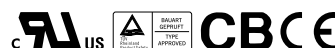


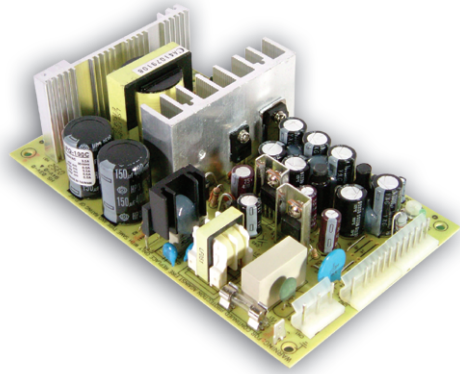
### ■ Features :

- Universal AC input / Full range
- Protections: Short circuit/Over load/Over voltage
- Cooling by free air convection
- With power good signal output(Optional)
- 100% full load burn-in test
- Fixed switching frequency at 45KHz
- 2 years warranty



### SPECIFICATION

| MODEL                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | PQ-100B                                                                                                                  |            |             |          | PQ-100C         |          |         |          |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------|-------------|----------|-----------------|----------|---------|----------|
| OUTPUT                | OUTPUT NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CH1                                                                                                                      | CH2        | CH3         | CH4      | CH1             | CH2      | CH3     | CH4      |
|                       | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5V                                                                                                                       | 12V        | -5V         | -12V     | 5V              | 15V      | -5V     | -15V     |
|                       | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 10A                                                                                                                      | 3.5A       | 0.5A        | 0.5A     | 8A              | 3.5A     | 0.5A    | 0.5A     |
|                       | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2 ~ 10A                                                                                                                  | 0.5 ~ 4.5A | 0 ~ 1A      | 0 ~ 1A   | 2 ~ 8A          | 0.5 ~ 4A | 0 ~ 1A  | 0 ~ 1A   |
|                       | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 100.5W                                                                                                                   |            |             |          | 102.5W          |          |         |          |
|                       | RIPPLE & NOISE (max.) Note.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 80mVp-p                                                                                                                  | 250mVp-p   | 80mVp-p     | 120mVp-p | 80mVp-p         | 150mVp-p | 80mVp-p | 150mVp-p |
|                       | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CH1:4.75 ~ 5.5V                                                                                                          |            |             |          | CH1:4.75 ~ 5.5V |          |         |          |
|                       | VOLTAGE TOLERANCE Note.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ±3.0%                                                                                                                    | ±12%       | ±6.0%       | ±6.0%    | ±2.0%           | ±6.0%    | ±6.0%   | ±6.0%    |
|                       | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ±1.0%                                                                                                                    | ±5.0%      | ±1.0%       | ±1.0%    | ±1.0%           | ±3.0%    | ±1.0%   | ±1.0%    |
|                       | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ±2.0%                                                                                                                    | ±5.0%      | ±1.0%       | ±1.0%    | ±1.0%           | ±5.0%    | ±1.0%   | ±1.0%    |
|                       | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1200ms, 50ms at full load                                                                                                |            |             |          |                 |          |         |          |
| HOLD TIME (Typ.)      | 80ms at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                          |            |             |          |                 |          |         |          |
| INPUT                 | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 100 ~ 264VAC 141 ~ 370VDC (90 ~ 100VAC 90% load max.)                                                                    |            |             |          |                 |          |         |          |
|                       | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 47 ~ 63Hz                                                                                                                |            |             |          |                 |          |         |          |
|                       | EFFICIENCY(Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 72%                                                                                                                      |            |             |          | 74%             |          |         |          |
|                       | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3A/115VAC                                                                                                                |            | 1.5A/230VAC |          |                 |          |         |          |
|                       | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | COLD START 50A                                                                                                           |            |             |          |                 |          |         |          |
| LEAKAGE CURRENT       | <1mA /240VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                          |            |             |          |                 |          |         |          |
| PROTECTION            | OVER LOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 105% ~ 135% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |            |             |          |                 |          |         |          |
|                       | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CH1: 5.75 ~ 6.75VDC<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed            |            |             |          |                 |          |         |          |
| FUNCTION              | POWER GOOD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ≥ 1ms                                                                                                                    |            |             |          |                 |          |         |          |
| ENVIRONMENT           | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -10 ~ +50°C, 60 °C with cooling fan(Refer to output load derating curve)                                                 |            |             |          |                 |          |         |          |
|                       | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 20 ~ 90% RH non-condensing                                                                                               |            |             |          |                 |          |         |          |
|                       | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -20 ~ +85°C, 10 ~ 95% RH                                                                                                 |            |             |          |                 |          |         |          |
|                       | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ±0.03%/°C (0 ~ 50°C)                                                                                                     |            |             |          |                 |          |         |          |
|                       | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 10 ~ 500Hz, 2G 10min./1cycle, Period for 60min.each along X, Y, Z axes                                                   |            |             |          |                 |          |         |          |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UL60950-1, TUV EN60950-1 Approved                                                                                        |            |             |          |                 |          |         |          |
|                       | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC                                                                              |            |             |          |                 |          |         |          |
|                       | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC                                                                                 |            |             |          |                 |          |         |          |
|                       | EMI CONDUCTION & RADIATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Compliance to EN55022 (CISPR22) Class B                                                                                  |            |             |          |                 |          |         |          |
|                       | HARMONIC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Compliance to EN61000-3-2,-3                                                                                             |            |             |          |                 |          |         |          |
|                       | EMS IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Compliance to EN61000-4-2,3,4,5,6,11; ENV50204, Light industry level, criteria A                                         |            |             |          |                 |          |         |          |
| OTHERS                | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 258.6K hrs min. MIL-HDBK-217F (25°C)                                                                                     |            |             |          |                 |          |         |          |
|                       | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 178*108*46mm (L*W*H)                                                                                                     |            |             |          |                 |          |         |          |
|                       | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.56Kg; 24pcs/14.5Kg/1.19CUFT                                                                                            |            |             |          |                 |          |         |          |
| NOTE                  | <ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>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.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>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.</li> </ol> |                                                                                                                          |            |             |          |                 |          |         |          |



