ZWS300RC/RBM

SPECIFICATIONS (1/2)

A284-01-01/RBM

ITEMS \ MODEL				ZWS300RC-24/RBM
INPUT				
	Input Voltage Range	(*2)(*3)	-	85 - 265VAC (47 - 63Hz) or 120 - 370VDC
	Efficiency (Typ)	(*1)	%	88 / 91
	Input Current (Typ)	(*1)	A	3.6 / 1.8
	Inrush Current (Typ)	(*1)(*4)	-	15A / 30A at Cold Start
	PFHC		-	Designed to meet IEC61000-3-2
	Power Factor (Typ)	(*1)	-	0.93 / 0.90
OUTPUT				
	Nominal Output Voltage		V	24
	Output Voltage Setting Accuracy	(*5)	-	±1%
	Maximum Output Current		A	12.5
	Maximum Output Power		W	300
	Maximum Line Regulation	(*6)(*7)	mV	96
	Maximum Load Regulation	(*6)(*8)	mV	150
	Temperature Coefficient	(*6)	-	Less than 0.02% / °C
	Maximum Ripple & Noise	0≤Ta≤70°C	mV	150
	(*6)	-10≤Ta<0°C	mV	180
	Output Voltage Range		V	21.6 - 26.4
	Hold-up Time (Typ)	(*1)	ms	20
	Leakage Current	(*9)	-	Less than 0.5mA. 0.2mA (Typ) at 100VAC / 0.4mA (Typ) at 230VAC
	Over Current Protection	(*10)	A	≥ 13.12
	Over Voltage Protection	(*11)	V	27.6 - 32.4
FUNCTION				
	Remote ON/OFF Control	(*15)	-	Possible
	Remote Sensing		-	None
	Parallel Operation		-	Not Possible
	Series Operation		-	Possible
	Buffer Module	(*16)	-	Possible (Connect with ZBM-AC162)
ENVIRONMENT				
	Operating Temperature	(*12)(*13)	-	-10 to +70°C
	Storage Temperature		-	-30 to +75°C
	Operating Humidity		-	10 to 90%RH (No Condensing)
	Storage Humidity		-	10 to 90%RH (No Condensing)
	Vibration	(*14)	-	At no operating, 10 to 55Hz (Sweep for 1min) 19.6m/s^2 Constant, X,Y,Z 1hour each.
	Shock	(*14)	-	At no operating, Less than 196m/s^2
	Cooling	(*13)	-	Convection Cooling / Forced Air Cooling
ISOLATION				
	Withstand Voltage		-	Input - FG : 2kVAC (10mA), Input - Output : 3kVAC (10mA) Output - FG : 500VAC (20mA) for 1min
	Isolation Resistance		-	More than 100MΩ at 25°C and 70%RH Output - FG : 500VDC
STANDARD AND COMPLIANCE				
	Safety		-	Approved by IEC/UL/EN/CSA 62368-1 (Altitude ≤ 5,000m) Approved by IEC/EN62477-1 (OVCIII) (Altitude ≤ 2,000m)
	Conducted Emission	(*14)	-	Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B
	Radiated Emission	(*14)	-	Designed to meet EN55011/EN55032-A, FCC-A, VCCI-A
	Immunity	(*14)	-	Designed to meet IEC61000-6-2 IEC61000-4-2, -3, -4, -5, -6, -8, -11
	Line DIP		-	Designed to meet SEMI F47-0706 at 200VAC Line only
MECHANICAL				
	Weight (Typ.)		g	520
	Size (W x H x D)		mm	84 x 42 x 180 (Refer to Outline Drawing)

ZWS300RC/RBM

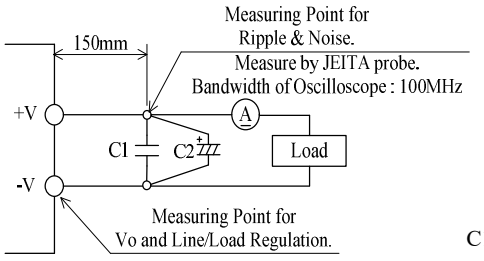
SPECIFICATIONS (2/2)

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

=NOTES=

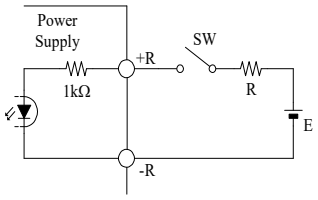
*1. At 100VAC/200VAC, Ta=25°C, nominal output voltage and maximum output power.
*2. For cases where conformance to various safety specs (UL, CSA, EN) are required, input voltage range shall be from 100-240VAC (50-60Hz).
*3. Output derating needed when input voltage less than 90VAC. Refer to INPUT VOLTAGE vs. OUTPUT DERATING (A284-01-02_).
*4. Not applicable for the in-rush current to Noise Filter for less than 0.2ms.
*5. Output voltage setting at the time of shipment. At 100VAC, nominal output voltage and maximum output current.
*6. Please refer to Fig. A for measurement of Vo, line & load regulation and ripple voltage.
*7. 90 - 265VAC, constant load.
*8. No load-Full load, constant input voltage.
*9. Measured by the each measuring method of UL, CSA, EN (at 60Hz), Ta=25°C.
*10. Constant current limit with automatic recovery. Avoid to operate at over load or short circuit condition.
*11. OVP circuit will shut down output, manual reset (Re power on).
*12. Convection cooling output derating. Refer to OUTPUT DERATING vs. AMBIENT TEMPERATURE (A284-01-03_).
Forced air cooling output derating. Refer to OUTPUT DERATING vs. AMBIENT TEMPERATURE (A284-01-04_).
Load (%) is percent of maximum output power or maximum output current, whichever is greater.
It must not exceed its specification and derating.
*13. Forced air cooling with air velocity more than 0.7m/sec or 1.4m/sec.
(Measured at component side of PCB, air must flow through component side).
*14. 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.
*15. As for Remote Control mode, refer to Fig, B.
*16. When connect the Buffer module (ZBM-AC162), must derating the maximum output power.
Refer to A284-01-50/BM-_ .

Fig. A



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

Fig. B



The control mode is shown below.

+R & -R terminal condition	Ouput condition
SW ON (Higher than 4.5V)	ON
SW OFF (Lower than 0.8V)	OFF

External voltage level : E	External resistance : R
4.5 ~ 12.5VDC	No required
12.5 ~ 24.5VDC	1.5kΩ