ZWS50C/CO2

SPECIFICATIONS (1/2)

FA014-01-01/CO2

ITEMS \ MODEL				ZWS50C-5/CO2	ZWS50C-12/CO2	ZWS50C-15/CO2	ZWS50C-24/CO2	ZWS50C-48/CO2
INPUT								
	Input Voltage Range	(*2)(*12)	-	85 - 265VAC (47 ~ 63Hz)				
	Efficiency (Typ.)	(*1)	%	80 / 81	83 / 86	84 / 87	85 / 87	86 / 88
	Input Current (Typ.)	(*1)	A	1.1 / 0.7	1.2 / 1.0			
	Inrush Current (Typ.)	(*1)(*3)	-	30A / 60A at Cold Start				
	PFHC		-	-				
	Power Factor (Typ.)		-	-				
OUTPUT								
	Nominal Output Voltage		V	5	12	15	24	48
	Output Voltage Range		-	Fixed (Shipment condition : 5V : ±3.5% ; 12V,15V,24V : ±4.5% ; 48V : ±4.0%)				
	Maximum Output Current	100VAC	A	6.00	4.30	3.50	2.10	1.10
		200VAC		7.00	5.00	4.00	2.50	1.25
	Maximum Output Power	100VAC	W	30.0	51.6	52.5	50.4	52.8
		200VAC		35.0	60.0	60.0	60.0	60.0
	Maximum Line Regulation	(*4)(*5)	%	0.40	0.40	0.40	0.40	0.40
	Maximum Load Regulation	(*4)(*6)	%	2.40	2.40	1.00	0.80	0.80
	Temperature Coefficient	(*4)	-	Less than 0.02% / °C				
	Maximum Ripple & Noise (*4)	0≤Ta≤70°C, 35 ~ 100% Load	mV	120	150	150	150	200
		-10≤Ta<0°C, 35 ~ 100% Load	mV	160	180	180	180	180
		-10≤Ta≤70°C, 0 ~ 35% Load	mV	200	240	240	240	240
	Hold-up Time (Typ.)	(*10)	-	20ms				
	Leakage Current	(*9)	-	Less than 0.15/0.30mA. (100VAC/230VAC, 60Hz)				
	Over Current Protection	(*7)	-	> 105%				
	Over Voltage Protection	(*8)	-	> 115%				
FUNCTION								
	Remote ON/OFF Control		-	None				
	Remote Sensing		-	None				
	Parallel Operation		-	Not Possible				
	Series Operation		-	Possible				
ENVIRONMENT								
	Operating Temperature	(*11)(*12)	-	-10 to +70°C (-10 to +50°C : 100% ; +60°C : 75% ; +70°C : 50%)				
	Storage Temperature		-	-30 to +75°C				
	Operating Humidity		-	30 to 90%RH (No Condensing)				
	Storage Humidity		-	10 to 95%RH (No Condensing)				
	Vibration	(*13)	-	At no operating, 10 to 55Hz (Sweep for 1min) 19.6m/s^2 Constant, X,Y,Z 1hour each.				
	Shock	(*13)	-	At no operating, Less than 196.1m/s^2				
	Cooling		-	Convection Cooling / Forced Air Cooling				
ISOLATION								
	Isolation Class / Class of Protection		-	Class I (L,N,FG) or Class II (L,N)				
	Withstand Voltage		-	Input - Output : 3kVAC (10mA), Input - FG : 2kVAC (10mA), Output - FG : 750VAC (20mA) for 1min				
	Isolation Resistance		-	More than 100MΩ at 25°C and 70%RH Output - FG : 500VDC				
STANDARD AND COMPLIANCE								
	Safety		-	Approved by EN60335-1, IEC/UL/CSA/EN62368-1 (Atitude ≤ 4,000m) Approved by IEC/EN61558-1, IEC/EN61558-2-16 (Atitude ≤ 2,000m) Design to meet IEC60335-1 Design to meet Den-an appendix 12 (J62368-1, J61558-1, J61558-2-16, J60335-1)				
	Conducted Emission	(*13)	-	Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B				
	Radiated Emission	(*13)	-	Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B				
	Immunity	(*13)	-	Designed to meet IEC61000-6-2, IEC61000-4-2, -3, -4, -5, -6, -8, -11				
MECHANICAL								
	Weight (Typ.)		g	105				
	Size (W x H x D)		mm	50.8 x 26.7 x 76.2 (Refer to Outline Drawing)				
OTHERS								
	Coating		-	PCB coating on component side and solder side				

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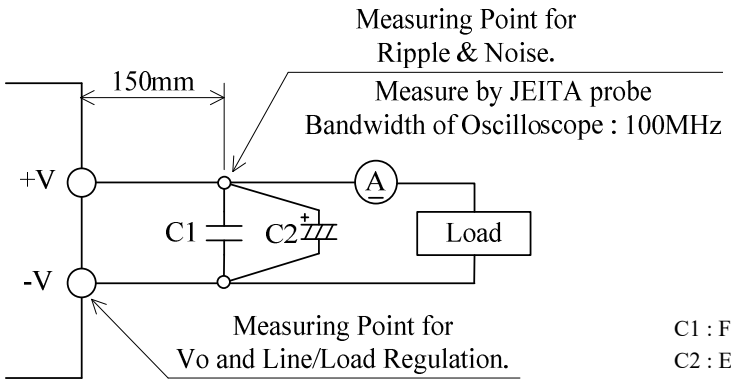
SPECIFICATIONS (2/2)

*Read instruction manual carefully, before using the power supply unit.
*Both sides of PCB are coated. However, some areas on PCB are not coated.

=NOTES=

*1. At 100VAC/200VAC, Ta=25℃, 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 100-240Vac (50-60Hz).
*3. Not applicable for the inrush current to noise filter for less than 0.2ms.
*4. Please refer to Fig.A for measurement of Vo, Line&Load regulation and ripple voltage.
*5. 85 - 265VAC, constant load.
*6. No load to full load, constant input voltage.
*7. Current limiting (Hiccup) with automatic recovery.
Avoid to operate at over load or short circuit condition.
*8. OVP circuit will be shut down output, manual reset (Re power on).
*9. Measured by the each measuring method of UL, CSA, EN and DENAN (at 60Hz), Ta=25°C.
*10. At 100VAC, Ta=25°C, nominal output voltage and 80% output power.
*11. Output Deratings,
- Convection cooling output derating. Refer to OUTPUT DERATING vs. AMBIENT TEMPERATURE (FA014-01-03_).
- Forced air cooling output derating. Refer to OUTPUT DERATING vs. AMBIENT TEMPERATURE (FA014-01-04_).
Load (%) is persent of maximum output power or maximum output current, whichever is greater.
It must not exceed its specification and derating.
*12. Output derating needed when input voltage less than 90VAC. Refer to INPUT VOLTAGE vs. OUTPUT DERATING (FA014-01-02_).
*13. The result is evaluated by TDK-Lambda standard measurement condition.
The power supply is considered a component which will be installed into a final equipment.
The final equipment should be re-evaluated that it meets EMC, Vibration and Shock directives.

Fig. A



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