### ■ Features :

- Universal AC input / Full range
- Protections: Short circuit/Over load/Over voltage
- Cooling by free air convection
- With power good signal output(Optional)
- 100% full load burn-in test
- Fixed switching frequency at 45KHz
- 2 years warranty

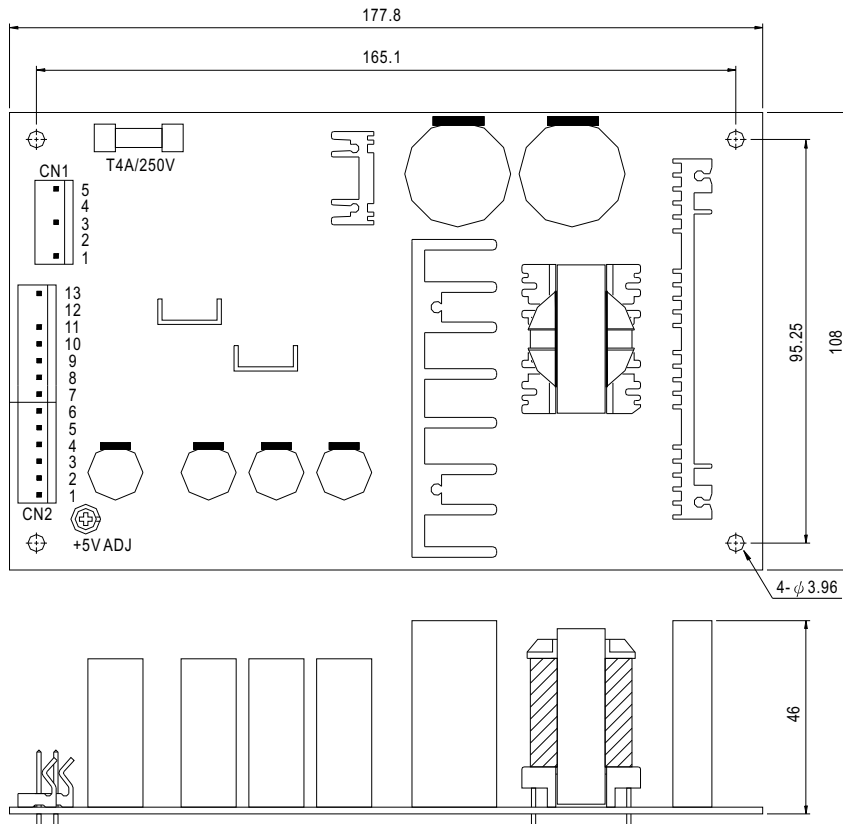


### SPECIFICATION

| MODEL                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | PQ-100D                                                                                                                  |            |             |          | PQ-100E         |          |          |          |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------|-------------|----------|-----------------|----------|----------|----------|
| OUTPUT                | OUTPUT NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CH1                                                                                                                      | CH2        | CH3         | CH4      | CH1             | CH2      | CH3      | CH4      |
|                       | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5V                                                                                                                       | 12V        | 24V         | -12V     | 5V              | 12V      | 15V      | 24V      |
|                       | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5A                                                                                                                       | 2A         | 2A          | 0.5A     | 8A              | 3A       | 0.6A     | 0.6A     |
|                       | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2 ~ 5A                                                                                                                   | 0.5 ~ 4.5A | 0.4 ~ 2A    | 0 ~ 1A   | 2 ~ 8A          | 0.5 ~ 3A | 0 ~ 1A   | 0 ~ 1A   |
|                       | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 103W                                                                                                                     |            |             |          | 99.4W           |          |          |          |
|                       | RIPPLE & NOISE (max.) Note.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 80mVp-p                                                                                                                  | 120mVp-p   | 180mVp-p    | 120mVp-p | 80mVp-p         | 120mVp-p | 150mVp-p | 120mVp-p |
|                       | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CH1:4.75 ~ 5.5V                                                                                                          |            |             |          | CH1:4.75 ~ 5.5V |          |          |          |
|                       | VOLTAGE TOLERANCE Note.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ±2.0%                                                                                                                    | ±6.0%      | ±10%        | ±6.0%    | ±2.0%           | ±6.0%    | ±6.0%    | ±6.0%    |
|                       | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ±1.0%                                                                                                                    | ±3.0%      | ±1.0%       | ±1.0%    | ±1.0%           | ±3.0%    | ±1.0%    | ±1.0%    |
|                       | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ±1.0%                                                                                                                    | ±5.0%      | ±5.0%       | ±1.0%    | ±1.0%           | ±5.0%    | ±1.0%    | ±1.0%    |
|                       | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1200ms, 50ms at full load                                                                                                |            |             |          |                 |          |          |          |
| HOLD TIME (Typ.)      | 80ms at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                          |            |             |          |                 |          |          |          |
| INPUT                 | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 100 ~ 264VAC 141 ~ 370VDC (90 ~ 100VAC 90% load max.)                                                                    |            |             |          |                 |          |          |          |
|                       | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 47 ~ 63Hz                                                                                                                |            |             |          |                 |          |          |          |
|                       | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 77%                                                                                                                      |            |             |          | 74%             |          |          |          |
|                       | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3A/115VAC                                                                                                                |            | 1.5A/230VAC |          |                 |          |          |          |
|                       | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | COLD START 50A                                                                                                           |            |             |          |                 |          |          |          |
