

CUS30E/J

SPECIFICATIONS

CA808-01-01/J-B

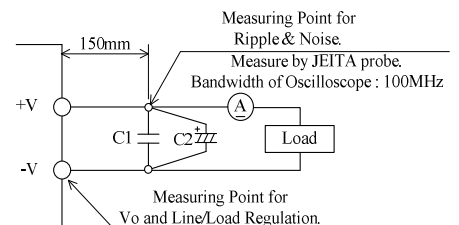
ITEMS		MODEL	CUS30E -5/J	CUS30E -12/J	CUS30E -24/J	
1	Nominal Output Voltage	V	5	12	24	
2	Maximum Output Current	A	6.0	2.5	1.3	
3	Maximum Output Power	W	30.0	30.0	31.2	
4	Efficiency @ DC input (Typ) 110/220VDC (*1)	%	81 / 83	85 / 87	87 / 89	
	Efficiency @ AC input (Typ) 115/230VAC (*1)	%	80 / 82	84 / 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 Ripple & Noise (*4)(*5)	0≤Ta≤70°C, 35-100% Load	mV	120	150	150
		-20≤Ta<0°C, 35-100% Load	mV	160	180	180
		-20<Ta<70°C, 0~35% Load	mV	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 Imin			
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 <sup>2</sup> Constant, X,Y,Z 1hour each.			
29	Shock	-	Less than 196.1m/s <sup>2</sup> 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	105			
34	Size (L x W x H)	mm	105 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 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/J\_.

Fig. A



C1 : Film Cap. 0.1 µF

C2 : Elec. Cap. 100 µF

**CUS30E/J**

**OUTPUT DERATING**

CA808-01-02/J

\*COOLING: CONVECTION COOLING

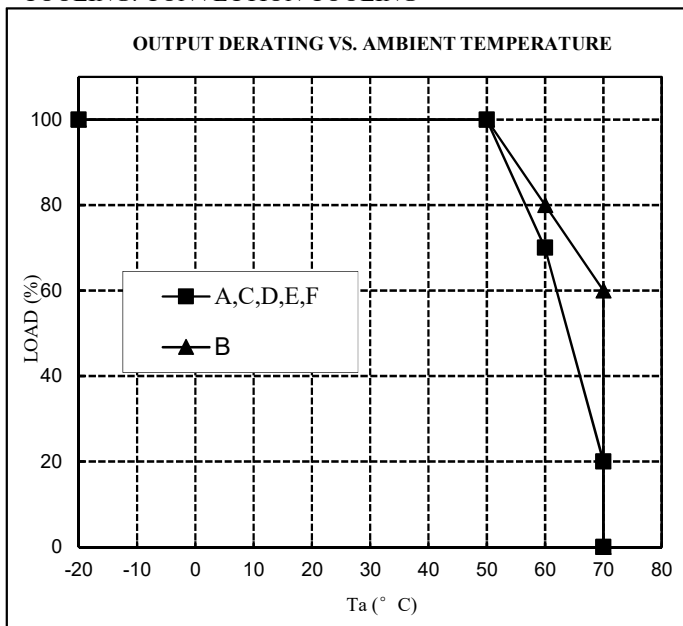
Ta (°C)	LOADING CONDITION(%)	
	Mounting A, C, D, E, F	Mounting B
-20~50	100	100
60	70	80
70	20	60

\*COOLING: FORCED AIR COOLING

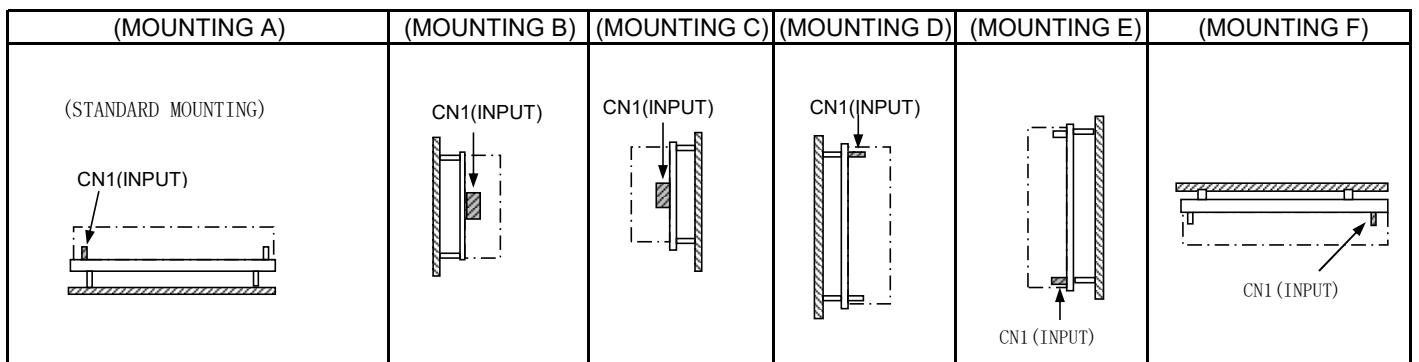
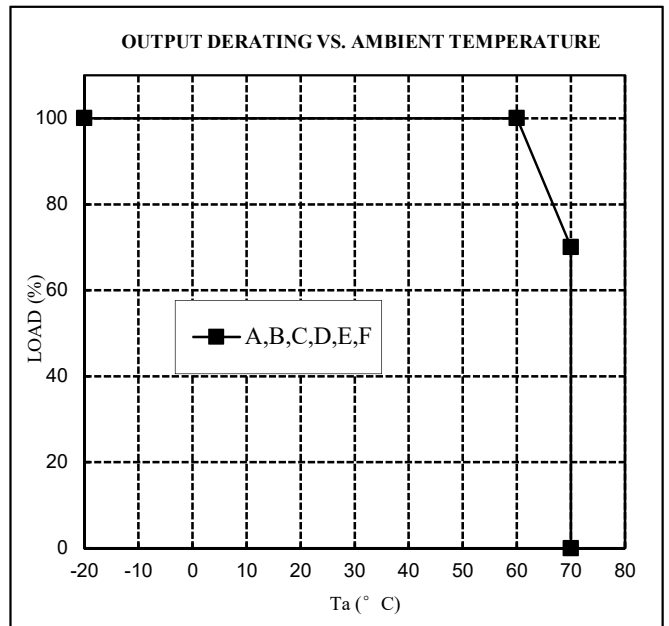
Ta (°C)	LOADING CONDITION(%)
	All Mounting (A,B,C,D,E,F)
-20~60	100
70	70

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

\*COOLING: CONVECTION COOLING



\*COOLING: FORCED AIR COOLING



**CUS30E/J**

**OUTPUT DERATING**

CA808-01-03/J

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

