)	mm	50 x 23 x 132 (Refer to Outline Drawing)					

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

=NOTES=

*1. At 100VAC, Ta=25°C, nominal output voltage and maximum output power.
*2. For cases where conformance to various safety specs (UL, CSA, EN) are required, to be described as 100 - 120VAC(50/60Hz).
*3. Please refer to Fig. A for measurement of line & load regulation and ripple voltage.
*4. 85 - 132VAC, constant load.
*5. No load-Full load, constant input voltage.
*6. Fold back current limit with automatic recovery.
Avoid to operate at over load or short circuit condition for more than 30seconds.
*7. OVP circuit will shut the output down, manual reset (Re power on).
*8. Measured by the each measuring method of UL, CSA, EN and DENAN(at 60Hz), Ta=25°C.
*9. Ratings - Derating at standard mounting. Refer to output derating curve(A239-01-02_).
- When forced air cooling, refer to derating curve(A239-01-03_).
- Load (%) is percent of maximum output power or maximum output current, whichever is greater.
*10. Not include lead length on solder side.
*11. Requesting approval for safety standards should be made with VS50E-**.

Fig. A



C1 : Film Cap. 0.1 µF
C2 : Elec. Cap. 100 µF