|                       | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <1mA/240VAC                                                                                                              |            |             |          |                 |          |          |          |
| PROTECTION            | OVER LOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 105% ~ 135% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |            |             |          |                 |          |          |          |
|                       | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CH1: 5.75 ~ 6.75VDC<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed            |            |             |          |                 |          |          |          |
| FUNCTION              | POWER GOOD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ≥ 1ms                                                                                                                    |            |             |          |                 |          |          |          |
| ENVIRONMENT           | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -10 ~ +50°C, 60 °C with cooling fan(Refer to output load derating curve)                                                 |            |             |          |                 |          |          |          |
|                       | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 20 ~ 90% RH non-condensing                                                                                               |            |             |          |                 |          |          |          |
|                       | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -20 ~ +85°C, 10 ~ 95% RH                                                                                                 |            |             |          |                 |          |          |          |
|                       | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ±0.03%/°C (0 ~ 50°C)                                                                                                     |            |             |          |                 |          |          |          |
|                       | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 10 ~ 500Hz, 2G 10min./1cycle, Period for 60min.each along X, Y, Z axes                                                   |            |             |          |                 |          |          |          |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UL60950-1, TUV EN60950-1 Approved                                                                                        |            |             |          |                 |          |          |          |
|                       | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC                                                                              |            |             |          |                 |          |          |          |
|                       | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC                                                                                 |            |             |          |                 |          |          |          |
|                       | EMI CONDUCTION & RADIATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Compliance to EN55022 (CISPR22) Class B                                                                                  |            |             |          |                 |          |          |          |
|                       | HARMONIC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Compliance to EN61000-3-2,-3                                                                                             |            |             |          |                 |          |          |          |
|                       | EMS IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Compliance to EN61000-4-2,3,4,5,6,11; ENV50204, Light industry level, criteria A                                         |            |             |          |                 |          |          |          |
| OTHERS                | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 258.6K hrs min. MIL-HDBK-217F (25°C)                                                                                     |            |             |          |                 |          |          |          |
|                       | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 178*108*46mm (L*W*H)                                                                                                     |            |             |          |                 |          |          |          |
|                       | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.56Kg; 24pcs/14.5Kg/1.19CUFT                                                                                            |            |             |          |                 |          |          |          |
| NOTE                  | <ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>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.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>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.</li> </ol> |                                                                                                                          |            |             |          |                 |          |          |          |

