

CUS150M1

SPECIFICATIONS

CA848-01-01C

| ITEMS | | MODEL | CUS150M1-12 | CUS150M1-18 | CUS150M1-24 | CUS150M1-36 | CUS150M1-48 |
|-------|-------------------------|-----------------------------|---|-------------|-------------|-------------|-------------|
| 1 | Nominal Output Voltage | V | 12 | 18 | 24 | 36 | 48 |
| 2 | Maximum Output Current | A | 12.5 | 8.4 | 6.3 | 4.2 | 3.2 |
| 3 | Maximum Output Power | W | 150.0 | 151.2 | 151.2 | 151.2 | 153.6 |
| 4 | Efficiency (Typ.) | 115/230 VAC (*1) % | 92/ 93 | 90 / 91 | 91/ 92 | 92/ 93 | 92 / 93 |
| 5 | Input Voltage Range | (*2) - | 85 - 265 VAC (47-63Hz) | | | | |
| 6 | Input Current (Typ.) | 115/230 VAC (*1) A | 1.8/ 0.9 | | | | |
| 7 | In-rush Current (Typ.) | 115/230 VAC (*1)(*3) - | 35A / 70A at Cold Start | | | | |
| 8 | PFHC | - | Built to meet IEC61000-3-2,Class A | | | | |
| 9 | Power Factor (Typ.) | 115/230 VAC (*1) - | 0.98/0.94 | | | | |
| 10 | Output Voltage Range | V | 11.7 ~ 12.6 | 17.6 ~ 18.9 | 23.5 ~ 25.2 | 35. 2~ 37.8 | 47~ 50.4 |
| 11 | Maximum Ripple & Noise | 115/230 VAC (*1)(*4)(*5) mV | 180 | 180 | 240 | 360 | 480 |
| 12 | Maximum Line Regulation | (*4)(*6) mV | 60 | 90 | 120 | 180 | 240 |
| 13 | Maximum Load Regulation | (*4)(*7) mV | 120 | 180 | 240 | 360 | 480 |
| 14 | Temperature Coefficient | (*4) - | Less than 0.02% / °C | | | | |
| 15 | Over Current Protection | (*8) A | > 13.2 | > 8.9 | > 6.7 | >4.5 | > 3.4 |
| 16 | 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 |
| 17 | Hold-up time (Typ.) | (*1) - | 20ms | | | | |
| 18 | Leakage Current | (*10) - | 0.3mA max @ 265VAC,60Hz | | | | |
| 19 | Parallel Operation | - | - | | | | |
| 20 | Series Operation | - | Possible | | | | |
| 21 | Operating Temperature | (*11) - | -20°C - +70°C | | | | |
| 22 | Operating Humidity | - | 10 - 95%RH (No condensing) | | | | |
| 23 | Storage Temperature | - | -40°C - +85°C | | | | |
| 24 | Storage Humidity | - | 10 - 95%RH (No condensing) | | | | |
| 25 | Cooling | - | Convection Cooling | | | | |
| 26 | Withstand Voltage | - | Input-FG : 2kVAC (20mA) 1x MOPP Input-Output : 4kVAC (20mA) 2x MOPPs Output-FG : 1.5kVAC (20mA) 1xMOPP | | | | |
| 27 | Isolation Resistance | - | More than 100MΩ at 25°C,70%RH, Output - FG : 500VDC | | | | |
| 28 | Vibration | - | At no operating, 10-55Hz (Sweep for 1min.) Maximum 19.6m/s ² X,Y,Z 1 hour each | | | | |
| 29 | Shock | - | Less than 196m/s ² and MIL-STD-810F | | | | |
| 30 | Safety | - | Approved by IEC/EN62368-1,UL62368-1,CSA62368-1 Approved by IEC/EN60601-1,ES60601-1,CSA-C22.2 No.60601-1 | | | | |
| 31 | EMI | (*1) - | Designed to meet EN55011-B, EN55032-B, FCC-Class B | | | | |
| 32 | 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 | | | | |
| 33 | Weight (Typ.) | g | 310 | | | | |
| 34 | Size (L x W x H) | mm | 127 x 76.2 x 34 (Refer to Outline Drawing) | | | | |

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

=NOTES=

*1. 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 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.

