

CUS100M

SPECIFICATIONS

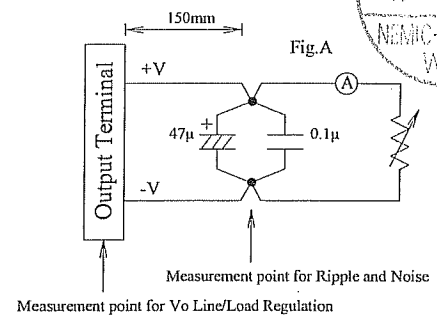
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ITEMS		MODEL	CUS100M-5	CUS100M-12	CUS100M-15	CUS100M-24	REV
1	Nominal Output Voltage	V	5	12	15	24	
2	Maximum Output Current @ Convection cooling	A	12	6.7	5.4	3.4	
	Maximum Output Current @ Force air cooling	A	16	8.4	6.7	4.2	
3	Maximum Output Power @ Convection cooling	W	60.0	80.4	81.0	81.6	
	Maximum Output Power @ Force air cooling	W	80	100.8	100.5	100.8	
4	Efficiency @ Convection cooling (Typ.) 115/230 VAC (*1)	%	83/ 84	88/ 90	88 / 90	89 / 90	
	Efficiency @ Force air cooling (Typ.) 115/230 VAC (*1)	%	81/ 83	87/ 88	88 / 89	88 / 90	
5	Input Voltage Range	(*)2	85 - 265 VAC (47-440Hz) or 120-370VDC				
6	Input Current @ Convection cooling (Typ.) 115/230 VAC (*1)	A	1.2 / 0.7	1.5 / 0.9			
	Input Current @ Force air cooling (Typ.) 115/230 VAC (*1)	A	1.5 / 0.9	1.8 / 1.2			
7	In-rush Current (Typ.)	(*)3	30A / 60A at Cold Start				
8	Output Voltage Range	%	-10 / +10				
9	Maximum Ripple & Noise	(*)4)(*5)	mV	120	120	150	150
10	Maximum Line Regulation	(*)4)(*6)	mV	20	48	60	96
11	Maximum Load Regulation	(*)4)(*7)	mV	40	96	120	192
12	No Load Power Consumption	W	< 0.5 @ 230VAC, Nominal Output Voltage				
13	Temperature Coefficient	(*)4	Less than 0.02% / °C				
14	Over Current Protection	(*)8	>16.9	> 8.7	> 6.9	> 4.4	
15	Over Voltage Protection	(*)9	115% - 145%				
16	Hold-up time (Typ.)	(*)1	10ms / 20ms				
17	Leakage Current	(*)10	Less than 0.25mA at 265VAC				
18	Parallel Operation	-	No				
19	Series Operation	-	Possible				
20	Operating Temperature	(*)11	-20°C - +70°C, start up at -30°C				
21	Operating Humidity	-	10 - 90%RH (No condensing)				
22	Storage Temperature	-	-40°C - +85°C				
23	Storage Humidity	-	10 - 90%RH (No condensing)				
24	Cooling	(*)12	Convection or Force Air Cooling				
25	Withstand Voltage	-	Input-FG : 2kVAC (20mA), Input-Output : 4kVAC (20mA) Output-FG : 1.5kVAC (100mA) for 1min.				
26	Isolation Resistance	-	More than 100M Ω at 25°C,70%RH, Output - FG : 500VDC				
27	Vibration	-	At no operating, 10-500Hz (Sweep for 1min.) Maximum 19.6m/s ² X,Y,Z 1 hour each				
28	Shock	-	Less than 196m/s ² MIL-STD-810F				
29	Safety	-	Designed to meet UL60601-1(cTUVus); EN60601-1 IEC 60601-1 2nd Edition; IEC60601-1 3rd Edition; IEC 60950-1 2nd Edition CB Designed to meet EN60950-1; UL60950-1; CSA60950-1(cTUVus)				
30	Conductive Emission	(*)1	Designed to meet EN55011-B, EN55022-B, FCC-Class B				
31	Radiated Emission @ Convection cooling	(*)1	Designed to meet EN55011-B, EN55022-B, FCC-Class B				
	Radiated Emission @ Force air cooling	(*)1	Designed to meet EN55011-A, EN55022-A, FCC-Class A				
32	Immunity	-	Designed to meet IEC61000-4-2 (Level 2,3), IEC61000-4-3 (Level 3), IEC61000-4-4 (Level 3), IEC61000-4-5 (Level 3,4), IEC61000-4-6 (Level 3), IEC61000-4-8 (Level 4), IEC61000-4-11				
33	Harmonic Current	-	Designed to meet IEC61000-3-2, Class A @ 80W Output				
34	Weight (Typ.)	g	150				
35	Size (L x W x H)	mm	101.6 x 50.8 x 25.4 (Refer to Outline Drawing)				

