CUS50E

SPECIFICATIONS

CA821-01-01B

	ITEMS / MODEL			CUS50E -5	CUS50E -12	CUS50E -24
1	Nominal Output Voltage		V	5	12	24
2	Maximum Output Current		A	10.0	4.3	2.1
3	Maximum Output Power		W	50.0	51.6	50.4
4	Efficiency @ DC input (Typ)	110/220VDC (*1)	%	83 / 86	83/86	85/87
	Efficiency @ AC input (Typ)	115/230VAC (*1)	%	83 / 86	83/86	85/87
5	Input Voltage Range	(*2) (*11)	-	85 ~ 265VAC(47-440Hz) or 88- 370VDC		
6	Input Current @ DC input (Typ)	110/220VDC (*1)	A	0.6 / 0.3		
	Input Current @ AC input (Typ)	115/230VAC (*1)	A	1.1/0.7		
7	In-rush Current @ DC input (Typ)	110/220VDC (*1) (*3)	-	11A at 110VDC, 22A at 220VDC, Ta=25°C, Cold Start		
	In-rush Current @ AC input (Typ)	115/230VAC (*1) (*3)	-	17A at 115VAC, 34A at 230VAC, Ta=25°C, Cold Start		
8	Adjustable Output Voltage Range		V	4.5 - 5.5	10.8 - 13.2	21.6-26.4
9	Maximum Ripple&Noise (*4) (*5)	0≤Ta≤70°C	mV	120	150	150
		-10≤Ta<0°C	mV	160	180	180
10	Maximum Line Regulation	(*4) (*6)	mV	20	48	96
11	Maximum Load Regulation	(*4) (*7)	mV	40	96	150
12	Temperature Coefficient	(*4)	-	Less than 0.02% / °C		
13	Over Current Protection	(*8)	A	10.5-	4.51-	2.2-
14	Over Voltage Protection	(*9)	V	5.75 - 7.0	13.8-16.2	27.6-32.4
15	Hold-up Time @ DC input (Typ)	110/220VDC(*1)	-	16ms(@90% load)/72ms(@100% load)		
	Hold-up Time @ AC input (Typ)	115/230VAC(*1)	-	28ms(@100% load)/150ms(@100% load)		
16	Leakage Current	(*10)	-	less than 0.5mA. 0.2mA(Typ)at 100VAC/0.4mA(Typ) at 230VAC		
17	Remote Control		-	-		
18	Parallel Operation		-	-		
19	Series Operation		-	Possible		
20	Operating Temperature	(*11)	-	Convection : -10 - +70°C,start up at -40°C is possible		
21	Operating Humidity		-	10 - 90%RH (No Condensing)		
22	Storage Temperature		-	-40 - +85°C		
23	Storage Humidity		-	10 - 90%RH (No Condensing)		
24	Cooling		-	Convection		
25	Withstand Voltage		-	Input - FG : 2kVAC (10mA), Input - Output : 3kVAC (10mA) Output - FG : 500VAC (20mA) for 1min		
26	Isolation Resistance		-	More than 100MΩ at 25°C and 70%RH Output - FG : 500VDC		
27	Vibration		-	At no operating, 10 - 500Hz (Sweep for 1min) 19.6m/s^2 Constant, X,Y,Z 1hour each.		
28	Shock		-	Less than 196.1m/s^2		
29	Safety		-	Designed to meet UL60950-1		
30	CE		-	Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B		
31	RE		-	Designed to meet EN55011/EN55032-A, FCC-A, VCCI-A		
32	Immunity		-	Designed to meet IEC61000-4-2 (Level 4), IEC61000-4-3 (Level 3), IEC61000-4-4 (Level 4), IEC61000-4-5 (Level 3, 4),IEC61000-4-6 (Level 3), IEC61000-4-8 (Level 4), IEC61000-4-11		
33	Weight (Typ)		g	165		
34	Size (L x W x H)		mm	132 x 50 x 26 (Refer to Outline Drawing)		

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

=NOTES=

*1. At 115/230VAC & 110/220VDC, Ta=25°C, nominal output voltage and maximum output power.

