CUS100MB/G2

SPECIFICATIONS

CA833-01-01/G2-A

	ITEMS / MODEL		CUS100MB-5/G2	CUS100MB-12/G2	CUS100MB-15/G2	CUS100MB-18/G2	CUS100MB-24/G2	CUS100MB-28/G2	CUS100MB-36/G2	CUS100MB-48/G2
1	Nominal Output Voltage	V	5	12	15	18	24	28	36	48
2	Maximum Output Current @ Convection cooling	A	12	6.7	5.4	4.5	3.4	2.9	2.25	1.7
	Maximum Output Current @ Force air cooling	A	16	8.4	6.7	5.6	4.2	3.6	2.8	2.1
3	Maximum Output Power @ Convection cooling	W	60.0	80.4	81.0	81.0	81.6	81.2	81.0	81.6
	Maximum Output Power @ Force air cooling	W	80.0	100.8	100.5	100.8	100.8	100.8	100.8	100.8
4	Efficiency @ Convection cooling (Typ.) 115/230 VAC (*1)	%	82 / 83	87 / 89	87 / 89	87 / 89	87 / 89	88 / 89	88 / 90	88 / 90
	Efficiency @ Force air cooling (Typ.) 115/230 VAC (*1)	%	81 / 82	87 / 88	87 / 88	87 / 88	87 / 88	87 / 89	87 / 89	87 / 89
5	Input Voltage Range (*2)	-	85 - 265 VAC (47-63Hz)							
6	Input Current @ Convection cooling (Typ.) 115/230 VAC (*1)	A	1.2 / 0.8	1.5 / 0.9						
	Input Current @ Force air cooling (Typ.) 115/230 VAC (*1)	A	1.5 / 0.9	1.8 / 1.1						
7	In-rush Current (Typ.) (*1)(*3)	A	30 / 60 at Cold Start							
8	Output Voltage Range	%	-10 / +10							
9	Maximum Ripple & Noise (*1)(*4)(*5)	mV	120	120	150	150	150	200	200	200
10	Maximum Ripple & Noise (0%~35% Load) (*4)(*5)	mV	240	280	280	280	280	400	400	480
11	Maximum Line Regulation (*4)(*6)	mV	20	48	60	72	96	112	144	192
12	Maximum Load Regulation (*4)(*7)	mV	40	96	120	144	192	224	288	384
13	Temperature Coefficient (*4)	-	Less than 0.02% / °C							
14	Over Current Protection (*8)	A	>16.9	> 8.7	> 7.0	> 5.8	> 4.4	> 3.7	> 2.9	> 2.2
15	Over Voltage Protection (*9)	V	5.75 - 7.25	13.8 - 17.4	17.25 - 21.75	20.7 - 26.1	27.6 - 34.8	32.2 - 40.6	41.4 - 52.2	55.2 - 69.6
16	Hold-up time (Typ.) (*1)	ms	10 / 60							
17	Touch Current	uA	< 100							
18	Parallel Operation	-	No							
19	Series Operation	-	Possible							
20	Operating Temperature (*10)	-	-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 (*11)	-	Convection or Force Air Cooling							
25	Withstand Voltage	-	Input-Output : 4kVAC (20mA) 2xMOPP							
26	Vibration	-	At no operating, 10-500Hz (Sweep for 1min.) Maximum 19.6m/s^2 X,Y,Z 1 hour each							
27	Shock	-	Less than 196m/s^2, MIL-STD-810F							
28	Safety	-	Approved by IEC/ES/CSA/EN 60601-1(cTUVus), IEC/UL/CSA/EN 62368-1(cURus), Designed to meet GB4943.1							
29	Conducted Emission (*1)	-	Designed to meet EN55011-B, EN55032-B, FCC-Class B							
30	Radiated Emission (*1)(*12)	-	5V~36V: Designed to meet EN55011-B, EN55032-B, FCC-Class B 48V: Designed to meet EN55011-A, EN55032-A, FCC-Class A							
31	Immunity	-	Designed to meet IEC61000-4-2 (Level 3), IEC61000-4-3 (Level 3), IEC61000-4-4 (Level 3), IEC61000-4-5 (Level 3), IEC61000-4-6 (Level 3), IEC61000-4-8 (Level 4), IEC61000-4-11							
32	Weight (Typ.)	g	165							
33	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).
Output derating required when Vin is less than 115VAC, refer output derating curve for details.
Avoid operating the unit out of the specified input voltage range.

*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.
Avoid operating at over load or short circuit condition.

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

*10. 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 -30°C is possible. However, it may not fulfill all the specifications.

*11. Force air cooling with air velocity more than 1.5m/s (measured at component side of PCB, air must flow through component side).

*12. 5V~36V: With clamp filter on input and output wires.