### Mechanical Specification

Unit:mm



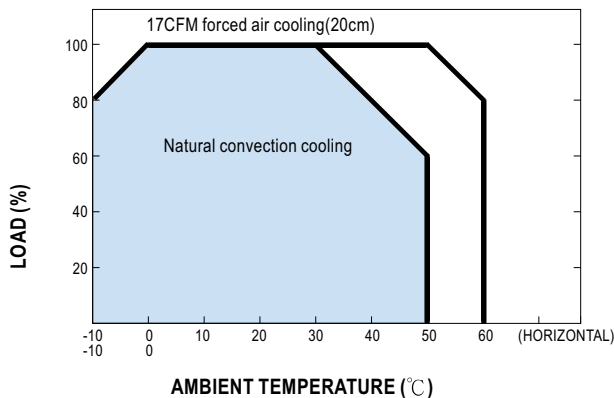
AC Input Connector (CN1) : Molex 5273-05 or equivalent

| Pin No. | Assignment | Mating Housing              | Terminal                    |
|---------|------------|-----------------------------|-----------------------------|
| 1       | FG $\perp$ | Molex 5195<br>or equivalent | Molex 5194<br>or equivalent |
| 2,4     | No Pin     |                             |                             |
| 3       | AC/N       |                             |                             |
| 5       | AC/L       |                             |                             |

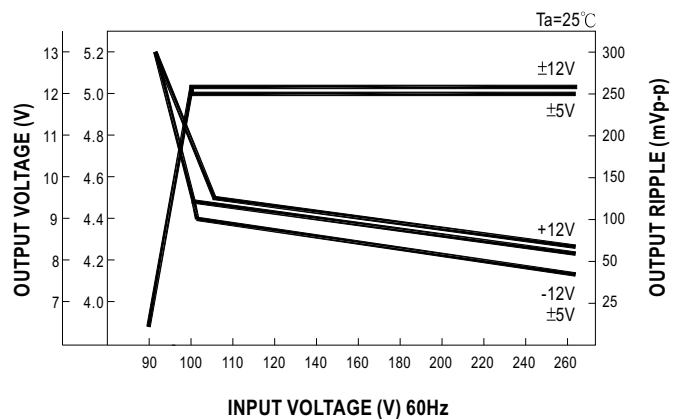
DC Output Connector (CN2) : Molex 5273-06,07 or equivalent

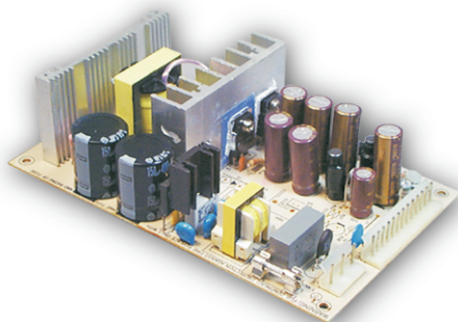
| Pin No. | Assignment           | Mating Housing              | Terminal                    |
|---------|----------------------|-----------------------------|-----------------------------|
| 1,2,3   | V1                   | Molex 5195<br>or equivalent | Molex 5194<br>or equivalent |
| 4,5,6,7 | COM                  |                             |                             |
| 8,9     | V2                   |                             |                             |
| 10      | Power Good(Optional) |                             |                             |
| 11      | V3                   |                             |                             |
| 12      | No Pin               |                             |                             |
| 13      | V4                   |                             |                             |

