

CUS30E

SPECIFICATIONS

CA808-01-01B

ITEMS		MODEL	CUS30E -5	CUS30E -12	CUS30E -24
1	Nominal Output Voltage	V	5	12	24
2	Maximum Output Current	A	6.0	2.5	1.3
3	Maximum Output Power	W	30.0	30.0	31.2
4	Efficiency @ DC input (Typ) 110/220VDC (*1)	%	81 / 83	85 / 87	87 / 89
	Efficiency @ AC input (Typ) 115/230VAC (*1)	%	80 / 82	84 / 86	86 / 88
5	Input Voltage Range (*2)(*12)	-	85 ~ 265VAC(47-440Hz) or 88- 370VDC		
6	Input Current @ DC input (Typ) 110/220VDC (*1)	A	0.4 / 0.2		
	Input Current @ AC input (Typ) 115/230VAC (*1)	A	0.65 / 0.35		
7	In-rush Current @ DC input (Typ) 110/220VDC (*1)(*3)	-	11A / 22A at Cold Start		
	In-rush Current @ AC input (Typ) 115/230VAC (*1)(*3)	-	15A / 30A at Cold Start		
8	Adjustable Output Voltage Range	V	4.5 - 5.5	10.8 - 13.2	21.6 - 26.4
9	Maximum	0≤Ta≤70°C, 35-100% Load	120	150	150
	Ripple &	-20<Ta<0°C, 35-100% Load	160	180	180
	Noise (*4)(*5)	-20<Ta<70°C, 0~35% Load	200	240	240
10	Maximum Line Regulation (*4)(*6)	mV	20	48	96
11	Maximum Load Regulation (*4)(*7)	mV	40	96	150
12	No Load Power Consumption	-	<0.5W@230VAC & 220VDC, Nominal Output Voltage		
13	Temperature Coefficient (*4)	-	Less than 0.02% / °C		
14	Over Current Protection (*8)	A	>6.30	>2.63	>1.37
15	Over Voltage Protection (*9)	V	5.75 - 7.00	13.8 - 16.2	27.6 - 32.4
16	Hold-up Time @ DC input (Typ) 110/220VDC (*1)	-	20ms / 80ms		
	Hold-up Time @ AC input (Typ) 115/230VAC (*1)	-	40ms / 160ms		
17	Leakage Current (*10)	-	0.15/0.30mA Max. (100VAC / 230VAC 60Hz)		
18	Remote Control	-	-		
19	Parallel Operation	-	-		
20	Series Operation	-	Possible		
21	Operating Temperature (*11)	-	Convection : -20 - +70°C, start up at -40°C is possible		
22	Operating Humidity	-	10 - 90%RH (No Condensing)		
23	Storage Temperature	-	-40 - +85°C		
24	Storage Humidity	-	10 - 90%RH (No Condensing)		
25	Cooling	-	Convection		
26	Withstand Voltage	-	Input - FG : 2kVAC (5mA), Input - Output : 3kVAC (10mA) Output - FG : 500VAC (20mA) for 1min		
27	Isolation Resistance	-	More than 100MΩ at 25°C and 70%RH Output - FG : 500VDC		
28	Vibration	-	At no operating, 10 - 500Hz (Sweep for 1min) 19.6m/s ² Constant, X,Y,Z 1hour each.		
29	Shock	-	Less than 196.1m/s ² MIL-STD-810F		
30	Safety	-	Designed to meet UL60950-1		
31	EMI	-	Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B		
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	130		
34	Size (L x W x H)	mm	105 x 50 x 30 (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 voltage.

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

*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.

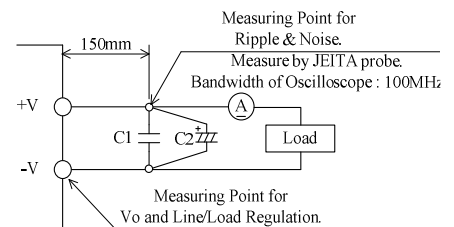
*11. Refer to Output Derating Curve for details of output derating versus input voltage, ambient temperature and mounting method .

- Load (%) is percent of maximum output power or maximum output current, do not exceed its derating of maximum load.

- Start up at -40°C is possible. However, it may not fulfill all the specifications. Please read instruction manual for deatil information.

*12. Output Derating needed when input voltage less than 110VAC, refer to CA808-01-03_.