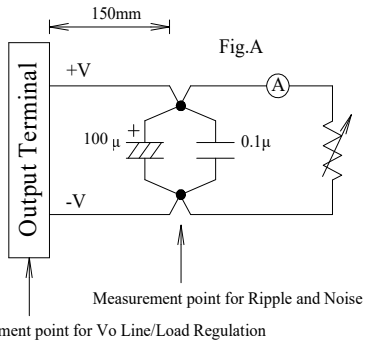


Fig.A

CUS100MB/G2

OUTPUT DERATING

CA833-01-02/G2

OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

1. CUS100MB-5/G2

Convection Cooling:
Mounting A,B,C,D

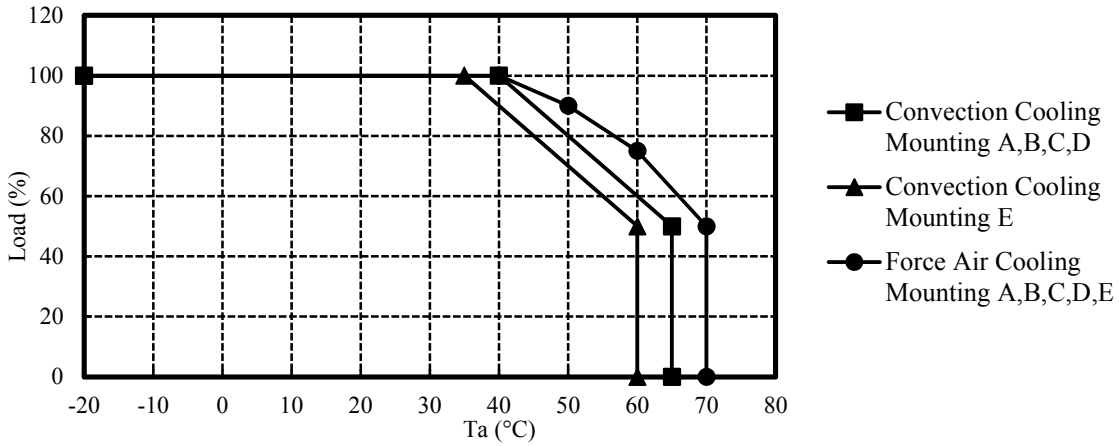
Ta (°C)	Load (%)
-20 - +40	100
65	50

Mounting E

Ta (°C)	Load (%)
-20 - +35	100
60	50

Force Air Cooling:
Mounting A,B,C,D,E

Ta (°C)	Load (%)
-20 - +40	100
50	90
60	75
70	50



2. CUS100MB-12/G2, -15/G2, -18/G2, -24/G2, -28/G2, -36/G2, -48/G2

Convection Cooling
Mounting: A,B,C

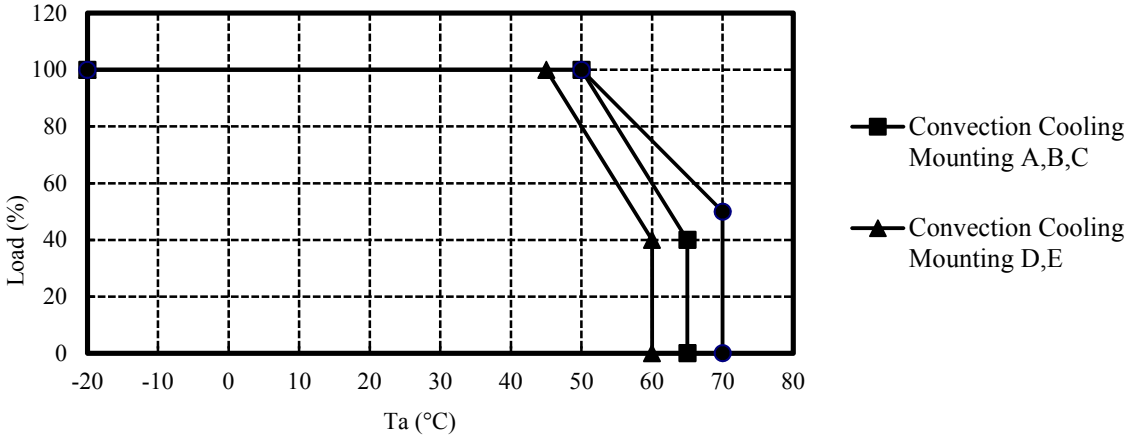
Ta (°C)	Load (%)
-20 - +50	100
65	40

Mounting: D,E

Ta (°C)	Load (%)
-20 - +45	100
60	40

Force Air Cooling
Mounting: A,B,C,D,E

Ta (°C)	Load (%)
-20 - +50	100
70	50



CUS100MB/G2

OUTPUT DERATING

CA833-01-03/G2

OUTPUT DERATING VERSUS INPUT VOLTAGE

CUS100MB-5/G2
Mounting A,B,C,D,E

Input Voltage (VAC)	Load (%)
85	80
100~265	100

CUS100MB-12/G2,-15/G2,-18/G2,-24/G2,-28/G2,-36/G2,-48/G2
Mounting A,B,C,D,E

Input Voltage (VAC)	Load (%)
85	80
115~265	100