CUS500M1/EF

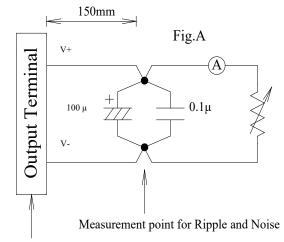
SPECIFICATIONS

CA922-01-01/EF-B

| | | MODEL | | CUS500M1-12 | CUS500M1-19 | CUS500M1-24 | CUS500M1-28 | CUS500M1-32 | CUS500M1-36 | CUS500M1-48 |
|----|--|--|----|--|--|-------------|------------------------------|----------------|-------------|-------------|
| | ITEMS | | | /EF | /EF | /EF | /EF | /EF | /EF | /EF |
| 1 | Nominal Output Voltage | | V | 12 | 19 | 24 | 28 | 32 | 36 | 48 |
| 2 | Maximum Output Current | | A | 41.7 | 26.4 | 20.9 | 17.9 | 15.7 | 13.9 | 10.5 |
| 3 | Maximum Output Power | | W | 500.4 | 501.6 | 501.6 | 501.2 | 502.4 | 500.4 | 504.0 |
| 4 | Efficiency @ Forced air cooling (Typ.) | (*1) | % | 92.3 / 94.3 | 92.3 / 94.3 | 92.8 / 94.8 | 93.0/ 95.0 | 93.0/ 95.0 | 93.0 / 95.0 | 93.0/ 95.0 |
| 5 | Input Voltage Range | (*2) | - | 85 - 265 VAC (47-63Hz) | | | | | | |
| 6 | Input Current (Typ.) | (*1) | A | | 5.0 / 2.5 | | | | | |
| 7 | In-rush Current (Typ.) | (*1)(*3) | - | 25A / 50A at Cold Start | | | | | | |
| 8 | PFHC | | - | Built to meet IEC61000-3-2,Class A | | | | | | |
| 9 | Power Factor (Typ.) | (*1) | - | | 0.99/0.94 | | | | | |
| 10 | Output Voltage Range | (*1)(*4) | V | | | Fixed (| Shipment condition | n: ±2.5%) | | |
| 11 | Maximum Ripple & Noise | (*1)(*4)(*5) | mV | 240 | 360 | 360 | 360 | 480 | 480 | 480 |
| 12 | Maximum Line Regulation | (*4)(*6) | mV | 60 | 90 | 120 | 140 | 160 | 180 | 240 |
| 13 | Maximum Load Regulation | (*4)(*7) | mV | 120 | 180 | 240 | 280 | 320 | 360 | 480 |
| 14 | Temperature Coefficient | (*4) | - | Less than 0.02% / ℃ | | | | | | |
| 15 | Over Current Protection | (*8) | A | >43.8 | >27.8 | > 22.0 | >18.8 | >16.5 | >14.6 | >11.1 |
| 16 | Over Voltage Protection | (*9) | V | 13.8 - 16.2 | 21.8 - 25.7 | 27.6 - 32.4 | 32.2 - 37.8 | 36.8 - 43.2 | 41.4 - 48.6 | 55.2 - 64.8 |
| 17 | Hold-up time (Typ.) | (*1) | - | 14ms | | | | | | |
| 18 | Leakage Current | (*10) | - | 0.2mA max @ 265VAC, 60Hz | | | | | | |
| 19 | Parallel Operation | | - | • | | | | | | |
| 20 | Series Operation | (*12) | - | Possible | | | | | | |
| 21 | Operating Temperature | (*11) | - | -20°C - +60°C | | | | | | |
| 22 | Operating Humidity | | - | 10 - 95%RH (No condensing) | | | | | | |
| 23 | Storage Temperature | | - | -40°C - +75°C | | | | | | |
| 24 | Storage Humidity | | - | 10 - 95%RH (No condensing) | | | | | | |
| 25 | Cooling | | - | Forced Air By Exhaust Fan | | | | | | |
| | | | | Input-FG: 2kVAC (20mA) 1x MOPP | | | | | | |
| 26 | Withstand Voltage | | - | Input-Output : 4kVAC (20mA) 2x MOPP | | | | | | |
| | | | | Output-FG: 1.5kVAC (20mA) 1x MOPP | | | | | | |
| 27 | Isolation Resistance | | - | More than 100MΩ at 25°C,70%RH, Output - FG : 500VDC | | | | | | |
| 28 | Vibration | At no operating, 10-55Hz (Sweep for 1min.) | | | | | | | | |
| 20 | Vibration | | - | | | Maximu | m 19.6m/s ² X,Y,Z | 1 hour each | | |
| 29 | Shock | | - | Less than 196m/s ² | | | | | | |
| | Safety - | | | | Approved by IEC/EN62368-1,UL62368-1,CSA62368-1 | | | | | |
| 30 | | | | Approved by IEC/EN62306-1,0162306-1,CSA-C22.2 No.60601-1 | | | | | | |
| | | | | | | | | | | |
| 31 | EMI | (*1) | - | Designed to meet EN55011-B, EN55032-B, FCC-Class B | | | | | | |
| 32 | Immunity | (*13) | - | Designed to meet IEC60601-1-2 Ed.4.1 , IEC61000-4-2, -3, -4, -5, -6, -8, -11 | | | | | | |
| 33 | Weight (Typ.) | | g | 750 | | | | | | |
| 34 | Size (LxWxH) | | mm | | | 157 x 85 x | 42.5 (Refer to Ou | tline 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 to output derating curve for details.
- *3. Not applicable for the in-rush current to Noise Filter for less than 0.2 ms.
- *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.
- *9. OVP circuit shut down the output, manual reset (Repower on) to resume 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 Output Channel.
- *12. Refer to Instruction Manual for details.
- *13. Refer to Immunity Test Data for details.



Measurement point for Vo Line/Load Regulation

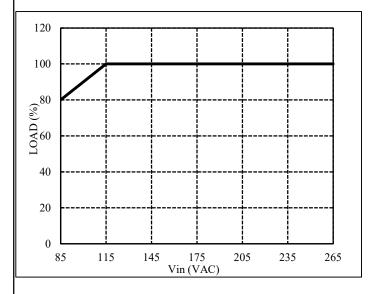
OUTPUT DERATING

CA922-01-02/EF-A

OUTPUT DERATING VERSUS INPUT VOLTAGE

FOR ALL MODELS

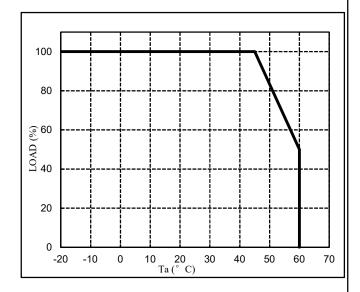
| INPUT VOLTAGE (VAC) | LOAD (%) | | | |
|------------------------|----------|--|--|--|
| 85 | 80 | | | |
| 115~265 | 100 | | | |



OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

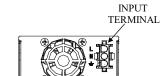
FOR ALL MODELS

| Ta (°C) | LOAD (%) |
|-----------|----------|
| -20 - +45 | 100 |
| 50 | 83.3 |
| 60 | 50 |



MOUNTING METHOD

MOUNTING A (STANDARD MOUNTING)



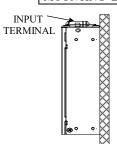
MOUNTING B



MOUNTING C



MOUNTING D



MOUNTING E