Fig. A



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

CUS30E

OUTPUT DERATING

CA808-01-02

*COOLING: CONVECTION COOLING

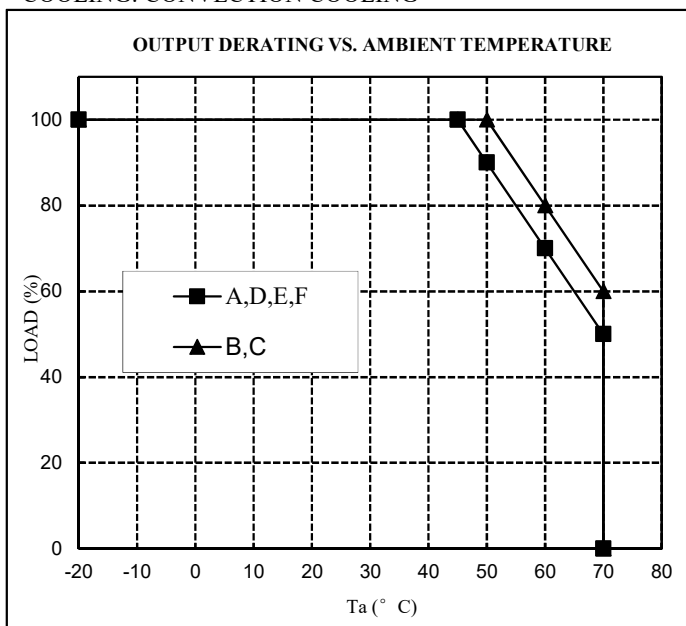
Ta (°C)	LOADING CONDITION(%)	
	Mounting A, D, E, F	Mounting B, C
-20~45	100	100
50	90	100
60	70	80
70	50	60

*COOLING: FORCED AIR COOLING

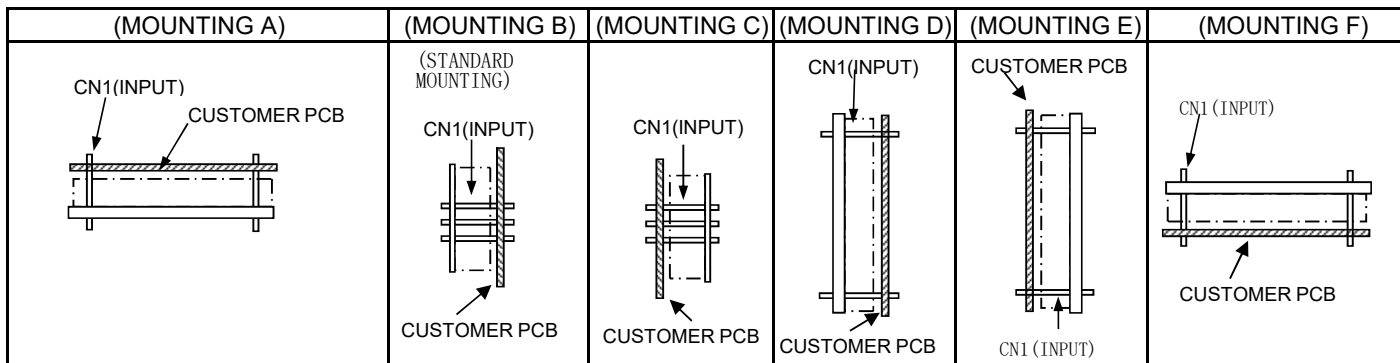
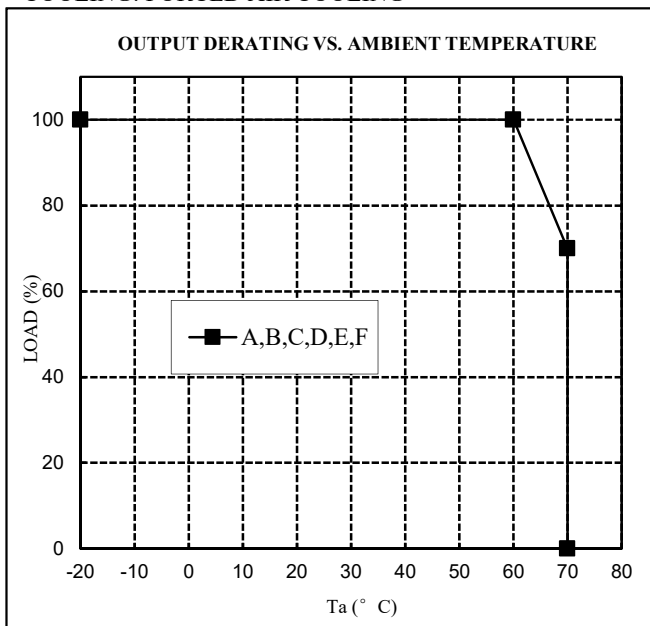
Ta (°C)	LOADING CONDITION(%)
	All Mounting (A,B,C,D,E,F)
-20~60	100
70	70

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

*COOLING: CONVECTION COOLING



*COOLING: FORCED AIR COOLING



CUS30E

OUTPUT DERATING

CA808-01-03

Input voltage	LOADING CONDITION(%)
	All Mounting (A,B,C,D,E,F)
85VAC / 88VDC	80
110V-265VAC / 110VDC-370VDC	100