### Output Derating



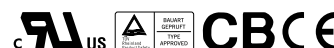
### Static Characteristics (B)





### ■ Features :

- Universal AC input / Full range
- Protections: Short circuit/Over load/Over voltage
- Cooling by free air convection
- With power good signal output(Optional)
- 100% full load burn-in test
- Fixed switching frequency at 45KHz
- 2 years warranty

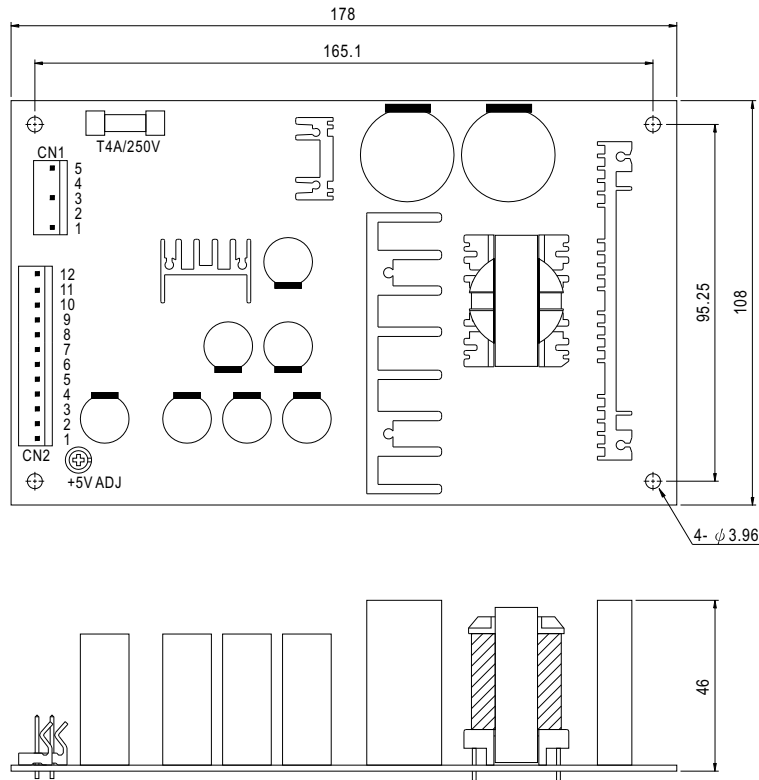


### SPECIFICATION

| MODEL                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | PD-110A                                                                                                                  |            | PD-110B         |            |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------|-----------------|------------|
| OUTPUT                | OUTPUT NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | CH1                                                                                                                      | CH2        | CH1             | CH2        |
|                       | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5V                                                                                                                       | 12V        | 5V              | 24V        |
|                       | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5A                                                                                                                       | 6.5A       | 5A              | 3.5A       |
|                       | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.5 ~ 5A                                                                                                                 | 0.5 ~ 6.5A | 0.5 ~ 5A        | 0.5 ~ 3.5A |
|                       | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 103W                                                                                                                     |            | 109W            |            |
|                       | RIPPLE & NOISE (max.) Note.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 100mVp-p                                                                                                                 | 150mVp-p   | 100mVp-p        | 200mVp-p   |
|                       | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | CH1:4.75 ~ 5.5V                                                                                                          |            | CH1:4.75 ~ 5.5V |            |
|                       | VOLTAGE TOLERANCE Note.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ±2.0%                                                                                                                    | ±6.0%      | ±2.0%           | ±6.0%      |
|                       | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ±1.0%                                                                                                                    | ±2.0%      | ±1.0%           | ±2.0%      |
|                       | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ±1.0%                                                                                                                    | ±5.0%      | ±1.0%           | ±5.0%      |
| SETUP, RISE TIME      | 1200ms, 50ms at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                          |            |                 |            |
| HOLD TIME (Typ.)      | 80ms at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                          |            |                 |            |
| INPUT                 | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 100 ~ 264VAC    141 ~ 370VDC (90 ~ 100VAC 90% load max.)                                                                 |            |                 |            |
|                       | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 47 ~ 63Hz                                                                                                                |            |                 |            |
|                       | EFFICIENCY(Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 75%                                                                                                                      |            | 78%             |            |
|                       | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3A/115VAC    1.5A/230VAC                                                                                                 |            |                 |            |
|                       | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | COLD START 40A                                                                                                           |            |                 |            |
| LEAKAGE CURRENT       | <1mA/240VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                          |            |                 |            |
| PROTECTION            | OVER LOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 105% ~ 135% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |            |                 |            |
