CUS200M/A

SPECIFICATIONS

CA811-01-01/A-F

	ITEMS / MODEL			CUS200M-12/A	CUS200M-18/A	CUS200M-24/A	CUS200M-36/A	CUS200M-48/A
1	Nominal Output Voltage		V	12	18	24	36	48
2	Maximum Output Current @ Convection cooling		A	16.7	11.2	8.4	5.5	4.2
	Maximum Output Current @ Forced air cooling	(*12)	A	16.7	14.0	10.5	7.0	5.3
3	Maximum Output Power @ Convection cooling		W	200.4	201.6	201.6	198.0	201.6
	Maximum Output Power @ Forced air cooling	(*12)	W	200.4	252.0	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	92 / 94	92 / 94
	Efficiency @ Forced air cooling (Typ.)	115/230 VAC (*1)	%	91 / 93	92 / 94	92 / 94	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	35.2 ~ 37.8	47 ~ 50.4
12	Maximum Ripple & Noise@ Convection cooling	115/230 VAC(*1)(*4)(*5)	mV	180	180	240	360	480
	Maximum Ripple & Noise@ Forced air cooling	115/230 VAC(*1)(*4)(*5)	mV	180	200	240	360	480
13	Maximum Line Regulation	(*4)(*6)	mV	60	90	120	180	240
14	Maximum Load Regulation	(*4)(*7)	mV	120	180	240	360	480
15	Remote Off Power Consumption	(*13)	-	<0.5W @ 230VAC				
16	Temperature Coefficient	(*4)	-	Less than 0.02% / ℃				
17	Over Current Protection	(*8)	A	>17.5	>14.7	> 11	>7.4	>5.5
18	Over Voltage Protection	(*9)	V	13.2 - 16.2	19.8 - 24.3	26.4 - 32.4	39.6 - 48.6	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℃- +60℃				
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 IEC/EN62368-1,UL62368-1,CSA62368-1 Approved by IEC/EN60601-1,ES60601-1,CSA-C22.2 No.60601-1				
35	EMI	(*1)	-	Designed to meet EN55011-B, EN55032-B, FCC-Class B.				
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, IEC60601-1-2 Ed.4.1				
37	Weight (Typ.)		g	470				
38	Size (L x W x H)		mm	140 x 90 x 43 (Refer to Outline Drawing)				

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

=NOTES=

*1.Ta=25℃, 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.

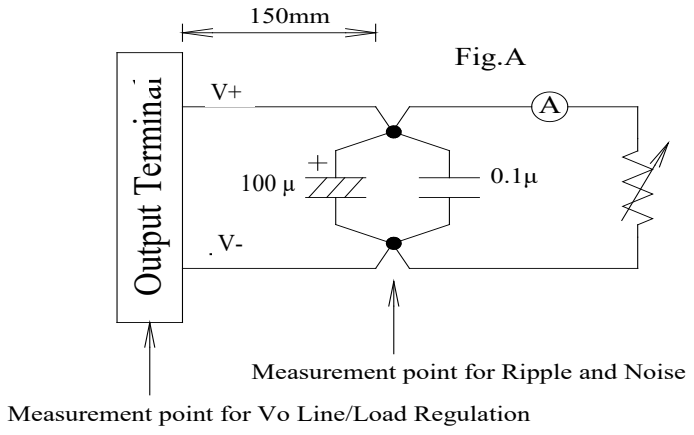
*9. OVP circuit shut down the output, manual reset (Repower on) to get output voltage.