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

=NOTES=

- *1. At 115VAC/230VAC, 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 will be 100 ~ 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 and load regulation and ripple voltage.
- *5. Ripple & noise are measured at 20MHz by using a 150mm twisted pair of load wires terminated with a 0.1uF and 47uF capacitor.
- *6. 85~265VAC, constant load.
- *7. No load - full load, constant input voltage.
- *8. Hiccup with automatic recovery
Avoid to operate at over load or short circuit condition for more than 30 seconds.
- *9. OVP circuit shut down the output, manual reset (Re power on) to get output voltage.
- *10. Measured by the each measuring method of UL, CSA, and EN (at 60Hz), Ta=25°C.
- *11. Refer to Output Derating Curve (CA803-01-02_) for details of output derating versus input voltage, ambient temperature and mounting method .
- Load (%) is percent of maximum output power or maximum output current.
Do not exceed its derating of Maximum Load.
- 100% load start up at -30°C is possible. However, it may not fulfil all the specifications.
- *12. Force air cooling with air velocity more than 1.5m/s (measured at component side of PCB, air must flow through component side)



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CUS100M

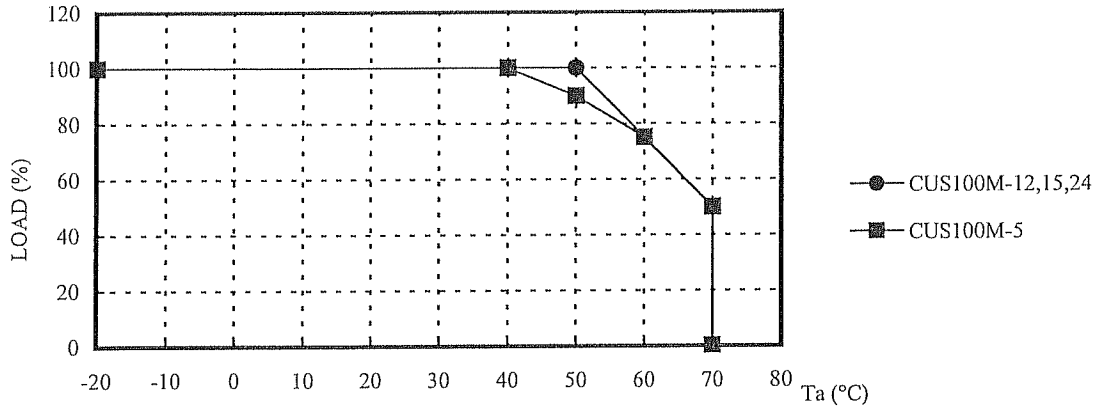
OUTPUT DERATING

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OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

*COOLING : CONVECTION & FORCE AIR COOLING

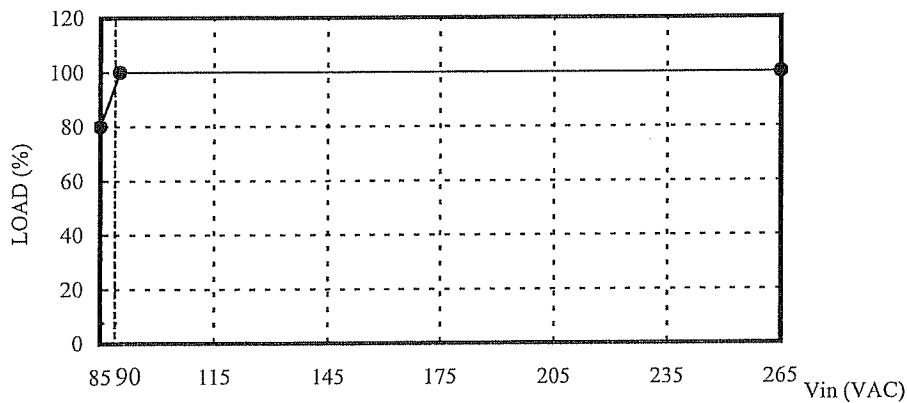
Ta (°C)	LOAD (%)
	MOUNTING A,B,C,D,E
-20 - +40	100
50	100 (5V: 90%)
60	75
70	50



OUTPUT DERATING VERSUS INPUT VOLTAGE

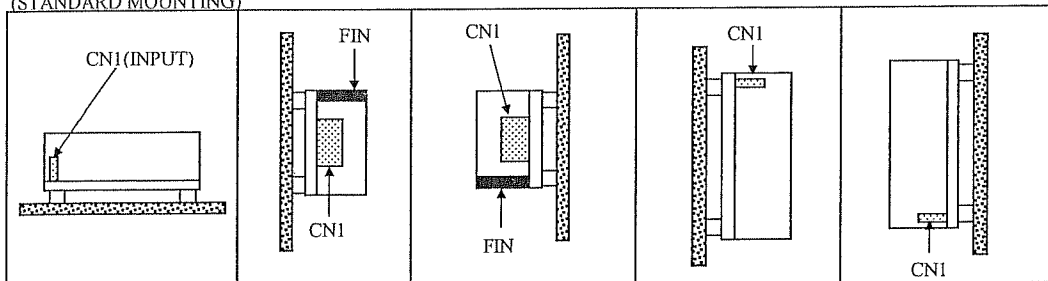
*COOLING : CONVECTION & FORCE AIR COOLING

INPUT VOLTAGE (VAC)	LOAD (%)
	MOUNTING A,B,C,D,E
85	80
90~265	100



MOUNTING A MOUNTING B MOUNTING C MOUNTING D MOUNTING E

(STANDARD MOUNTING)



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