

CUS200M

SPECIFICATIONS

CA811-01-01A

ITEMS		MODEL	CUS200M-12	CUS200M-18	CUS200M-24	CUS200M-48
1	Nominal Output Voltage	V	12	18	24	48
2	Maximum Output Current @ Convection cooling	A	16.7	11.2	8.4	4.2
	Maximum Output Current @ Forced air cooling (*12)	A	16.7	14.0	10.5	5.3
3	Maximum Output Power @ Convection cooling	W	200.4	201.6	201.6	201.6
	Maximum Output Power @ Forced air cooling (*12)	W	200.4	252.0	252.0	254.4
4	Standby Mode Power	-	5V @ 0.6A(max) at convection cooling, 5V @ 1A(max) at forced air cooling			
5	Efficiency @ Convection cooling (Typ.)	115/230 VAC (*1)	%	92 / 93	92 / 94	92 / 94
	Efficiency @ Forced air cooling (Typ.)	115/230 VAC (*1)	%	91 / 93	92 / 94	92 / 94
6	Input Voltage Range (*2)	-	85 - 265 VAC (47-63Hz)			
7	Input Current @ Convection cooling (Typ.)	115/230 VAC (*1)	A	2.2/ 1.1		
	Input Current @ Forced air cooling (Typ.)	115/230 VAC (*1)	A	3.0/ 1.5		
8	In-rush Current (Typ.)	115/230 VAC (*1)(*3)	-	35A / 70A at Cold Start		
9	PFHC	-	Built to meet IEC61000-3-2, Class A			
10	Power Factor (Typ.)	115/230 VAC (*1)	-	0.99/0.95		
11	Output Voltage Range	V	11.7 ~ 12.6	17.6 ~ 18.9	23.5 ~ 25.2	47 ~ 50.4
12	Maximum Ripple & Noise@ Convection cooling 115/230 VAC(*1)(*4)(*5)	mV	180	180	240	480
	Maximum Ripple & Noise@ Forced air cooling 115/230 VAC(*1)(*4)(*5)	mV	180	200	240	480
13	Maximum Line Regulation (*4)(*6)	mV	60	90	120	240
14	Maximum Load Regulation (*4)(*7)	mV	120	180	240	480
15	Remote Off Power Consumption (*13)	-	<0.5W @ 230VAC			
16	Temperature Coefficient (*4)	-	Less than 0.02% / °C			
17	Over Current Protection (*8)	A	>17.5	>14.7	> 11	>5.5
18	Over Voltage Protection (*9)	V	13.2 - 16.2	19.8 - 24.3	26.4 - 32.4	52.8 - 64.8
19	Hold-up time (Typ.) (*1)	-	16ms @ 200W, 12ms @ 250W			
20	Leakage Current (*10)	-	0.3mA max @ 265VAC,60Hz			
21	Remote ON/OFF control	-	Possible			
22	DC-OK	-	Possible			
23	Parallel Operation	-	-			
24	Series Operation	-	Possible			
25	Operating Temperature (*11)	-	-20°C - +70°C			
26	Operating Humidity	-	10 - 95%RH (No condensing)			
27	Storage Temperature	-	-40°C - +85°C			
28	Storage Humidity	-	10 - 95%RH (No condensing)			
29	Cooling (*12)	-	Convection or Forced Air Cooling			
30	Withstand Voltage	-	Input-FG : 2kVAC (20mA) 1x MOPP Input-Output : 4kVAC (20mA) 2x MOPPs Output-FG : 1.5kVAC (20mA) 1xMOPP			
31	Isolation Resistance	-	More than 100MΩ at 25°C,70%RH, Output - FG : 500VDC			
32	Vibration	-	At no operating, 10-55Hz (Sweep for 1min.) Maximum 19.6m/s ² X,Y,Z 1 hour each			
33	Shock	-	Less than 196m/s ² and MIL-STD-810F			
34	Safety	-	Approved by IEC60601-1 2nd Edition and 3rd Edition, EN60601-1 3rd Edition, ANSI/AAMI ES60601-1, CAN/CSA-C22.2 No.60601-1 3rd Edition(cTUVus), IEC/EN60950-1 2nd Edition, UL/CSA60950-1 2nd Edition(cTUVus), Design to meet GB4943.1			
35	EMI (*1)	-	Designed to meet EN55011-B, EN55022-B, FCC-Class B @ Convection cooling			
36	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			
37	Weight (Typ.)	g	350			
38	Size (L x W x H)	mm	127 x 76.2 x 34 (Refer to Outline Drawing)			

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

=NOTES=

*1. 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 115VAC, 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 for more than 30 seconds.

