



## Features :

- AC input range selected by switch
- With +5VSB:0 ~ 2.0A max.
- Power good signal output
- Power fail signal output
- Power ON-OFF switch
- High efficiency / Low cost
- Forced air cooling by built-in DC fan
- 100% full load burn-in test
- Approvals: CSA / FCC
- 1 year warranty

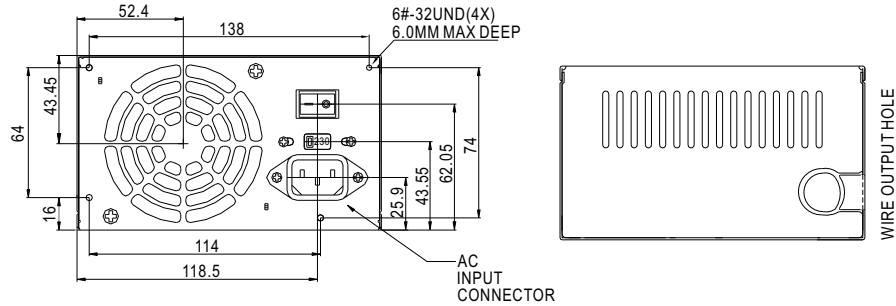


## SPECIFICATION

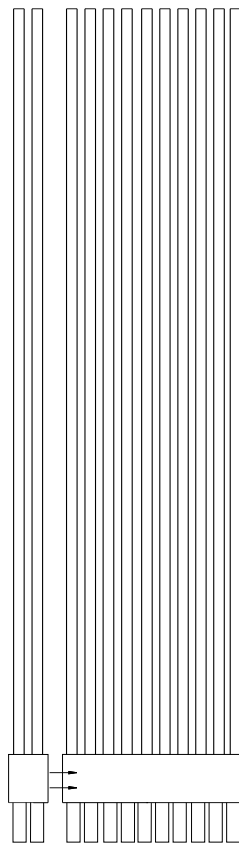
| ORDER NO.                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | YP-400A-AA                                                                                                                                                       |                                                                            |                  |                  |         |          |         |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------|------------------|---------|----------|---------|
| OUTPUT                   | SAFETY MODEL NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | YP-400-A                                                                                                                                                         |                                                                            |                  |                  |         |          |         |
|                          | CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CH1                                                                                                                                                              | CH2                                                                        | CH3              | CH4              | CH5     | CH6      | STANDBY |
|                          | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3.3V                                                                                                                                                             | 5V                                                                         | 12V <sub>1</sub> | 12V <sub>2</sub> | -5V     | -12V     | 5VSB    |
|                          | MINIMUM CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2A                                                                                                                                                               | 2A                                                                         | 1A               | 1A               | 0.1A    | 0.1A     | 0A      |
|                          | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 14A                                                                                                                                                              | 14A                                                                        | 5A               | 9A               | 0.3A    | 0.8A     | 2.0A    |
|                          | MAXIMUM CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 20A                                                                                                                                                              | 20A                                                                        | 8A               | 14A              | 0.3A    | 0.8A     | 2.0A    |
|                          | COMBINE LOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | +3.3V, +5V 120W max.<br>+3.3V, +5V, +12V 280W max.                                                                                                               |                                                                            |                  |                  |         |          |         |
|                          | RATED POWER (max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 300W                                                                                                                                                             |                                                                            |                  |                  |         |          |         |
|                          | RIPPLE & NOISE (max.) Note.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 50mVp-p                                                                                                                                                          | 50mVp-p                                                                    | 120mVp-p         | 120mVp-p         | 50mVp-p | 120mVp-p | 50mVp-p |
|                          | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ±1.0%                                                                                                                                                            | ±1.0%                                                                      | ±1.0%            | ±1.0%            | ±2.0%   | ±2.0%    | ±1.0%   |
| LOAD REGULATION Note.3   | ±5.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ±5.0%                                                                                                                                                            | ±5.0%                                                                      | ±5.0%            | ±10%             | ±10%    | ±5.0%    |         |
| HOLD UP TIME             | 8ms min. at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                  |                                                                            |                  |                  |         |          |         |
| INPUT                    | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 103 ~ 132VAC / 206 ~ 264VAC selected by switch                                                                                                                   |                                                                            |                  |                  |         |          |         |
|                          | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 47 ~ 63Hz                                                                                                                                                        |                                                                            |                  |                  |         |          |         |
|                          | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 70%                                                                                                                                                              |                                                                            |                  |                  |         |          |         |
|                          | AC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 8A / 115VAC    4.5A / 230VAC                                                                                                                                     |                                                                            |                  |                  |         |          |         |
|                          | INRUSH CURRENT (max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 40A / 115VAC    80A / 230VAC                                                                                                                                     |                                                                            |                  |                  |         |          |         |
|                          | LEAKAGE CURRENT(max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.5mA / 240VAC                                                                                                                                                   |                                                                            |                  |                  |         |          |         |
| PROTECTION               | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 105 ~ 180% rated output power<br>Protection type : Shut down o/p voltage, re-power on to recover                                                                 |                                                                            |                  |                  |         |          |         |