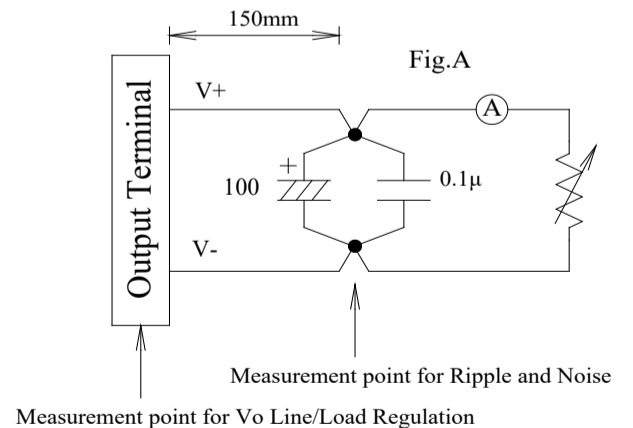
*10. Measured by the each measuring method of UL, CSA, and EN (at 60Hz), Ta=25°C.

*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.



OUTPUT DERATING

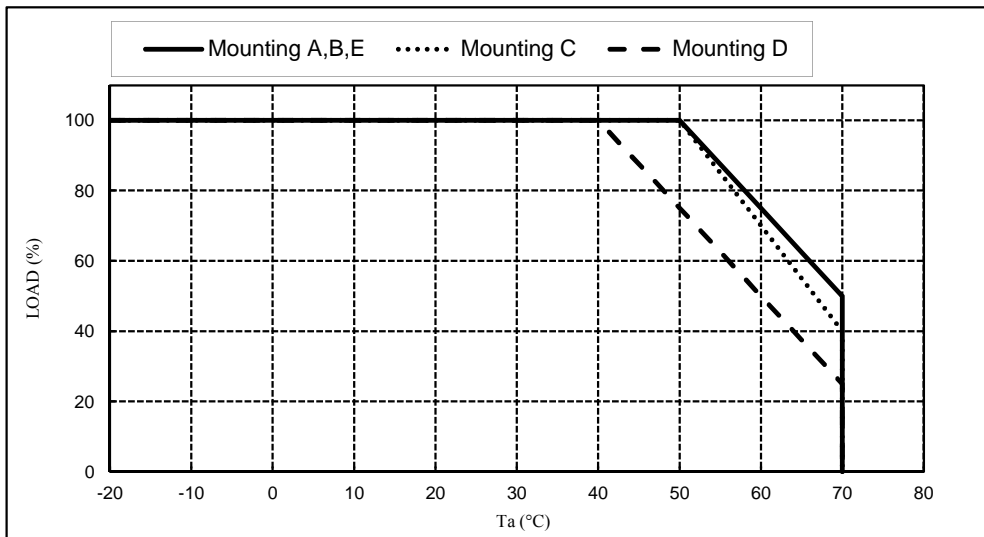
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OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

*COOLING : CONVECTION COOLING

FOR ALL MODELS

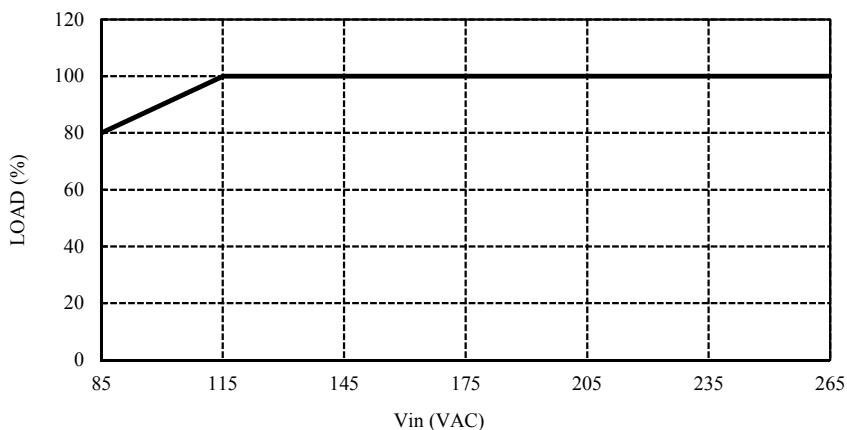
| Ta (°C) | MOUNTING A,B,E | MOUNTING C | MOUNTING D |
|-----------|----------------|------------|------------|
| | LOAD (%) | LOAD (%) | LOAD (%) |
| -20 - +40 | 100 | 100 | 100 |
| 50 | 100 | 100 | 75 |
| 60 | 75 | 70 | 50 |
| 65 | 63 | 55 | 38 |
| 70 | 50 | 40 | 25 |



OUTPUT DERATING VERSUS INPUT VOLTAGE

FOR ALL MOUNTINGS AND ALL MODELS

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



MOUNTING METHOD