*2. For cases where conformance to various safety specs (UL, CSA, EN) are required, to be described as 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 & load regulation and ripple v Fig. A

*5. Ripple & noise are measured at 100MHz by using a 150mm twisted pair of load wires terminated with a 0.1uF and 100uF

*6. 85 ~ 265VAC & 88 - 370VDC, constant load.

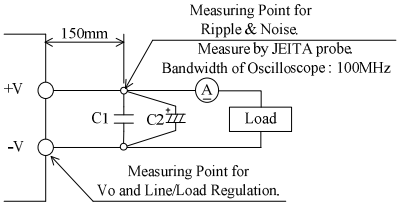
*7. No load-Full load, constant input voltage.

*8. Hiccup with automatic recovery.
Avoid to operate at over load or short circuit condition for more than 30seconds.

*9. OVP circuit will shut down 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. Output derating
- Refer To output derating curve CA821-01-02_ and CA821-01-03_ for details of output derating versus input voltage and ambinent temperature
- Load (%) is percent of maximum output power or maximum output current, do not exceed its derating of maximum load.
- Start up at -40°C is possible when Vin≥200Vac or 200Vdc .However, it may not fulfill all the specifications.



C1 : Film Cap. 0.1 μF
C2 : Elec. Cap. 100 μF

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OUTPUT DERATING

CA821-01-02

*COOLING: CONVECTION COOLING

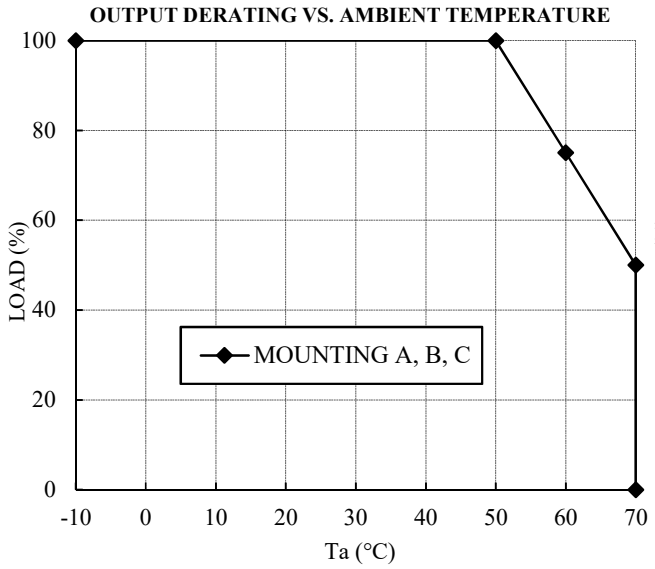
Ta (°C)	LOADING CONDITION(%)
	MOUNTING A,B,C
-10 - +50	100
60	75
70	50

*COOLING: FORCED AIR COOLING

Ta (°C)	LOADING CONDITION(%)
	MOUNTING A,B,C
-10 - +60	100
70	70

Air Velocity≥0.7m/s: Air must flow through component side.

*COOLING: CONVECTION COOLING



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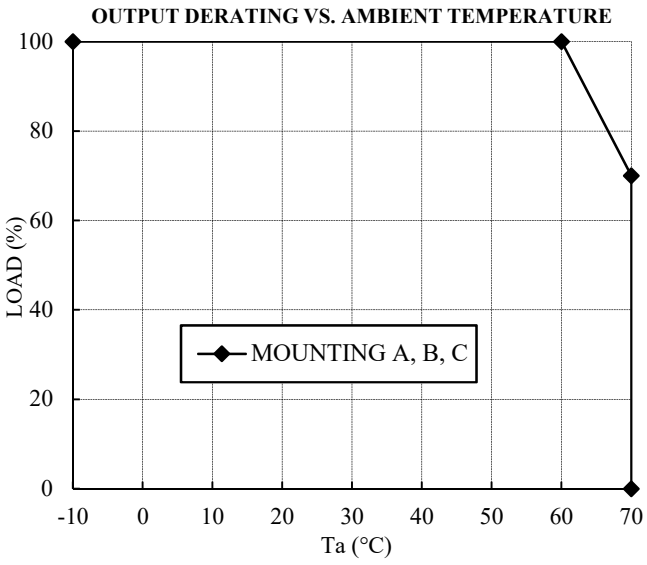
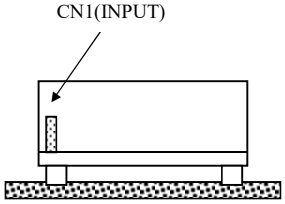
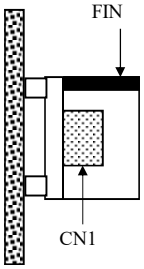
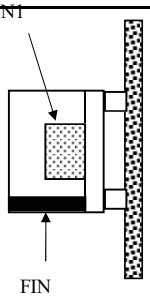


