



## ■ Features :

- Universal AC input / Full range
- 3 pole AC inlet IEC320-C14
- Built-in active PFC function, PF>0.95
- Class I power (with earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Fully enclosed plastic case
- LED indicator for power on
- No load power consumption < 1W @240VAC
- 2 years warranty



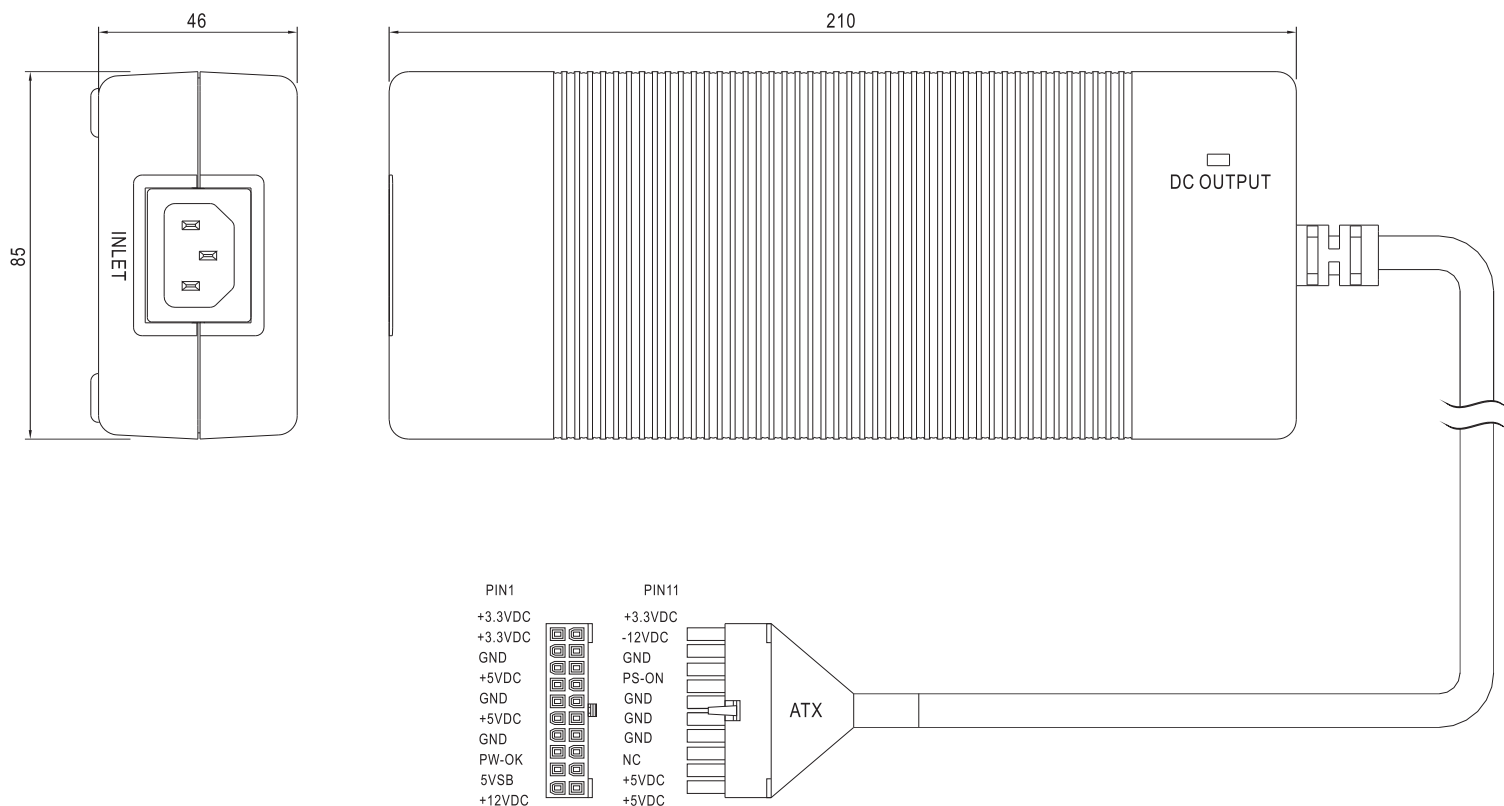
## SPECIFICATION

| MODEL                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ATX-100                                                                                     |                               |            |              |                 |          |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------|------------|--------------|-----------------|----------|
| OUTPUT                                                                            | OUTPUT NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | CH1                                                                                         | CH2                           | CH3        | CH4          | CH5             |          |
|                                                                                   | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.3V                                                                                        | 5V                            | 12V        | -12V         | 5VSB            |          |
|                                                                                   | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 5A                                                                                          | 6A                            | 3.75A      | 0.3A         | 1A              |          |
|                                                                                   | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0 ~ 6A                                                                                      | 0 ~ 8A                        | 1 ~ 7A     | 0 ~ 0.5A     | 0 ~ 2A (Note.7) |          |
|                                                                                   | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 50W                                                                                         |                               | -----      |              |                 |          |
|                                                                                   | Note.8,9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 100W(continue), 125W(7min.), 150W(3min.)                                                    |                               |            |              |                 |          |
|                                                                                   | RIPPLE & NOISE (max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Note.2                                                                                      | 100mVp-p                      | 100mVp-p   | 120mVp-p     | 120mVp-p        | 100mVp-p |
|                                                                                   | VOLTAGE TOLERANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Note.3                                                                                      | ±5.0%                         | ±5.0%      | ±5.0%        | ±10%            | ±5.0%    |
|                                                                                   | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                             | ±1.0%                         | ±1.0%      | ±1.0%        | ±1.0%           | ±1.0%    |
|                                                                                   | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                             | ±5.0%                         | ±5.0%      | ±5.0%        | ±10%            | ±5.0%    |
|                                                                                   | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3000ms, 80ms at full load                                                                   |                               |            |              |                 |          |
| HOLD UP TIME(Typ.)                                                                | 40ms at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                             |                               |            |              |                 |          |
| INPUT                                                                             | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Note.10                                                                                     | 90 ~ 264VAC      127 ~ 370VDC |            |              |                 |          |
|                                                                                   | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 47 ~ 63Hz                                                                                   |                               |            |              |                 |          |
|                                                                                   | POWER FACTOR (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | PF>0.95 at full load                                                                        |                               |            |              |                 |          |
|                                                                                   | EFFICIENCY(Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 80%                                                                                         |                               |            |              |                 |          |
|                                                                                   | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1.4A/115AVC      0.7A/230VAC                                                                |                               |            |              |                 |          |
|                                                                                   | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | COLD START < 60A at 230VAC                                                                  |                               |            |              |                 |          |
|                                                                                   | LEAKAGE CURRENT (max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <2mA / 240VAC                                                                               |                               |            |              |                 |          |
| PROTECTION                                                                        | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6.2A min.                                                                                   |                               | 8.2A min.  | 7.2A min.    | -----           | -----    |
|                                                                                   | Protection type : Shut down o/p voltage(except for 5VSB ), re-power on to recover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                             |                               |            |              |                 |          |
