TDK-Lambda

ZWS100B/L

SPECIFICATIONS

A245-01-01/L-A

	ITEMS / MODEL			ZWS100B -3/L	ZWS100B -5/L	ZWS100B -12/L	ZWS100B -15/L	ZWS100B -24/L	ZWS100B -48/L
1	Nominal Output Voltage		V	3.3	5	12	15	24	48
2	Maximum Output Current		A	20	20	8.5	6.7	4.3	2.1
3	Maximum Output Power		W	66.0	100.0	102.0	100.5	103.2	100.8
4	Efficiency (Typ) (*1)	100VAC	%	83	86	86	88	89	90
		200VAC	%	84	87	87	89	90	91
5	Input Voltage Range (*2)		-	85- 132VAC / 170- 264VAC (Auto Selectable) / 47-63Hz					
6	Input Current (Typ) (*1)		A	1.8/0.9	2.4/1.2				
7	Inrush Current (Typ) (*1)(*3)		-	28A 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
	(*4)(*5)	-10≤Ta<0°C	mV	160	160	180	180	180	240
10	Maximum Line Regulation (*4)(*6)		mV	20	20	48	60	96	192
11	Maximum Load Regulation (*4)(*7)		mV	40	40	96	120	150	240
12	Temperature Coefficient (*4)		-	Less than 0.02% / °C					
13	Over Current Protection (*8)		A	21.0 -	21.0 -	8.93 -	7.04 -	4.52 -	2.21 -
14	Over Voltage Protection (*9)		V	3.79 - 4.95	5.75 - 7.00	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 (*10)		-	Less than 0.5mA. 0.2mA(Typ) at 100VAC / 0.4mA(Typ) at 230VAC					
17	Parallel Operation		-	-					
18	Series Operation		-	Possible					
19	Operating Temperature (*11)		-	Convection : -10 - +60°C (-10 - +40°C:100%, +50°C:70%, +60°C:20%)					
20	Operating Humidity		-	30 - 90%RH (No Condensing)					
21	Storage Temperature		-	-30 - +75°C					
22	Storage Humidity		-	10 - 90%RH (No Condensing)					
23	Cooling		-	Convection Cooling					
24	Withstand Voltage		-	Input - FG : 2kVAC (10mA), Input - Output : 3kVAC (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		-	Approved by UL60950-1, CSA60950-1, EN60950-1, EN50178(OV II), Designed to meet DENAN at 100VAC only.					
29	Conducted Emission		-	Designed to meet EN55011/EN55022-B, FCC-B, VCCI-B					
30	Radiated Emission		-	Designed to meet EN55011/EN55022-B, FCC-B, VCCI-B					
31	Immunity		-	Designed to meet IEC61000-6-2 IEC61000-4-2, -3, -4, -5, -6, -8, -11					
32	Weight (Typ)		g	410					
33	Size (W x H x D)		mm	72 x 45 x 185 (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, to be described as 100 - 120VAC/200 - 240VAC(50/60Hz).

*3. Not applicable for the in-rush 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. For start up at low ambient temperature and low input voltage, output ripple noise might not meet specification. However, specification can be met after one second.

*6. 85 - 132VAC/170 - 264VAC, constant load.

*7. No load-Full load, constant input voltage.

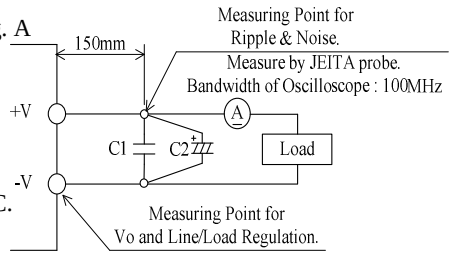
*8. 3.3, 5V model: Constant current limit and hiccup with automatic recovery.
12 - 48V model: Constant current limit with automatic recovery.
Avoid to operate at over load or short circuit condition for more than 30seconds.

*9. OVP circuit will shut down output, manual reset (Re power on).

*10. Measured by the each measuring method of UL, CSA, EN and DENAN(at 60Hz), Ta=25°C.

*11. Output Deratings
- Derating at standard mounting. Refer to output derating curve(A245-01-02/L-_).
- When forced air cooling, refer to output derating curve(A245-01-03/L-_).
- Load (%) is percent of maximum output power or maximum output current, whichever is greater.

