

CUS1000M

SPECIFICATIONS

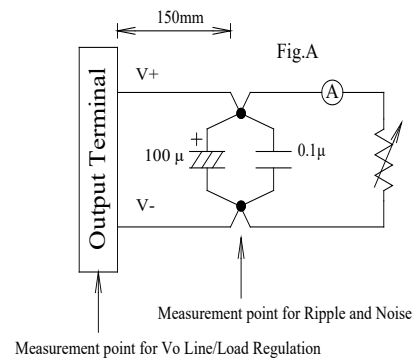
CA936-01-01

ITEMS		MODEL	CUS1000M-12	CUS1000M-24	CUS1000M-36	CUS1000M-48
1	Nominal Output Voltage	V	12	24	36	48
2	Maximum Output Current	A	66.7	41.7	27.8	20.9
	Peak Output Current (*13)	A	83.4	41.7	27.8	20.9
3	Maximum Output Power	W	800.4	1000.8	1000.8	1003.2
	Peak Output Power (*13)	W	1000.8	1000.8	1000.8	1003.2
4	Standby Supply (*14)	-	5V @ 2A(max)			
5	Efficiency (Typ.) (*12)	%	92.0 / 93.8	93.0 / 95.0	93.3 / 95.3	93.5 / 95.5
6	Input Voltage Range (*2)	-	85 - 265 VAC (47-63Hz)			
7	Input Current (Typ.) (*1)	A	8.0 / 4.0		10.0 / 5.0	
8	In-rush Current (Typ.) (*1)(*3)	-	25A / 50A at Cold Start			
9	PFHC	-	Built to meet IEC61000-3-2, Class A			
10	Power Factor (Typ.) (*1)	-	0.99/0.95			
11	Output Voltage Range (*1)(*4)	V	11.7 ~ 12.6	23.4 ~ 25.9	35.1 ~ 38.8	46.8 ~ 51.8
12	Maximum Ripple & Noise @ Convection cooling (*1)(*4)(*5)	mV	240	360	480	480
13	Maximum Line Regulation (*4)(*6)	mV	60	120	180	240
14	Maximum Load Regulation (*4)(*7)	mV	120	240	360	480
15	Temperature Coefficient (*4)	-	Less than 0.02% / °C			
16	Over Current Protection (*8)	A	>87.6	>43.8	>29.2	>22
17	Over Voltage Protection (*9)	V	13.8 ~ 16.2	27.6 ~ 32.4	41.4 ~ 48.6	55.2 ~ 64.8
18	Hold-up time (Typ.) (*1)	-	11ms			
19	Leakage Current (*10)	-	0.25mA max @ 265VAC, 60Hz			
20	Remote ON/OFF control (*13)	-	Possible			
21	Power Good (*13)	-	Possible			
22	Parallel Operation	-	-			
23	Series Operation (*13)	-	Possible			
24	Operating Temperature (*11)	-	-20°C - +70°C			
25	Operating Humidity	-	10 - 95%RH (No condensing)			
26	Storage Temperature	-	-40°C - +75°C			
27	Storage Humidity	-	10 - 95%RH (No condensing)			
28	Cooling	-	Forced air by build-in intake fan			
29	Withstand Voltage	-	Input-FG : 2kVAC (20mA) 1x MOPP Input-Output : 4kVAC (20mA) 2x MOPP Output-FG : 1.5kVAC (20mA) 1x MOPP			
30	Isolation Resistance	-	More than 100MΩ at 25°C, 70%RH, Output - FG : 500VDC			
31	Vibration	-	At no operating, 10-55Hz (Sweep for 1min.) Maximum 19.6m/s <sup>2</sup> X,Y,Z 1 hour each			
32	Shock	-	Less than 196m/s <sup>2</sup>			
33	Safety	-	Approved by IEC/EN62368-1, UL62368-1, CSA62368-1, IEC/EN60601-1 Designed to meet ES60601-1, CSA-C22.2 No.60601-1			
34	EMI (*1)	-	Designed to meet EN55011-B, EN55032-B, FCC-Class B			
35	Immunity (*15)	-	Designed to meet IEC60601-1-2 Ed.4.1, IEC61000-4-2, -3, -4, -5, -6, -8, -11			
36	Weight (Typ.)	g	850			
37	Size ( L x W x H )	mm	167x 85 x 42.5 (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).  
Output derating required when Vin is less than 90VAC, refer to output derating curve for details.
- \*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 100uF capacitor.
- \*6. 85~265VAC, constant load.
- \*7. No load - full load, constant input voltage.
- \*8. Hiccup with automatic recovery, however power supply may be latched for protection when output is shorted and manual reset is required (Repower on).  
Avoid to operate at over load or short circuit condition.
- \*9. OVP circuit shut down the output, manual reset (Repower on) to resume 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 for details of output derating versus input voltage, output voltage and ambient temperature.  
- Load (%) is percent of maximum output power or maximum output current.  
- Do not exceed its derating of Maximum Load for both Main Output Channel and Standby Supply.
- \*12. At 115VAC/230VAC, Ta=25°C, Nominal output voltage and maximum output power, and Standby Supply at no load.
- \*13. Refer to Instruction Manual for details.
- \*14. Please refer to various output derating curves for Standby Supply.
- \*15. Refer to Immunity Test Data for details.