|                          | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | +3.3V, +5V, +12V <sub>1</sub> , +12V <sub>2</sub> : 110%~130% of rated voltage<br>Protection type : Shut down o/p voltage, re-power on to recover                |                                                                            |                  |                  |         |          |         |
|                          | SHORT CIRCUIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | All output equipped with over current protection<br>Protection type : Shut down o/p voltage, re-power on to recover                                              |                                                                            |                  |                  |         |          |         |
|                          | FUNCTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | POWER GOOD SIGNAL                                                                                                                                                | The TTL compatible signal out with 100ms to 500ms delay after power set up |                  |                  |         |          |         |
| ENVIRONMENT              | POWER FAIL SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | The TTL compatible signal will go down at least 1ms before +5V below 4.75V                                                                                       |                                                                            |                  |                  |         |          |         |
|                          | PS-ON INPUT SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Power on: PS-ON = "Low" or "<0.8V" ; Power off: PS-ON = "Hi" or ">2V"                                                                                            |                                                                            |                  |                  |         |          |         |
|                          | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -10 ~ +35℃                                                                                                                                                       |                                                                            |                  |                  |         |          |         |
|                          | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 20 ~ 90% RH non-condensing                                                                                                                                       |                                                                            |                  |                  |         |          |         |
|                          | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -20 ~ +85℃, 10 ~ 95% RH                                                                                                                                          |                                                                            |                  |                  |         |          |         |
|                          | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ±0.05% / °C ( 0 ~ 50℃ )                                                                                                                                          |                                                                            |                  |                  |         |          |         |
| SAFETY & EMC<br>(Note 4) | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 10 ~ 200Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes                                                                                                     |                                                                            |                  |                  |         |          |         |
|                          | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | CSA(C22.2 60950, UL60950) approved                                                                                                                               |                                                                            |                  |                  |         |          |         |
|                          | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | I/P-O/P, I/P-FG:1.5KVAC                                                                                                                                          |                                                                            |                  |                  |         |          |         |
|                          | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | I/P-O/P, I/P-FG:50M Ohms / 500VDC / 25℃ / 70% RH                                                                                                                 |                                                                            |                  |                  |         |          |         |
| OTHERS                   | EMI CONDUCTION & RADIATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Compliance to FCC part 15 class B                                                                                                                                |                                                                            |                  |                  |         |          |         |
|                          | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 100K hrs min.    MIL-HDBK-217F (25℃)                                                                                                                             |                                                                            |                  |                  |         |          |         |
|                          | CONNECTOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ATX main power connector * 1ea; +12V power connector * 1ea; Serial ATA connector * 1ea<br>Peripheral power connector * 5 ea; Floppy drive power connector * 2 ea |                                                                            |                  |                  |         |          |         |
|                          | COOLING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Forced air ventilation by 8cm DC fan                                                                                                                             |                                                                            |                  |                  |         |          |         |
|                          | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 150*140*86mm (L*W*H)                                                                                                                                             |                                                                            |                  |                  |         |          |         |
|                          | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.1kg ; 12pcs / 16kg / CARTON                                                                                                                                    |                                                                            |                  |                  |         |          |         |
| 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. Load regulation is measured from 20% to 100% max. Load.<br>4. 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. |                                                                                                                                                                  |                                                                            |                  |                  |         |          |         |

