

ZWS300RC/BM

SPECIFICATIONS (1/2)

A284-01-01/BM

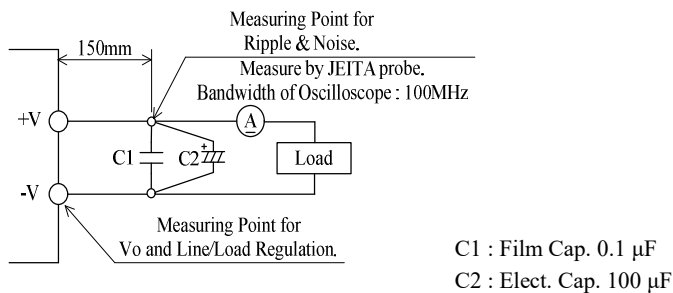
ITEMS		MODEL	ZWS300RC-24/BM
INPUT			
Input Voltage Range	(*2)(*3)	-	85 - 265VAC (47 - 63Hz) or 120 - 370VDC
Efficiency (Typ)	(*1)	%	88 / 91
Input Current (Typ)	(*1)	A	3.6 / 1.8
Inrush Current (Typ)	(*1)(*4)	-	15A / 30A at Cold Start
PFHC		-	Designed to meet IEC61000-3-2
Power Factor (Typ)	(*1)	-	0.93 / 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 (*6)	0 ≤ Ta ≤ 70°C	mV	150
	-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		-	None
Remote Sensing		-	None
Parallel Operation		-	Not Possible
Series Operation		-	Possible
Buffer Module	(*15)	-	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 (OVCI) (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)

*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. When connect the Buffer module (ZBM-AC162), must derating the maximum output power.
Refer to A284-01-50/BM_.

Fig. A



ZWS300RC/BM

OUTPUT DERATING

A284-01-50/BM

OUTPUT DERATING vs. MAXIMUM CONNECTIONS OF BUFFER MODULE (ZBM-AC162)

When connect the Buffer module (ZBM-AC162), must derating the maximum output power.
 Regarding to the maximum output power of ZWS300RC-24/BM when connecting the buffer module,
 Please refer to the following table. Up to 4 modules can be connected.

Maximum Output Power of ZWS300RC-24/BM

Buffer Module	Input Voltage	
	$85 \leq V_{in} < 170$ VAC $120 \leq V_{in} < 240$ VDC	$170 \leq V_{in} \leq 265$ $240 \leq V_{in} \leq 370$
1 unit	290 W	290 W
2 units	Don't Use	280 W
3 units	Don't Use	270 W
4 units	Don't Use	260 W