*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/A

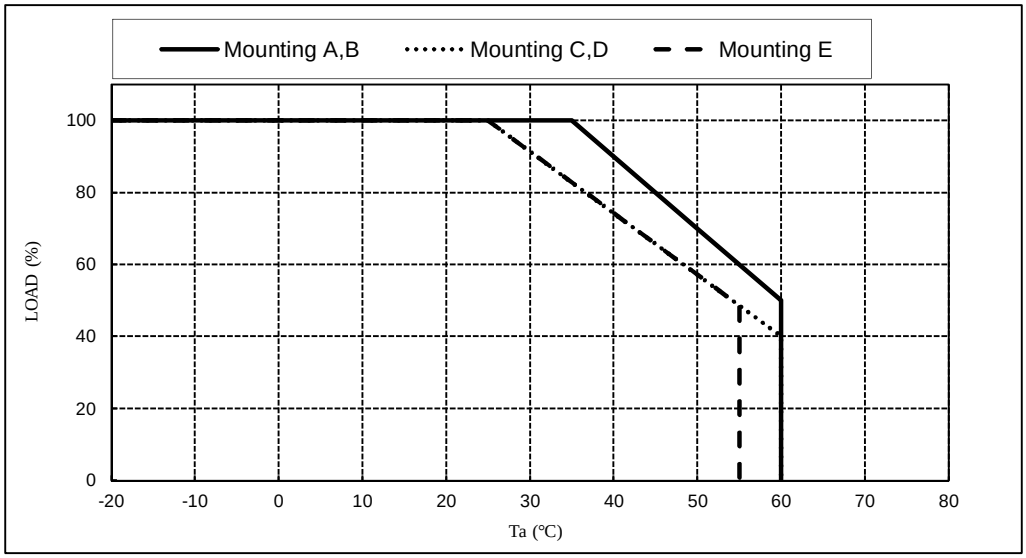
OUTPUT DERATING

CA811-01-02/A

OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

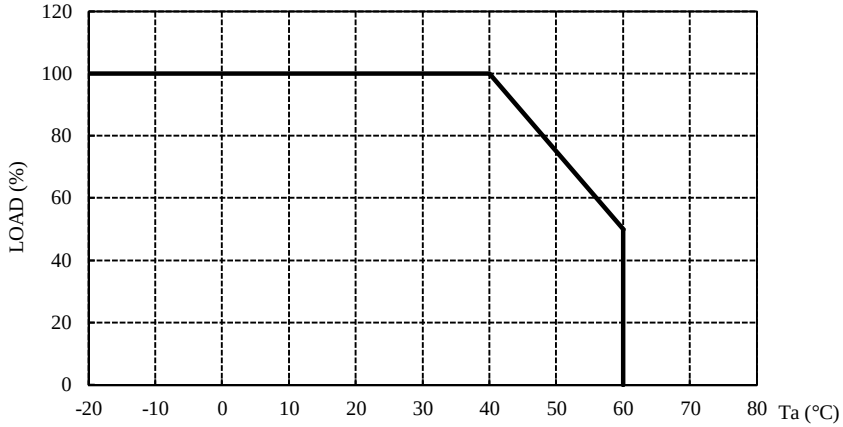
*COOLING : CONVECTION COOLING
FOR ALL MOUNTINGS AND ALL MODELS

Ta (°C)	MOUNTING A,B	MOUNTING C,D	MOUNTING E
	LOAD (%)	LOAD (%)	LOAD (%)
-20 - +25	100	100	100
35	100	82	82
45	80	65	65
50	70	57	57
55	60	48	48
60	50	40	-



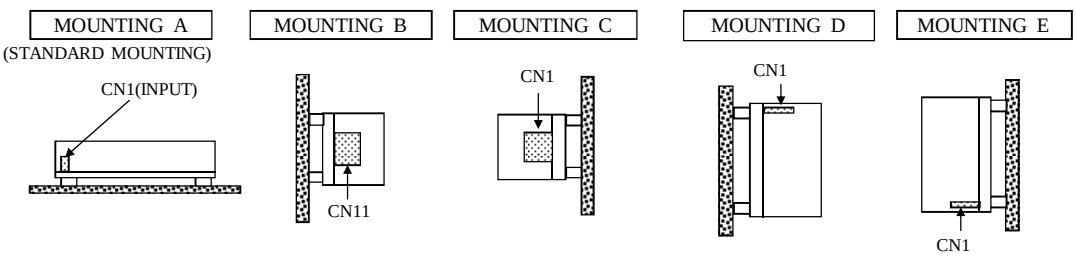
OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

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



Ta (°C)	LOAD (%)
-20 - +40	100
50	75
60	50

MOUNTING METHOD



CUS200M/A

OUTPUT DERATING

CA811-01-03/A

OUTPUT DERATING VERSUS INPUT VOLTAGE

FOR ALL MOUNTINGS AND ALL MODELS

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