**CUS1000M**

OUTPUT DERATING

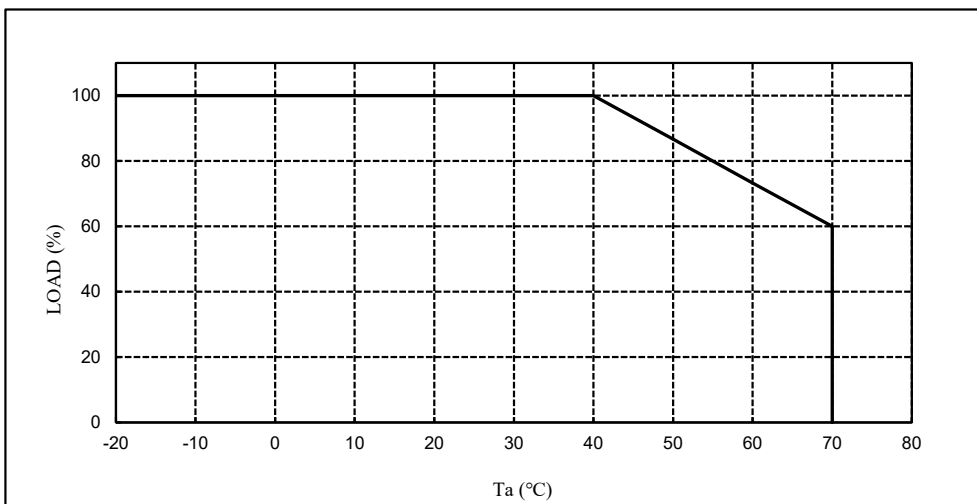
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**MAIN OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)**

Output derating versus input voltage should be considered. Please refer to the output derating versus input voltage curve for detail.  
 Load (%) is percent of maximum output power or maximum output current.  
 If output voltage is raised higher than nominal, maximum power derating versus high output voltage should be considered.

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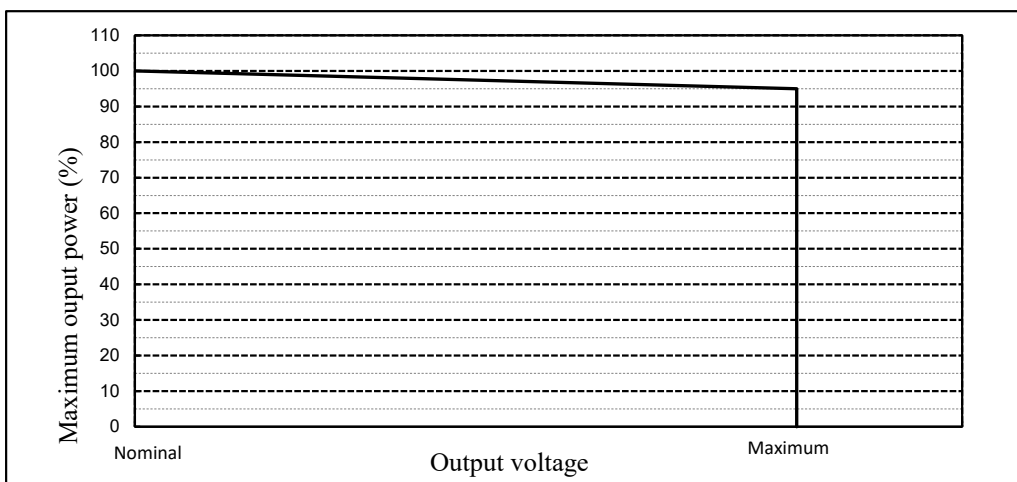
Ta (°C)	LOAD (%)
-20 - +40	100
50	86.7
60	73.3
70	60