*9. OVP circuit shut down the output, manual reset (Repower 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 for details of output derating versus input voltage, ambient temperature and mounting method.

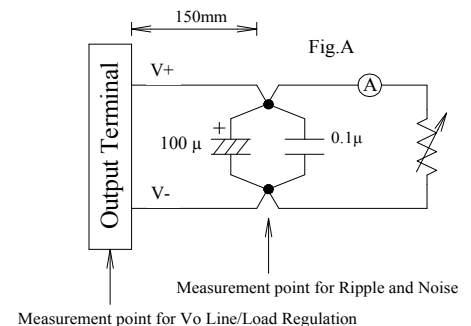
- Load (%) is percent of maximum output power or maximum output current.

Do not exceed its derating of Maximum Load.

- maximum load start up at -40°C is possible. However, it may not fulfill all the specifications.

*12. Forced air cooling with air velocity more than 1.5m/s and air volume more than 15.9CFM (measured at component side, air must flow through component side).

*13. The power consumption refers to input power during remote off and standby 5V is at no load condition.



CUS200M

OUTPUT DERATING

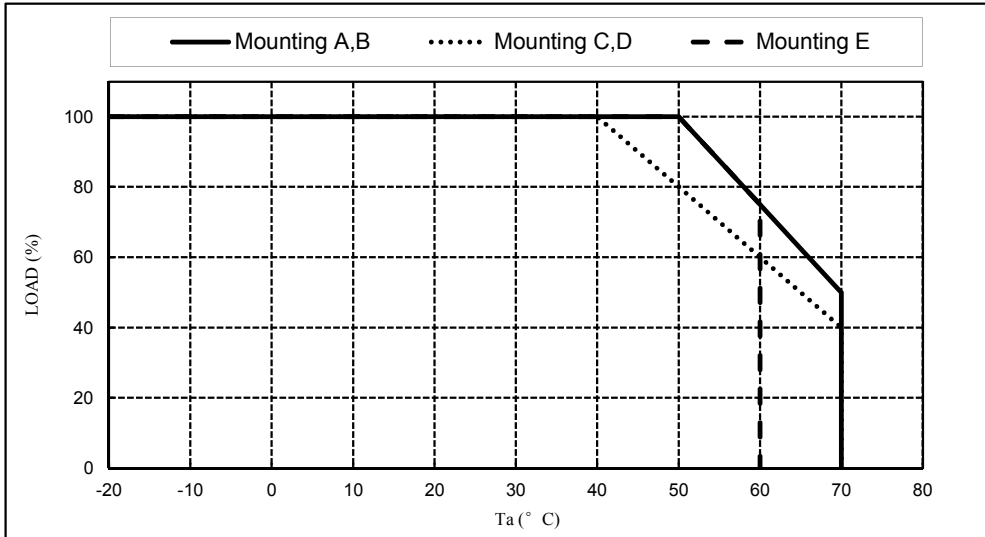
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OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

*COOLING : CONVECTION COOLING

MODEL: CUS200M-18, CUS200M-24, CUS200M-48

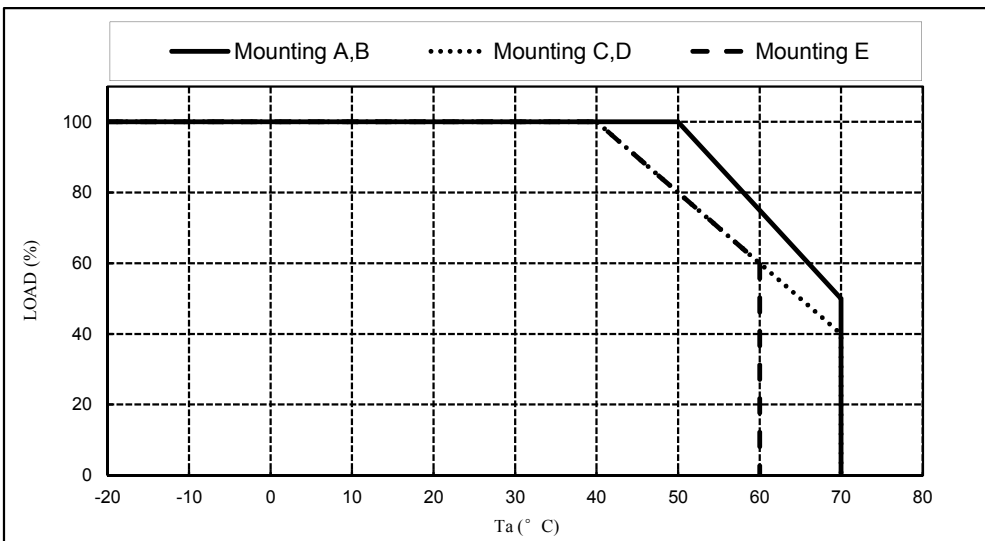
Ta (°C)	MOUNTING A,B	MOUNTING C,D	MOUNTING E
	LOAD (%)	LOAD (%)	LOAD (%)
-20 - +40	100	100	100
50	100	80	100
60	75	60	75
65	63	50	-
70	50	40	-