(MOUNTING A)	(MOUNTING B)	(MOUNTING C)
(STANDARD MOUNTING)		
		

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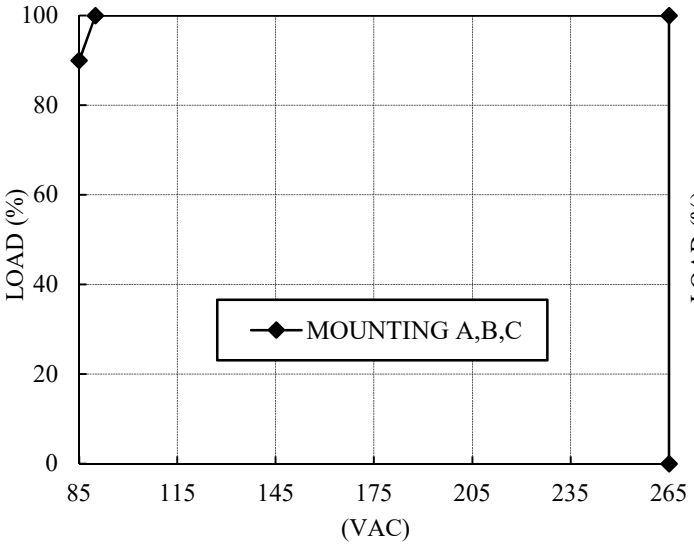
OUTPUT DERATING

CA821-01-03

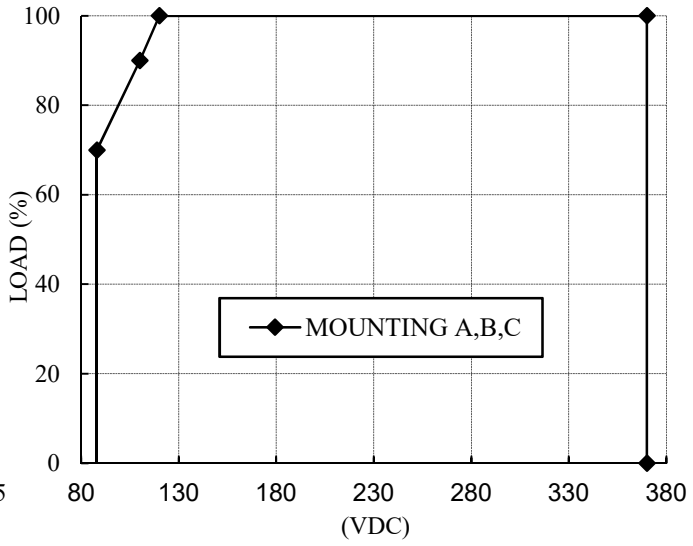
INPUT VOLTAGE	LOADING CONDITION(%)
	MOUNTING A,B,C
85VAC	90
90VAC - 265VAC	100

INPUT VOLTAGE	LOADING CONDITION(%)
	MOUNTING A,B,C
88VDC	70
110VDC	90
120VDC - 370VDC	100

OUTPUT DERATING VS. INPUT VOLTAGE



OUTPUT DERATING VS. INPUT VOLTAGE



(MOUNTING A)	(MOUNTING B)	(MOUNTING C)
(STANDARD MOUNTING)