**MAIN OUTPUT POWER DERATING VERSUS HIGH OUTPUT VOLTAGE**

MODEL: CUS1000M-12/24/36/48

Output voltage	Maximum Output Power (%)
Nominal output voltage	100
Maximum output voltage	95



Note: The maximum voltage of each models.

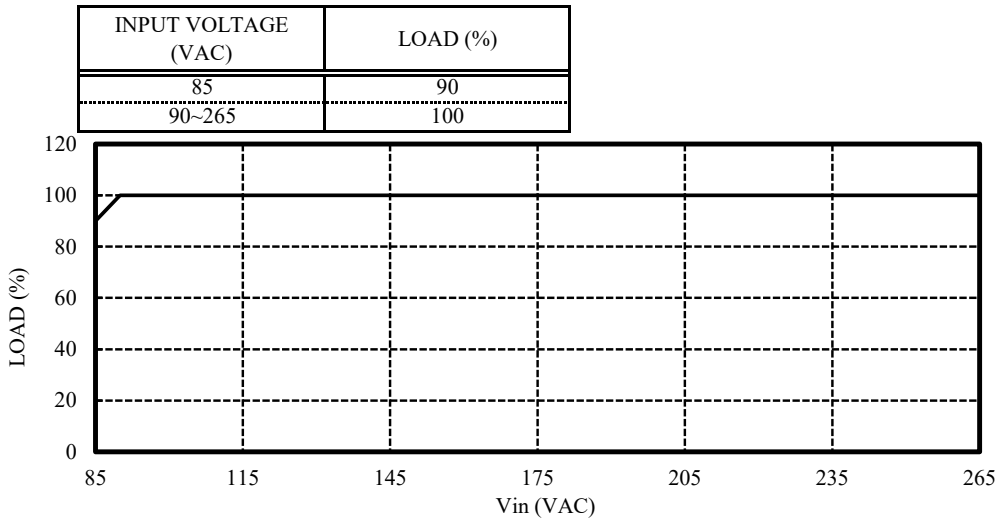
Model	Maximum Output Voltage
CUS1000M-12	12.6V
CUS1000M-24	25.9V
CUS1000M-36	38.8V
CUS1000M-48	51.8V

**CUS1000M**

OUTPUT DERATING

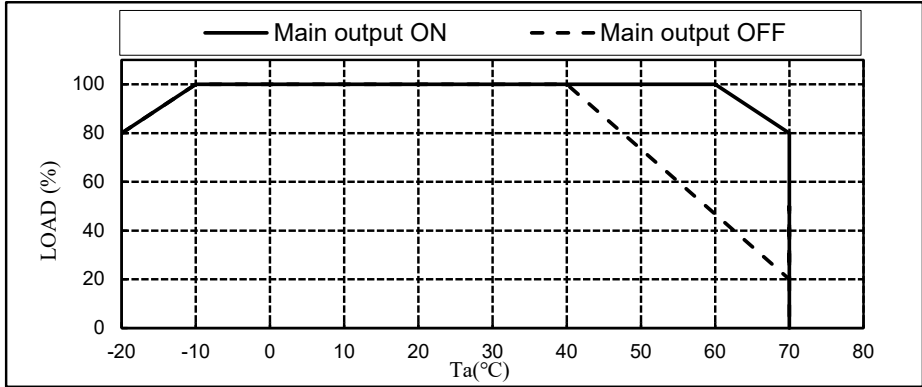
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**OUTPUT DERATING VERSUS INPUT VOLTAGE**



**STANDBY SUPPLY OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)**

Ta (°C)	LOAD (%)	
	Main output ON	Main output OFF
-20	80	80
-10 ~ 40	100	100
50	100	73.3
60	100	46.7
70	80	20



**MOUNTING METHOD**