*COOLING : CONVECTION COOLING

MODEL: CUS200M-12

Ta (°C)	MOUNTING A,B	MOUNTING C,D	MOUNTING E
	LOAD (%)	LOAD (%)	LOAD (%)
-20 - +40	100	100	100
50	100	80	80
60	75	60	60
65	63	50	-
70	50	40	-

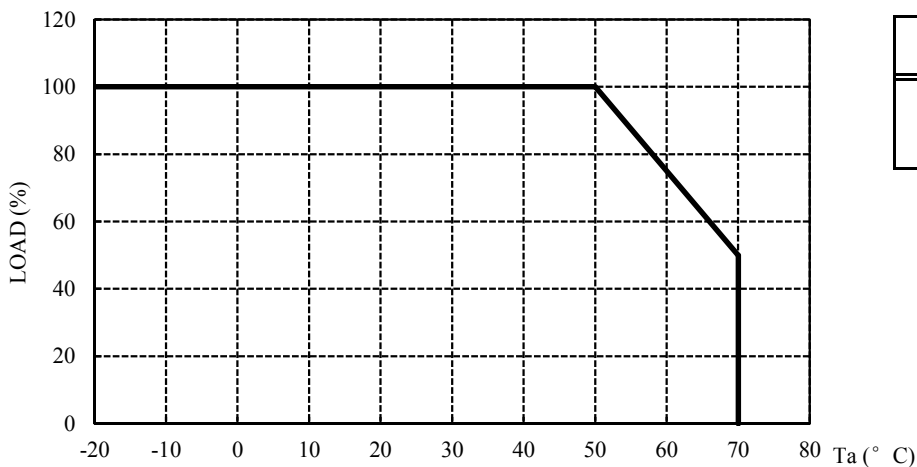


OUTPUT DERATING

CA811-01-03

OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

* COOLING: FORCED AIR COOLING
FOR ALL MOUNTINGS AND ALL MODELS

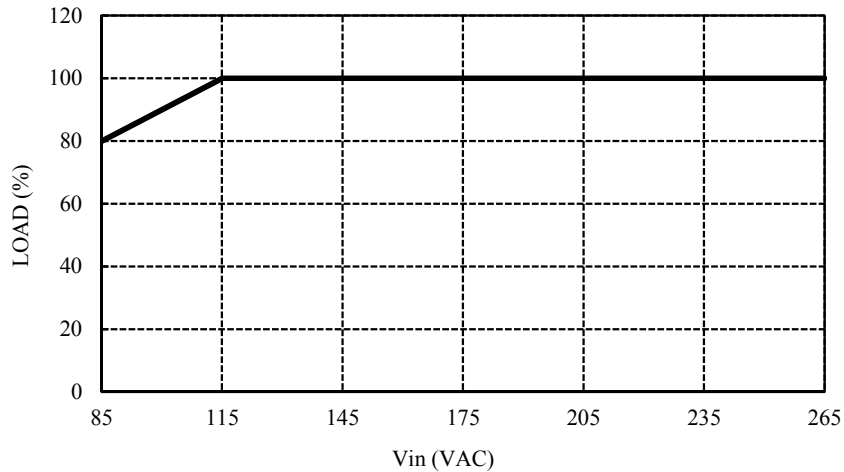


Ta (°C)	LOAD (%)
-20 - +50	100
60	75
70	50

OUTPUT DERATING VERSUS INPUT VOLTAGE

FOR ALL MOUNTINGS AND ALL MODELS

INPUT VOLTAGE (VAC)	LOAD (%)
85	80
115~265	100



MOUNTING METHOD