## Mechanical Specification

Unit: mm



WIRE OUTPUT OF CASE



$L = 300\text{mm} \pm 20\text{mm}$



$L = 150\text{mm}$



$L = 150\text{mm}$



$L = 150\text{mm}$



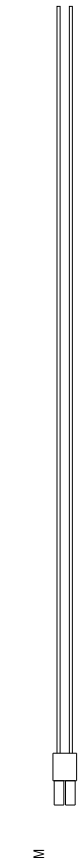
$L = 150\text{mm}$



$L = 150\text{mm}$



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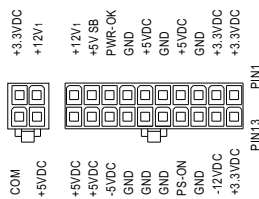
$L = 300\text{mm} \pm 20\text{mm}$



$L = 300\text{mm} \pm 20\text{mm}$



$L = 300\text{mm} \pm 20\text{mm}$



(A)

(A) 24 Pin ATX main power connector (or 20+4pin)  
Type: MOLEX 39-01-2240 or equivalent

(C) Serial ATA connector  
Type: MOLEX 88751 or equivalent

(E) Floppy drive connector  
Type: AMP 171822-4 or equivalent

(B) +12V power connector  
Type: MOLEX 39-01-2040 or equivalent

(D) Peripheral connector  
Type: MOLEX 8981-04P or equivalent



## ■ Features :

- 230VAC input only
- Built-in passive PFC, PF>0.65
- With +5VSB:0 ~ 2.0A max.
- Power good signal output
- Power fail signal output
- Power ON-OFF switch
- High efficiency / Low cost
- Forced air cooling by built-in DC fan
- 100% full load burn-in test
- Approvals: TUV / CE
- 1 year warranty