|                                                                                   | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3.7 ~ 4.1V                                                                                  |                               | 5.7 ~ 6.5V | 13.2 ~ 14.4V | -----           | -----    |
|                                                                                   | Protection type : Shut down o/p voltage(except for 5VSB ), re-power on to recover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                             |                               |            |              |                 |          |
|                                                                                   | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 100℃ ±5℃ (TSW1:detect on heatsink of power transistor)                                      |                               |            |              |                 |          |
| Protection type : Shut down o/p voltage(except for 5VSB ), re-power on to recover |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                             |                               |            |              |                 |          |
| SIGNAL FUNCTION                                                                   | POWER OK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | TTL compatible signal with 100 ~ 500ms delay after set up                                   |                               |            |              |                 |          |
|                                                                                   | PS-ON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Power ON:PS-ON="Low" or "<0.8V"; Power OFF:PS-ON="Hi" or ">2V"                              |                               |            |              |                 |          |
| ENVIRONMENT                                                                       | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0 ~ +50℃ (Refer to output load derating curve)                                              |                               |            |              |                 |          |
|                                                                                   | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 20 ~ 90% RH non-condensing                                                                  |                               |            |              |                 |          |
|                                                                                   | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -20 ~ +85℃, 10 ~ 95% RH                                                                     |                               |            |              |                 |          |
|                                                                                   | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ±0.05%/℃ (0 ~ 60℃)                                                                          |                               |            |              |                 |          |
|                                                                                   | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                     |                               |            |              |                 |          |
| SAFETY & EMC<br>(Note 6)                                                          | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Design refer to UL60950-1, IEC60950-1 CB approved by TUV                                    |                               |            |              |                 |          |
|                                                                                   | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | I/P-O/P:3KVAC                                                                               |                               |            |              |                 |          |
|                                                                                   | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | I/P-O/P:>100M Ohms/500VDC 25℃ 70%RH                                                         |                               |            |              |                 |          |
|                                                                                   | EMI CONDUCTION & RADIATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Compliance to EN55022 (CISPR22) Class B, EN61204-3                                          |                               |            |              |                 |          |
|                                                                                   | HARMONIC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Compliance to EN61000-3-2,-3                                                                |                               |            |              |                 |          |
|                                                                                   | EMS IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A |                               |            |              |                 |          |
| OTHERS                                                                            | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 152Khrs min.      MIL-HDBK-217F (25℃)                                                       |                               |            |              |                 |          |
|                                                                                   | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 210*85*46mm(L*W*H)                                                                          |                               |            |              |                 |          |
|                                                                                   | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1.12Kg; 12pcs/14.5Kg/0.95CUFT                                                               |                               |            |              |                 |          |
| NOTE                                                                              | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. Line regulation is measured from low line to high line at rated load.<br>5. Each output power up to maximum current, but total load cannot exceed maximum output power(100W).<br>6. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.<br>7. 5VSB peak load 2A< 10sec.<br>8. Total power of 5V, 3.3V should less than 50W.<br>9. 125W peak load duty 7min./hr, 150W peak load duty 3min./hr.<br>10. Derating may be needed under low input voltage. Please check the derating curve for more details.<br>11. 2 years warranty is based on 12hrs/day of operating time for the unit. |                                                                                             |                               |            |              |                 |          |