Fig. A



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

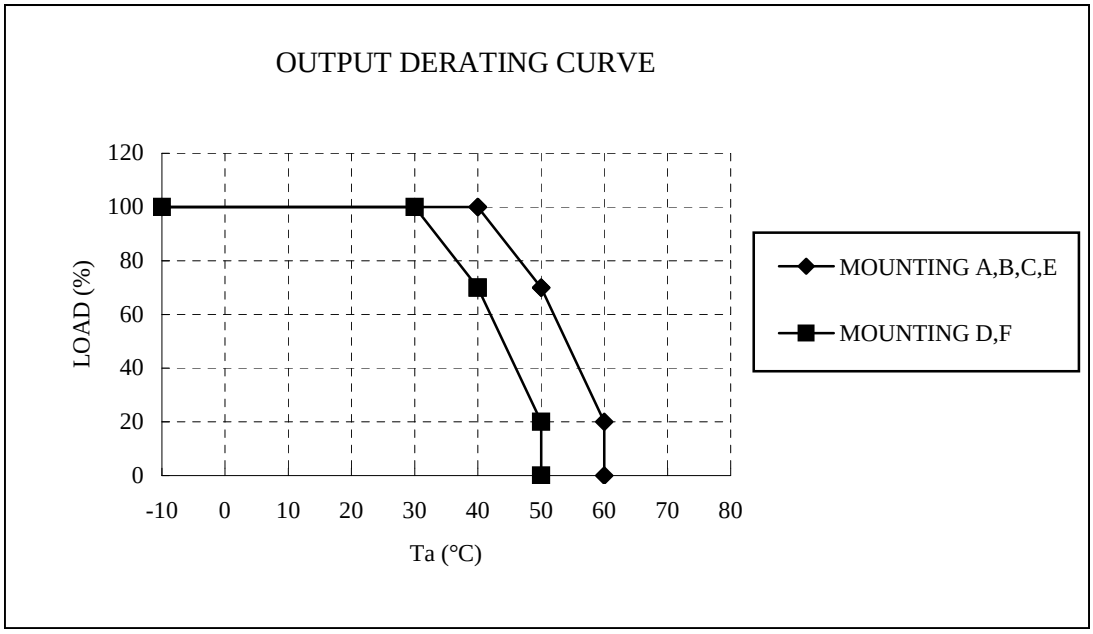
ZWS100B/L

OUTPUT DERATING

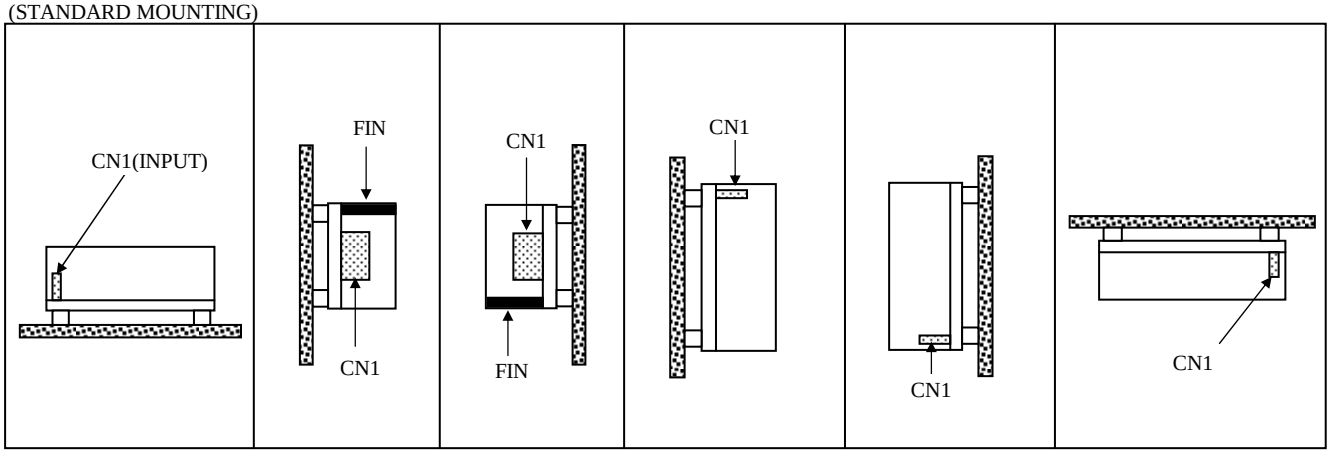
A245-01-02/L

*COOLING : CONVECTION COOLING

Ta (°C)	LOAD (%) MOUNTING A,B,C,E	LOAD (%) MOUNTING D,F
-10 - +30	100	100
40	100	70
50	70	20
60	20	-



MOUNTING A (STANDARD MOUNTING) | MOUNTING B | MOUNTING C | MOUNTING D | MOUNTING E | MOUNTING F