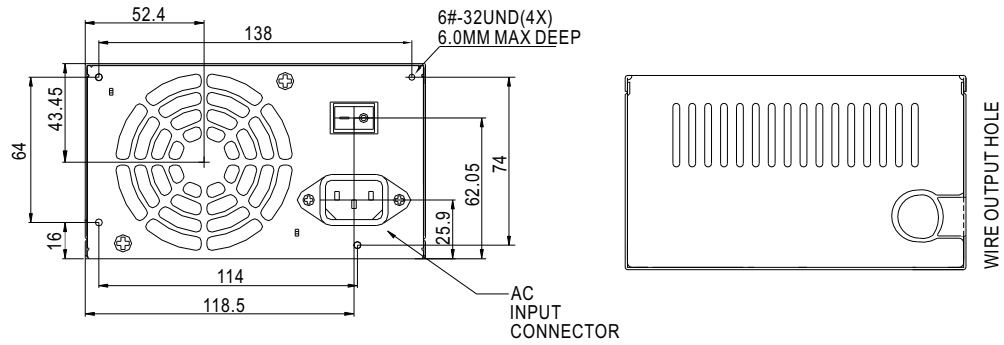


## SPECIFICATION

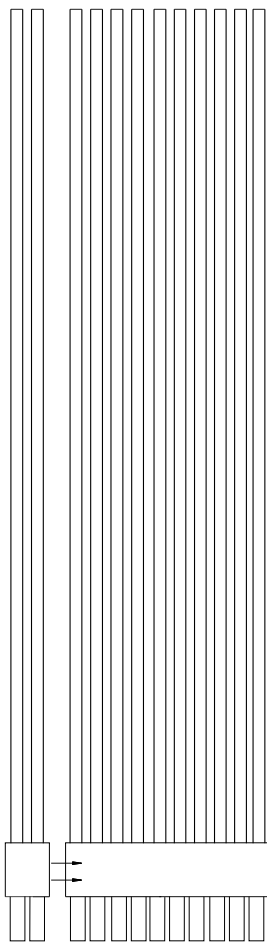
|                          |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |          |          |         |          |         |
|--------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|----------|---------|----------|---------|
| ORDER NO.                |                              | YP-400A-EU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |          |          |         |          |         |
| OUTPUT                   | SAFETY MODEL NO.             | YP-400-A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |         |          |          |         |          |         |
|                          | CHANNEL                      | CH1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | CH2     | CH3      | CH4      | CH5     | CH6      | STANDBY |
|                          | DC VOLTAGE                   | 3.3V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5V      | 12V1     | 12V2     | -5V     | -12V     | 5VSB    |
|                          | MINIMUM CURRENT              | 2A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2A      | 1A       | 1A       | 0.1A    | 0.1A     | 0A      |
|                          | RATED CURRENT                | 14A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 14A     | 5A       | 9A       | 0.3A    | 0.8A     | 2.0A    |
|                          | MAXIMUM CURRENT              | 20A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 20A     | 8A       | 14A      | 0.3A    | 0.8A     | 2.0A    |
|                          | COMBINE LOAD                 | +3.3V, +5V 120W max.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |          |          |         |          |         |
|                          |                              | +3.3V, +5V, +12V 280W max.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |          |          |         |          |         |
|                          | RATED POWER (max.)           | 300W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |          |          |         |          |         |
|                          | RIPPLE & NOISE (max.) Note.2 | 50mVp-p                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 50mVp-p | 120mVp-p | 120mVp-p | 50mVp-p | 120mVp-p | 50mVp-p |
| INPUT                    | LINE REGULATION              | ±1.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ±1.0%   | ±1.0%    | ±1.0%    | ±2.0%   | ±2.0%    | ±1.0%   |
|                          | LOAD REGULATION Note.3       | ±5.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ±5.0%   | ±5.0%    | ±5.0%    | ±10%    | ±10%     | ±5.0%   |
|                          | HOLD UP TIME                 | 8ms min. at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |          |          |         |          |         |
|                          | VOLTAGE RANGE                | 206 ~ 264VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |         |          |          |         |          |         |
|                          | FREQUENCY RANGE              | 47 ~ 63Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |         |          |          |         |          |         |
|                          | POWER FACTOR (Typ.)          | PF>0.65 / 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |          |          |         |          |         |
|                          | EFFICIENCY (Typ.)            | 70%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |         |          |          |         |          |         |
| PROTECTION               | AC CURRENT                   | 5A / 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |         |          |          |         |          |         |
|                          | INRUSH CURRENT (max.)        | 80A / 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |         |          |          |         |          |         |
|                          | LEAKAGE CURRENT(max.)        | 3.5mA / 240VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |          |          |         |          |         |
|                          | OVERLOAD                     | 105 ~ 180% rated output power<br>Protection type : Shut down o/p voltage, re-power on to recover                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |          |          |         |          |         |
| FUNCTION                 | OVER VOLTAGE                 | +3.3V, +5V, +12V1, +12V2: 110%~130% of rated voltage<br>Protection type : Shut down o/p voltage, re-power on to recover                                                                                                                                                                                                                                                                                                                                                                                                               |         |          |          |         |          |         |
|                          | SHORT CIRCUIT                | All output equipped with over current protection<br>Protection type : Shut down o/p voltage, re-power on to recover                                                                                                                                                                                                                                                                                                                                                                                                                   |         |          |          |         |          |         |
|                          | POWER GOOD SIGNAL            | The TTL compatible signal out with 100ms to 500ms delay after power set up                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |          |          |         |          |         |
| ENVIRONMENT              | POWER FAIL SIGNAL            | The TTL compatible signal will go down at least 1ms before +5V below 4.75V                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |          |          |         |          |         |
|                          | PS-ON INPUT SIGNAL           | Power on: PS-ON = "Low" or "<0.8V" ; Power off: PS-ON = "Hi" or ">2V"                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |          |          |         |          |         |
|                          | WORKING TEMP.                | -10 ~ +35℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |          |          |         |          |         |
|                          | WORKING HUMIDITY             | 20 ~ 90% RH non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |          |          |         |          |         |
|                          | STORAGE TEMP., HUMIDITY      | -20 ~ +85℃, 10 ~ 95% RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |         |          |          |         |          |         |
| SAFETY & EMC<br>(Note 4) | TEMP. COEFFICIENT            | ±0.05% / °C ( 0 ~ 50℃ )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |         |          |          |         |          |         |
|                          | VIBRATION                    | 10 ~ 200Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |         |          |          |         |          |         |
|                          | SAFETY STANDARDS             | TUV EN60950-1 approved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |          |          |         |          |         |
|                          | WITHSTAND VOLTAGE            | I/P-O/P, I/P-FG:1.5KVAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |         |          |          |         |          |         |
|                          | ISOLATION RESISTANCE         | I/P-O/P, I/P-FG:50M Ohms / 500VDC / 25℃ / 70% RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |          |          |         |          |         |
|                          | EMI CONDUCTION & RADIATION   | Compliance to EN55022 (CISPR22) class B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |         |          |          |         |          |         |
| OTHERS                   | HARMONIC CURRENT             | Compliance to EN61000-3-2,-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |         |          |          |         |          |         |
|                          | EMS IMMUNITY                 | Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A                                                                                                                                                                                                                                                                                                                                                                                                                                                              |         |          |          |         |          |         |
|                          | MTBF                         | 100K hrs min. MIL-HDBK-217F (25℃)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |          |          |         |          |         |
|                          | CONNECTOR                    | ATX main power connector * 1ea; +12V power connector * 1ea; Serial ATA connector * 1ea<br>Peripheral power connector * 5 ea; Floppy drive power connector * 2 ea                                                                                                                                                                                                                                                                                                                                                                      |         |          |          |         |          |         |
|                          | COOLING                      | Forced air ventilation by 8cm DC fan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |          |          |         |          |         |
|                          | DIMENSION                    | 150*140*86mm (L*W*H)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |          |          |         |          |         |
|                          | PACKING                      | 1.1kg ; 12pcs / 16kg / CARTON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |          |          |         |          |         |
| NOTE                     |                              | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</p> <p>3. Load regulation is measured from 20% to 100% max. Load.</p> <p>4. 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.</p> |         |          |          |         |          |         |