## Mechanical Specification

Case No.961A

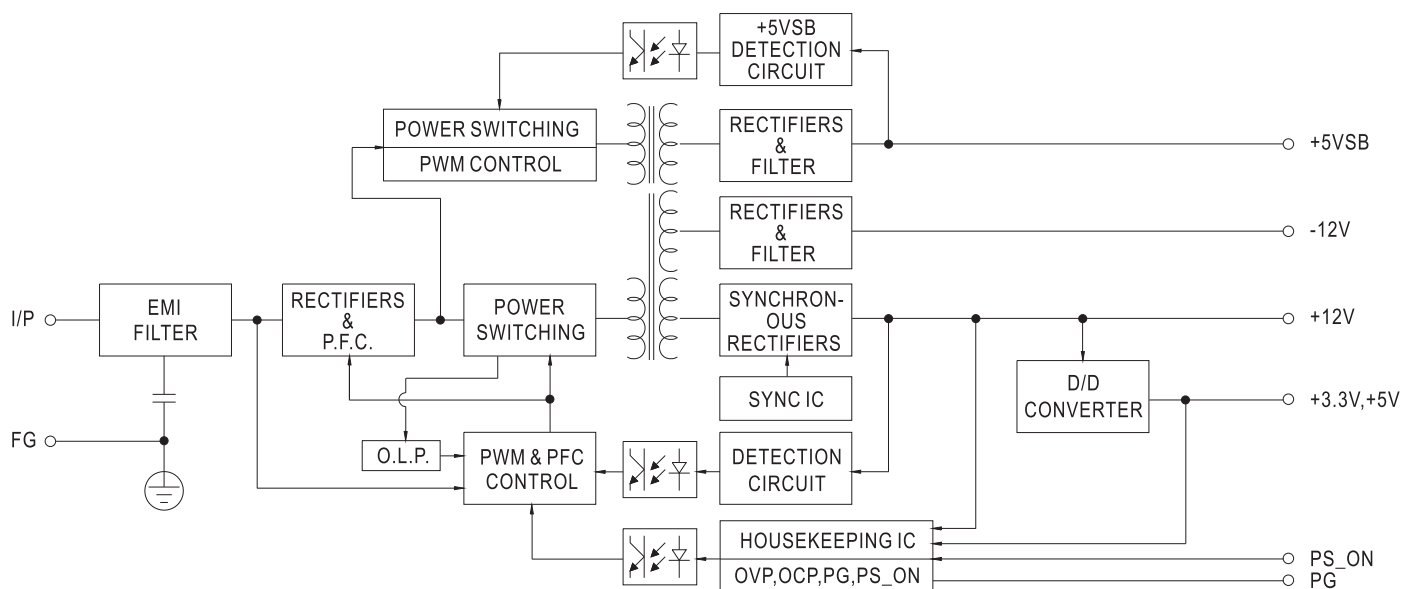
Unit:mm



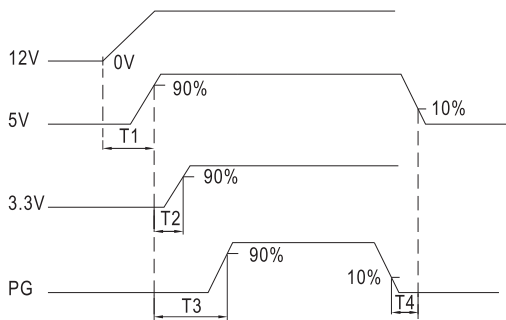
Type: MOLEX 39-01-2200 or equivalent  
L=650mm±50mm

## Block Diagram

fosc : 88KHz

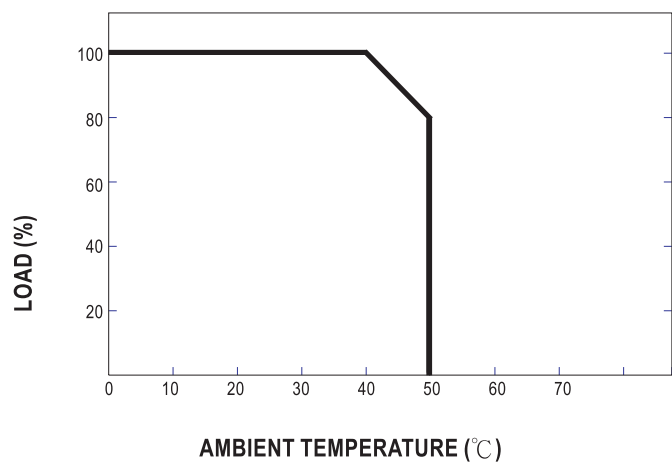


Sequence



T1 : 0~20ms (±20%)  
T2 : 0~15ms (±20%)  
T3 : 100~500ms  
T4 : 0~30ms

Derating Curve



Output Load VS Input Voltage