ZWS100B/L

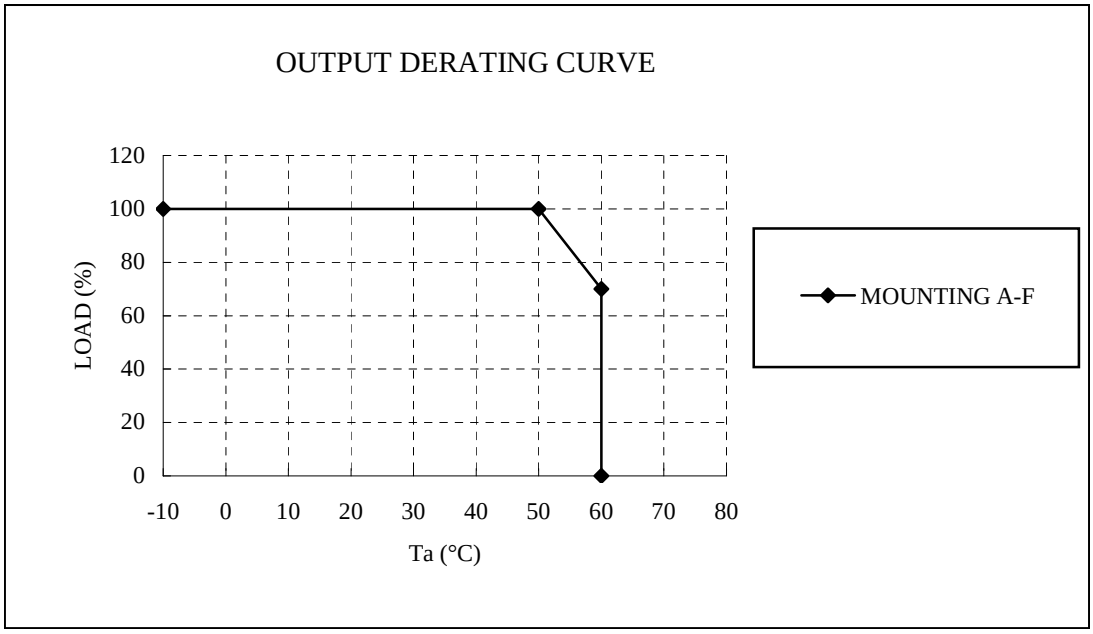
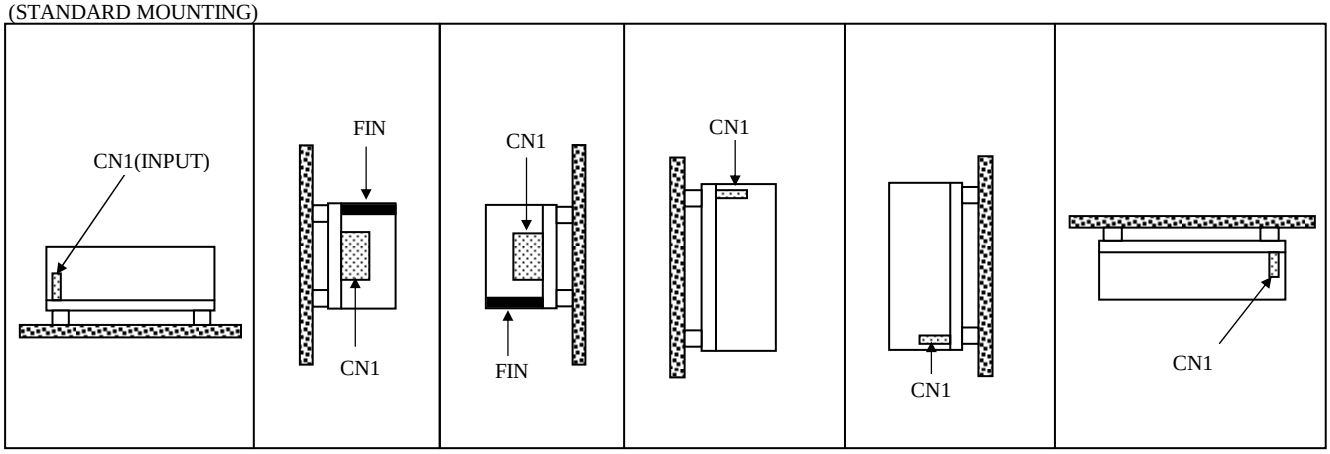
OUTPUT DERATING

A245-01-03/L

*COOLING : FORCED AIR COOLING

Ta (°C)	LOAD (%)
	MOUNTING A-F
-10 - +50	100
60	70

Air Velocity ≧ 0.7m/s ：Air must flow through component side.



MOUNTING A (STANDARD MOUNTING) | MOUNTING B | MOUNTING C | MOUNTING D | MOUNTING E | MOUNTING F