|                       | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CH1: 5.75 ~ 6.75VDC<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed            |            |                 |            |
| ENVIRONMENT           | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -10 ~ +50°C, 60 °C with cooling fan(Refer to output load derating curve)                                                 |            |                 |            |
|                       | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 20 ~ 90% RH non-condensing                                                                                               |            |                 |            |
|                       | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -20 ~ +85°C, 10 ~ 95% RH                                                                                                 |            |                 |            |
|                       | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ±0.03%/°C (0 ~ 50°C)                                                                                                     |            |                 |            |
| VIBRATION             | 10 ~ 500Hz, 2G 10min./1cycle, Period for 60min.each along X, Y, Z axes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                          |            |                 |            |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UL60950-1, TUV EN60950-1 Approved                                                                                        |            |                 |            |
|                       | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | I/P-O/P:3KVAC    I/P-FG:1.5KVAC    O/P-FG:0.5KVAC                                                                        |            |                 |            |
|                       | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC                                                                                 |            |                 |            |
|                       | EMI CONDUCTION & RADIATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Compliance to EN55022 (CISPR22) Class B                                                                                  |            |                 |            |
|                       | HARMONIC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Compliance to EN61000-3-2,-3                                                                                             |            |                 |            |
| EMS IMMUNITY          | Compliance to EN61000-4-2,3,4,5,6,11; ENV50204, Light industry level, criteria A                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                          |            |                 |            |
| OTHERS                | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 323K hrs min.    MIL-HDBK-217F (25°C)                                                                                    |            |                 |            |
|                       | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 178*108*46mm (L*W*H)                                                                                                     |            |                 |            |
|                       | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.51Kg; 24pcs/13.1Kg/1.19CUFT                                                                                            |            |                 |            |
| NOTE                  | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C 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. Tolerance : includes set up tolerance, line regulation and load regulation.</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



AC Input Connector (CN1) : Molex 5273-05 or equivalent

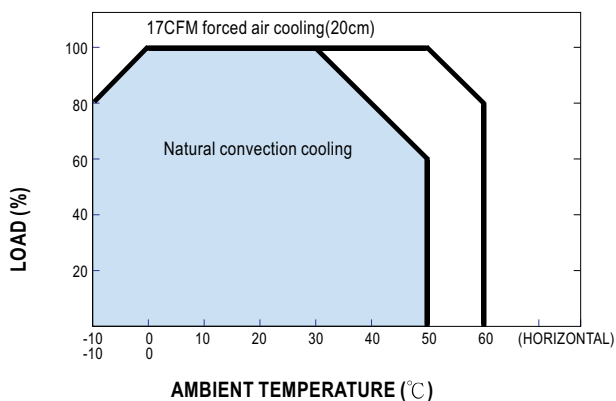
| Pin No. | Assignment | Mating Housing           | Terminal                 |
|---------|------------|--------------------------|--------------------------|
| 1       | FG $\perp$ | Molex 5195 or equivalent | Molex 5194 or equivalent |
| 2,4     | No Pin     |                          |                          |
| 3       | AC/N       |                          |                          |
| 5       | AC/L       |                          |                          |

DC Output Connector (CN2) : Molex 5273-12 or equivalent

| Pin No. | Assignment   | Mating Housing           | Terminal                 |
|---------|--------------|--------------------------|--------------------------|
| 1,2,3   | V1           | Molex 5195 or equivalent | Molex 5194 or equivalent |
| 4,5,6,7 | COM          |                          |                          |
| 8,9,10  | V2           |                          |                          |
| 11,12   | V3(Optional) |                          |                          |

| MODEL          | PD-110A | PD-110B |
|----------------|---------|---------|
| Pin No. 1,2,3  | +5V     | +5V     |
| Pin No. 8,9,10 | +12V    | +24V    |

### Output Derating



### Static Characteristics (A)