## Mechanical Specification

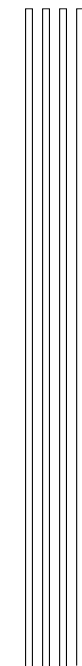
Unit: mm



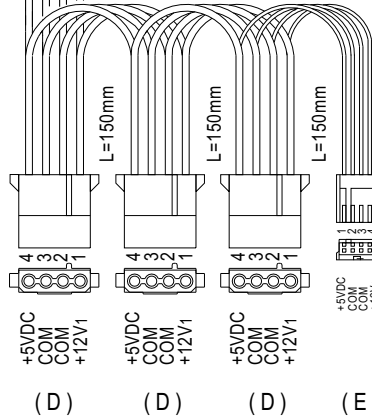
WIRE OUTPUT OF CASE



$L = 300\text{mm} \pm 20\text{mm}$



$L = 300\text{mm} \pm 20\text{mm}$

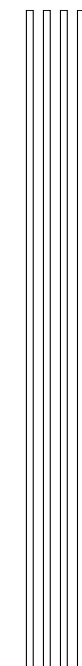


(D)

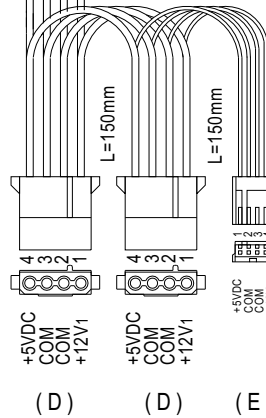
(D)

(D)

(E)



$L = 300\text{mm} \pm 20\text{mm}$



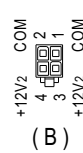
(D)

(D)

(E)



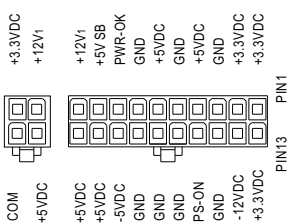
$L = 300\text{mm} \pm 20\text{mm}$



$L = 300\text{mm} \pm 20\text{mm}$



(C)



(A)

(A) 24 Pin ATX main power connector (or 20+4pin)  
 Type: MOLEX 39-01-2240 or equivalent

(B) +12V power connector  
 Type: MOLEX 39-01-2040 or equivalent

(C) Serial ATA connector  
 Type: MOLEX 88751 or equivalent

(D) Peripheral connector  
 Type: MOLEX 8981-04P or equivalent

(E) Floppy drive connector  
 Type: AMP 171822-4 or equivalent